

10-28
(June 1941)

UNITED STATES
DEPARTMENT OF THE INTERIOR
NATIONAL PARK SERVICE

HAWAII NATIONAL PARK

FILE NO.

SUPERINTENDENT'S REPORTS

1922
1923
1924
1925
1926

1927
1928

N.B.
not always in
chronological order
J.H.G. White
1/2/85

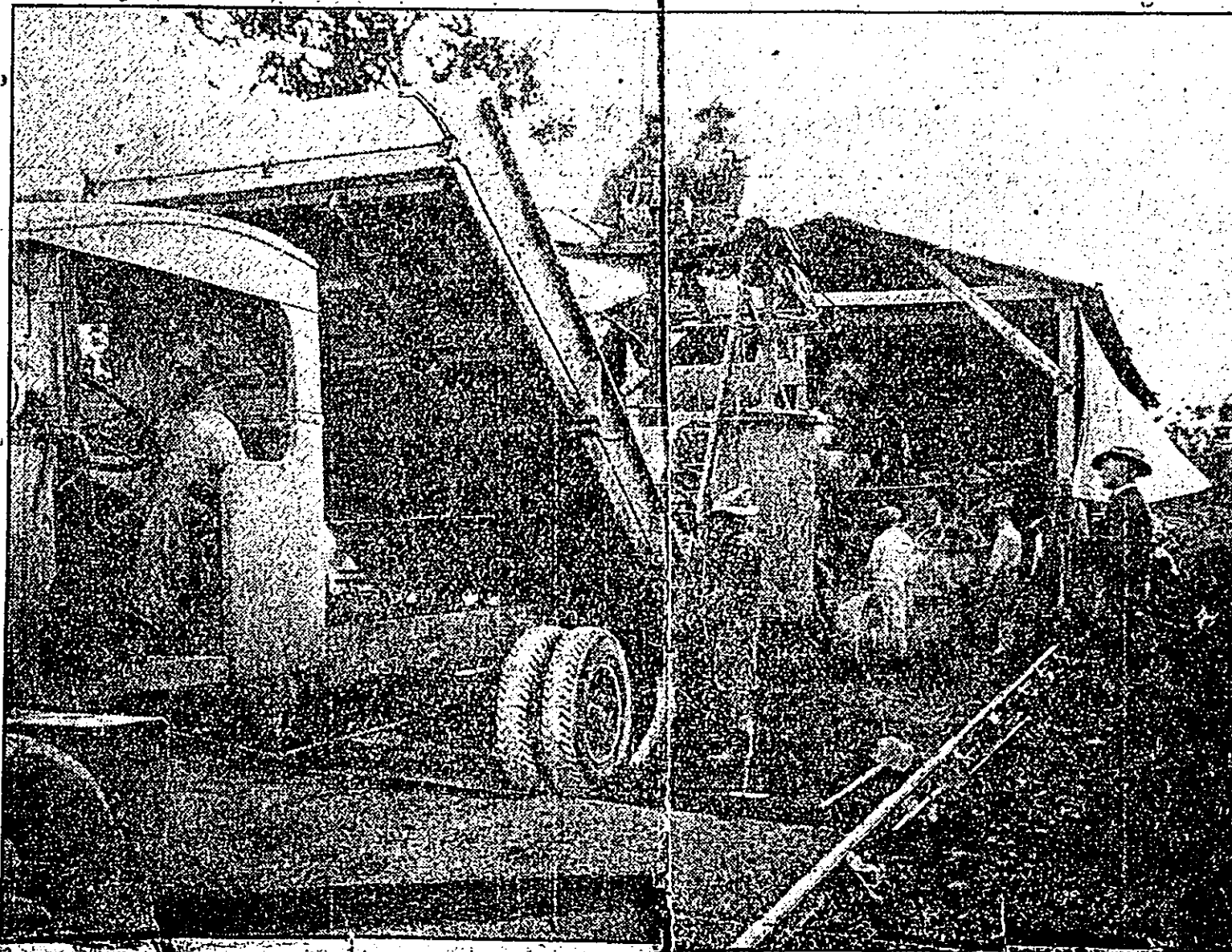
IMPORTANT

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STRENUOUS SERVICE

PROVES THE WORTH OF

Completing the last
twenty feet of the
new Volcano road.



Modern Equipment
was used throughout
in construction work.

Observe the Tread

Geared to the Road



GREAT BOULEVARD TO KILAUEA NOW OPEN TO PUBLIC

Completed Thoroughfare One of Island's Major Assets to Tourist Trade

Romance of Early Days Stands Out In Interesting Data About Highway

(Continued from page 1)
amount necessary to produce the maximum strength in concrete, may result in reducing the strength of the resultant mix to as low as 1/3 of maximum; this decrease taking place without changing the amount or sizes of rock, sand or cement in anyway.

Likewise, in the grading of the aggregate used in the mix, by merely changing the sizes of the rock and sand used without altering the total amount, in anyway, a variation in strength as great as 50% can be obtained.

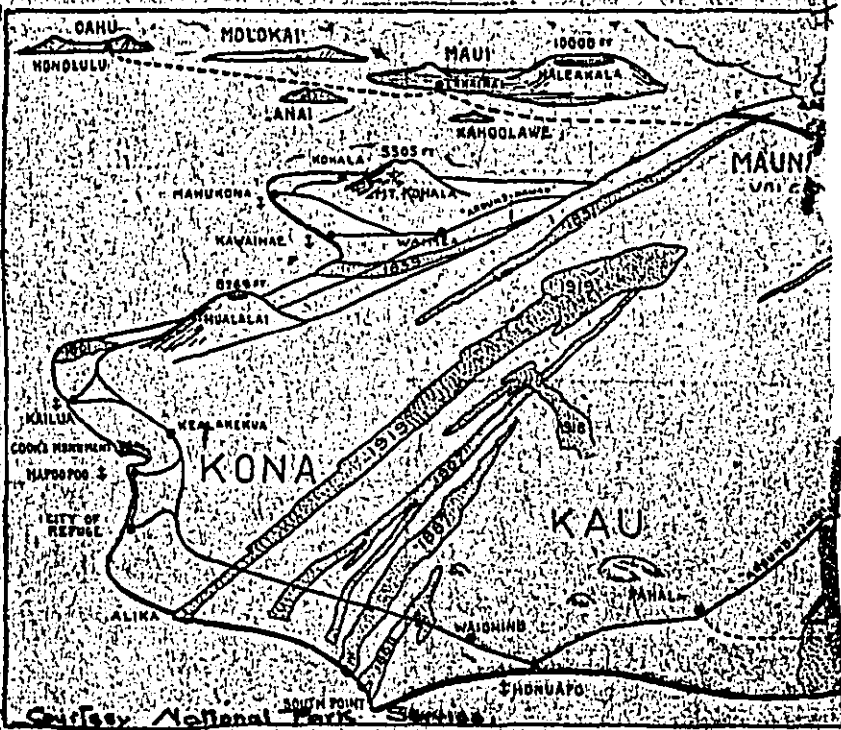
To this end, screen tests were made frequently at the batching plants and the proportions of the various sizes of rock and sand were determined which would result in the maximum strength to the pavement.

Concrete cylinders made of concrete actually being used in the pavement, were taken from time to time, kept moist for 10 days and forwarded to the laboratory in Honolulu where they were tested to demolition at the end of 28 days. The results of these tests ranged from 3310 to 4244 pounds per square inch. The pavement was designed for a strength of 3000 pounds at the end of 28 days.

After the pavement was laid, it was covered with earth or sand and kept wet by sprinkling for 10 days, in order to cure properly. At the expiration of 21 days it was opened to traffic.

Owing to the heavy rains in the Oiaa district, it was necessary to devise some means of sheltering the roadway during the laying of the concrete, as well as a means of protecting the freshly laid pavement. Mr. Frank West, of the Hawaiian Contracting Co., Ltd., devised a novel scheme of building shelters covering the pavement, and mounting them on derrick

MAP SHOWING HAWAII NATIONAL PARK AND



pulled along as the work progressed. The first shelter, larger than the rest, was of sufficient height and length to permit all the operations of mixing, laying, striking and finishing the concrete to take place under its roof simultaneously. The other shelters, following the first, served merely as a protection to the new pavement. The device worked in an extremely satisfactory manner, not a day being lost on account of weather conditions.

It is due to this, perhaps more than any other factor, that the work is being completed several months in advance of the date set for finishing the contract.

In regards to the probable action of volcanic disturbances of any great magnitude on this new roadway, it is thought that in all likelihood little more than a few cracks would result.

Construction work on the new Volcano Road was begun November 1st, 1926, and the road is now entirely completed.

There is little question but what the new road will result to the benefit of Hilo, particularly, and the Hawaiian Islands in general. Tourists will no longer hesitate to make the yearly trip, on account of the roads, and will be able to full enjoy the scenic beauty of the islands.

VOLCANO HOUSE IS CELEBRATED HOTEL

Hilo Crowds Through Hostelry Each Week End Famed With Tourists

(Continued from page 3)
being the south end of the present hotel, was awarded to a Mr. Howard, of Los Angeles. Mr. Lee undertook the work. This was in 1892, and the building was completed seven months, approximately, after the ground was broken.

Lumber Hauled
All lumber used in connection with the new Volcano House was landed in Punaluu, and hauled from there to Pahala and thence to the site of the new building by mule teams. The contract covering hauling of the lumber was undertaken by Richard Hitchcock. From Pahala to the Volcano House site these timbers were taken over Mr. Lee's own private roadway, a distance of twenty-four miles. Lumber was scattered all along the route for, were full of them.

was held, all, Judge, the hauling, lumber, was building, site, over, for, mo, Provision, construction, at, the, the, hauled, (with, mules, Mr, he, recalled, the, mules, ha, minus, the, to, dalled, by, the, their, packs, galing, with, flowing, how, eral, days, late, no, supplies, undertaken, days, delay, Quite, often, millar, with, the, would, become, rain, and, waste, it, was, then, rocks, along, which, only, When,

ROAD EDITION

HILO TRIBUNE-HERALD

ROAD EDITION

A DAILY NEWSPAPER FOR THE ISLAND OF HAWAII

VOL. V

Member of the Associated Press

HILO, HAWAII, FRIDAY, OCTOBER 28, 1927

City Edition

No. 240

VOLCANO ROAD NOW COMPLETED AND OPEN TO PUBLIC HAS HISTORY FILLED WITH ROMANCE OF EARLY HAWAIIAN DAYS

HIGHWAY TO KILAUEA FIRST USED BY TRAVELERS IN 1894 NOW BOULEVARD

More Than One and a Half Million Dollars Spent in Long Stretch of Pavement From Hilo to Lodge on Brink of Famous Fire Pit

Winding its way between tall lehua trees, artistically draped icie, and the graceful plumes of the hapuu trees, the first Volcano Road was opened to the public in 1894, and comprised a total length of 30 miles of excellent, highly finished, evenly graded highway, which embodied in its construction the qualities which assured endurance.

In those days four-horse stages were the mode of travel, and the trip to the volcano was made possible in a little less than seven hours, thanks to the new roadway; while the return trip covered less than six hours of travel. Freight was handled via four-horse freight wagons, at a cost of \$20.00 per ton. Speed was not tabu.

This highway was constructed at a cost of \$90,000.00, or \$3,000.00 per mile, and was considered a great boon to Hilo, inasmuch as it encouraged guests to make the volcano trip, and also made it more attractive to local residents.

The new Volcano Road, which was opened to the public on October 23rd, is a project consistent with the changing times and conditions of the Island, as well as the more modern means of travel.

Mr. Allan Burdick, Inspct new road, when it is enough to furnish

ORIGINAL INN ON SLOPES OF MAUNA LOA MADE OF GRASS



VOLCANO HOUSE OF CIVIL WAR TIMES

In the olden days the Volcano House was merely a grass hut. Today it is one of the finest hostleries on the Island of Hawaii. The building stands on the slopes of Mauna Loa, and borders the fire pit at Kilauea.

WORKERS WRECKING HOUSE SEEK GOLD HIDDEN IN WALLS

Mechanics Seek Wealth That Is Supposed to Be In Old Block

Traditional Treasure Great Aid In Keeping Men On Job

(By Associated Press to Tribune-Herald) LONDON, Oct. 28—It's an easy task for the foreman to keep a working crew engaged every moment of their 24-hour day in tearing down an old

TREE LEAVES FIND PRACTICAL USE IN NATIVE LIFE HERE

Ti Foliage Used For Protection For Foods; Said to Ward Off Evil Spirits

Green From Kukui, Papaia, Taro and Cocanut are Employed In Native Craftwork

It is interesting to note the uses to which Hawaiians have—possibly still do—put the leaves of the various trees and shrubs which abound in the Islands.

The leaves of the Ki, or Ti, were wrapped around food either for conveyance or cooking, and also served as plates. Foods so wrapped were placed in the underground ovens, and thus well protected. These leaves when bound around the head were said to relieve headaches, and to allay fever. An old superstition has it that the Ti leaves, worn around the neck, warded off evil spirits.

Wrap Bananas

Kukul leaves, when dried, were used to wrap around bananas and were said to hasten ripening, effecting in three days what otherwise required a week. They were also wrapped around fish when cooking, to protect rather than to flavor. When dried to be excellent woodwork; and

HILO SETTING IDEAL FOR THRIVING CITY OF COMMERCE AND TOURIST TRADE IMPORT

Early Traditions of Island Group Give Lure to Main Port of Biggest Is. Progress Marks

SPANIARD SAID TO BE FIRST COFFEE PLANTER IN HAWAII

Don Paulo M. ...

Sugar Cane Is Great Asset To Big Island

DEVELOPMENT OF INDUSTRY VITAL TO LOCAL TRADE

History of Industry Bears Out Traditional Romance Of Island Group

Captain Cook Found Cane Here When Making His First Trip to Land

The first sugar-cane of which we have any record was made by an East Indian anchorite in an endeavor to provide a heavenly manna for the earthly paradise he proposed constructing for his rajah.

From India, cane gradually found its way around the entire world.

Chinese writings of the Eighth Century, B. C., aver that it was imported to their country from India. In 300 B. C., when Alexander the Great's mighty army returned from India, they brought with them the "honey-bearing reed," thus introducing it into Asia Minor and Europe.

Taken to Spain

The Moors are responsible for its appearance in Spain; Crusaders brought it from Palestine; Portuguese navigators carried it into Madeiras, Azores and the Cape Verde Islands; while Columbus brought it to the New World, planting it in Santo Domingo in 1493.

The Kingdom of Funan, in 200 B. C. paid tribute to China in cane-sugar.

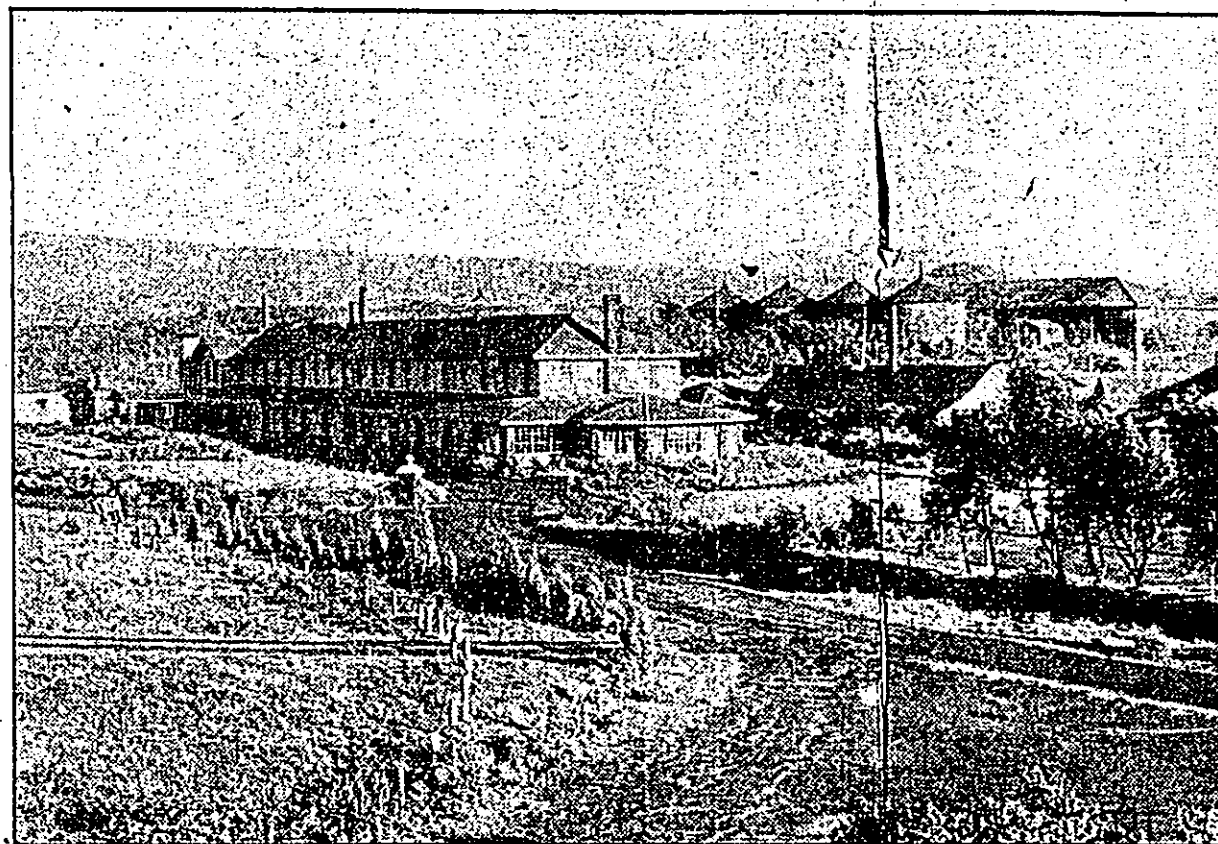
During the 15th century a citizen of Venice was fittingly rewarded for a process he had discovered whereby loaf sugar could be manufactured.

Charles V of Spain built a royal palace at Madrid and another at Toledo, during his reign, with moneys received as import taxes on Santo Domingan sugar.

The first real sugar factory was erected in Germany in 1802, funds being provided for this purpose by Frederick William III, King of Prussia.

Although sugar is not raised

HAWAII'S HOSTELRY ON BRINK OF GREAT KILAUEA CRATER



PRESENT VOLCANO HOUSE

Modern in every respect, the Volcano House stands as one of the world's most unique inns. It is situated on the bring of Kilauea Volcano, only a short distance from the fire pit, Halemauama.

in France during the reign of Napoleon Bonaparte, sugar beets were plentiful and in his famous Edict of Nantes of 1811 he decreed that certain portions of the French Empire be set aside solely to grow sugar beets.

In 1898 and 1901 a conference of European nobles was held in Brussels to consider the adjusting of bonuses and taxes on European sugar, and no longer ago than 1925, British Parliament passed a bill to encourage sugar production by paying a bonus of 5 cents per pound for every pound of refined sugar produced in England, Ireland, and Scotland.

tariff, and a number of individual state have legislated to promote the sugar industry.

In Hawaii

Just how sugar cane came to Hawaii is a mooted question. However, when Captain Cook made his first trip to the Islands, he found several varieties of cane thriving. These canes were said to have been imported by a Japanese junk in the Thirteenth Century and by a Spanish vessel coming 200 years later. The most plausible story seems to be that the ancient Hawaiians brought it from the South Sea.

First Mill

known, was set up on the Island of Lanai by a Chinese trader who came to the Islands in search of sandalwood. However grinding one small crop of cane he left the islands, taking his equipment with him.

Hawaiian Product

The first Hawaiian sugar is claimed to have been made by Don Francisco de Paula Marin, a Spaniard, in 1819. It seems to be, however, no substantiation of this in records of that date other than his own personal diary. In 1823 an Italian, named Lavinia, began in Honolulu by the grinding

VOLCANO HOUSE IS POPULAR HAWAII INN

Throngs Seek Quietude of Mountain Hotel Each Week-End, Famous Tourist Resort

With the new Volcano Road now open many more persons are making the trip to the Volcano House, with its sunny veranda, cheery lounge and splendid dining-room. In order to properly appreciate the present day accommodations, it might be well to be familiar with the Volcano Houses of other days, for there have been several of them.

In 1825 John Wilkinson, an Englishman, began cultivating sugar on a large scale by planting 100 acres in Manou Valley. Upon the death of Mr. Wilkinson in 1827 the industry was discontinued.

The first Volcano House of which there seems to be any record was a Hawaiian grass-house. Except that it did exist, little is known of it.

Second Hostelry

In 1835 the sugar industry received its first real impetus from an American firm—Ladd and Company—who obtained a grant of land on the Island of Kauai. The gold rush to California and the opening of the Civil War in 1861 created a demand for Hawaiian sugar.

The second Volcano House was a one-story frame building containing six small bed-rooms, dining room, sitting room, and a kitchen "just big enough to get in and out of," says Peter C. Lee who took over the management of the hostelry in 1891.

In 1841 Governor Haukina of Hawaii had a few fields in North Kohala planted in sugar cane, having in mind the employing of some foreigner to attend to the grinding of the cane.

Mr. Lee has a fund of interesting information concerning the old days at the Volcano House, and among his reminiscences he spoke of a time when Lorin Thurston and Alfred Carter—both well known men in Hawaii today—came to the hotel for the night, and found no accommodations available. Finally one of them noticed a small closet in which irons were kept.

Another Venture

About this same time a Chinese man, named Aiko, put up a mill in the same locality. His plantation was run by water-power.

In those times labor was cheap, although not too plentiful, and wages were paid in cotton goods.

"What's the matter with us sleeping on these shelves?" he asked. The shelves were about eighteen inches wide, and none too soft. And so the two travelers slept on the shelves and opined that there were much worse accommodations elsewhere.

There are now over 210,000 acres of land in the islands planted to cane. Wages are higher than formerly; and the plantation employees are provided with first class living quarters, medical attention, etc., all of which tend to bring about a sense of understanding and sympathy between employer and employees.

Those were the times when staid, dignified matrons came to the Volcano House and demanded "the most spirited horse in the stables" although, alas, they had never sat upon a horse before. However, Mr. Lee was equal to the occasion and assured each of them that they had the best horse and the most devilish one, whereupon even the horses smiled for in ordinary parlance, they were just "plugs" and not thoroughbred Arabian stallions—as their riders fondly dreamed.

At one time Hawaiian sugar did not have a good reputation in the world's market, due to the fact that it was improperly cured. However, in 1851 the Royal Hawaiian Agricultural Society was established to eradicate this defect. It was also in 1851 that the first centrifugal drying machine was put into operation on the East

When the contract to build the third House was still in use.

DEVELOPMENT OF INDUSTRY VITAL

(Continued from page 3)
very crude manner, which was far from satisfactory.

Increase Cited
As a matter of interest it might be well to note that while in 1836 the total sugar export from the Islands

had a total value of but \$73,000, that of 1924 represented a value of \$7,000,000.

The great experimental station in Honolulu was built by several of the planters who realized that only by scientific methods could the sugar industry prosper. At the time of its inauguration, the station boasted in the mind of one man, nor of one three or four employees, whereas it now has something over forty employees. In 1895, its first year, the

total expenses of maintenance, etc., aggregated \$7,000.00. In 1925, this item had increased to approximately \$335,000.00.

And so, step by step, the sugar industry in Hawaii has grown into something with which the entire world is familiar. It did not originate in Hawaii—men who faced almost unbelievable obstacles and conquered them; men who have written their names in flaming letters upon the scroll of the world's great industries; men who knew the bitterness

of defeat and the glory of success.

Far Sightedness
From the far sightedness of those founders came the splendid plantations which meet the eye at every turn on Hawaii—men who faced almost unbelievable obstacles and conquered them; men who have written their names in flaming letters upon the scroll of the world's great industries; men who knew the bitterness

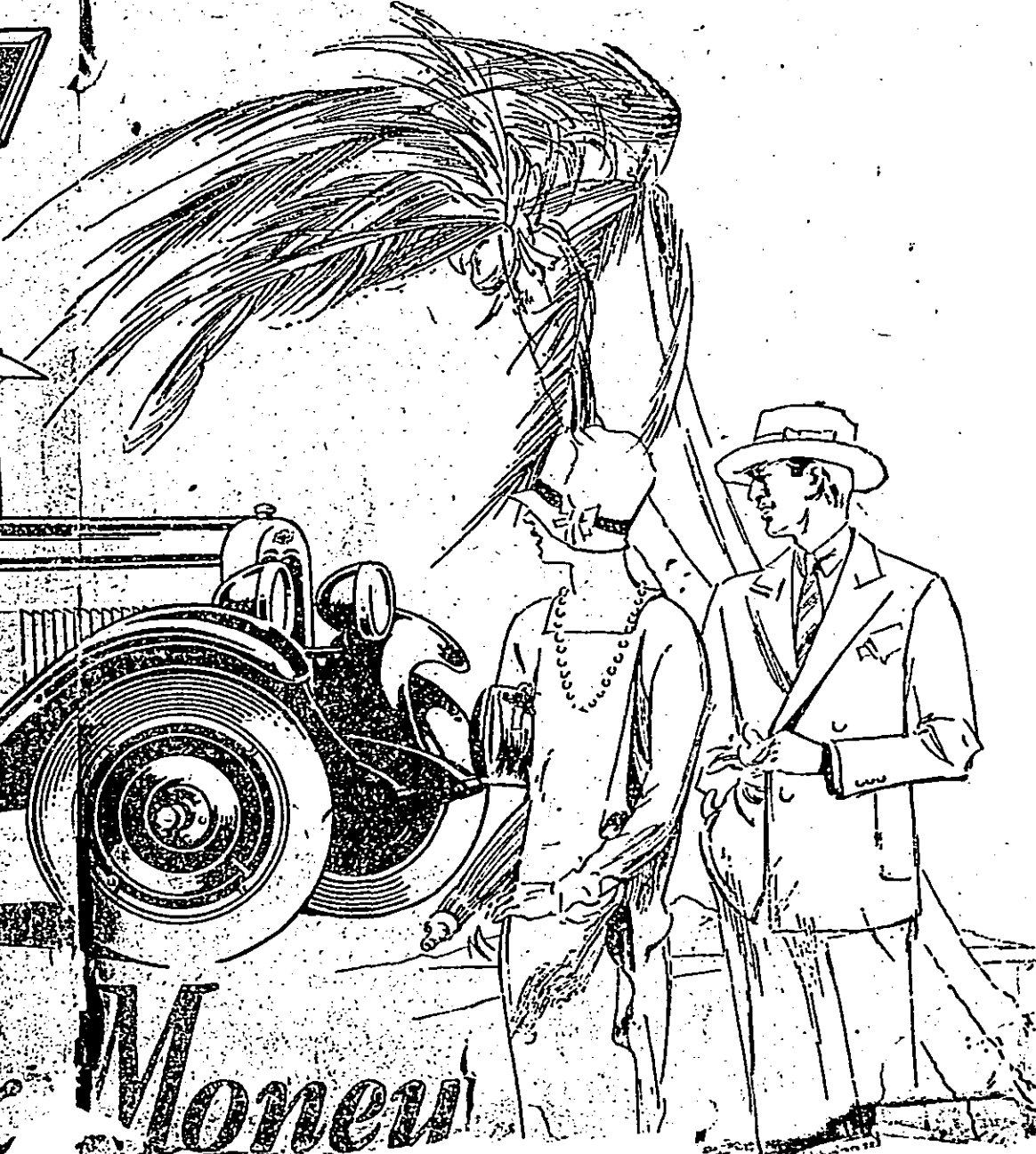
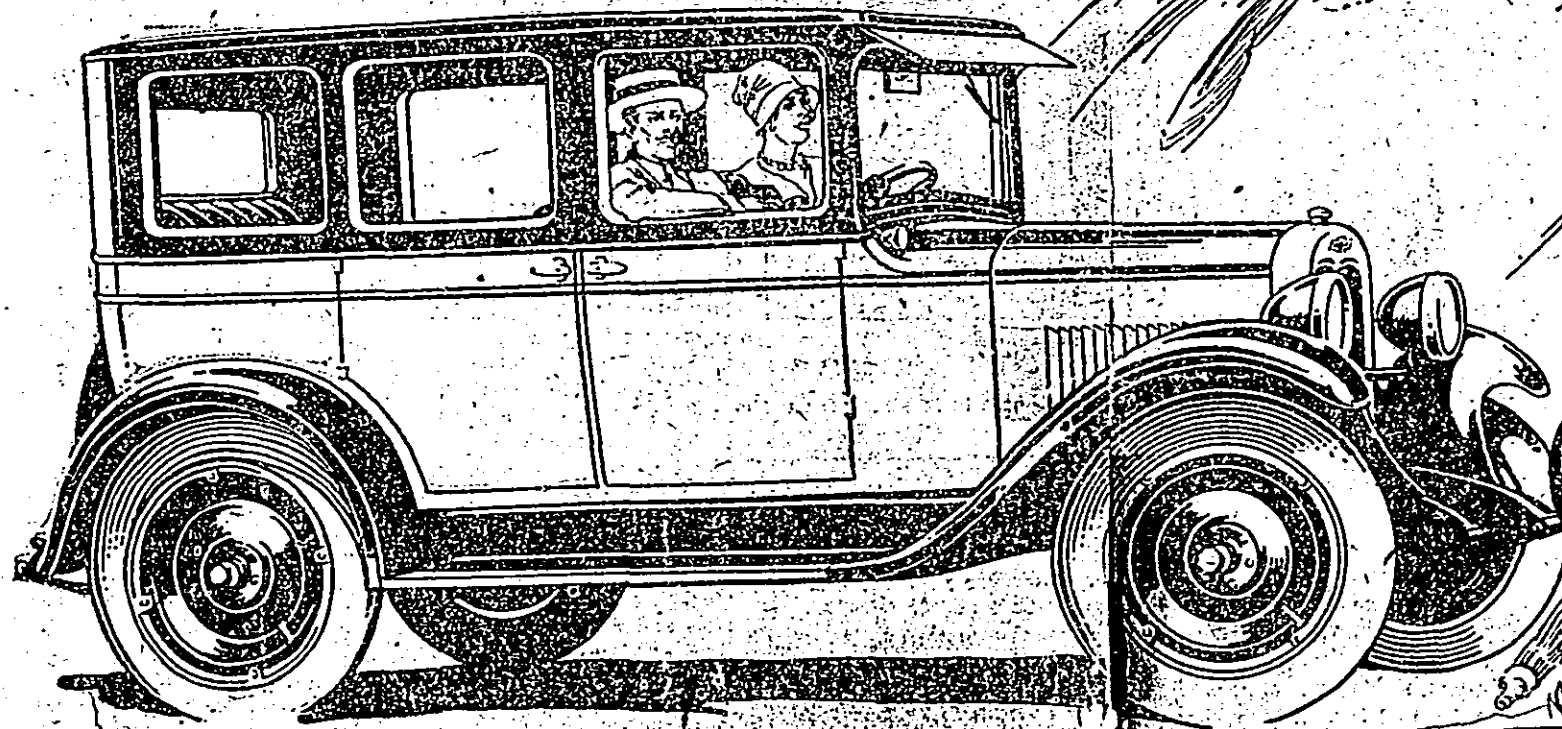
U. S. MOVIES MAKE HIT

RIO DE JANEIRO, Brazil, Oct. 28— American motion picture firms dominate the market in Brazil, since movie theater proprietors have found that European films do not have sufficient drawing power to pay profits. Increased sale of American goods is attributed to the films, which depict American life, sometimes fantastically, but always to an interested audience.

of defeat and the glory of success.

At the same time we must not forget to give credit to the little brown men who toil so patiently in the fields, for to them, also, are we indebted for the delightful "concentrated sunshine" without which no meal is complete and which, in former times, was indulged in by the aristocrats only.

Try a Tribune-Herald Want Ad.



More for your money

Nov. 11 1927

TERRITORIAL PAGE

Honolulu

VOLCANO MUSEUM VISITORS GROW

Attendance Is Increasing Steadily At Uwekahuna Exhibit Hall

(Special Star-Bulletin Correspondence) VOLCANO HOUSE, Hawaii, Nov. 8.—Daily attendance at the exhibit museum and lecture hall on Uwekahuna bluff, overlooking Halemau-mau pit, formally opened to the public last April by Secretary of the Interior Hubert Work, has been steadily growing, as visitors to Hawaii national park learn of its existence.

Situated as it is on the high bluff above the crater of Kilauea, it commands a wonderful view in all directions. From the lecture room, one sees a panorama of the entire Kau desert lying makai of the crater, extending from the cinder cone of Puu Huluhulu on the east to the southern tip of the Big Island on the west. An unobstructed view on the north presents both Mauna Loa and Mauna Kea, and the entire area lying east and west of the Volcano House.

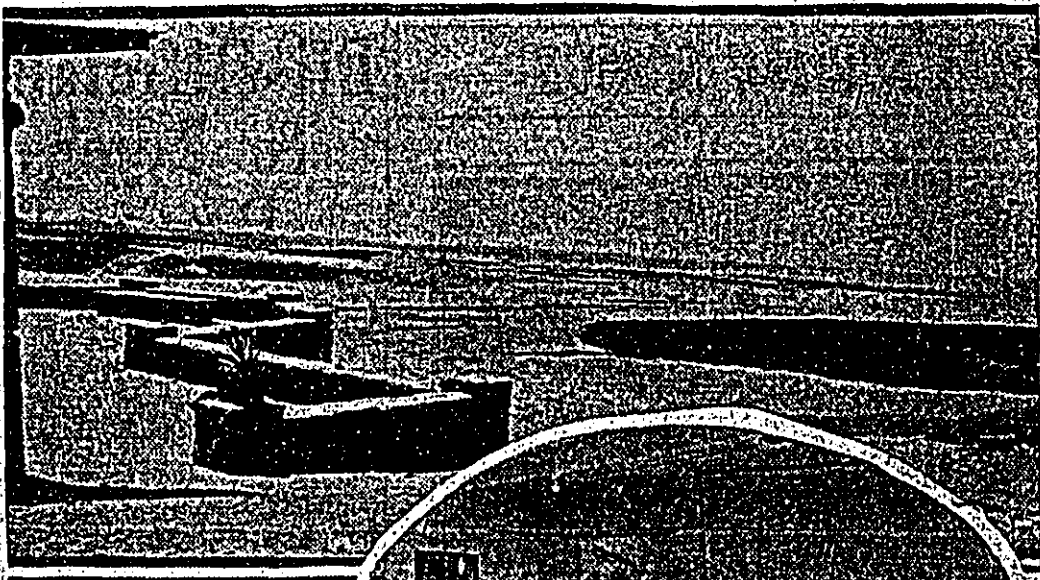
The National Park Service, in co-operation with the Volcano Research Society and the Volcano observatory gives a series of lectures in the lecture hall, profusely illustrated with slides and transparencies, in addition to several reels of moving pictures of recent flows and lava action on this island. These lectures are given at 4 p. m. each afternoon of the arrival of passenger vessels at Hilo.

Many specimens of lava formations are on display, including odd shapes and peculiar structure, in a great variety of color. Questions pertaining to volcanic activity are heartily answered. A seismograph, recently received from Japan, is now being installed, which will continuously record all earthquakes.

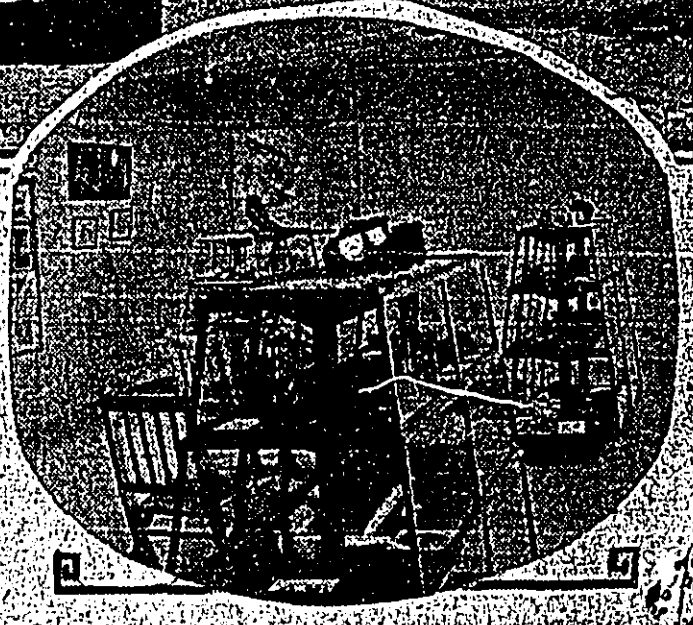
will be on display for the benefit of visitors. In addition to steamer days, the lecture room is open to the public from 2 to 4 p. m. Sundays, at which time two lectures are given for the benefit of residents of the Big Is-

There is no admission charge to the exhibit room or lecture, and the public is cordially invited to attend.

EXHIBIT AND TALKS TELL VOLCANO WONDERS



The new museum and lecture hall at Uwekahuna bluff is situated right on the edge of the crater. Upper picture shows the esplanade of the lecture hall with Halemau-mau, the fire pit of Kilauea, in the right center. Lower, interior of the exhibit room at Uwekahuna.



HONOKAA PERSONALS

(Special Star-Bulletin Correspondence) HONOKAA, Hawaii, Nov. 8.—Charles McGillivray of Oloa spent the weekend with his brother, William McGillivray, of Honokaa Sugar Co.

Mrs. Allan Burdick has returned to Hilo after a visit with Mr. and Mrs. William Gordon. Mr. and Mrs. Frank Glrod spent

DAY, NOVEMBER 11, 1927

ITELY RULED OUT BY YALE

Suffering From Severe Lime Burns.

CHAMPIONS FOR 1927 SEASON



football. Kona-waena high school football eleven on Hawaii championship, 32-12, winning the 1927 high school excellent coaching of Louis Collins, one of the leading foot-University of Hawaii.

Eli Officials Refuse To Reconsider Action Despite Princeton Plea Coach Roper of Princeton Will Again Make Every Friendly Effort in Behalf of Yale Star

(A. P. by Naval Radio)

NEW HAVEN, Conn., Nov. 11.—Bruce Caldwell cannot play tomorrow in the Yale University-Princeton University football game—the fifty-second gridiron clash between the two universities.

The board of control of the Yale Athletic association, after a session of more than two and a half hours, lasting until nearly midnight last night, voted to stand by its original interpretation of the "transfer rule," and bar Caldwell from the biggest game of the 1927 season.

The transfer rule provides that men playing in a sport at one university cannot later represent a "big three" university in that sport.

Caldwell, it was learned recently, participated in two football games while he was a freshman at Brown university in the fall of 1923.

The board's decision to stand its ground was made despite a plea from the Princeton University faculty committee on athletics, backed up by a resolution of the Princeton undergraduate student body and a telegram from President Hibben of

Princeton was coming here today with the intention of bringing to bear every friendly effort to have Caldwell reinstated, at least until after Saturday's game.

Football experts have agreed that no one on the Yale football squad can fully take Caldwell's place in the varsity lineup. John Garvey, his understudy, may start the game tomorrow in the halfback position.

Bill Hammersley, crack kicker, may be put in. Coach Tad Jones is not yet definitely announced his plans.

Thursday closes Princeton's football season. Yale team still is the annual game against Harvard, which will be played a week from tomorrow. The ruling on Caldwell's eligibility applies to the Harvard game, of course, as well as to Princeton. For Harvard is still one of the "big three" despite the break in athletic relations with Princeton.

News - Nov 6

Deadline
Nov 7 1971

**PARK VISITORS
HAVE TREBLED**

Visitors to national parks and monuments have tripled in the last year, according to a report issued yesterday by the National Park Service.

Of the national parks, only Yosemite and the Grand Canyon National Park are the only three kept open all year. All the others were closed for at least part of the year because of snow or other adverse weather conditions.

After a slow start, the opening of the parks in the spring has been a boon for the service. In the first six months of the year, 37.5 million people visited the parks, compared with 26 million in the same period last year.

The report also noted that the most visitors to the parks came from the Northeast, followed by the Midwest and the South. The report also noted that the number of visitors to the parks has been increasing steadily since 1965. In October of last year, the number of visitors to the parks was 3.5 million, compared with 2.5 million in the same month of the year before last.

e Fe



Tribune
Nov. 7, 1927

HAWAII NATIONAL PARK REPORT

By R. T. Evans, Superintendent

The most important event of the past month, though not occurring in the park, was the completion of the last section of the Volcano-Hilo highway, which now joins the Kilauea Section of the park to the seaport gateway of Hilo, as a magnificent unbroken ribbon of concrete and asphalt, 30 miles long, 16 feet wide and bordered with the mixed color of cane fields, oriental villages, tropical flowers, ferns and blossoming oaks of the higher elevations.

Travel Statistics

Whereas the month of October witnesses the closing of most of the great National Parks and the slumping of tourist travel in those that remain open, the year around Hawaii National Park shows an increase that merits the center of the National Park stage. The past travel year terminating with September 30th gave to Hawaii National Park 37,551 visitors, distributed through the twelve months as follows: October, 3652; November, 1940; December, 1900; January, 1925; February, 2290; March, 2189; April, 1904; May, 2325; June, 1933; July, 11,327; August, 4983; and September, 2228. Eliminating July when Kilauea furnished a lava display between the 7th and 21st and August when four or more glowing spots in the Pit of Halemauau still attracted thrill-seekers, the visitors to the park averaged 2124 per month during periods of volcanic inactivity.

Current Travel Increase

The first month of the new travel year almost triples this average with 6065. Heretofore the small size of the park personnel did not permit the registering of visitors, as is done in the other parks, the attendance figures being arrived at by careful daily estimates, but a real count was wanted. Accordingly, with the opening of the new road, visitors were counted by Ranger George D. Douglas, newly appointed at the eastern entrance on

three days, with following results: Saturday, the 22nd, 145 cars, 163 people; Sunday, the 23rd, 254 cars, 1211 people; Sunday, the 30th, 394 cars, 2827 people.

Tourist from distant points came in largest numbers as follows:

- October 4th, S.S. City of Honolulu from Los Angeles, 57;
- Oct. 5th, S.S. Haleakala, Sierra Club of California, 23;
- Oct. 18th, S.S. City of Los Angeles from Los Angeles, 60.

The delightfully clear and cool weather that prevailed during October attracted to the Volcano House for the entire month a house party of 24 Honolulu kamaaina, headed by former governor Walter F. Fear and former Attorney General C. Smith. At the Kilauea Military Camp the most notable visitors for two week periods were Maj. Gen. Wm. R. Smith, commanding the Hawaiian Department, and Gen. Henry D. Todd, Jr., with their parties.

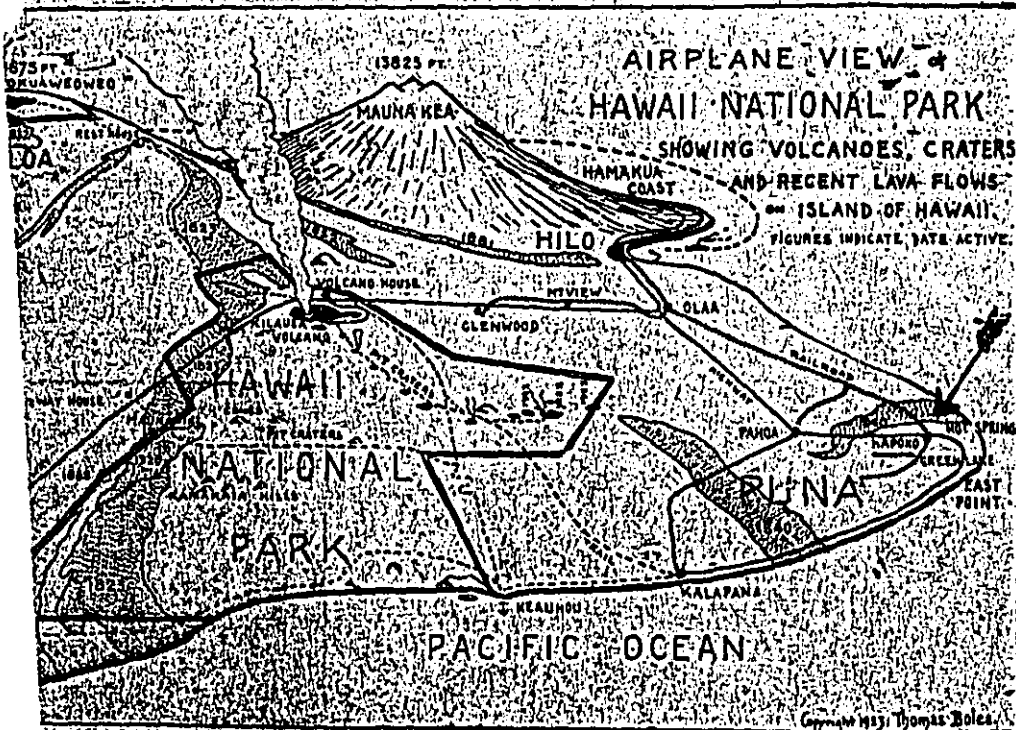
Hul O Pele is Very Active

During the month attractive lava masonry shelters, authorized by Hul O Pele, were erected at the Thurston Lava Tube and east side of Pailahi Crater near the point where the new Chain Craters Road crosses the old Koaehou Road. These contain three barrels which catch the runoff from the iron roof and furnish drinking water, as well as shelter to the hiker. Membership in Hul O Pele is open to those who have looked into Kilauea Crater, the abode of Pele, Goddess of volcanoes, and bestows upon the elect the privilege of wearing a handsome button or brooch and of possessing a neatly designed certificate sealed with hot lava. This entrance fee is \$1.00 and there are no dues not devoted to useful purposes in the park.

Accessions to membership in Hul O Pele were 55, among whom were: Clayton, L. D.

DOCUMENT CAPTURED AS RECEIVED

RELATION TO OTHER POINTS ON ISLAND OF HAWAII



Mr. Lee had the trail painted white, is danger...

managed some how, and nobody found any fault. They were a mighty nice lot of tourists, anyhow, and took things as they found them.

First Carriage Party

When opening of the Volcano Road in 1894 brought the first carriage party from Hilo to the Volcano House. Among the party were Mr. and Mrs. O. C. Kennedy, Mrs. Charles Richardson, Mr. N. C. Willfong, and fourteen or fifteen others. Of the entire party only Mr. Willfong remains, the others having crossed the Great Divide.

When the Volcano House was completed the grounds were little less than a wilderness, and Mr. Lee had violets and carnations brought there, which he planted and thus made a show place instead of a collection of weeds in front of the hotel.

The frame Volcano House of which Mr. Lee took management in 1891 is still a part of the Volcano House. It is back of the hotel proper and has been turned into a billiard hall.

The Volcano House is as much a part of Hawaii's history as is Halemauau, for perched jauntily on the edge of the party...

SPANIARD CLAIMS COFFEE HONOR

(Continued from page 1)

dubbed it "Hawaiian Mocha."

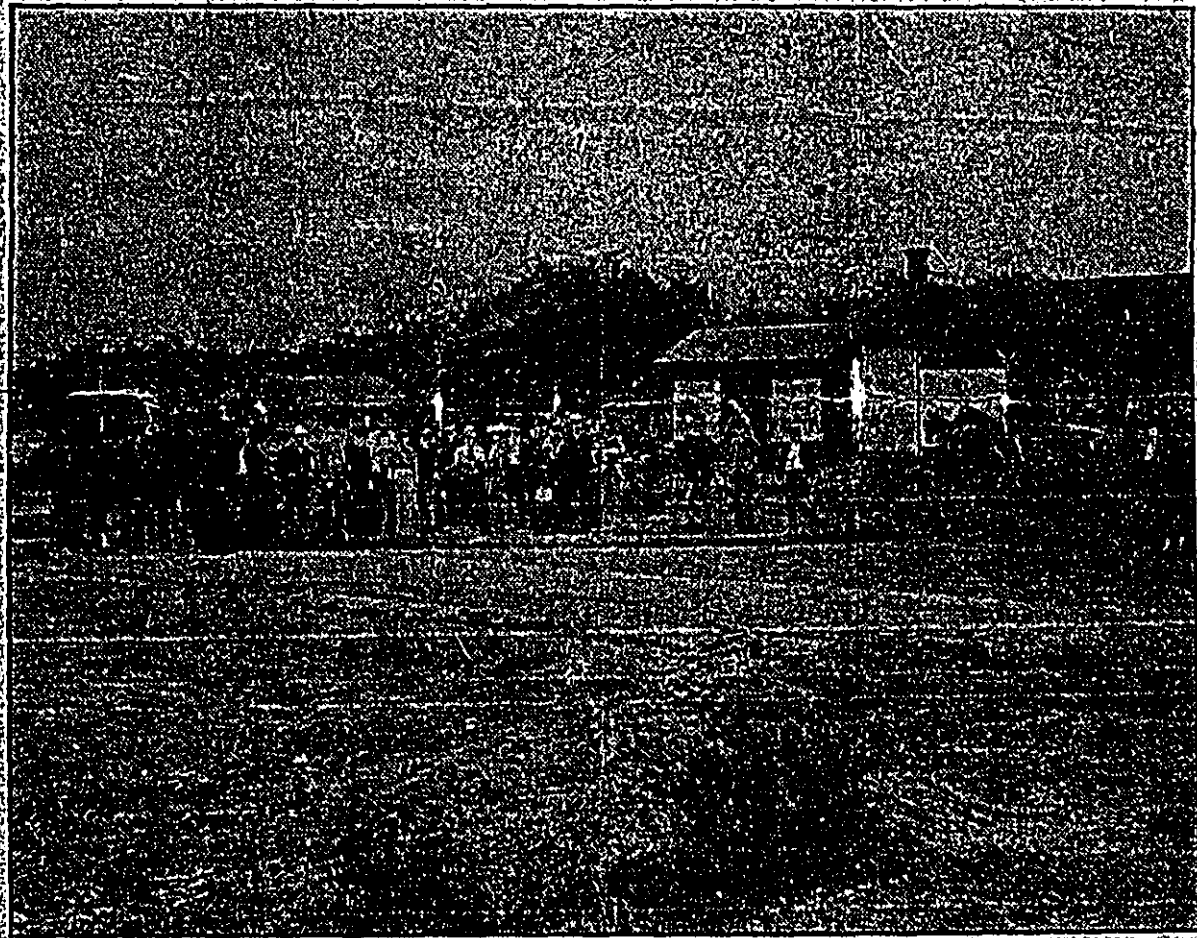
Although Liberian coffee is said to grow well in high altitudes and to be almost entirely free from blight, it is not, for some reason or other, popular in Hawaii.

Just at present the coffee trees are beautiful with their clusters of bright green and scarlet berries, garnished with thick glossy leaves and if beauty has anything to do with flavor, this year's coffee crop in Hawaii should be better than ever.

FRENCH LIKE BICYCLES

PARIS, France, Oct. 28—One out of every five inhabitants of industrial Northern France rides a bicycle while in the mountainous section the proportion is one to eleven, and in the busiest section of Paris one to eight. There are ten times as many bicycles as automobiles in use, and the number of bicycles is 6 per cent of the population. Each ride pays an annual...

FIRST OPENING OF VOLCANO ROAD HELD BACK IN 1894



CELEBRATION OF LONG AGO

The picture above shows the first celebration to open the Volcano Road, staged in 1894. The highway was considered a masterpiece of engineering at that time. On the lanai of the hotel in the picture, Alexander Lancaster can be seen. He is still guide for the Hawaii National Park.

TOURFAX

(of Visitors), Unlimited Printed in Honolulu, Hawaii, U. S. A., October, 1927 This is Number

1st Month Shows Big Increase

Over 14,000 Visitors Have Arrived This Year

September found 1132 tourists arriving in Honolulu to enjoy vacationing in Hawaii. This is an increase of 146 over September of last year and brings the total of visitors arriving here this year to 10,822. At the end of September, 1926, an even 13,000 had arrived.

In checking the arrivals, the tourist bureau excludes through passengers on boats or Australia bound boats, as well as returning residents of the territory.

Tourfax Gets Many Bouquets

More bouquets for Tourfax, the bureau's little information bulletin.

Secretary Armitage, now in the mainland in interests of the bureau, reports that travel agents and steamship officials consider Tourfax the most complete travel bulletin published anywhere. The compliments not only come from one source, but Armitage has experienced them from one side of the mainland to the other.

Although primarily issued to give travel information on Hawaii, Tourfax has a wealth of information which has proved helpful to lecturers, journalists, government officials, and others throughout the world.

Progressing

At the end of September two outlying islands were being worked by the bureau.

"WAIALEALE"

The name, "Waialeale" will be emblazoned on the sides of the new Inter-Island steamer which will be ready to serve the island of Kauai early next year.

That was decided last month when the directors of the Inter-Island company decided that the name of the highest peak on Kauai would make a pretty name for a pretty boat.

Say It With Photographs

A total of 300 pictures of Hawaii were sent out for publicity purposes by the bureau's publicity department during September. A large number went to the bureau's mainland office for distribution to mainland periodicals.

Over 200 of the photographs were prints of pictures taken by the bureau's photographer on the island of Hawaii during the summer.

Seven photos went to syndicates, the rest being divided between newspapers and magazines.

Armitage Visits Eastern Agencies

During September George T. Armitage, bureau secretary traveling on the mainland, visited the principal railway, travel, and tourist agencies in the northern cities and in East Canada.

Armitage reports that he received excellent cooperation from travel officials and that interest in Hawaii as a vacation land and travel resort is keen.

Stuffer Folder Being Prepared

Preparation of a new stuffer folder was commenced last month by the bureau, for use in its direct-mail circulation of steamship, railroad companies, and travel agencies. The folder will contain much information briefly written, telling of the state of affairs in Hawaii.

Lurline Now Sailing North

Matson Vessel Is Going Direct To Seattle

Announcement was made during September to the effect that the S. S. Lurline would sail direct to Seattle from Honolulu, commencing with the October departures.

Increasing interest which the Pacific Northwest is showing in Hawaii indicated by an increasing tourist traffic from that section, may lead to a permanent schedule of this nature for the Lurline or other Matson steamer.

Malolo Aloha

Princess Kawananakoa was placed in charge of the Malolo Reception Committee and explained her plans at a committee meeting. The tourist bureau has offered full cooperation and assistance to the committee.

More Inquiries

Inquiries to the bureau's advertisements in mainland magazines started to pick up again with the ending of summer vacations on the mainland.

A total of 402 inquiries were received during September.

Beauties

Beauty contest winners, Miss Ohio, and two Miss Clevelands were greeted off port by a bureau representative when they arrived here on the President Wilson September 17th.

Circularized

Twelve thousand Interline railway agents were circularized.

FRAZIER APPOINTED

Charles R. Frazier of Honolulu has been appointed by Governor Wallace R. Farrington as a member of the Hawaii Tourist Bureau.

The bureau was notified of the appointment officially September 1.

Frazier's status on the bureau committee is "member at large."

Guitar Playing Sharpshooters!

The Hawaii National Guard rifle team put down a barrage of good publicity last month when it topped 16th place in the national shoot at Camp Perry, Ohio. The Hawaii boys not only demonstrated to the mainlanders that they knew rifles, but ukuleles and guitars as well, and their music was the chief feature of the camp entertainment.

Waimea Canyon Road Progresses

Another splendid highway—the Waimea Canyon road on Kauai—will give the newly completed Kamehameha Highway, Oahu, and the Volcano Highway, Hawaii, a run for honors.

According to a bureau staff member who recently returned from Kauai, the road is expected to be completed the first of the year.

New Map for Kauai Tourists

A new map and folder of the island of Kauai was commenced during September and will be ready for the winter influx of tourists.

The folder will have more detailed write-ups of the Garden Island and a new lay-out of illustrations—photos taken during the summer by the bureau.

A new map with all points of interest marked out will be one of the features of the folder.

Alaska Cruise Planning

Northwesters To Swap Blizzards For Zephyrs

An excursion to islands from the north Seattle has been announced by the Alaska Steamship Co. The cruise will probably be handled during the month of February, and it is expected that the majority of those on board will be delegates to the Chamber of Commerce convention which will be held in Honolulu.

The cruise is an outgrowth of agitation for winter cruises to Hawaii from the Pacific Northwest which has been carried on for a long time by the tourist bureau, and others interested in travel to the islands.

Bureau Assists Shrine Aloha

The bureau assisted materially in the reception of Islam Temple, an excursion of San Francisco Shriners. When the fiftieth anniversary of the Shrine's founding was celebrated, six Hawaiian girls, under the bureau's supervision decorated them off port.

The bureau's motion pictures were also a part of an entertainment at the Royal Hawaiian Hotel when local Shrine ladies held a banquet for the wives of the visiting nobles.

"Fore!" on Kauai

Interest in golf is increasing by leaps and bounds on the island of Kauai.

The Wailua course near Lihue is becoming more and more popular with tourists.

1926

HAWAII NATIONAL PARK.

Thomas Boles, Superintendent.

Volcano House, Hawaii, USA.

GENERAL STATEMENT.

HAWAII NATIONAL PARK, 187 square miles, is located in the Territory of Hawaii, U.S.A. Established by Congress August 1916; formally dedicated July 1921; local administration began February 1922. General location in Mid-Pacific Ocean, 2200 miles southwest from San Francisco and Los Angeles, and 200 miles southeast from Honolulu. Consists of three sections.

KILAUEA SECTION, 125 square miles, on Island of Hawaii, includes famous Kilauea Volcano 4000 feet high; also several cones 200 to 300 feet high; forty pit craters, many steaming, two in actual eruption within past four years; vast fern jungles and tropical forests; miles of tunnels or lava tubes, many still unexplored; deserts of volcanic ash gashed with terrific earthquake cracks, many emitting steam; thousands of acres of ancient and recent lava ~~flows~~ fields, with rugged and fantastic formations; sulphur banks; tree moulds, many formed during 1923 when molten lava spurted from fresh earthquake cracks. All conveniently accessible via park roads or well marked trails.

~~HAWAIIAN SUMMIT~~, 25 square miles, nearly three miles high, also on Island of Hawaii, contains Mokuawewe Crater three miles across. Active near summit in April 1926 for few ~~days~~ hours, and then on flank outside of park for several days afterwards. Connected with Kilauea Section with good horseback trail. Surveys for road to summit have been made during this year.

HALEAKALA SECTION, 34 square miles, on Island of Maui, contains "Haleakala" "House of the Sun", the world's largest crater; 10,000 feet high; 2600 feet deep; and eight miles across. Good auto road to within eight miles of summit; then good horseback trail to summit, along rim, thence down into and across floor of crater, passing along a row of symmetrical cinder cones some nine hundred feet high, dwarfing the Egyptian pyramids in comparison. Excellent campsites in crater, with forage and water. Public spirited citizens of Maui have built a comfortable concrete rest house at summit, sleeping fifty. This section of the park will soon be enlarged by the addition of several square miles of desirable area on the northeast slope of the mountain.

LOCAL DEVELOPMENT.

Kilauea Volcano being the objective of nearly all of our visitors, our modest appropriation was devoted to improving and protecting this area. All roads, trails, and structures are in good shape, and all points of interest properly signed.

FORESTS.

This park is rich in floral features; the road to the volcano winds through a jungle of gigantic ferns, many forty feet high, with single fronds twenty five feet long arching gracefully over the highway. "Kipuka Puaulu" a small oasis surrounded by ancient lava flows, contains nearly every type of native tree. Through the courtesy of Mr. Buster Brown this area has been fenced as a protection against stray live stock. Although no serious fires, all vegetation suffered from the dry weather this season. Nearly six thousand acres of nearby Territorial forest burned during the year, destroying considerable of the attractive forest bordering the highway leading to the park entrance. (2)

ANIMAL LIFE:

Consists principally of domestic goats which have gone wild, and are considered as a local pest rather than an attraction. The little native red birds are becoming quite plentiful, and I will quote Dr. J. M. Johnson of New York City as follows: "With the exception of birds which nest in colonies, I have never seen so many resident birds of a single species as occur near the Volcano House along the edge of Kilauea Crater in the Hawaii National Park. During the daylight hours their songs are never stilled, and little groups or single individuals were seen constantly flying from place to place." Dr Johnson has been a student of birds for over forty years, and is a naturalist by profession.

NEST

WEATHER.

Although within the tropics, Kilauea's 4000 elevation above the surrounding ocean provides an equable climate; the days averaging 70 degrees; the nights 55 degrees. June and December differ but a few degrees in their average temperatures. The absence of frequent rains during this season has added greatly to the pleasure and comfort of the hiker and sightseer. No mosquitoes or other pests in Hawaii National Park.

REPTILES

FISHING.

Although there are no springs or streams in the Hawaii National Park, we have seven miles of ocean front suitable for fishing. It is worthy of note in this report that a nearby Japanese fisherman caught during the season in this body of water, with HOOK AND LINE, a swordfish weighing 1053 pounds, and measuring twenty five feet long; frequently swordfish are caught here that weigh as much as 300 to 500 pounds, but this certainly establishes a world's record, certainly for hook and line. He landed his fish.

I will also mention that in February during the visit of Assistant Director Arno B. Cammerer, the said Mr Cammerer soon after drinking the contents of two or three coconuts, at a native feast given in his honor, claims to have seen a whale thirty-five feet long, appear a short distance offshore, in shallow water, which waved its tail at him and then disappeared into the depths.

In order that Yellowstone and Yosemite may realize their proper status as "fishing resorts", I trust that the above information may be included in my annual report.

Structural Improvements.

The Superintendent's Residence equipped with ~~it~~ electric lights and hot and cold water system, was built in a commanding position on the cliff surrounding Kilauea Crater. Panel stones for the lava fireplace were selected by the late Congressman ~~Raker~~ Raker at the time of his visit. A rock hurled from the volcano during the 1924 eruption was personally selected as a cornerstone by Mr John Henry Cowles of Washington, Grand Commander of Scottish Rite Masonry. In order that the public might enjoy the magnificent view from this house site, "welcome" signs have been placed at the ends of the trail surrounding the building grounds. In the design and location of this building, many helpful suggestions were received from Mr Cammerer during his visit.

A Ranger Cottage, also equipped with tank and water system, was built convenient to the administration area. Improvements were made to the Superintendent's Office, and an additional room added to the Paint Shop.

NEW TRAILS.

In addition to improving the existing trails, a new route to the floor of Kilauea Crater was built, known as the "Sandalwood Trail" which is rapidly becoming quite popular. Another trail completely equipped with sturdy rustic railings was built along the rim of the cliff at the Superintendent's Residence.

A "Short Cut" crossing a large earthquake crack, was built across a loop in the road to the volcano, and affords an excellent view from above of the Fern Jungle.

Photo

KILAUEA MILITARY CAMP.

Kilauea Military Camp has continued with marked success; and notwithstanding the construction of several new buildings, has been crowded to capacity several times during the season. The hearty cooperation of Captain Everett Busch, commanding this camp during the past season, has greatly simplified the park administration, and has been the means of considerable saving to our appropriation through his coordination of equipment at no extra expense to his own funds.

NAVY RECREATION CAMP.

Two large buildings, with several sheds and water tanks were built during the season by the Navy Department on the 14 acres sub-leased from the Military Camp Trustees. Funds are now available for additional improvements. Only 400 visitors to this camp this year, but this number should be tripled during the coming season. The camp commander, Lieutenant Howard Engart of the Marines, has at all times worked very closely with the Park Service, and his valued cooperation is appreciated. Assistant Secretary of the Navy Robinson was enthusiastic over this camp at the time of his visit during the season.

VOLCANO OBSERVATORY.

This scientific institution supported by the Geological Survey of the Interior Department, with some outside aid, continued its work of observing and recording the various phases of the volcanoes Kilauea and Mauna Loa. Drillings for ascertaining temperatures on the floor of Kilauea Crater were made during the past season.

HOTEL ACCOMMODATIONS.

Kilauea Volcano House, starting on its present site in 1865 as a grass hut, has developed into a modern hotel with 120 rooms, including several cottages, and has been filled to capacity at several times during the past season. Exaggerated reports about water shortage has kept many persons away from this hotel during the season. Their golf links have been extended and improved, and has proved a great attraction to local residents. On July 1 1926 the hotel lease extended for a period of twenty years.

SUMMER CAMP.

Realising the local demand for a public summer camp, the Park Service has included in the lease above mentioned, an obligation to establish a cottage type of summer camp similar in operation to the Military Camp, but open to the public. Actual construction is deferred until Landscape Engineer Hull can make personal inspection of local conditions, and give his advice as to the ~~type~~ type of buildings most suitable for this camp.

PICNIC CAMPS.

Our camp ground at the beginning of Cockett Trail has been improved by the construction of a rain shed and additional water tank and cooking grates. Similar buildings, with toilets, ~~have been built in the Bird Park section.~~ Both of these sites will be greatly patronized during the coming season.

VOLCANIC ACTIVITY.

As intimated in my annual report of last year, Mauna Loa Volcano became active in the park area near the summit about 3 AM April 10th. The gigantic jets of steam illuminated by the molten lava below were magnificent during the hours just before dawn. The summit activity ceased within a few hours, and the molten lava re-appeared through an earthquake crack in the southwest slope of the mountain many miles distant, coming out as a sluggish stream of red hot clinkers which within a few days ran for fifteen miles down the lower slopes of the mountain and completely buried the little village of Hoopuloa, which had been abandoned by its residents a few hours before. Hoopuloa Bay was replaced by a peninsula of steaming slag; thousands of fish were killed by the boiling ocean. Thousands of visitors passed through the park to see where the county road had been covered by this lava.

Kilauea Volcano during the past season was a great disappointment to our average visitor, who possibly expected too much from this famous but fickle volcano. Comparatively few avalanches occurred during the year, and even the magnificent steam clouds of the previous season were lacking.

OFFICIAL VISITORS.

Several United States battleships stopped at Hilo long enough to permit their men to visit the park. The Navy transport "Chaumont" returning from Manila also stopped to permit a large Congressional party to visit the volcano for a few hours. All seemed well pleased with their visit.

ROAD CONSTRUCTION.

Highway Engineer Kittredge with his Assistant McCracken arrived in July, and at once began surveys for our several park road projects, and by December had completed all field work. It has been thought advisable to design these roads on Bureau of Public Road standards, rather than standards used heretofore by the National Park Service. Only the Chain-of-Craters Road is considered an immediate project, and although no actual construction except the clearing and grubbing done by park employees during the latter part of the season was performed, still by the end of the ~~financial~~ fiscal year bids were received and opened, well within the estimated costs, covering the grading and surfacing of this most essential project. Actual construction will begin as soon as some right of way details are cleared up. It is well to mention in this report that the County of Hawaii has authorized surveys of a county road which will be an extension of our Chain-of-Craters Road on down to the tropical Kalapana coast and its coconut groves.

The Bureau forces completed surveys of a road to the summit of Mauna Loa Volcano; also to the summit of Haleaula Crater; and also surveys for the revision of existing park highways, in order to bring them to Bureau standards.

TRAVEL DURING 1933.

Travel to the Hawaiian Islands continued to increase, not only from the rest of the United States, ~~ix~~ but also from other nations. Ships from San Francisco and Los Angeles are frequently loaded to capacity. The concrete highway tributary to the park is now within five miles of our entrance, and will reach us within the coming year. Travel to the park is fairly well distributed throughout the year, enabling the Department of the Interior to administer this park at comparatively small expense per visitor.

Excellent publicity has been obtained for the park during the past season, not only from our visitors, but also from the hearty cooperation of the Honolulu, Hilo, and Maui newspapers, and also by the attractive presentations through the "Paradise of the Pacific". Special mention should be made of the Mid-Winter edition of the Los Angeles Times with its 250,000 ~~xxxxxx~~ copies distributed in a field rich with tourists.

The Territory of Hawaii, through the Hawaii Tourist Bureau, is spending \$100,000 per year advertising the islands in high class magazines, always making liberal mention of the Hawaii National Park and its features. They have continued the publication and distribution of our Park Folder with text and cuts up to date.

(Travel--continued)

The travelling public realizes that this area is an interesting National Park, measuring up to the scenic standard established by the Yosemite or the Yellowstone, rather than just our erratic volcanoes; and this fact, together with the visits of ships from the American, British, Japanese, and German navies, and the visits of several world tours, together with the effective publicity through our friends, have all combined so that even without our "lake of fire" the park has been able to make a fair showing in attendance, although showing a great decrease from last year when ~~xxxx~~ the park was visited by most of the United States Navy. Our total number of visitors for the season was _____ as compared with 64,165 last year which will probably be our high mark for many years to come. It is well to mention that our decrease in visitors has been reflected in a commensurate decrease in the expense of operating the park, and an appreciable sum has been returned to the Treasury.

Recommendations

1. Appropriations that will permit the full administration and protection of all areas of the Hawaii National Park.
2. Summer Camp open to the general public at reasonable rates.
3. Checking Station at Entrance.
4. Additional roads and trails to open up remote areas.
5. Extension of boundaries to include desirable features.
6. Continued publicity, stressing features besides Kilauea.

CONCLUSION.

The recognition of this area by the United States Government as a National Park is the highest possible endorsement of its scenic supremacy and scientific value; and this, coupled with our variety of climates, from the sultry sunshine of the tropics, to the brisk air at the rim of Haleakala Crater, or the perpetual snow and ice at the summit of Mauna Loa Volcano; and the certain knowledge that the United States Government is going to make all these sections accessible by automobile as the demand for same proves itself, guarantees a big future for the Hawaii National Park.

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December 20, 1926


THIS LETTER NO.
REFERS YOUR NO.

Mr. A. O. Burkland
Acting Superintendent, Hawaii National Park
Honolulu, H. T.

Dear Sir:

Inclosed herewith find check for \$25.00 in your favor, in payment of six months ground rent on my lot at the Volcano, as requested in your letter of the 16th instance.

Yours very truly,



Alvah A. Scott

AAS:MSA
Inc.

ADDRESS ONLY
THE DIRECTOR, NATIONAL PARK SERVICE
WASHINGTON, D. C.

UNITED STATES
DEPARTMENT OF THE INTERIOR
NATIONAL PARK SERVICE
WASHINGTON

May 15, 1926.

Am Report

Dear Mr. Boles:

For your information and guidance there is inclosed a copy of Secretary Work's letter of April 17, 1926, in regard to the preparation and submission of the 1926 annual report. You will note that the Service's report is limited to 140 printed pages, including the index, but excluding any illustrations. In allocating pages, two pages are allotted to your report. When printed in 8-point solid type there will be 1,000 words to the page, but you should allow for a reduction of 1,000 words in text for each page devoted to tables. Where headings are used, followed and preceded by a blank space, they should be counted as occupying three full lines. It is exceedingly important that each report be kept within the space allotted. If this is not done it will be necessary to cut and revise the reports here, and matter to which the superintendents particularly wish to give attention may suffer. ✓

In the preparation of the report please be guided by the mimeographed instructions which accompanied Service letter of June 5, 1925, requesting last year's annual report data. Special attention should be given to paragraph 1, "Special Requirements". It is very important that the instructions regarding size of paper, space, etc., be followed, as these are based on the rules of the Government Printing Office. Unless this is done additional work will be required in this office to put the report in proper form for submission to the Printer.

The official park season for the purpose of the annual report is from October 1 to September 30, inclusive, and travel statistics should be for this period. Complete tables showing park travel should be included in your report, omitting only the final travel figures, which must be wired in at the close of the day September 30. Duplicate pages containing tables with the final figures inserted should be placed in the mail not later than October 1 in order that the figures wired in may be checked before the report is sent to the Printer. In connection with your travel data, in addition to the statistics regarding the number of visitors to the park and the number of private automobiles, please include a statement regarding the number of motorists entering the park in the private automobiles and the number of people using the public camp grounds. Both these figures are important. Data should also be included regarding the number and

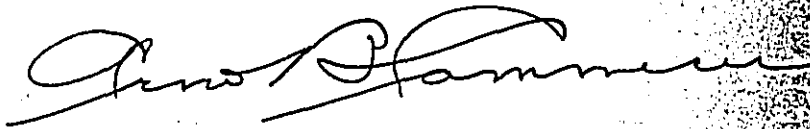
- 2 -

location of free public camp grounds, and the approximate number and condition of the wild animals.

It is also requested that you submit a separate review of the year to be used as a basis for the Director's report under "The Year in the Parks". One and one-half pages of the Director's report have been allocated for this review, which set in 10-point solid type will permit 600 words to the page. Therefore the review for Hawaii National Park should contain about 900 words.

Your report and review for Hawaii National Park should be submitted in duplicate and should be mailed not later than August 15. Last year a number of the reports were late in coming in, and several reviews for the Director's report were not received in time for use. Your cooperation in this matter is urgently requested.

Sincerely yours,



Assistant Director.

Supt. Thomas Boles,
Hawaii National Park,
Volcano House, Hawaii.

Inclosure 26942.

Visitors
Autoes -
Visitors in Autoes
Campers

DOCUMENT CAPTURED AS RECEIVED

The following report on the operation and activities of Hawaii National Park during the month of August 1926 is submitted for your information and approval.

000 The general conditions of highways and steamship lines serving the Hawaii National Park is unchanged. The almost continuous rain during August had a bad effect on local travel and even the tourist travel was hardly up to standard during the month. Two small gangs are at work on the highway, one at the crater road and other at the west Park boundary of the Project number three.

100 1 Acting Superintendent; Administration and Supervision:
1 Ranger: Guide work and sign painting;
1 Temporary Ranger: Guide work and inspection roads and trails:
1 Timekeeper & Acting Clerk: Information; correspondence; reports; time & material clerk:
9 Laborers: Mostly on road work:
Total number of man days 180; dosenot included Supt. nor rangers:

110 Notwithstanding our almost continuous rain, two gangs have been kept at work on reconstructing the road between the east Park boundary to the crater and between the Volcano House to west Park boundary. They all filling in the loose rocks and sand or earth and ~~was~~ leveling the road, which has been washed out by the rain storm. A road roller is badly needed but we are unable to rent it at present. I had two men at Bird Park and Camp Ground painting the sheds and tanks just put up last month by Mr. Boles before he left the Park for coast. Good progress, but nothing entirely completed during the month.

120 Park inspections by rangers every day such as roads and trails and see if the signs are put up at the right place or not.

121 Superintendent made inspection through out the Park to see if the roads and trails and signs are all in best condition.

126 Congressman Stewart Appleby of New Jersey and party here on transport Chaumont for a short visit to the Hawaii National Park on August 10, 1926, but not on official visit.

127 Crown Prince and Princess of Sweden and party came August 14, 1926 for a short visit and went sight seeing in the vicinity of the Kilauea such as crater, lava tube and etc; guide by Professor Jaggar and Acting Superintendent Burkland on the fifteenth.

130	01 Superintendent's Salary	\$ 258.33	
	Clerical Salary	94.00	
	0200 Scrach Pads for use in the office	.60	
	0230 Electric light service in the office	5.00	
	0510 Telephone and toll service in the office	7550	
	07 Transportation of things, such as Gasoline and Oil	5.80	\$ 371.23
	Protection: 01 Guide and crater patrol		190.00
	Repairs and Alterations:		
	1200 Maintenance of Building	\$ 42.81	
	1210 " " Roads	255.14	
	1211 " " Trails	90.12	
	1280 " " Passenger carrying vehicles	6.05	
	1290 " " Crater Rim Safety	49.75	442.87
	1587 Operating Dodge touring US #180 truck #1130		38.90
	32 Structural improvements; Labor and paints on sheds and tanks		39.59
	Total expenditures of the operating expenses of Park in August:		1,082.59

140 There was change in personal during the month; Mr. Boles the superintendent for the Park was called back to coast and Mr. Burkland of the U. S. Geological Survey was put to the park take place of the superintendent untill the new superintendent is appointed Fred Waltjen and Frank Lizak was shift to the U. S. Bureau of Public Road till the survey on the Chain of Craters Road finished.

150 This month we have two iron barrels of gasoline and one iron barrel lubricating oil and paints for the use in the park.

160 This month we had the cancellation of lease number 1314 (Mana Transportation Company) for the expiring lease after August 31, 1926.

170 The temporary Ranger fixed up the map of the Hawaii National Park from nine Quardrangle map of vicinity of the Kilauea Carter and Kau and Puna district.

200 Building of sheds and tanks at the Bird Park and Camp Ground were finish last month but the painting of the sheds and tanks were finish this month.

220 Painting of sheds and tanks with carbolicol and Fred's house with shingle stain to give better appearance than before. Every day the roads has been repair by two small gang because of the rain washing away the earth and sand from the road and also trails are keep in order by the rangers and road gangs.

240 Little beyond the westend or Kau side Park boundary the county of Hawaii fixing the road to standard oil macadamize.

300 Volcano Observatory's activities are recording the weather conditions, crater of Kilauea and Mauna Loa, and earthquake and other scientific note of the islands. U. S. Bureau of Public Road surveying the Chain of Craters Road. Department of War and Navy given the boy recreations and hotel given the tourist a recreations.

311 We are given information and guiding the people in the vicinity of the crater and protecting them. Observatory given the scientific information about the crater and protectin the people in general on the islands.

315 Chain of Craters Road is the new construct but it was not approved on account of the land matter not settled yet.

316 It is proposed to surface the highway with $\frac{3}{4}$ " crushed rock or screened material which may be available at lower cost.

317 Project No. 2 is junction of Project No. 1 at a point five miles west of Park Headquarters. Thence Project No. 2 extends in a southeasterly direction along a chain of eight craters.

320 Cooperation of the U. S. Bureau of Public Road by surveying the road and given th estimating the cost of the constructing of the road.

340 County of Hawaii is going to make a road from Kalaniana, Puna to meet the Chain of Craters Road as soon as the construction of the road finish.

400 List of flora, fauna and natural phenomena in the Hawaii National Park are follow ing:

Aalii, *Dodonaea viscosa*. A small, stiff tree, often only a bush, with papery leaf. Readily distinguished by its fruit, which is a twowinged papery capsule, either bright red or pale yellow.

Aawa Hua Kukui, *Pittosporum Hosmeri longifolium*. A rather erect tree with smooth bark and leaves like the locust. It is conspicuous for its fruit, about the size of a kukui nut, which is a woody, orange yellow capsule. The alala or native crow feeds on the oily seed of this fruit.

Ae, *Xanthoxylum dipetalum geminiflorum*. A tree 40 feet high with stout, ungainly, erect branches. The bark is gray and covered with lenticels. The leaves are aromatic. Only two trees occur in Kipuka Puauu.

Ae, *Xanthoxylum hawaiiense*. A medium sized tree with smooth tri-foliolate, hairy leaves.

Aiea, *Nothocestrum longifolium*. A small tree, more often a shrub only 10 feet high with slender ascending branches bearing whorls of thin leaves at the ends. The fruit is a small elongated orange-colored berry.

Aiea, *Wikstroemia sandwicensis*. This becomes only a large bush with dark green leaves, black bark and small reddish fruit. the tough bark was used by the Hawaiians for rope and the leaves and bark, which are poisonous, were pounded and thrown into the water to stun fish.

Alani, *Pelea clausiaeifolia*. A small tree with thick leathery leaves, often fragrant belonging to a genus dedicated to Pele, the Hawaiian goddess of the volcano. The leaves, which occur in whorls of 4 or 3, are somewhat fragrant and have a prominent midrib. The fruit is a small 4-lobed green woody capsule.

Alani, *Pelea volcanica*. A tree up to 40 feet in height with oval, opposite leaves hairy branches and very large, deeply parted green capsules.

Alani, *Pelea Zahlbruckneri*. A tree about 25 feet high, with large, oblong leaves and very large cuboid capsules which are scarcely even notched.

Hapu, Tree fern, *Cibotium Chomissioi*. The smaller of the two common tree ferns with the soft, yellow, glossy hair or pulu which was formerly used for stuffing pillows and making mattresses.

Hapu Iii, Tree fern, *Cibotium Menziesii*. The larger tree fern with stiff, long, black hair on the leaf stems.

Hau Kuahiwi, *Hibiscadelphus giffardianus*. A low, spreading tree like the hau of the seashore, but with uneven sided magenta flowers and large yellowish capsules. There is only one tree in existence and this, in a declining condition, is found on the Mauna Loa trail at the west end of Kipuka Puauu.

Holei, *Ochrosia sandwicensis*. A small tree growing to a height of 25 feet with its drooping branches, oblong dark green leaves arranged in whorls of from 3 to 4 with a milky juice, yellow double fruit and fragrant yellow blossoms. The natives extracted a yellow dye from the bark and roots.

400 continue

Iliahi, Sandalwood, *Santalum paniculatum*. One of the smaller sandalwood trees, attaining a height of only 25 feet. The thin leaves are overcast with a whitish bloom and the blossoms occur in densely flowered panicles.

Kawau, *Ilex sandwicensis*. The Hawaiian holly tree ~~of the Hawaiian forest~~ grows to a height of 40 feet, but often occurs as a stiff shrub. It is readily distinguished by its dark glossy leathery leaves, which show the impressed veins on their upper surfaces.

Koa, *Acacia koa*. This is the most stately tree of the Hawaiian forest and may readily be recognized by its sickle-shaped leaves and large symmetrical crown when growing in the open. The true leaf of the koa is compound and is found on young trees and young growth of older trees. The koa grows usually on well drained soils and comes next to ohia in numerical importance. It produces a very fine wood, which was used in ancient days for dugout canoes and surfboards and is now used for furniture and musical instruments and occasionally for interior finish.

Kolea, *Suttonia Lessertiana*. A common tall tree reaching 60 feet in the height with a smooth gray bark. The leaves, which are very variable, are thick and leathery, with practically no stems, and are pink when young. The red sap which flows from injuries made in the bark was used by the Hawaiians for dyeing tapa.

Kopiko, *Straussia Hillebrandii*. A small tree with opposite leaves which are rounded at both ends, smooth and dark green on the upper surface and hairy beneath.

Mamaki, Paper Mulberry, *Pipturus albidus*. A small tree with rough leaves, usually having red veins and stem, but very variable in shape. The leaves are often riddled by insect. From the inner bark of this tree the Hawaiians made their tapa or paper cloth.

Mamani, *Sophora chrysophylla*. A sturdy tree with compound leaves belonging to the bean family. The pea-like blossoms are a bright yellow and the rough corky pod is deeply constricted between the seeds. The bark of the older trees is rough. The wood is very durable and makes excellent fence posts, but so hard that a special staple had to be manufactured for the use of this wood in fence construction.

Manele, A'E, *Sopindus saponaria*. A tall stately deciduous tree with compound leaves of a bright green color and an umbrella-like crown. The fruit consists of a sticky, parchment-like, brown covering enclosing a small round black seed which is used in bead work. Called "Soapberry Tree."

Manena, *Fele cinerea*. A medium sized tree with opposite leaves, which are thick and leathery. The young shoots and leaves are covered with fine grayish woolly hairs. The caps are yellow and the trunk of the tree is covered with a smooth, pinkish-brown bark.

Maua, *Xylosma Hillebrandii*. A small tree with shiny papery leaves, which have scalloped margin. The small globose fruit is pointed at the end.

Naio, Bastard Sandalwood, *Myoporum sandwicense*. A large tree with rather narrow leaves crowded toward the ends of the branches. The small white or pink fragrant blossoms are borne all along the slender branches. The fruit is like a small white, round, fleshy berry. The dark yellow wood is very hard and durable and has an even spicier smell than the true sandalwood.

Naupaka, *Scaevola Chamissoniana*. A bush or small tree with light green rough-edged leaves, white one-sided blossoms which appear to be only half a flower, and small black round fruit.

Ohawai, *Clermontia Hawaiiensis*. A small tree, often found growing on the trunk of tree ferns, with long narrow leaves clustered at the ends of the branches. The tubular blossoms are purple, whitish or green, and the globular fruit is orange-yellow.

Ohelo, *Vaccinium penduliflorum*. The native high bush huckleberry which often attains the size of a small tree. It frequently is found growing on the trunk of other trees.

Ohia, Ohia Lehua, *Metrosideros collina polymorpha*. This is the commonest tree in the Hawaiian forest and varies greatly in the size and character of the leaves as well as in the shades of its tassel-like blossoms which range from a deep scarlet through salmon to a canary yellow. The tree attains a large size, has a scaly bark, and produces a very hard, close-grained wood.

Olapa, *Cheirodendron Gaudichaudii*. This is a large tree whose compound leaves composed of five leaflets are constantly in motion on account of the flattened stems. The leaves and bark have a strong resinous odor and the heavy clusters of fruit resemble elderberries.

Olomea, *Perrottetia sandwicensis*. A small tree, whose leaves have red veins and stems. The bright red berries droop gracefully from the branches. The golden brown wood was rubbed with the hau to produce fire.

Olopa, *Osmanthus sandwicensis*. This is the Hawaiian olive and may be recognized from its fruit, which closely resembles an elongated ripe olive. The smooth dull leaves vary greatly in shape and size. The tree attains a large size and the wood is extremely hard, close-grained and durable. The wood was used by the Hawaiian for adze handles.

Opuhe, *Urera sandwicensis*. A medium-size tree with milky juice. The elongated leaves, which are pale beneath, have prominent, parallel veins. The fibrous bark was used by the Hawaiians for twine and for making paper cloth.

Papala, *Charpentiera obovata*. A small upright tree which may be distinguished by its long thread-like bunches of flower stalks. The leaves are oval, leathery and smooth and have impressed straight parallel veins. The wood is very light and was used for Hawaiian fire works, when lighted sticks were thrown from a high cliff.

Papala Kepsu, *Pisonia inermis*. A low spreading tree with broad dark green, thin tender, opposite leaves. It is readily distinguished by its long thin fruit, which is covered with a sticky substance which the Hawaiians used for bird catching. The wood is very soft and brittle and shrinks excessively in seasoning.

Pilo, *Coprosma montana*. A small tree with stiff branches and small leaves. The small ovoid fruit is reddish and is tipped at the end.

Puahanui, *Broussaisia arguta*. A luxuriant shrub which grows in the wet forest, often attains the proportions of a small tree. The opposite rough leaves closely resemble the *Hydrangea*, to which it is related, and the clusters of dark, red berries which form at the end

Puhaniui, continue:

of the branches are the favorite food of native birds.

Pukeawe, *Styphelia tamsiameia*. This is the Hawaiian heather which sometimes grows into a small tree. The leaves are very small and the ends of branches are often covered with small dry, white, pink, or red berries which are very decorative. The trunk is twisted and the wood is hard and heavy.

Ahinahina or Silversword, *Argyroxiphium sandwicense* var. *macrocephalum* thrives b They still occur in thousands in Haleakala Crater, But are indeed very scarce on mauna Kea, an more so on Mauna Loa and Hualalai. This most beautiful plant, which flowers from July to Octob Wild goats are doing great damage to it, as they devour it eagerly and also do cattle, the arc enemy of the Hawaiian forests. In earlier days this interesting plant was also found plentiful on the slopes of the mountain, but it has now vanished since tourist began to ascend to the mountain summit.

Raillardia platyphylla, a shrubby composite, is quite gregarious along dry stea beds, especially along the upper part of Waikamoi near Puunianian Crater.

The green sword-plant, *Argyroxiphium virescens*, which is peculiar to Haleakala and found together with the plants just mentioned. It usually grows on the edges of cliff in company with the silversword, and is especially common near the base of Puunianiau Crater. It been observed in the Crater of Haleakala itself, but not on the ash fields, as its congener, b along dry streambeds between rocks.

500 Use of Park Facilities by the Public is growing greater.

510 Decrease in travel this month compare with last month is because of the summer over but compare with the month of August of last year and this year has decrease about 25%.

520 Weather conditions of the last month was misty most of the month with three day heavy rains and five or six days clear weather.

540 Congressman Stewart Appleby of New Jersey and party came August 10, 1926 and sa that the Hawaii National Park is one of the best scenery park, the roads and trails and signs are well layout and he said that I am sorry I can't remain here longer.

Crown Prince and Princess of Sweden and party of eight came August 14, 1926 on short visit. August 15, 1926 Professor Jaggard and Acting Supt. Burkland acted as guides and in the afternoon left here to meet the boat which was leaving Hilo for Honolulu. He said, "He wan come back here sometime again and stay here longer and see the lovely scenery."

550 Public Camps was added with additional sheds and tank in July 1926 and finish pa ing in the month of August.

650 Signs are all put up at where they need and they are put up right so the touris or people traveling in the park will not get lost the trails or the direction they are going.

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September 22 1925:

Mr. Stephen T. Mather,
Director National Park Service,
Department of the Interior,
Washington D.C.

Ann. Report

1925

Dear Mr. Mather:-

While I intentionally avoided statistical data in my Annual Report, it might be of interest to you to know that during the fiscal year 1925 there were recorded 1073 earthquakes in the Hawaii National Park. Our total rainfall of 76.12 inches was fairly well distributed over the 321 rainy days of the fiscal year. I doubt if inclusion of either of the above statements in our reports would encourage travel to this park.

Yours very truly,

Thomas Boles, Superintendent.

cc Mr Albright:

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Ann. Report

September 11 1925:

Dear Mr. Mather:--

Herewith some prints taken recently in the Hawaii National Park, and from these I think you might make the selection for the two photos which will accompany your 1925 Annual Report. My personal choice would be the Road through the Fern Jungle first, and one of the sailor pictures second. The road through the jungle has caused more favorable comment than any other one feature during the past season; and of course the visit of the 20,000 sailors to this park was an event which will not be match for many years. The print marked "C" while showing more sailors, is not clear owing to the yellow dust in the air from the avalanche at the time the photo was taken; this photo was absolutely unposed. This particular view was taken during the visit of the Battleship California.

The Fern Jungle print might be improved by the inclusion of an auto, in fact I have some with an auto in it, but the details of the fronds are not so good as in this print. I am collecting a large bunch of prints of local views for Mr. Hemmery, as he tells me he has quite a demand for them. I wish you would use your personal influence to get some of them placed in the Saturday Evening Post, as all the other parks have been recently.

Very truly,

Superintendent.

Annual Report 1925.

HAWAII NATIONAL PARK.

Thomas Boles, Superintendent.

Volcano House, Hawaii, U.S.A.

GENERAL STATEMENT:

HAWAII NATIONAL PARK, 187 square miles, is located in the Territory of Hawaii, U.S.A. Established by Congress August 1916; formally dedicated July 1921; local administration began February 1922. General location in Mid-Pacific Ocean, 2200 miles southwest from San Francisco and Los Angeles; 200 miles southeast from Honolulu. Consists of three sections.

KILAUEA SECTION, 125 square miles, on Island of Hawaii, includes famous Kilauea Volcano 4000 feet high; also several cinder cones 200 to 300 feet high; forty pit craters, many steaming, two in actual eruption during past three years; vast fern jungles and tropical forests; miles of tunnels or lava tubes, many still unexplored; deserts of volcanic ash gashed with terrific earthquake cracks, many emitting steam; thousand of acres of ancient and recent lava fields, with rugged and fantastic formations; sulphur banks; tree molds, many formed during 1923 by molten lava spurting from fresh earthquake cracks. All conveniently accessible via park roads or well marked trails.

MAUNA LOA SUMMIT, 28 square miles, nearly three miles high, also on Island of Hawaii, contains Mokuaweoweo Crater three miles wide, which at long irregular intervals sends floods of lava surging to the sea. Acting on flank in 1916 and 1916. Connected with Kilauea Section by a good horse-back trail, passing "Kipuka Pauula" and many interesting volcanic features. Survey for road now in progress.

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HALEAKALA SECTION, 34 square miles, on Island of Maui, contains Haleakala, "House of the Sun", the world's largest crater; 10,000 feet high, 2600 feet deep, and eight miles across. Good automobile road to within eight miles of the summit; then good horseback trail to summit, along rim, thence down into and across the floor of the crater, passing along a row ~~xx~~ of symmetrical cinder cones some nine hundred feet high, dwarfing the Egyptian pyramids in comparison. Excellent camp sites in crater, with water and forage. Comfortable concrete Rest House at summit, sleeping thirty.

LOCAL DEVELOPMENT.

Kilauea Volcano being the object of nearly all our visitors, our modest appropriation was devoted to improving and protecting this area. All roads and trails are in good shape, and all points of interest properly signed. Four public toilets and two shelter houses with water tanks were provided during the season.

FORESTS.

Although this National Park is best known for its volcanic features, nevertheless it is a botanical paradise; the road to the volcano winds through a jungle of giant ferns, many forty feet high with single fronds twenty five feet long, arching gracefully over the highway. "Kipuka Pauula", a small oasis surrounded by rough lava, contains nearly every variety of Hawaiian trees. Just beyond this is another 'kipuka' containing a magnificent koa (Hawaiian mahogany) ten feet in diameter, preserved when a lava stream from Mauna Loa Volcano stopped within twenty feet of its base.

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WEATHER.

Although within the tropics, Mīlauea's 4000 foot elevation above the surrounding ocean provides an equable climate; the days averaging 70°; the nights 55°. June and December differ but THREE DEGREES. One may hike in light clothing, but must sleep under heavy blankets. No snakes nor mosquitoes. Frequent showers provide brilliant rainbows, and keep the foliage fresh, and yet cause no mud; the water vanishing into the porous ground or flowing into nearby earthquake cracks, coming up next day as live steam. The Superintendent's Office is comfortably heated by controlled volcanic steam from one of these vents.

KILAUEA MILITARY CAMP.

Appreciating our natural wonders and bracing air, the War Department maintains a Recreating Camp in the Park, in at which nearly four thousand officers and men spent their vacations last year. Their grounds have been greatly improved by landscaping and the erection of additional rustic cabins for officers.

NAVY RECREATION CAMP.

Noting the benefit obtained by the Army, the Navy Department has sub-leased 14 acres from the Army Camp, and has started the erection of buildings to be used by officers and men from Pearl Harbor. This camp, together with the favorable impression formed by our visitors from the United States Fleet this season, insures a steady patronage from this branch of the Government Service.

PUBLIC CAMP SITE.

Our Public Camp Site in the ohia forest, convenient to all park trails, was well patronised by picnickers during the season. Cooking grates and drinking water are provided by the Government.

HOTEL ACCOMMODATIONS.

Kilauea Volcano House, starting on its present site in 1865 as a grass hut, has developed into a modern hotel of 120 rooms, including several cottages; and has been filled beyond capacity at several times during this season. It is delightfully located on the steaming cliffs facing Kilauea Crater and within easy walking distance of all points of interest. The invigorating climate encourages the guest to remain longer and hike the trails or try the sporty nine-hole golf course nearby, with earthquake cracks and tree molds for natural hazards.

SUMMER CAMP.

Although holding a permit, the Hotel Directors have been dubious about erecting their summer camp until molten lava actually reappears in the volcano. However a very low weekly and monthly rate has been authorized at the Volcano House.

VOLCANO OBSERVATORY.

This scientific institution, supported by the Geological Survey of the Interior Department, with aid from private sources, continued its work of observing the various phases of the volcano, and recording seismic disturbances.

VOLCANIC ACTIVITY.

In contrast to the stupendous spectacle afforded by the explosive eruptions of the previous season, and although at several times during the past season the spectators have been thrilled by rumbling avalanches which sent clouds of rock dust thousands of feet into the air, yet taken as a whole Kilauea Volcano has during the past season assumed the solemn and impressive attitude of the Grand Canyon.

During the early part of the year each morning an enormous steam cloud would slowly rise from the crater, which, when illuminated by the colorful rays of the rising sun, or by the ghostly beams of the tropical moon, convinced the onlooker that Kilauea can be magnificent even in repose.

Hauaa Loa Volcano continues inactive, except for the small wisps of fume in the summit crater; but the hundreds of earthquakes during the past season indicates that enormous adjustment are taking place far beneath the two mountains, which may some day become visibly evident by the welcome return of molten lava.

1625
NATIVE CEREMONY.

On March 21st, over two thousand persons, mostly natives, assembled at the rim of the crater to watch and encourage four venerable kahunas (witch doctors) in their efforts by prayers and offerings to induce Goddess Pele of the Volcano to return the molten lava to the pit; The presence of lava is reassuring that explosions or severe earthquakes are not likely. When the first 92-year-old kahuna stretched his arms out over the pit, he was immediately answered by an avalanche from the distant walls, whose ~~rumbling~~ ^{rumble} was accented by the previous intense quiet; and caused a little flurry among the spectators for a minute or two.

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CONGRESSIONAL VISITORS.

Hawaii National Park was fortunate during the past season in the number of Congressional visitors; the Navy maneuvers attracted them to the islands, and nearly all of them made short visits to the Kilauea Section, and several made the trip to the top of Haleakala. Of especial value was the visit of Congressmen Cranton and Taylor, who devoted several days to the park, covering eighty miles on horseback, and taking great pains in making personal inspection of our proposed road projects. It was particularly fortunate that Governor Farrington found time to accompany these two gentlemen on their trip.

Most of our Congressional visitors took the "World's Weirdest Walk" across the floor of Kilauea Crater; and all visitors expressed surprised not only at our attendance records, but at our wealth of interesting features other than our famous but fickle Kilauea.

ROAD WORK.

Devoting our first "Roads & Trails" money to widening and safetying the road to the volcano proved an excellent decision; the use of this money eliminated ninety percent of our accident hazards on this road, and during the visit of the fleet the large crowds were easily handled and without accident. In fact this park has been free from accident during the entire season. In addition to the safety work on this road, the Service has received many complimentary expressions on our success in preserving the tropical vegetation along this road.

Surveys through the cooperation of the Bureau of Public Roads, have been completed for our "Chain of Craters" road. Many new friends were made for the Service by its selection of this as our first construction project. Surveys for the Mauna Loa Road are in progress.

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VISIT BY OUR NAVY.

Our big event for the past season was the visit of 70000: officers and men from the United States Fleet, following their Hawaiian maneuvers. When Admiral Coontz visited here last October he was so impressed that he assured us that every man of the fleet would be given the opportunity of visiting the park. The Hilo Chamber of Commerce added much to their visit to this island by handling many of the details; and a very low taxi rate to the park enabled most of the men to make the trip to the volcano. On June 10th alone there were 1800 sailors in the park, and on several days there were as high as 1500 present. While the 200 ships were at Lahaina many of the men climbed Haleakala. We had intended employing many guides and guards during the Navy visit, but Admiral Coontz's offer to furnish us with ample Shore Patrol from the ships enabled us to handle the crowds with comparatively little expense to the Interior Department. These patrol men officers and men reported to the Superintendent for assignment of duties. During the entire visit of the men of this fleet to the park their conduct was a credit to the great Department which they represent.

VISIT BY JAPANESE SQUADRON.

During November a squadron of the Imperial Japanese Navy called at Hilo, and their entire personnel of 2500 men, including 600 naval cadets, visited the park. Local Japanese were used as guides during this visit. Vice Admiral Hyakutake and staff were profuse in their expressions of appreciation of their treatment in the park; and a few weeks later the Superintendent was honored by a letter from our own State Department commending our work on this occasion.

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TRAVEL DURING 1925.

Travel to the Hawaiian Islands is increasing, not only from the rest of the United States, but also from foreign countries. The ships of the Matson Line and the Los Angeles line are frequently loaded to capacity. Within one year the concrete highway from Hilo will be within five miles of the Park Entrance, and during the following year should reach our gate. This promotes local travel, and also benefits the tourist business. Travel to the park is ~~extensive~~ fairly well distributed, which enables the Interior Department to administer this park with a comparative small force.

We have been favored with excellent publicity, not only through our visitors, but from the hearty cooperation of the Hilo and Honolulu newspapers. The Territory of Hawaii, through the Hawaii Tourist Bureau, is spending ~~\$100,000~~ \$100,000 per year on advertising the islands, and they always included liberal mention of the Hawaii National Park; and in addition to the regular literature, have issued one hundred thousand Hawaii National Park folders and have distributed them throughout the world. A special movie film of Hawaii, in which park features have been given proper space, has been prepared by the Tourist Bureau, and some 20 copies of this film are now being displayed on the mainland.

The public realizes that this area is an interesting National Park, instead of just an intermittent volcano; and this fact, together with the visits of several World Tours, and the ships from the American, Japanese and British navies; together with the effective publicity through our friends, have all combined so that even "without fire in the volcano" the Hawaii National Park has shown an increase in attendance. Our season total was 64,155; last season 52,210.

(Main = 1200)

RECOMMENDATIONS.

1. Appropriations which will permit the full administration and protection of ^{all} areas of the Hawaii National Park.
2. Suitable living quarters for all permanent employees.
3. Checking Station at Park Entrance.
4. Additional roads and trails opening up remote areas.
5. Extension of boundaries to include desirable features.
6. Continued publicity.

CONCLUSION.

The recognition of this district by the Federal Government as a National Park is the highest possible endorsement of its scenic supremacy; and this coupled with our variety of climates, from the sultry sunshine of the tropics, or the brisk air at the rim of Haleakala Crater, or the perpetual snow and ice on the top of the monster dome of Mauna Loa Volcano; and the certain knowledge that the United States Government is going to make all these points and many others accessible by automobile, guarantees a big future for the Hawaii National Park.

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ADDRESS ONLY
THE DIRECTOR, NATIONAL PARK SERVICE
WASHINGTON, D. C.

**DEPARTMENT OF THE INTERIOR
NATIONAL PARK SERVICE**

WASHINGTON

June 5, 1925.

1925 Am Rep

Dear Mr. Boles:

For your information and guidance there is inclosed a copy of Acting Secretary Finney's letter of April 8, 1925, in regard to the preparation and submission of the 1925 annual report. You will note that the Service's report is limited to 172 printed pages, including the index, but excluding any illustrations. In allocating pages, two pages are allotted to your report. When printed in 8-point solid type there will be 1,000 words to the page, but you should allow for a reduction of 1,000 words in text for each page devoted to tables. Where headings are used, followed and preceded by a blank space, they should be counted as occupying three full lines.

In the preparation of the report, please be guided by the inclosed mimeographed instructions. Special attention should be given to paragraph 1, "Special Requirements". It is very important that the instructions regarding size of paper, space, etc., be followed, as these are based on the rules of the Government Printing Office. Unless this is done additional work will be required in this office to put the report in proper form for submission to the Printer.

The official park season for the purpose of the annual report is from October 1 to September 30, inclusive, and travel statistics should be for this period. Complete tables showing park travel should be included in your report, omitting only the final travel figures, which must be wired in at the close of the day September 30. Duplicate pages containing tables with the final figures inserted should be placed in the mail not later than October 1 in order that the figures wired in may be checked before the report is sent to the Printer. In connection with your travel data, in addition to the statistics regarding the number of visitors to the park and the number of private automobiles, please include a statement regarding the number of motorists entering the park in the private automobiles and the number of people using the public camp grounds. Both these figures are important.

It is also requested that you submit a separate review of the year to be used as a basis for the Director's report under "The year in the Parks." One and one-half pages of the Director's report have been allocated for this review, which set in 10-point solid type will permit 600 words to the page. Therefore the review from Hawaii National Park should number about 900 words.

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Your report and review for Hawaii National Park should be submitted in duplicate and should be mailed not later than September 1. Suitable photographs for use as illustrations should be included with your report. Addenda may be transmitted with travel statistics October 1.

Cordially yours,



Acting Director.

Mr. Thos. Boles,
Supt., Hawaii National Park,
Volcano House, Hawaii.

Inclosure 8630

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(COPY)

DEPARTMENT OF THE INTERIOR
Washington

Apr. 8, 1925.

Enclose only
to the Secretary of the Interior

The Director,
National Park Service.

My dear Mr. Mather:

Will you be good enough to submit to the Department at the earliest practicable date, not later than October 1, 1925, a report of the condition of affairs and the management of the National Parks and Monuments for the fiscal year ending June 30, 1925. If deemed advisable you may make your report cover matters pertaining to the several National Parks and monuments under your general supervision from the close of the tourist season in 1924, until the close of the present tourist season, embodying therein such recommendations for the betterment of the service as in your judgment may be deemed advisable.

The manuscript of the report should as far as possible be typewritten, free from interlineations, properly paged, and provided with a table of contents. All exhibits should be suitably marked and referred to by such marks wherever mention is made of them in the body of the report. In the interest of economy it is desirable that the report be as brief as the various subjects covered will permit, and that all unimportant exhibits be omitted, as well as maps or photographs not connected with or showing the condition of the service.

The bill making appropriations for the Interior Department for the fiscal year ending June 30, 1925, approved June 5, 1924 (43 Stat. 392), provides among other things, that "The annual reports of the Department and of all its bureaus and establishments, including the Reclamation Service, shall not exceed a total of 1,250 pages." The number of pages which has been allocated to the report of the National Park Service is 172 printed pages, including the index, but excluding any illustrations.

At the time of the submission of your report a letter should be addressed to the Department embodying suggestions as to the proper treatment of such matters discussed therein as should properly be included in the Secretary's report.

Respectfully,

(S) E. C. FINNEY,
Acting Secretary.

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DEPARTMENT OF THE INTERIOR
NATIONAL PARK SERVICE

April 20, 1923.

Preparation of Annual Reports.

In preparation of the Annual Report of the Director of the National Park Service, the attention of each officer having charge of any unit or branch of the field service is called to the following matters affecting the annual report of the activities with which he is charged.

1. Special Requirements.-- Use plain paper, sheets 8 x 12½ inches in size, and write on only one side of the sheet, in lines that are double or triple spaced; use single spacing only for quoted matter that includes several lines. Leave a margin of at least an inch at the top of the page, an inch at the left, and at least half an inch at the bottom. Indent paragraphs 10 spaces. Begin every page with a paragraph; therefore do not start a paragraph near the bottom of the page. The observance of this requirement is necessary because the printers must divide manuscript into "takes," and because each "take," which is put in type by one of many machine operators, must consist of complete paragraphs. A space of 3 inches or more at the bottom of a page may be left at the end of a paragraph if all the next paragraph can not be written on the page. Matter that is not so written is cut up by the printers and pasted together, for the purpose indicated, in renumbered sheets of uneven length, which are not easily handled or referred to by the proofreader while he is reading the proof. Sheets should not be pasted together to form a strip that is longer than 12½ inches.

If new matter must be inserted it should be written on a separate sheet, and the sheet in which it is to be inserted should be cut apart at the proper place and each part pasted on a blank sheet of regular size. Room for wide tables can be obtained by pasting additional sheets at the side only, but this plan should not be employed for additions to the text. Copy for tables should under no conditions be crowded; the whole of a table need not appear on one sheet. Number pages consecutively in center at bottom of page. Page No. 1 of the report manuscript should be headed in the manner shown in the individual reports printed in Appendix C of the Service's Annual Report for 1922, pages 100 to 157.

The several topics treated in the report should be separately headed, in capital letters, as shown in Appendix C of the 1922 report, and may be taken up in logical order, commencing with a general statement relative to the Park, Monument, or activity, and concluding with such recommendations as the officer decides to make for the betterment of his charge. Subheadings for portions of topics if found to be necessary may be underlined and used to start the paragraphs to which they relate.

The final page of the report should be an alphabetical index of headings and subheadings, to be made up as shown on pages 97 to 99 of the Annual Report for 1922. This index should be typed flush to the left-hand margin, and indented where necessary.

Use special care to see that all proper names are correctly spelled, and that every figure is clear cut. In correcting figures erase fully the figure first written before correcting, thereby avoiding uncertain results, as a 3 upon an 8 or a 5 upon a 6.

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2. Travel statistics.--Tables showing travel should be included, omitting only final figures for insertion later. On September 30 a telegraphic report should be made to the Service showing totals from October 1 of the previous year to and including September 30 of the year for which report is made. This telegram must not be overlooked. Duplicate pages, containing tables with complete final figures inserted, must be placed in the mail not later than October 1.

3. General.--The Annual Report is not to be confined to the fiscal year except in so far as it relates to fiscal matters. It is a season report and should contain all data regarding operations during the season October 1 to September 30. While the report must necessarily be concise, it should contain data respecting all matters of special interest which transpire during the year, the work of those persons, firms, or corporations which operate public utilities, information relating to the wild animals, birds, forests, and wild flowers, and the work of the Service itself in encouraging the study and enjoyment of these and other natural features.

As the report is administrative in character, it is well to keep purely descriptive text, scientific classifications, and less important details at the minimum.

5. Transmittal.--The report, when completed, must be forwarded in duplicate to the Service not later than the close of September 1, unless otherwise specially directed by the Service.

STEPHEN T. MATHER,

Director.

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DEPARTMENT OF THE INTERIOR
NATIONAL PARK SERVICE
HAWAII NATIONAL PARK
HONOLULU, HAWAII

FILE

January 6th 1926:

Mr. Stephen T. Mather, Director,
National Park Service,
Department of the Interior,
Washington, D. C.

December
1925

Dear Mr. Mather:—

The following report on the activities and operation of the HAWAII NATIONAL PARK during the month of December 1925 is submitted for your information and approval:

I GENERAL CONDITIONS:

The tourist travel to this park was rather light during December, but this was more than offset by the heavy increase in local visitors, many of whom spent their holiday vacations in the immediate vicinity of the park, all the nearby cottages being well filled during Christmas week, and our park trails well patronized by hikers and kodakers.

There has been marked improvement in the highway between Hilo and the park entrance, and many of the people from nearby towns and villages took advantage of the excellent weather of December to make short visits to the park. In addition to the 2.6 miles of paving previously reported on this county highway, there were 1.4 miles finished with asphalt-macadam during the month, making 4.0 miles in all, and this is to be covered with a wearing surface of asphalt-concrete later on. The contractor on this road took advantage of the excellent weather and made good progress on all of his work during December.

In addition to the regular passenger steamers calling at this island, we were visited on December 19th by the Red Star liner "Belgenland" with 525 tourists in charge of the American Express Travel Department.

Weather: The rainfall here is still way below normal; the 2.41 inches of rain is hardly enough to protect our lighter ferns and grasses from a fire risk. Our soil here is very porous, drying out very rapidly, and when we have six or seven consecutive days with no rain it becomes evident on our vegetation. I will mention that December two years ago had ten times the amount of rain we have had during the month just past.

HAWAII NATIONAL PARK

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Dec 1925 -2-

Data as recorded by local Station is as follows:

Mean maximum for December 1925	70.0°
Mean minimum	52.3
Average for month	60.9
Maximum during month	75 on 16th
Minimum during month	46 on 27th
Greatest daily range	75 to 46 27 on 27th
Total rainfall during December	2.41 inches
Greatest with 24 hours	.90 on
Days with RAIN	19; TRACE 8 NO RAIN 4

Earthquakes: Of the 48 "earthquakes" recorded during December, only five were actually felt. The two about midday on the 6th were rather sharp, causing quite a dust cloud to rise from the crater from the many small avalanches.

II PERSONNEL: Park Force:

Number	Class	Work performed:
1	Supt.	Administration, supervision, disbursing:
1	Ranger	Nature guiding, and sign painting.
1	Clerk	Information and correspondence.
1	Foreman	General maintenance roads, trails, and bldgs.
4	Laborers	ditto. Also traffic control on big days.
Total man-days charged to park-----111g		

Survey Gang on Park Projects:

1 Assistant Engineer loaned by Bureau of Public Roads.
7 local employees in various capacities: Used on field work on Haleakala for four days, and on clearing Project 2 for seven days.

III WORK IN PROGRESS:

Most of the month our park gang was used in maintaining our present roads and trails, but on the 22nd they were turned over to the Assistant Engineer to be used with his men in clearing off the right of way of Road Project No 2, and will continue on this clearing until it is completed. Quarters for all the men has been provided by the Park Service by utilizing the bunk house built last spring for housing road working on our Project No 1. By December 31 the right-of-way had been cleared and burned to Station 40+00, almost to the second crater of the 'chain'. The starting of actual work on this road project was the most important event of the month, and has created an excellent impression among the people of this island; It appeared for a while that we were only to get 'surveys and estimates' from our road appropriations. Many favorable comments were made by visitors to the park Christmas week on noting the starting of this road project.

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Dec 1925 -3-

When District Engineer Wheeler came over here the first week of December we discussed the advisability of doing this clearing with our park forces while awaiting decision of the Washington Office as to awarding the grading contract, and both Mr Wheeler and the Superintendent felt that it would not only put our project just that much ahead, and hold our regular employees together during the slack season, but at the same time would enable us to clear the road strip and burn the underbrush and tree tops at a time when the fire risk would be at a minimum. It was very gratifying to receive the cabled authority of the Director to proceed with this clearing. All timber suitable for either firewood or building posts will be saved and piled to one side to be used later on. These trees will come in especially valuable for tank posts and fencing purposes and will result in considerable savings on our building projects now authorized.

VI WORK COMPLETED:

Road Surveys: On December 4th the field work on the Haleakala Road were completed, and the field party brought to this island and disbanded, but later re-employed as laborers on our clearing work. The Assistant Engineer assigned to this island is working up his field notes of the Haleakala Road, and at the same time is giving the Clearing of Project 2 his supervision. The office work of the Mauna Loa Road is being handled in the Honolulu Office of the Bureau of Public Roads. Prints of the alignment of both roads have been furnished Governor Farrington to assist him in determining what land exchanges may be necessary to accommodate the proposed roads. Under date of December 30 the Governor writes me that satisfactory progress is being made on both projects. It had been my intention to go to Honolulu to confer with Governor Farrington on this, but as he spent December 12th and 13th here in the park I was able to go over all these matters with him at that time.

V WORK PLANNED:

As the Hawaii National Park will have the benefit of a visit by Assistant Director Cameroner within a few weeks, I will hold back our several construction jobs until I can have the benefit of his opinion and advice on them, and our men may by that time be finished with the Project 2 clearing, and can be started on such construction work as Mr Cameroner may authorize.

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Dec 1928 -4-

VI COST OF OPERATION:

Administration	01 Superintendent-----	\$250.00	
	Clerk-----	63.33	
	Labor-----	36.75	\$349.08
	0230 Staty and Office Supplies -----	10.18	
	0230 Fuel and Light-----	8.00	
	0510 Telephons service-----	7.80	
	07 Trans of things-----	1.87	\$372.00
Protection:	01 Nature Guide and Traffic Control-----		201.67
12 Repairs and Alterations:			
	1200 Buildings:-----	31.16	
	1210 Roads-----	81.37	
	1211 Trails-----	43.00	
	1280 Equipment (auto)-----	41.20	195.75
13 Special & Miscel current expenses:			
	1387 Operating passenger auto-----		8.18
30 Acquisition of property:			
	3050 Miscel equipment-----		12.77
	Total park expense-----		\$ 792.17

ROADS & TRAILS APPROPRIATION:

Definite figures not available: Estimated-----\$380.00

VIII NEW POLICIES:

No new policies at this writing. The coming visit of Mr. Cameron will give the Superintendent an opportunity of checking up our present policies, and determining new ones if required.

VIII OTHER MATTERS OF GENERAL INTEREST:

Volcanic Activity: At present it would seem that Mount McKinley is providing the volcanic activity for the National Park Service. Our 'continuously active volcano Kilauea' continues to disappoint many of our visitors. The Volcano Letter issued this week by the Volcano Observatory says: "Everything remains placid at the end of the year." My personal opinion is that Halemauamu is slowly cooling off, as the steam clouds seem to get less and less each week. This again reminds us that we should apply our early efforts at development to park features which are "guaranteed", and not concentrate our development and publicity on features which are intermittent and uncertain.

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Dec 1925 -5-

Mr Egan of the U. S. Geological Survey has been assigned to the staff of the Volcano Observatory; his duties have been announced as checking up the levels in the vicinity of the volcano to ascertain the extent of risings or subsidence of the surrounding country during the past few years.

Publicity: The December issue of "Sunset" magazine published at San Francisco was a Hawaii Edition, and although there was no special article devoted exclusively to the National Park, it had a full page color plate of Kilauea Volcano in eruption.

In addition to the folder issued by the Inter Island Steamship Company mentioned last month, they have published a special folder on "Hawaii National Park and Kilauea Volcano" describing in detail the area which can be seen during the 1 1/2 day trip that is usually taken by the tourist. A picture of a uniformed ranger on the front cover, pointing out the scenery, brings out the idea that this is a "National Park". The map of the Pit Crater District printed in this folder was prepared and donated by the Superintendent. Copy of folder is attached to this report.

Miss Mona Gardner, a special writer for the Los Angeles Times, enroute around the world, spent two days in the park, and was furnished several up to date photographs of the park for use in future article to be written by her.

In November the Rotary Club of Hilo invited Professor Jaggard to address them on the subject of Mauna Kea, which he had recently explored. And on December 9th the Superintendent spoke for forty minutes to the Rotary Club on the subject of what the Hawaii National Park means to the people of Hawaii. In my talk I outlined our prospective road development, and also detailed many park features more or less unfamiliar to the residents of this island. Curiously the official publication of the Hilo Rotary Club is named "The Lava Flow", and they have invited me to send in a short article for this Lava Flow every week or two.

It may interest the Director to learn that on a recent visit to Honolulu the writer was a guest at the Pan-Pacific Club at their luncheon attended by 150 people; the three speakers at the luncheon were Dr David Starr Jordan, President of Stanford University; Dr Warren Barton Overman, of the Academy of Science at San Francisco, and the Superintendent of Hawaii National Park.

American Express Tour: On December 19th the "Belgenland", one of the largest passenger ships in the world, stopped at Hilo long enough for the 525 tourists to make a hurried visit to the Park. Unfortunately on this day the entire volcano district was blanketed with low clouds and steam, making it impossible to see not over one hundred feet.

HAWAII NATIONAL PARK

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Dec 1925 -6-

Health conditions: The comparative dry weather seems to have a bad effect on people accustomed to the daily drizzle, and there was quite a bit of sickness during the past month. The writer and also Mrs. Moles had light cases of flu in December. At this writing the local conditions are greatly improved.

Vital Statistics: On December 7th a girl "Mitsuka" was born to Mr and Mrs J. H. Tahara, residing on a lease within the park. You may recall that her brother born four years ago shortly after the dedication of the park, was named "National Park" Tahara. I regret to learn today that little Mitsuka is threatened with diphtheria and has been taken to Hilo for treatment.

Arboretum: Mention of the arboretum was made in a previous report, and you were later informed that the dry winter following its planting was disastrous on the young seedlings. These were all replanted in December, but the dry weather again threatened them with extinction, so we have built a temporary rain shed in the plot, with a few barrels to collect such rain as may fall, and this will be distributed by buckets to the seedlings whose need for moisture is most urgent.

When you consider that in our 137 square miles of park there is no streams or springs; and we are dependent entirely upon rain for our water supply, you can realize that lack of rain hurts us in many ways besides increasing our fire risk. A local dairy may have to close down unless conditions improve within the next week or two.

Attendance: The excellent weather during December brought many visitors to the park from the surrounding country, many stopping at the Volcano House, but many more at the nearby cottages. Aieua Military Camp was also well patronized. Our attendance for December was 3375 which is very gratifying when one considers that December is usually a wet month. The special events which assisted in the good showing in our attendance were as follows:

- December 19: American Express Tour:
- 24: Public Dance at Volcano House;
- 26: Public Dance at Military Camp.
- 27: Island Golf Tournament.
- 31: New Years Dance at Volcano House.

Although there were undoubtedly many distinguished visitors with the American Express tour, I was unable to get in touch with them, as the traffic conditions due to the low clouds were such that I devoted all my time on public safety work for the day. All park employees, and five native police were used as traffic officers on the 19th, and notwithstanding the adverse conditions we handled the crowd without accident.

HAWAII NATIONAL PARK

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Dec 1925 -7-

Our most important visitor during the month was Governor Farrington, who spent a week on this island, three days of which were spent in the park. During his visit we had opportunity to discuss many of the questions affecting the future development of the National Park. It is fortunate that we have such a strong friend in Governor Farrington. It is likely that he will be in Washington during March in connection with various island problems that may be before Congress.

The following states and countries were represented among the visitors to the Hawaii National Park during December. Truly this would indicate that this is an "International" park, rather than a National Park.

California	Montana	British Columbia
Colorado	Nevada	Palestine
Connecticut	New Jersey	Germany
District of Columbia	New York	Guamland
Delaware	North Dakota	England
Florida	Ohio	Czechoslovakia
Hawaii	Oregon	Philippines
Illinois	Pennsylvania	Belgium
Indiana	Rhode Island	Ontario
Iowa	South Dakota	Central America
Kansas	Tennessee	Denmark
Kentucky	Texas	France
Maine	Utah	Holland
Maryland	Virginia	Spain
Massachusetts	Washington	Sweden
Michigan	West Virginia	Switzerland
Minnesota	Wisconsin	Japan.
Mississippi		India.
Missouri		China.

37 states, and 19 foreign countries.

IX COLLECTIONS AND REMITTANCES:

During December \$50.00 was collected from A.A. Scott for his rent on the private lease he owns within the park limits. This was remitted to the Washington office.

Respectfully submitted,

Thomas Boles
Thomas Boles, Superintendent.

3 copies Washington;
1 copy to Mr. Albright.
Inclosures: Volcano Letter 53
and Inter Island folder on -amc.

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Please send publications and news notes about volcanic matters
Address: HAWAIIAN VOLCANO OBSERVATORY, VOLCANO HOUSE P. O., HAWAII

THE VOLCANO LETTER

A Weekly news leaflet of the Hawaiian Volcano Research Association

Sent free to libraries and to members. Dues of Association \$5 per annum. Members receive in addition the Illustrated Monthly Bulletin of the Hawaiian Volcano Observatory. Anyone may join the Association and thereby support Pacific volcano research. The society has also patrons—individuals, firms and institutions.

NO. 53

RELEASED WITHOUT COPYRIGHT RESTRICTION

December 31, 1925

KILAUEA REPORT NO. 729

WEEK ENDING DECEMBER 30, 1925

Issued by the Observatory, U. S. Geological Survey:
T. A. Jaggar, Official in charge.

No renewal of activity nor of seismic action heralding activity has appeared after the December solstice at the Halemaumau lava pit of Kilauea volcano. Everything remains placid at the end of the year. At 11 a. m. on December 27th no rock falls were heard during a visit to the pit, and steam was abundant especially from the southwest half of the bottom region and walls. On the 29th a few small dust puffs rising from the cauldron during the day gave evidence of slides. Today, the 30th, dust in small amounts rises frequently, steam is conspicuous along the south rim of the pit and from the southwest half of the interior, and at the edge in the forenoon sulphurous odors were noticed, possibly hydrogen sulphide. On the northeastern wall above the great intrusive sill a coating of white sulphates has recently blossomed out on the face of the rock.

For the week ending December 30 nine local earthquake movements were registered on the Observatory seismographs, all too feeble to be perceptible. Tilting of the ground was slight towards the west.

COMPOSITION OF HAWAIIAN LAVAS

In a recent copy of the Extension Letter of the University of Hawaii attention was called to the fact that contrary to common opinion most vegetables raised in Hawaii contain as much iron as vegetables raised on the mainland. When one considers that the lavas of Hawaii contain from 5 to 15 per cent of iron and that some soils show even a higher percentage, it is to be expected that Hawaiian vegetables should not be deficient in iron.

Not only are there appreciable percentages of iron in Hawaiian lavas but a great variety of other minerals is also found. The following table shows an analysis by oxides of lava dipped from a molten lava lake at Kilauea. Its composition is quite typical of most of the recent flows from Kilauea and Mauna Loa.

Silicon	49.74	per cent
Aluminum	12.36	"
Iron	11.72	"
Magnesium	8.33	"
Calcium	10.88	"
Sodium	2.45	"
Potassium	0.55	"
Titanium	2.49	"
Phosphorus	0.41	"
Manganese	0.14	"

In addition to the above a great variety of other substances are found in varying amounts. Among the more common of these substances are sulphur, copper, selenium, chlorine, nickel, chromium, strontium, barium, vanadium, and molybdenum.

Besides the commonly observed olivine, an iron-magnesium-silicate, which sometimes constitutes 60 per cent or more of some lavas, a great variety of other crystals are found. Among the other crystals augite, magnetite, hematite and feldspars are common.

Frothy pahoehoe lava may well be termed an iron-stained glass. Hawaiian lavas are classified as basaltic though some specimens have been found that approach the acid types of lava, and quartz is not uncommon on Oahu.

R.H.F.

EARTHQUAKE INSURANCE RATES

It is interesting to observe that insurance specialists have called in engineers and geologists to secure revision of earthquake rates, increasing the charges in all cases except on wooden dwellings. National Underwriter, November 19, 1925, p 10). Immediately after the Santa Barbara and Montana earthquakes the schedule adopted was short and regardless of territory. Then the only consideration was nature of buildings, in three classes. Now there are six classes of building risks, and four specified districts.

The buildings in the order from least dangerous to more dangerous are (1) wooden dwellings, (2) first class stores, (3) limited size wooden houses, (4) second rate brick and concrete, (5) factory and frame constructions of masonry and some wood, (6) soft masonry, dams, reservoirs, bridges, etc.; each of these six classes being scheduled at greater length than is shown here.

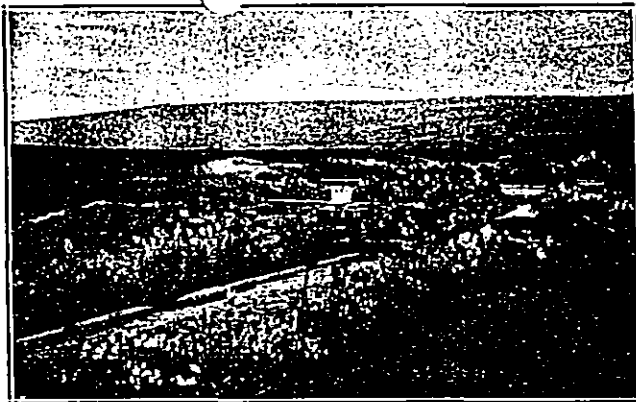
The districts for the Pacific Board of Underwriters are (1) Alaska and Nevada, lowest rate, (2) Interior counties California, next higher, (3) coast counties and Montana, and (4) Imperial, Riverside and San Bernardino, highest rate for the six classes, namely 15 cents for Class 1 buildings, and \$1.40 for Class 6, per thousand dollars of insurance. For district (1) the rates of these two classes are 7 cents and 65 cents. Contents of buildings and co-insurance and rents are also scheduled.

This rapid evolution of earthquake insurance shows how little is really known of the risk, what a gamble there is in the words "Alaska, Nevada, dams, bridges," and what a splendid field of research is here for the future of science and humanity.

T.A.J.

52,000 words of volcanic information if you save and bind the Volcano Letter

Hawaiian Time is 10h. 30m. slower than Greenwich HAWAII NATIONAL PARK



Tai Sing Loo Photo.
Kilauea Crater and Snow-capped Mauna Loa, Viewed From the Porch of the Volcano House

sugar cane, and tree ferns to the world-famous VOLCANO HOUSE, located on the brink of the enormous crater of Kilauea. From the porch of the Volcano House the visitors obtain a splendid view of Kilauea. Across a sea of dead lava is seen the yawning mouth of the fire-pit—Halemau-mau—constantly emitting clouds of smoke and steam; and to the right majestic Mauna Loa (13,675 feet) looks down in silent dignity.

Having obtained our rooms at the Volcano House, we again motor to view some of the wonders of the National Park, including Uwekahuna Bluff, Hawaiian bird park, lava tree moulds, and sulphur banks, and then return to the hotel for dinner and the night. During periods of great activity a trip is also made for a night view of the fire-pit.

Thursday or Sunday. About nine o'clock we leave the Volcano House by motor for a sightseeing tour through the Hawaii National Park. The road skirts the edge of Kilauea crater, and continues to Kilauea-Iki, an extinct crater which we stop to examine. Next we arrive at the "Twin Craters," where we again alight and walk down the excellent trail made of fern logs. The craters are almost entirely covered with giant tree ferns and form a most



Tai Sing Loo Photo.
Scenic Hamakua Coast



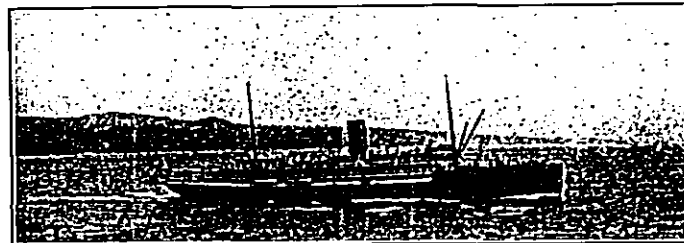
Tai Sing Loo Photo.
Coconut Island, Hilo Bay

charming picture. The trail leads to the lava tube, a natural tunnel, which is traversed for a few hundred yards by the aid of lanterns to a stairway leading through the roof of the tube to the trail which takes us back to our waiting auto. The drive again continues, passing on the left the dead crater of Keanakakoi, which is noted for its remarkably level lava floor. The road now gradually descends to the floor of Kilauea crater, and continues over recent lava flows to the edge of the fire-pit Halemau-mau (House of Everlasting Fire), where we gaze in silent wonderment at nature's endless toil. At three o'clock we return by motor to Hilo, again boarding the steamer "Haleakala," which departs for Honolulu at five o'clock.

Friday or Monday. Arrive Honolulu, Pier 12, at seven o'clock a. m.

THE COST OF THE ABOVE TRIP IS
 \$53.00, INCLUDING ALL EXPENSES.

NOTE.—For the convenience of those of our patrons who wish to make a complete tour of the Island of Hawaii, we have prepared a special booklet, which will be gladly furnished on application.



For further information, call, write or telephone
 TRAVEL DEPARTMENT
 INTER-ISLAND STEAM NAVIGATION
 CO., LTD.
 Honolulu, Hawaii

PRINTED IN HAWAII BY ADVERTISER PUBLISHING CO., LTD.

HAWAII NATIONAL PARK AND KILAUEA VOLCANO



Inter-Island Steam Navigation Co.
 LIMITED
 TRAVEL DEPARTMENT
 HONOLULU, HAWAII TELEPHONE 4941

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Tai Sing Loo Photo.

Tree Fern Drive, Hawaii National Park

Hawaii National Park and Kilauea Volcano

KILAUEA—Home of "Pele," Goddess of Volcanoes, is one of the most impressive and awe-inspiring spectacles in the world. Controlled by Nature's moods, its activity varies, but even in periods of comparative somnolence it presents a scene of primitive force and grandeur which no visitor to these Islands should fail to witness.

HAWAII NATIONAL PARK, which includes in its area Kilauea Volcano, is crowded with unparalleled natural wonders of amazing variety and absorbing interest — sulphur banks and steam crevices, ancient craters and lava tubes, giant tree ferns and koa forests, active and extinct volcanoes—all accessible and easily reached over the splendid roads and trails built by the National Park Service.

THE Volcano and Hawaii National Park are located on the Island of Hawaii, a short over-night journey by Inter-Island steamer "Haleakala" from Honolulu to Hilo (second largest city in the Territory), thence by motor thirty-one miles over excellent roads to the world-famous **VOLCANO HOUSE** on the brink of Kilauea crater.

The most popular trip to the Volcano for those of our guests whose time in the Islands is limited, is our three-day included cost tour, which has been specially arranged in order that visitors may see, in addition to the wonders of Hawaii National Park, something of the unsurpassed tropical beauty of the scenic Hamakua coast of Hawaii.

THREE-DAY TOUR HAWAII NATIONAL PARK and KILAUEA VOLCANO SCHEDULE

Trip "A"

Tuesday—Leave Honolulu - - - 5 p. m.
Wednesday—Arrive Hilo - - - 8 a. m.
Thursday—Leave Hilo - - - 5 p. m.
Friday—Arrive Honolulu - - - 7 a. m.

Trip "B"

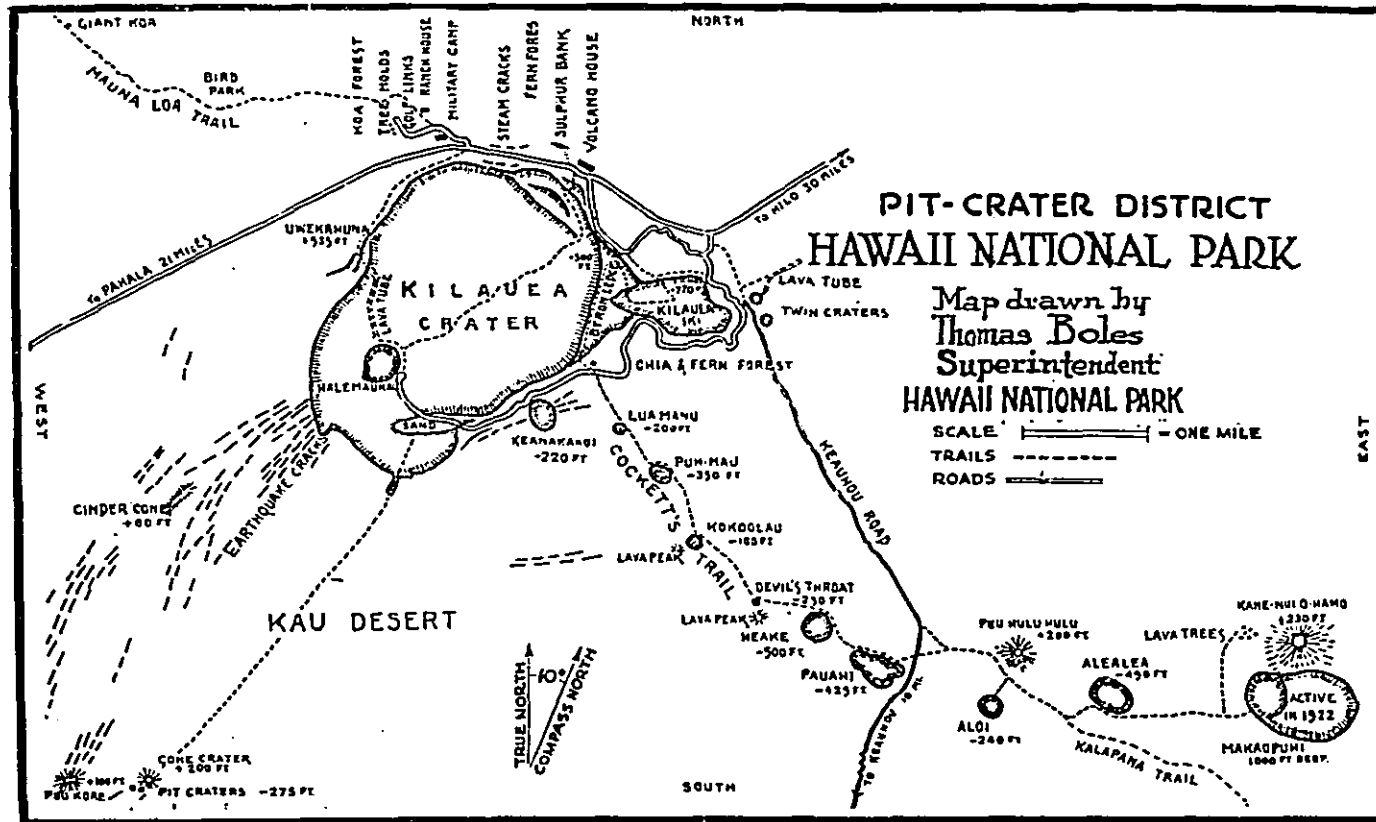
Friday—Leave Honolulu - - - 5 p. m.
Saturday—Arrive Hilo - - - 8 a. m.
Sunday—Leave Hilo - - - 5 p. m.
Monday—Arrive Honolulu - - - 7 a. m.

ITINERARY

Tuesday or Friday. Leave Honolulu by Inter-Island steamer "Haleakala," which departs from Pier 12 at five o'clock p. m.

Wednesday or Saturday. In the early morning the "Haleakala" steams close inshore along the beautiful coast of the Island of Hawaii, which is protected by deeply eroded verdure-covered cliffs with countless waterfalls tumbling down from mighty snow-capped "Mauna Kea," which proudly rises nearly fourteen thousand feet above the ocean. At eight o'clock we arrive at Hilo, disembark, and enter a special train for a charming trip along the scenic Hamakua coast, returning to Hilo at noon. Autos are waiting to take the party to the Hilo Hotel for luncheon.

The trip continues by motor to the Volcano, visiting first the "Rainbow Falls," thence through miles of tropical forest,



HAWAII NATIONAL PARK

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DEPARTMENT OF THE INTERIOR
NATIONAL PARK SERVICE
HAWAII NATIONAL PARK
HONOLULU, HAWAII

File

December 7th 1925:

Mr. Stephen T. Mather, Director,
National Park Service,
Department of the Interior,
Washington, D.C.

Dear Mr. Mather:--

The following report on the operation and activities of the Hawaii National Park during the month of November 1925 is submitted for your information and approval:

I GENERAL CONDITIONS:

There were no unusual conditions affecting travel to the Hawaii National Park during this month. November is always a light tourist month for Hawaii, and the condition of the highway between Hilo and the park, now under reconstruction, is not encouraging to local travel.

The efforts of the contractor to keep the highway open at all times during construction is quite commendable, although at times his efforts are hardly appreciated by persons using the road.

In addition to the two miles previously reported, there were six-tenths miles finished with asphalt-macadam during November, and as the rainfall is considerably below normal in this section they are making rapid progress with their paving. This asphalt-macadam will be covered with three inches of asphaltic-concrete during the coming year.

In addition to the regular passenger steamers calling at this island, we were visited on November 2nd by the S.S. CAPELTHORPE of the Cunard Line, with a party of 300 Around the World tourists in charge of the Raymond Whitcomb Company. While inside the National Park limits the visitors were handled on a schedule prepared by the Superintendent, which enabled them to see a great deal even within the limited time at their disposal.

*Roads
Visit*

Roads

Roads

Visit

4700

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Nov 1925-2

Weather

Weather: Taken all in all, November was a delightful month. The rainfall is below normal, there being less than six inches of rain during the entire month. Toward the end of the month the lack of rain began to be apparent in the vegetation; this soil here is so porous that unless we get frequent rains, the soil rapidly dries out, and creates a real fire risk in our grassed areas. Data as obtained by the Local Weather Station is as follows:

Mean maximum for November 1925	-----65.8°
Mean minimum	-----53.3°
Average for month	-----60.0°
Maximum during month	-----73 on 3rd
Minimum during month	-----49 on 29th
Greatest daily range	-----73° to 54°-----19 on 3rd
Total rainfall during November	----- 5.98 inches
Greatest within 24 hours	----- .96 on
Days with RAIN	---23; Days with TRACE---2 Days with NO RAIN---5
Days CLEAR	---4 Partly Cloudy---14 CLOUDY---12

Earthquakes: Of the 48 earthquakes registered during November only one was actually felt. The reporting of slight tremors from avalanches as 'earthquakes' by the Observatory in a printed weekly report distributed in quantities to hotels and travel agencies in Honolulu is not conducive to travel to this island. My attention has been called to a group of tourists in Honolulu who cancelled their trip to the Hawaii National Park when they read in the Honolulu papers that earthquakes were frequent over here. I inclose this week's issue of the "Volcano Letter" for your information.

II PERSONNEL: Park Force:

Number	Class	Work performed:
1	Supt.	Administration, supervision, disbursing, exploration;
1	Clerk.	Information and correspondence;
1	Ranger.	Nature guiding and sign painting.
1	Foreman.	General maintenance of roads, trails and buildings.
4	Laborers.	ditto; also traffic control on certain days.
		Total man-days charged to Park-----99

Survey Gang of Park Projects:

1 Assistant Engineer loaned by Bureau of Public Roads;
7 local employees in various capacities, including cook.
This gang was on the Island of Maui during the entire month.

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Nov 1925-3

III WORK IN PROGRESS:

Our park force was used in maintaining existing roads and trails in shape for the heavy rains which may come this winter. Sixty signs were painted for labelling trees in Kipuka Pauula (Bird Park), and these will be placed during December. In fastening these signs to the trees we drive a nail in the sign at the two upper corners and connect these two nails by a wire passing around the tree. As the tree grows, the wire tightens and pulls one of the nails out and drops the sign before there is any chance of the wire cutting into the bark. No nails are driven into the tree.

Roads
Dept. of Int.

Road Surveys: The engineering party of the Bureau of Public Roads spent the month of November on the island of Maui running preliminary lines for the proposed "ational Park Road to the summit of Haleakala Crater. These surveys extend from the rim of the crater near the West House down the outside of the mountain so as to connect with one of the existing county highways. We will be able to determine during the coming month as to what changes of park boundaries may be desirable, and will then base our requests for road money only on that portion of the road as will be entirely within the adjusted boundaries. This is being done by the Governor in accordance with the suggestions from Congressman Cranton and Taylor, both of whom felt that the Federal Government should stand the cost of the road to the summit, but were of the opinion that funds would be difficult to obtain unless something more than a "choestring" right of way would be deeded to the Department. The same condition would apply to our road connection the Mauna Loa Section of the park with the Kilauoa Section. Haleakala surveys were completed on December 4th, but data is not available to the Superintendent at this writing.

Roads
Dept. of Int.

I have just received blueprint of the alignment of the Mauna Loa Road, 35 miles long, and will confer with Governor Farrington and Land Commissioner ~~W. H. Bailey~~ Bailey soon in regard to the wide strip suggested by Messrs Cranton and Taylor in this section.

Roads
Dept. of Int.

The surveys authorized by our allotment of \$10,000 have been completed; only about \$6,000 has been paid out by me as Disbursing Agent, but I do not know how much has been paid or obligated by the San Francisco Office of the Bureau of Public Roads. It is possible that their expenditures are being vouchered through our Chief Engineer's Office, or through our Washington Office. It would be well to look into this, so as to avoid exceeding our allotted \$10,000.00

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Nov 1925 - 4

IV WORK COMPLETED:

Copy

Asphalt patching of the through highway between the Military Camp and the Park Entrance was completed during November at a cost of \$177.65 which includes the cost of 8 barrels of asphalt which we heated in the County Asphalt heater borrowed for the purpose. The holes in the oiled surface were mostly less than two feet across and averaged three or four inches in depth, but were widening under traffic. Smooth durable patches were obtained by squaring up these holes and filling them with crushed rock, sand, and hot asphalt, which should hold the top in good surface until we are ready to do some work on our Project No 3.

Visit of Park

In order to encourage travel to this island at a time when Kilauea Volcano is inactive, the Tourist Bureau is boosting the "Around Hawaii" trip; and the Inter Island Steamship Company has recently issued a pamphlet urging this trip. As seven miles of this "Around Hawaii" is within our park boundary it would be well for us to consider this as one of our early projects. The Territory is spending almost \$2,000,000.00 for a high class highway leading up to the park, and we would in turn show our appreciation if we could put this seven mile section in good shape. Four miles of our seven is in fairly good shape at present, but the other three miles are ~~xxxxx~~ narrow, and with a very abrasive surface. Of course we would not have to put in as expensive a highway as they are building, as practically all the travel stops at the Volcano House or the Military Camp, but we should consider building the same type as the Territory intend to build on that section of the road immediately BEYOND our park boundary.

Copy

V WORK PLANNED:

With the prospects of a visit by a Washington Office representative to the park next spring, I shall hold back on actual construction of several contemplated improvements, that I may have the advantage of a personal discussion on the ground at that time.

Sketch

The Observation Station overlooking Kilauea Iki Crater has been extended so that it will now accommodate at least one hundred persons without crowding. We have used peeled ohia logs for this purpose, crosscutting that part which goes in the ground, and using a green chingle stain on the upper portion so that these railings will not appear unduly conspicuous against the bordering foliage. The ohia is particularly adapted for this purpose, as it hardens rapidly with seasoning. Information signs are placed at all Observation Points, and I am considering erecting several locators of galvanized pipe.

Diagram

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Nov 1925 - 8

VI COST OF OPERATION:

Administration: 02 Superintendent-----\$250.00
 Clerk----- 60.17
 Labor----- 31.63 \$341.80
 0200 Station and Office Supplies----- 4.35
 0230 Fuel and Light----- 5.00
 0510 Telephone expense----- 7.00
 07 Trans of things----- 20.00 \$378.16

Protection: 01 Nature Guide and Crater Patrol----- 162.35

12 Repairs and Alterations:

 1200 Buildings-----\$20.00
 1210 Roads-----177.65
 1211 Trails----- 21.75
 1200 Equipment (Auto)----- 19.41 238.81

13 Special and Misc Current expenses:

 1307 Operating passenger auto----- 9.03

30 Acquisition of property:

 3030 Misc equipment (tools)----- 35.15

32 Structural Improvements:

 Railings at Observation points----- 26.75

 Total Park expenses-----\$649.82

ROADS & TRAILS APPROPRIATION: Haleakala Surveys:1

Definite figures not available: Estimated-----\$1,850.00

VII NEW POLICIES:

No new policies contemplated at this writing.

VIII OTHER MATTERS OF GENERAL INTEREST:

Volcanic activity: There seems to be less and less steam rising from the pit; this has a depressing effect on our park attendance, both local and from the mainland. I will quote from this week's issue of the Volcano Letter as distributed by the Volcano Observatory:

"There has been nothing whatever of volcanic activity in the Hawaiian pits this week" and "Haleakalana, at Kilauea, continues to sleep."

Page 11.

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Nov 1925 - 6

Visit

New Steamer Ordered; The steamship "Holoakala" placed in service some two years ago by the Inter Island Steam Navigation Company to handle travel between Honolulu and the Island of Hawaii proved somewhat a disappointment on account of the excessive vibration caused by overpower. They have now placed an order for an even larger steamer designed especially for this run. This ship should be completed and placed in service early in 1927, at which time the "U.S. Holoakala" will be transferred to the run between Honolulu and the Island of Hawaii.

Visit

Publicity: During the past month the Hawaii National Park has been favored with some excellent publicity, and I will mention in particular the following articles:

New York Times, by Mr Leroy Jeffers; it is remarkable how much of his subject Mr Jeffers is able to present in a few words. His visit here was quite brief, and I look forward to the time when he can spend a couple of weeks at least within the park limits.

Rock Island Folder, in which an invitation to visit the Hawaii National Park is attractively presented.

Inter Island Steam Navigation Co; detailing the trip Around the Island of Hawaii. Ample notice both in text and maps, is given the Hawaii National Park. Up-to-date illustrations used.

Christmas issue of the "Paradise of the Pacific" an unusually large edition was printed of this issue, and it will have wide-spread distribution throughout the states. Many four-color cuts are used; this issue contains a well written story about the local lava tubes, written by Mrs Sinclair, formerly Miss Barrett who acted as a Park Ranger two seasons ago.

Professor Jagger's contribution to this issue was in poetry, instead of his customary scientific article on the volcanoes. The Superintendent contributed a brief resume of the park work for the past year, ending his article with an invitation for the public to visit the park. Unfortunately this portion of the article was eliminated from the published story.

Good

Housekeeping

Everybody's Magazine for November contained quite an article on Hawaii by Mrs Francis Parkinson Keyes (wife of the Senator) in which suitable mention was made of the National Park. Mrs Keyes was quite sick at the time of her visit here, and I was agreeably surprised that she was able to obtain a favorable impression.

Aloha Magazine, issued monthly by the Matson Navigation Co of San Francisco contained a well written and illustrated article on the Hawaii National Park. During the visit of their Mr Bixby last fall I stocked him up with a collection of up to date park photographs.

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Nov 1925 - 7

"Volcanoes of Hawaii" printed in Portuguese and issued by the Geographic Society of Lisbon. Several of the cuts were from prints furnished by the Superintendent, one showing our good friends Judge and Mrs Raker standing on the rim of the lake of fire.

We now have on file an attractive collection of up to date negatives, mostly post card size, showing the park features as they are today, with our roads and trails in first class shape, and with modern visitors in modern hiking togs. With these I hope to supplant the widely distributed photographs of dignified ladies scorching postcards at the hot cracks, said ladies arrayed in natty sailors and with big sleeves and bustles, indicating a period of about 1890.

Vital Statistics: On December 4 a girl was born in the Hawaii National Park to Mr and Mrs Ernest Lux, an employee at the Miluaea Military Camp.

Fishing near Hawaii National Park:

Although this park has only one body of water, there was a caught near the park last month a fish which must make the folks at Yellowstone and Yosemite feel green with envy. On Thanksgiving Day a local Japanese fisherman in his sampam, caught with hook and line a swordfish twenty-five feet long, weighing 1053 pounds, possibly establishing a record for hook and line catch. Each month about twenty swordfish are caught locally that weigh from 300 to 400 pounds, and last year one was landed that weighed approximately 1000 pounds; but to land one that weighs 1053 pounds is certainly an event of general interest.

Attendance: The feature of November was the visit of the S.S. Carinthia with 300 tourists; they were favored with excellent weather conditions, and seemed well pleased with their visit. During November only 2450 persons visited this park; this is always a light travel month, and the the rough high tributary to the park kept down local travel. Among the more prominent visitors were:

Mr Pybus of the London Times, formerly Secretary to Lloyd George;
Mr Cauldwell, of the Pathé Company, accompanying Mr Pybus;
Dr George C Poundstone, photographer and lecturer of Chicago.
Mr Booths, Editor from Ironton Ohio, compiling Hawaii stories.
Mr and Mrs Meldon Sanders of Chief Engineer's Office, Portland.

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Nov 1925 -8

The following states and countries were represented in our November attendance. I was unable to get a steamer list of the "Carinthia" or this list might have been more extensive.

Arkansas	Hawaii	New York	Canada
California	Illinois	Ohio	England
Connecticut	Louisiana	Penna.,	Japan
Dist of Columbia	Mass.	Washington	Phillipines
Georgia	Missouri	Wisconsin	
	16 states	Wyoming.	4 foreign.

IX COLLECTIONS AND REMITTANCES:

During November the following amounts were collected from owners of private leases within the Hawaii National Park, and remitted to the Secretary through our Washington Office:

Mrs. Thomas A. Jagger-----	\$25.00	
Mrs. W. H. H. Smith-----	25.00	
Mr George Richardson-----	25.00	
Japanese Transportation Co-----	25.00	\$100.00

Respectfully submitted,

Thomas Boles
Thomas Boles, Superintendent.

3 copies Washington
1 copy to Mr Albright.

Inclosure Volcano Letter No 49.

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DEPARTMENT OF THE INTERIOR
NATIONAL PARK SERVICE
HAWAII NATIONAL PARK
HONOLULU, HAWAII

FILE.

Superintendent's Office;
Volcano House, Hawaii, USA.
November fifth 1925.

Mr. Stephen T. Mather, Director,
National Park Service,
Department of the Interior,
Washington, D.C.

Dear Mr. Mather:--

The following report on the operation and activities of the Hawaii National Park during the month of October 1925 is submitted for your information and approval:

I GENERAL CONDITIONS:

The general conditions affecting travel to this park were about the same as usual. October and November will always be light travel months here, as the tourists from the mainland usually defer their winter trip to the islands until after Christmas. The rainy weather and the condition of the county highway leading to the park also had a deterrent effect on our local travel.

Work is continuing on this county road, and as they are handling traffic over the road during construction, and also doing their own heavy trucking over it, the surface is rather rough. However it is much better than were the detours used during a previous construction period.

Two miles of this contract is now finished with ^{asphalt} ~~macadam~~ -macadam, and practically all their grading is completed; so that from now on the surfacing will be quite rapid. As previously informed, this asphalt-macadam will be covered with a wearing surface of 3 inches of asphaltic-concrete.

Outside of the regular steamers calling at this island, only two or three mine-sweepers visited our port. We will have two World Tours here next month; one Raymond-Whitcomb, and one American Express. On October 20th the SS City of Los Angeles brought over 200 visitors, 130 of whom were members of the Los Angeles Chamber of Commerce, in charge of our friend Mr. Charles Bayer, Excursion Manager.

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Weather:

Although our rainy season is due to arrive October first, we had only two really big rains, although there was no day during the month that registered No Rain. Weather data as recorded by the local station of the Weather Bureau is as follows:

Mean maximum for October 1925-----69.6°
Mean minimum-----54.1°
Average temperature for October-----61.8°
Maximum during month-----78.0 on 13th and 3rd
Minimum during month-----52.0 on 20th.
Greatest daily range--78 to 55-----23. on 3rd.
Total rainfall during October----- 5.16 inches
Days with RAIN--23 Days with TRACE--8 Days with NO RAIN--0
Greatest within 24 hours----- 1.88 inches on 13th
Days CLEAR--7 Party Cloudy--15 CLOUDY--9

Earthquakes:

51 earthquakes registered during October, only one of which was perceptible. These earthquake reports are grossly misleading, as every time a few rocks fall into the crater it registers on the nearby seismograph, and is advertised as an "earthquake!"

II PERSONNEL:

"Park Force"

Number.	Class.	Work performed:
1	Supt.	Administration, Supervision, Disbursing, Reconnaissance.
1	Clerk.	Information and correspondence.
1	Ranger.	Nature guide, and sign painting.
1	Foreman.	General maintenance, roads, trails, and bldgs.,
5	Laborers.	General maintenance, also traffic control on big days.

Total man days chargeable to Park-----140.

"Survey Gang of Park Road Projects"

1 Assistant Engineer loaned by Bureau of Public Roads.
7 Local employees used in various capacities on survey gang.

III WORK IN PROGRESS.

Our park force is used in maintaining existing roads, trails, and buildings, and getting things in shape for the heavy rains which will come during the next few months.

Weather

*Some
in now.*

Handwritten: Road

Road Surveys: Highway Engineer Kittredge returned to this island early in the month and revised the location of the lower end of the proposed Mauna Loa Road so as to avoid the pasture lands owned by the Bishop Estate. During the visit of Congressmen Taylor and Cranton they intimated that it would be difficult to obtain money for construction of park roads unless the Government was given a strip of land at least one mile on each side of the proposed road. Heretofore we had assumed that a mere strip of say 30 feet wide would be sufficient, but we were warned by Congressman Taylor that this would surely cause an objection in the Committee.

The new location will be almost entirely on lands owned by the Territory of Hawaii, who will be willing to deed the Government a two mile strip, or more if we request it. This will be greatly to the advantage and simplification of future administration of the Hawaii National Park.

Surveys of the Mauna Loa Road were complete on October 21st, and during the last week of the month the survey gang was used in running levels and alignment along our present Project No 1 to the Volcano, so as to have this data available should we decide later on to make further revision of this road.

On November 1st the survey gang moved to the Island of Maui to begin surveys for the proposed National Park Road up the slope of the Volcano of Haleakala. When this survey is completed we will be in a position to adjust our present paper boundaries of that section of the park. This survey should not require over four weeks to complete the field work.

IV WORK COMPLETED:

Handwritten: Street

During October we dismantled the Refreshment Stand of the American Legion, located near the volcano for the convenience of the visiting sailors. This building was purchased by the Park Service for \$100 in September, and at a cost of \$20 more we salvaged all the lumber and roofing, and have stacked it in our material yard near the Paint Shop. This material, when freight is included, would easily have cost us \$300. and will enable us to make quite a saving on such structures as we will build during this year.

Handwritten: Street

A small magazine capable of storing 500 lbs of explosives was built during October. This is entirely below the surface of the ground, and is well drained, and is so located that no damage should occur in case of accidental explosion. As a matter of fact there will seldom be over 100 pounds of explosive in this magazine, and this at all times will be unseed lock and key.

Handwritten: under

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V WORK PLANNED.

The Around-the-Island highway passing through the park is rather rough in several places, due to the oil surface, applied some six year ago, wearing out in holes. As the County is dressing up their road on either side of the park it makes our road show to quite a disadvantage. During the coming month I will patch these holes with hot asphalt, borrowing a heater and equipment from the county for this purpose. I will obtain sufficient asphalt from the county at cost. By fixing these holes in this manner it will insure a fairly smooth surface for this road at least until such a time as the Park Service is ready to resurface this section of road as our Project No 5.

VI COST OF OPERATION:

Administration:	01 Superintendent	-----	\$250.00	
	Clerk	-----	63.33	
	Labor	-----	37.12	350.45
	0200 Staty and Office Supplies	-----	13.70	
	0250 Fuel and Light	-----	5.00	
	0500 Telegraph expense	-----	1.00	
	0510 Telephone expense	-----	6.90	
	06 (All charged to Road Appn)	-----		
	07 Freight and drayage	-----	10.11	\$367.16

Protection:	01 Guide and Grater Patrol	-----		182.33
-------------	----------------------------	-------	--	--------

12 Repairs and Alterations:				
	1200 Buildings	-----	27.50	
	1210 Roads	-----	100.00	
	1211 Trails	-----	57.28	
	1280 Equipment	-----	3.84	
	1290 Grater Rim Safety	-----	40.00	228.09

13 Special & Misc Current expenses:				
	1367 Operating passenger auto	-----		19.75

3050 Acquisition of Equipment:				
	First Aid kits	-----	14.75	
	Adding Machine	-----	195.00	209.75

33 Structures:				
	Powder Magazine	-----	9.69	
	Salvaging bldg materials	-----	20.00	29.69

Total Park expense ----- \$1,056.77

ROADS & TRAILS 1925-26 Appn:

October expenses charged to cost of surveys ----- \$1,033.92

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VII NEW POLICIES.

No new policies contemplated at this writing.

VIII OTHER MATTERS OF GENERAL INTEREST:

See 10/11
Volcanic Activity. Nothing to report. The steam from the interior of the crater and from the earthquake cracks nearby appear to be getting weaker and weaker. However the scientific definition of an "Active volcano" is one which has shown activity within 200 years; so we may truthfully continue to advertise Kilauea as an active volcano.

Surveys on Haleakala:

*Found
Franklin*
On October 8th I accompanied Highway Engineer Kittredge to the Island of Maui, where we were joined by District Engineer Wheeler of the Bureau of Public Roads. We made the trip to the summit of Haleakala accompanied by the County Engineer, and while the two men from the Bureau of Public Roads flagged out a route from the Rest House toward Olinda, I made an independent reconnaissance of the rim of the crater to locate suitable observation points convenient to the turns on the proposed roads up the slope of this mountain. Although the sunrise and sun sets were nothing out of the ordinary on this trip, we were favored with a magnificent spectacle of the ~~Broken~~ Broken. As one stands on the western rim of this high crater, with his back to the setting sun, his shadow is projected on the clouds on the opposite side of the pit and magnified to gigantic proportions, and is surrounded completely with brilliant halo, or circular rainbow. A curious thing is that one can see only their own shadow, and cannot see the shadow of anyone else, even though other persons are standing within a few feet to his right or left. If you have seen the painting of "The Transfiguration" you will have a fairly good impression of the weird or supernatural appearance of this phenomenon.

Franklin
This is my third trip to the summit of Haleakala, and each time I am more enthusiastic over this park of the Hawaii National Park, and convinces more and more that this section is entitled to early consideration in our road projects. It is a guaranteed attraction, and is not dependent on the intermittent performance of some one feature like Kilauea. And in view of the fact that Haleakala had a lava flow in 1750 (it is still entitled to be rated as an "active volcano").

Sh...
Elaborate enlargement of the Summit Rest House are under way, and will be completed within two months. The rest house will then be able to accommodate one hundred persons, with comfortable sleeping accommodations, and suitable kitchen and dining room. They now have a telephone in the Rest House, but we found this to be more of an annoying nuisance rather than an accommodation.

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Attendance:

During October the Hawaii National Park was visited by only 2875 persons, and I cannot expect many more than this during the coming month with the existing conditions of tourist travel and with our local travel handicapped by rough roads tributary to the park.

Among our more prominent visitors were:

Hon. Theodore Douglas Robinson, Assistant Secretary of the Navy.
Colonel Bicknell, Vice Chairman of the American Red Cross,
Mr Ralph Parker, Special writer for Dearborn Independent,
Mrs Credd, of Credd Travel Bureau of Mexico City.

During the visit of the Los Angeles Chamber of Commerce one-hundred and thirty of them responded to my invitation to hike over the "World's Weirdest Walk"

IX. REMITTANCES:

In October \$80 was collected and remitted direct to Washington as rents on leased lands within the Hawaii National Park.

Respectfully submitted.,

Thomas Boles

Thomas Boles, Superintendent.

3 copies Washington
1 copy to Mr Albright

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Additional sheet for October 1925 report:

During the month of October 1925 visitors from the following states and foreign countries registered in the Hawaii National Park:

California	Idaho	Minnesota	Japan
Colorado	Mississippi	Oregon	Scotland
Dist of Columbia	Missouri	Pennsylvania	Philippines
Hawaii	Nebraska	Texas	England
Illinois	New Jersey	Utah	New Zealand
Massachusetts	New York	Washington	Australia
Michigan	North Carolina	Wisconsin	Canada
			Germany.

21 states or territories, and 8 foreign countries.

Among the more prominent visitors during the month, in addition to those mentioned on a previous page, was the Hon. R. F. McClellan, Chairman of the Board of Supervisors of Los Angeles County, who appeared greatly interested in the development of this park. Mr McClellan remarked on the assistance he had received from the National Park Service, especial from the Director, in the planning of their parks in Los Angeles.

Thomas Baker
Superintendent.

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DEPARTMENT OF THE INTERIOR
NATIONAL PARK SERVICE
HAWAII NATIONAL PARK
HONOLULU, HAWAII

FILE,

Superintendent's Office;
Volcano House, Hawaii, USA.
October fifth 1925:

Mr. Stephen T. Mather, Director,
National Park Service,
Department of the Interior,
Washington, D.C.

Dear Mr. Mather:-

The following report on the operation and activities of Hawaii National Park during the month of September 1925 is submitted for your information and approval:

I GENERAL CONDITIONS:

The general conditions affecting travel to this park were about the same as usual. At the beginning of the month there was almost a complete exodus of Island people from the hotel and private cottages in this neighborhood, caused by the public school term beginning on September 1st.

Road Mather
Portions of the newly graded highway between Hilo and the National Park were in a deplorable condition during this month, and this had the effect of almost stopping our regular week end visitors from making the trip, as they did not wish to take a chance of breaking their auto springs. Although the rains at the Park were not heavy, still at one point where this highway was under reconstruction they recorded 16 inches of rain during 24 hours. Approximately one mile of this highway is finished with asphalt macadam, but within the next year this will receive an additional wearing surface of 3 inches of asphaltic-concrete, which will take up all irregularities of subsidence of the newly built roadbed. This reconstructed road including paving is costing the Territory \$50,000 per mile, of which \$15,000 per mile will be received from Federal Aid.

Ball
It is well to remember however that this Territory Road is being built through a portion of the island noted for its continuous rains; at no place within the Hawaii National Park will we encounter such conditions, but I am afraid that the difficulties encountered by the contractor on this road may cause higher bids to be received by us on our internal park roads.

HAWAII NATIONAL PARK

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Weather: September is unquestionably the best month in which to visit the Hawaii National Park; not only are our rains comparatively light, but even the vegetation seems at its best. Our "rainy season" begins with October 1st. Weather data as recorded by our local station of the Weather Bureau is as follows:

Mean maximum for September 1926-----	71.6°
Mean minimum-----	56.3
Average temperature for September-----	64.0°
Maximum during September----- (A RECORD)---	82.0° 14th
Minimum during September-----	54.0° 20th
Greatest daily range; 82° to 57°-----	25. ° 14th
Total rainfall during month-----	2.55 inches
Greatest within 24 hours-----	.95
Days with RAIN--18 With TRACE---10 NO RAIN----0	
Days CLEAR---- 7 PARTLY CLOUDY-17 CLOUDY---- 6	

EARTHQUAKES: Of the 107 earthquakes registered during the month, only 2 were perceptible.

II PERSONNEL:

	PARK FORCE:	
Number;Class;	Work performed:	
1 Supt.	Administration and supervision; disbursing;	
1 Clerk.	Information; correspondence; reports;	
1 Ranger.	Nature guide; and sign painting.	
1 Foreman.	Road maintenance, and general repairs.	
6 Laborers.	General maintenance. Also traffic control on big days.	
	Total man-days-----	167

SURVEY GANG on PARK PROJECTS:

- 1 Assistant Highway Engineer loaned by Bureau of Public Roads.
- 8 local employes used in various capacities on survey gang.

III WORK IN PROGRESS.

Our park force is used in maintaining existing park roads, trails, and buildings.

Surveys: The survey gang working under the direction of a Highway Engineer assigned from the Public Road Bureau have completed one line connection the summit of Mauna Loa with the Kilauea Section of the Park. It is probably that one or two more lines will be run between these two sections so as to touch as little as possible the grazing (?) lands along this route, the inclusion of which in our extended boundaries would be expensive to the Territory, and involve administrative difficulties for years to come.

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IV WORK COMPLETED: Nothing to report:

V WORK PLANNED: Nothing planned for the immediate future;
 Our rainy season begins now, and we will
 use our small force in holding our present roads in the excellent
 condition they are today.

VI COST OF OPERATION:

Administration:	01	Superintendent-----	\$250.00	
		Clerk-----	60.17	
		Labor-----	28.87	\$339.04
	0200	Staty and Office supplies-----	11.04	
	0230	Fuel and Light-----	5.00	16.04
	0500	Telegraph expense--2 mos-----	15.92	
	0510	Telephone expense-----	8.00	23.92
	06	Travel expense-----		15.60
	07	Transportation of things-----		7.91
Protection:	01	Guide and Crater Patrol-----		182.33
12 Repairs and Alterations:				
	1200	Buildings-----	29.13	
	1210	Roads-----	118.60	
	1211	Trails-----	80.94	
	1280	Equipment (Pass auto)-----	1.35	
	1290	Crater Rim safety-----	70.00	300.02
13 Special & Miscel current expenses:				
	1387	Operating passenger vehicles-----		13.22
30 Acquisition of property:				
	3010	Furniture, etc (desk light)-----	2.50	
	3050	Other equipment (brief case)-----	7.50	10.00
32 Structures and parts:				
		Lumber and galv roofing for stock-----		100.00

Total September 1925 expenditures---\$1,008.08

(Expenditures from Roads & Trails Appron
 not included in above items)

VII NEW POLICIES:

Our present policy appears satisfactory. We are living up
 to Secretary Work's injunction to "make friends for the Interior De-
 partment."

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VIII OTHER MATTERS OF GENERAL INTEREST:

Volcanic activity: Notwithstanding our 108 earthquakes, this was a dull month indeed from a volcanic standpoint. Even the steam jets from the bottom of the pit appear to be weakening. The few rock falls from the sides of the crater are not to be compared with the spectacular avalanches of the previous months. The walls of the crater are vertical for several hundred feet, but are so cooled off that there will be but little scaling off from ~~the~~ them from now on. It is customary to predict activity in the volcano around the equinox, but even this critical period passed off without event.

Fleet Visit:

On their return from the Antipodes, the Battleships New Mexico, Pennsylvania, and Idaho stopped at Hilo for a couple of days. The Battleship Mississippi going direct to Pearl Harbor from Australia, and did not visit our port. Although there were some 5000 men on these three ships, only 1500 availed themselves of the low auto rate (\$3) to visit the volcano.

Each battleship detailed one officer and six Shore Patrol to act as Park Rangers during the visit. These men boarded at the Military Camp, and were handled around the park in our park equipment. Assignment were changed during the middle of each day, so that even the temporary rangers got to see all points of interest.

After the last car had departed, Rear Admiral McDougal called at my office, and was profuse in his expressions of appreciation of the courtesy shown the Navy men by the National Park Service. On behalf of the Park Service I in turn thanked him for the cooperation we had received from the Navy, and assured him that we would always welcome an opportunity of having the Navy again as our guests.

To Admiral Coontz and Rear Admiral McDougal must be given most credit for the ease in handling the 20,000 Navy visitors to the Hawaii National Park during the past summer. The utilisation of their Shore Patrol as Park Rangers simplified the handling of these crowds far more than we could expect from the use of non-Navy Rangers.

Attendance:

The regular attendance for this Section of the park during September was small indeed; but this has been boosted by the 1500 sailors during the month, and the including of the 1200 visitors to Haleakala during the past season, making our September attendance 4430 persons. This brought our Season Attendance up to 64,155 a handsome increase over the 52,110 of last year, thanks to the United States Navy, rather than to our fickle Kilauea Volcano. I had hoped to attain a record of 65,000 which I felt would stand for many years; but at that, with "no fire in the pit" I believe the 64,155 will stand our high mark for many years. However as soon as our "Chain of Craters" road is completed I believe we will show at least a twenty percent increase in attendance.

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Among our more prominent visitors were:

Honorable Wallace R. Farrington, Governor of Hawaii.,
Honorable Raymond C. Brown, Secretary of Hawaii.,
Judge Sanford B. Dole, Ex-President of Hawaii.
Mr. Lorrin A. Thurston, "Father of the Hawaii National Park"
Rear Admiral McDougal, of the United States Navy.,
Mr Samuel G. Blythe, of the Saturday Evening Post.,
Mr. Robert H. Davis, Managing Editor Munsey Publications.,
Mr. Alex. McM Welch, Director, American Scenic & Historical Soc.,
Mr. James G. Ralston, Special writwr for Sunset Magazine.

It was my pleasure to accompany Mr Blythe and Mr Davis, and later Mr and Mrs Welch, on the "World's Weirdest Walk" across the lava, and on their drive through our Fern Jungle, and each seemed greatly surprised as well as pleased at what we have to offer in the way of scenic attractions.

Governor Farrington, and later Mr Thurston, accompanied me around the park in my auto, and were greatly impressed with the work recently done by the National Park Service in the improvement of these roads, especially the safety work on the curves, and the preservation of the bordering foliage.

Mr Thurston has a "fatherly interest" in this park, and I was greatly pleased over his expressions of commendation about the administration and development of the park, and spend some hours in discussing with him our plans for the future.

Mr Ralston was furnished with a set of late photographs taken in the Park, and he is to write up this area in the Sunset Magazine within the next few months.

IX REMITTANCES:

\$450 collected from Kilauea Volcano House as rent, and remitted on September 30th direct to Washington.

Respectfully submitted.,

Thomas Boles
Thomas Boles, Superintendent.

3 copies Washington;
1 copy to Mr Albright.,

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During September 1925 the following states and countries were represented on the Hotel register. Undoubtedly if we were able to classify the Navy visitors we would be able to show visitors from every state in the Union.

Alabama	Hawaii	Mississippi	Australia
Arizona	Illinois	Missouri	Canada
Arkansas	Kansas	New York	England.
California	Louisiana	Oregon	Holland
Colorado	Massachusetts	Pennsylvania	Japan
Dist of Columbia	Michigan	Wisconsin	New Zealand
Florida	Minnesota.	(20)	(6)

Superintendent.

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DEPARTMENT OF THE INTERIOR
NATIONAL PARK SERVICE
HAWAII NATIONAL PARK
HONOLULU, HAWAII

FILE

Superintendent's Office;
Volcano House, Hawaii, USA.
April ninth 1925.

Hon. Stephen T. Mather,
Director National Park Service,
Department of the Interior,
Washington, D.C.

Dear Sir:--

The following report on the operation and activities of Hawaii National Park during the month of March 1925 is submitted for your information and approval:

I GENERAL CONDITIONS:

The general conditions of tributary highways and steamship lines serving the Hawaii National Park is unchanged. The almost continuous rains during March had a bad effect on local travel, and even the tourist travel was hardly up to standard during the month. The ceremony staged at the rim of the volcano on the evening of the 21st drew an immense crowd mostly from the surrounding country, and enabled us to make a fair showing in attendance. Two small gangs are at work on the new highway being built between Hilo and the Park, but the detours are short and of little inconvenience to auto travel.

Wet Weather

Weather: After two comparatively dry months our rainy season has at last arrived, as attested by the 18.40 inches of rain during March; this of course affected local travel, and made our own road work a little slow, but there was no damage from washing or scouring. The official data as reported by the local station of the Weather Bureau follows:

Weather

Mean maximum for March 1925	67.8°
Mean minimum	51.1
Average for the month	59.4
Maximum during March 1925	73 on the 11th
Minimum during March 1925	49 on the 31st
Greatest daily range	22° 72 to 50 on the 16th;
Total rainfall	18.40 inches
Greatest in 24 hours	3.28 on the 7th
Days with .02 or more rainfall	27
Days with Trace	3
Days with NO RAIN	1
Clear days	4
Partly cloudy	9
Cloudy	18

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March 1925-2

W. P. H.
The summits of both Mauna Loa and Mauna Kea were partly snow capped during the entire month:

Earthquakes: Of the 71 earthquakes recorded during March, only five were of sufficient strength to be noticed; most of the others were probably caused by avalanches from the walls of the crater.

II PERSONNEL:

Number: Class: Work performed:

1 Supt. Administration; Engineering; Supervision
1 Ranger: Guide work and sign painting:
1 Clerk: Information; correspondence; reports:
~~1~~ 50 Laborers: Mostly on Road Work, Project No 1; also traffic
Control on big days: Total number of man days-----621 1/2

III WORK IN PROGRESS:

Read
Notwithstanding our almost continuous rains, two gangs have been kept at work on reconstructing the road between the Volcano House and the Volcano. One small gang working ahead clearing off the brush and loose rocks; and the other gang removing the earth and rock in widening the roadway around sharp curves. Rented trucks are used to haul the waste material to where it is used in widening embankments from its present roadway of 12 feet, to 20 feet on curves and 16 feet on tangents. A road roller is badly needed, but we will be unable to rent one until the latter part of next month, at which time the County hopes to release their seven-ton gasoline roller.

IV WORK COMPLETED:

Good progress; but nothing entirely completed during March:

V WORK PLANNED:

R. H. H.
Nothing new planned. We will continue work on this reconstruction job, so that the more dangerous places will be eliminated before the visit of the United States Fleet with its personnel of 45,000 officers and men. They are now scheduled to reach us by the middle of May. It is desirable to keep our men steadily at work, even during bad weather, in order to keep these men from the contractor who is building the concrete highway a few miles outside the park; as soon as he puts on larger gangs he may boost the labor price. However the County officials have always closely cooperated with the Park Service on our work here, and if necessary they will shift one or more of their road gangs on to our work; we of course assuming the payroll.

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March 1925 -3

VI COST OF OPERATION:

Administration: 01	Superintendent's salary-----	\$250.00
	Clerical-----	62.00
0200	0230 Light service-----	5.00
0510	Telephone service-----	7.50
07	Trans of things:-----	.90
		325.40
Protection: 01	Guide and Crater Patrol-----	172.33
12 Repairs & Alterations:		
	1280 Pass carrying vehicles-----	11.40
13 Special & Misc Current Expenses:		
	1387 Operating Pass Carrying vehicles-----	11.03
32 Structural Improvements: Labor on Toilets:-----		30.00
	Total -----	\$ 550.16
Labor and Materials: Road Project No 1-----		2222.83
	Total March 1925 expenditures: \$2772.99	

VII NEW POLICIES:

No new policies.

VIII OTHER MATTERS OF GENERAL INTEREST:

Volcanic activity: The heavy rains seem to be extinguishing our volcano, as hardly any steam clouds rise from the crater. Up to this month even a small rain was followed by a magnificent steam cloud rising from the crater, at times extending upward 5000 to 6000 feet. Even our few avalanches cause but little dust clouds; probably the crater walls are too cool to evaporate the rain that falls on to them, consequently but little dust forms when parts of the walls crumble into the pit. Even Dr Jaggard seems pessimistic about the future of this volcano, although like all scientists he is quite reticent about making any statement which might be construed as a prediction. He did state that "something might happen about the spring equinox" (March 20th), but remained in Honolulu during this supposed critical period, and at the same time missed our big show at the rim of the volcano when our group of natives were imploring Goddess Pele to send back the molten lava. Dr Jaggard is now enroute to New York and Washington for a several weeks trip; this may be a good omen for our volcano, for during the past three years most of the spectacular activity of Kilauea has happened during Dr Jaggard's absence from the Park.

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March 1925 -4

W.P.

Native Ceremony at the Volcano: The biggest event in the Hawaii National Park during the past month was the performance of ancient rites and dances at the rim of the volcano by trained group of natives, and the incantations and chants of the four venerable kahunas (native witch doctors) in the efforts to persuade Goddess Pele to return to her home in the lake of molten lava, so that there would no longer be any suspense about imminent explosive eruptions. This event has been fully described in the newspapers, clippings of which have been sent to the Washington Office, and need no repetition in this report. The ninety year old Kahuna who was master of ceremonies claims to have caused the lava to return on two former occasions, and although nothing more exciting than a small avalanche resulted from his recent incantations, he assures me that it is but a question of time that the lava will return, and all will be well again. If he proves up OK, I think we should waive the age limit, and place him on our regular staff.

W.P.

As a ceremony or pageant I believe this performance measured up to the Rip Van Winkle play in Socoma, or the Return of the Old Timer to Yello stone; or the weird dances of the Indians at Grand Canyon, and much favorable publicity will result therefrom. By actual count 2195 persons entered the Hawaii National Park on March 21st, an attendance record which may stand for some time to come. The 432 autos were handled and parked without accident. I hope we do as well during the coming visit of the United States Fleet this summer.

W.P.

The only groups not enthusiastic over this native ceremony were the ministers and the scientists, each of whom felt that their life long efforts would be lessened in case molten lava should apparently return to the crater in response to the incantations and chants. As a matter of fact these old kahunas will undoubtedly get a lot of credit even if the lava should reappear within the coming year.

W.P.

Moving Pictures: Two moving picture operators obtained view in the park during the past month under our regulation permit. Mr Aldrich of Honolulu was here only during the ceremony, and immediately returned to Honolulu and had his movies on the screen within three days. These may appear in news bulletin releases in the states. Watch for them.

W.P.

Mr Gilmore representing the Prisma Color Company of New Jersey arrived the same day, but owing to the fact that very bright light conditions are required for his color films, he did not try for much at the ceremony; this is to be regretted, for the brilliantly colored capes and gowns of the natives would have made a colorful picture against the background of slowly rising steam from the crater. Mr and Mrs Gilmore however remained on this island for three weeks, and although it rained every day during his visit, he tells me he got some very satisfactory exposures. One that was especially pleased for him to get was a movie of autos driving through our Fern Jungle. This, when shown, should be excellent publicity for our park, a thing which I cannot say about his pictures of the volcano with its few columns of wispy steam rising from the empty fire pit.

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March 1925 -5

Bliss
Liquor Violations: On March 2 two sergeants and the official photographer from Kilauea Military Camp were taken in charge by the Superintendent as they were racing their car around on the park roads more or less under the influence of liquor. One bottle was confiscated, and the men turned over to the Camp Commander for trial. The photographer being a civilian was discharged from the camp; and the two sergeants I am informed, were confined for a few days in their quarters.

Walt
Attendance:

During March 1925 4275 persons visited the Hawaii National Park, most of whom came on March 21st to watch the native ceremony at the rim of the crater. Tourist travel just now is comparatively light; and local travel was discouraged by our continual rains. Had it not been for our one big day, March attendance would have been at the minimum. Among the more prominent visitors during the month were the following:

David J. Reese, Grand Master of the Masons of California;
Dr D. W. Mott, and Mr Jos Argabrite, of Mr Reese's staff.
Col. Johnson, Inspector of the Hawaiian Department U S Army.
Dr E. V. Gregory and wife of Alaska; friends of Supt Karstens.

Ten members of the Hawaiian Legislature stopped for lunch at the Volcano House during their trip around this island on the 13th. They could see but little owing to the heavy rains, but were well pleased over our road work which was started; and were quite enthusiastic over the fact that the park service had decided to start work soon on the Pit Crater Road; and I feel certain they will meet this road at our boundary with a similar type road extending to the Halepana Coast.

The following states and countries were represented during March 1925:

Alabama	Idaho	Oklahoma	Canada
Arkansas	Kansas	Ohio	England
Alaska	Kentucky	Oregon	Australia
Colorado	Massachusetts	Penna	Singapore.
California	Maine	Rhode Island	Switzerland
Conn.	Michigan	South Dakota	Africa (Natal)
Dist Columbia	Missouri	Virginia	South Africa.
Florida	Minn.	Washington	
Hawaii	New York	Wisconsin	
Illinois	New Jersey	West Virginia	
Indiana	Nevada		
Iowa	North Dakota.		

IX REMITTANCES:

Nothing to report for March:

Respectfully submitted,

Thomas Boles
Thomas Boles, Superintendent.

3 copies Washington
1 to Mr Albright;

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Department of the Interior;
National Park Service.,
Hawaii National Park.

Superintendent's Office;
Volcano House, Hawaii, USA.
September first 1924.

Honorable Stephen T. Mather,
Director National Park Service,
Department of the Interior,
Washington, D.C.

1924.

Dear Mr. Mather:--

The following summary of conditions in the Hawaii National Park during the season of 1924 is submitted for your information in addition to my Annual Report:

Publicity:

During the past season this park has obtained tremendous publicity, and this has been reflected in the attendance. The Territory of Hawaii, through the Hawaii Tourist Bureau, is spending \$100,000 each year in effectively advertising the Hawaiian Islands; and this Tourist Bureau never fails to mention the Hawaii National Park in all their literature. Their advertising has been in high class publications such as Literary Digest; Travel; Asia; and the Saturday Evening Post; and in the National Geographic Magazine where a single page costs thousands of dollars. The Hawaii edition of this magazine contained 48 pictures of National Park features; and a recent issue of "Paradise of the Pacific" gave us nine full pages of space, with 18 attractive cuts.

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However their most effective literature, from a park standpoint, was the publication and distribution of the 100,000 National Park folders, written by their Secretary Mr Armitage. This same organization has included many park features, with correct titles, in the publicity films which they are distributing throughout the States.

Administration.

The violent eruptions of Mauna Loa during the latter part of May obtained mention probably in every newspaper in the world; but many articles were more interesting than accurate; but the fact remains that the local situation was at all times well under control of the Government.

The clearing of the area for two days when conditions were critical, offended a few, but made many friends for the Park Service. The tendency of a large majority of people here is to rush up close to the volcano during any unusual activity; and I am firmly convinced that the immediate and positive action of the National Park Service in this crisis was the means of saving many lives. The wisdom of allowing the local representative practically absolute power during such emergencies was certainly justified in this instance; and the Director's letter of commendation was greatly appreciated.

During nine months of the past season the Volcano Observatory was in charge of Acting Director Roy Finch, whose willing cooperation at all times was of much value to the Park Service. Perhaps such credit must be shared with Mrs Finch, recently from Mr Yard's office in Washington.

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Future development.

Kilauea's behavior reminds us that we must develop some of our many other features; for volcanoes are not only erratic, but are most dangerous at times when they are most impressive. With but 14 miles of good road in the park additional road construction is essential. Nothing will popularize the Hawaii National Park among the citizens of Hawaii as the construction of a road through the Pit Crater District of the Kilauea Section. This can be cheaply built, and would pass along the rim of several pit craters of various size, many steaming, and two containing molten lava during the past two years. Nearby is the 1923 lava flow where acres of forest were destroyed by lava spurting from earthquake cracks.

In the development of the Mauna Loa Section considerable money will be saved the Government by waiting until the Geological Survey completes their topography of this area, thus avoiding the duplication of much engineering work. The demand for an immediate road to Mauna Loa Summit is limited to less than fifty people.

The Haleakala Section is worthy of early consideration; it is a wonderful place, and I hope soon to obtain satisfactory title to all portions desirable for National Park purposes. The frank enthusiasm of the people of Maui will make the development of Haleakala a pleasure to the Interior Department.

Present roads.

The half mile of road leading to the rim of the volcano was absolutely obliterated by the eruptions but parking space has been built 1000 feet from the new crater rim, with a smooth trail beyond. Our most dangerous roads during the eruptions were those covered with a coating of "skiddy" ashes, insoluble, and a menace to safe driving until removed by hand. The release of \$500 for emergency road work meant much to public safety.

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Attendance.

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The attendance during the past season more than justified Congressman Newton's successful efforts for appropriations commensurate with this park. But even with the small amount available during the past three years, I believe the operation of this park was in accordance with Secretary Work's request that "We are out to make friends for the Interior Department"

The distribution of travel over the twelve months of the year has permitted the administration and protection of this area with a minimum force; but during the visits of large excursions the Service has been greatly assisted by the use of uniformed native police in the handling of traffic.

Conclusion.

28

The Hawaii National Park has a great responsibility, as it is situated in a section of the country where all nationalities are represented, and the development of this Park for the pleasure and benefit of the people means much to the citizenship of these islands. The concrete highway from Hilo will bring out a fuller appreciation of the park among our neighbors, and when our own road money is available it will increase even this appreciation. These people are surrounded by two thousand miles of ocean and have little chance to enjoy the other national playgrounds, and I know of no quicker or cheaper way to improve citizenship than the development and utilization of our National Parks.

Submitted by

Thomas Boles
Thomas Boles, Superintendent.

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DEPARTMENT OF THE INTERIOR
NATIONAL PARK SERVICE
HAWAII NATIONAL PARK
VOLCANO, HAWAII, U.S.A.

OFFICE OF THE
SUPERINTENDENT

Mr Mather's Annual Report for 1924 Mailed to following:

Governor Farrington--Honolulu
Paradise of the Pacific, Honolulu,
Mr Fred G. Speer, 715 North 14th St, Fort Smith Arkansas.
Mr Harold Yost, Hawaii Tourist Bureau, San Francisco.,
Mr James A Green, 809 North A Street Fort Smith Ark
Judge A H Boles, Guthrie, Oklahoma.,
Mr C. S. Carlsmith, Attorney, Hilo, Hawaii.,
Mr. A. P. Taylor, Hawaii Archives, Honolulu.,
Mr. K. Marehara, Photographer, Hilo, Hawaii.,
Mrs Thomas A Johnston, Dardanelle, Arkansas.,
Mr W. H. Beers, Hilo Hawaii.,
The Hilo Tribune, Hilo, Hawaii.,
Mr J. H. Gray, Secy Maui Chamber of Commerce, Wailuku, Maui.,
Mr George Lycurgus, Hilo Hotel, Hilo, T.H.
Dr Milton Rice, Manager Hilo Chamber of Commerce, Hilo, TH
Mr Fern Hons, Secy Inter Island Steam Navigation Co Honolulu.,
Judge Stephen Desha, Hilo, Hawaii U.S. Commr.,
Hon Julian Yates, Napoopoo, Hawaii.,
Mr Charles S. Judd, Territorial Forester, Honolulu.,
Mr George Armitage, Secy, Hawaii Tourist Bureau, Honolulu.
Mr Riley Allen, Editor Honolulu Star Bulletin, Honolulu
The Honolulu Advertiser, Honolulu, Hawaii.,
Hawaii Publicity Commission, Mr George Vicars, Chairman, Hilo.,

Norton

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Annual Report 1924.

HAWAII NATIONAL PARK.

Thomas Boles, Superintendent.

Volcano House, Hawaii, USA.

1924

GENERAL STATEMENT.

HAWAII NATIONAL PARK, 167 square miles, is located in the Territory of Hawaii, U.S.A. Established by Congress August 1916; formally dedicated July 1921; local administration began February 1922. General location in Mid-Pacific Ocean, 2200 miles southwest from San Francisco and Los Angeles; 200 miles southeast from Honolulu. Consists of three sections.

KILAUEA SECTION, 125 square miles, on Island of Hawaii; includes famous Kilauea Volcano; forty pit craters, many steaming, two recently in eruption; vast fern jungles and tropical forests; miles of tunnels and caverns, many still unexplored; deserts of volcanic ash gashed with terrific earthquake cracks, many emitting steam; thousands of acres of prehistoric and recent lava flows with rugged and fantastic formations; sulphur banks; tree molds, many formed during ^{a recent} past season by molten lava gushing from new earthquake cracks in forest. All conveniently accessible via park roads or well marked trails.

MAUNA LOA SUMMIT, 28 square miles, nearly three miles high, also on Island of Hawaii, contains Mokuaweoweo Crater, which at long irregular intervals sends floods of lava surging to the sea. Active on flank in 1916 and 1919. Connected with Kilauea Section by good thirty mile horseback trail.

Surveys now completed for a hiwa

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HALEAKALA SECTION, 34 square miles, on Island of Maui, contains Haleakala, "House of the Sun", the world's largest extinct crater; 10000 feet high, 2600 feet deep; eight miles across. On the floor of this giant crater is a row of symmetrical cinder cones, some nine hundred feet high, dwarfing the Egyptian pyramids in comparison. Good automobile road to within eight miles of the summit; good horseback trail to summit, along rim, thence down into and across floor of crater. Excellent camp sites in crater with water and forage. Comfortable concrete Rest House at summit, sleeping thirty.

LOCAL DEVELOPEMENT.

Kilauea Volcano being at present the objective of nearly all visitors, our modest appropriation was used in administering this area, and maintaining existing roads in excellent condition, notwithstanding season's heavy travel. Loan of road machinery by the County assisted greatly in this work. All trails are in good shape, and all points of interest properly signed. A small cottage for housing road workers was purchased. New bridge and stairway to lava tube were built; also one across earthquake crack in front of Park Headquarters.

*Super
Roads*

Use of County Road eqt

Court

FORESTS.

Floral abundance offsets faunal famine; many finding our forests as interesting as the volcanic features. 'Kipuka Pauia', a small oasis in a lava flow, contains nearly every variety of Hawaiian trees. Through the courtesy of Charles S. Judd, Superintendent of Forestry, an arboretum of several acres has been started nearby, in which many other varieties of native trees will be planted, especially the sandalwood and other trees now almost extinct. Just beyond is a magnificent koa (Hawaiian mahogany) preserved when a lava flow stopped near its base. The road to the volcano winds through a jungle of ferns, many forty feet high, arching gracefully over the highway.

Foot. Fx

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WEATHER.

Although close to the Equator, Kilauea's 4000 foot elevation provides equable climate; the days averaging 70°; the nights 55°. The mean temperature for December and June differed but THREE DEGREES. One may hike in light clothing, but must sleep under heavy blankets. No snakes nor mosquitoes. The frequent rains cause no mud; the water vanishing into porous ground or flowing into nearby crevices, coming up next day as live steam. The Superintendent's Office is comfortably heated by controlled volcanic steam from one of these vents.

KILAUEA MILITARY CAMP.

Appreciating the natural wonders and bracing atmosphere, the War Department maintains a Recreation Camp in the Park. Over four thousand officers and men from Honolulu spent their vacation here during the past season. Their lease has been greatly improved by landscaping and the erection of several attractive huts for officers.

PUBLIC CAMP SITE.

The Public Camp Site in the ohia forest, convenient to all park trails, was well patronized by picnickers this season. Cooking grates and drinking water are provided by the Government.

HOTEL ACCOMMODATIONS.

Kilauea Volcano House, a well managed modern hotel with 120 rooms, including several cottages, is delightfully located facing Kilauea Crater, and within easy walking distance of all points of interest. From its windows may be seen the impressive steam columns, or the lurid glow of molten lava. The invigorating climate encouraged the guest to remain longer and hike the trails, or try the sporty nine hole golf course nearby, with earthquake cracks for hazards.

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SUMMER CAMP.

Early this season permission was granted the Hotel Company to erect several small cottages for a Summer Camp, but the unusual volcanic activity caused the construction to be deferred until this winter. However this Camp will be open early next season, pending which the Company has authorized very low weekly and monthly rates at the Hotel.

OBSERVATORY.

This institution supported by the Federal Government, with aid from private sources, continued the work of observing the various phases of the volcano, and recording ~~various~~ seismic disturbances. In July the Observatory was taken over by the Geological Survey of the Interior Department. The cooperation of Acting Director Finch during the past season was greatly appreciated by the Park Service.

VOLCANIC ACTIVITY.

During the past season Kilauea Volcano was unquestionably the most stupendous spectacle of the National Park system, surpassing even its own record for the past century.

After the collapse of last September the crater slowly filled, until by December the pit contained a fifty acre lake of seething lava, 2000° temperature. Lava geysers travelling across the surface sent up incandescent spray 150 feet high. On December 27th these geysers spouted TEN MILLION CUBIC FEET of molten lava within thirty minutes.

In February, after three months' brilliant display, and with the crater nearly full, a large dome slowly formed on the lake, which burst with a roar, sending large sheets of lava many feet into the air. As this dome collapsed it was replaced by an enormous whirlpool, into which the liquid rock swirled with a trembling rumble. Within two days all lava disappeared, leaving only a 500 foot smoking pit into which the cooling walls crashed as avalanches.

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In May the volcanic gases unexpectedly returned, and the vents which had been choked by the crumbling walls were cleared by scores of tremendous explosions hurling ashes for miles into the air, and accompanied by electrical displays extending ten miles high. Bolts of lightning from this cloud destroyed telephone poles six miles away.

When the ash cloud or column reached a height of about three miles it would spread out like a mushroom, darkening the entire sky even at midday. A thunderstorm was immediately created, and the rain passing through this cloud reached the earth as thin mud, plastering the vegetation for miles around, and flattening the ferns to the ground, breaking down many small trees, and riddling the delicate foliage with pebbles of ash. Red hot boulders weighing many tons were hurled over one mile, obliterating the nearby section of road by the tremendous bombardment. Other park roads were coated with slimy insoluble ash, a menace to traffic until swept off by hand. During this activity the Park was rocked by thousands of earthquakes.

Danger Lines were established by the Park Service at the first warning, and over six thousand persons view^{ed} these eruptions from the Hotel and other points outside the Danger Zone. In the first big eruption the Superintendent was making a safety inspection of the rim of the crater, and he and two men with him were slightly injured. A few days later a too daring amateur photographer entered the Danger Zone and was killed by a flying boulder although 2000 feet away from the pit.

During the three week period of explosive eruptions the crater enlarged to FOUR TIMES its former size, the opening now being 200 acres in area, and 1500 feet deep. During these eruptions Kilauea Volcano was the sight of a lifetime for those so fortunate as to witness it.

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Six weeks later when all was again normal, a roaring geyser appeared at the bottom of the pit, sending up a steady spray of lava 200 feet high, building up a small cinder cone, and forming a ten acre lava lake on the floor of the pit. After two weeks' brilliant display this fountain weakened, until by the end of the month the volcano is again dormant, with only a glowing crack seen now and then at night in the surface of this black lake. Immense columns of steam however rise continually out of the pit, and in the bright sunlight are most impressive to the beholder.

TRAVEL DURING 1924.

Travel to the Hawaiian Islands is increasing, not only from the rest of the United States, but from foreign countries. Two more steamer lines were established during this season; and the steamer now serving Alaska during the summer months expects to operate between Seattle and Honolulu during the winter. The direct service between Los Angeles and Hawaii means much to this park. The new Matson liner will cut two days from the present time to Honolulu.

Federal Aid for Territorial highways insures the early extension of the concrete highway from Hilo to within five miles of the Park Entrance. This will promote local travel, as well as benefit the tourist business.

Travel to this park is fairly well distributed over the twelve months, which enables the Interior Department to administer this area with a comparatively small force.

The visits of many World Tours; and ships from the American, British, and Japanese navies; the excellent and effective publicity obtained for the Park through the Hawaii Tourist Bureau, especially through the 100,000 National Park folders; the hearty cooperation of the local press of Hilo and Honolulu; and the astounding performance of the volcano; all combined to bring the attendance up to 52,210 compared with 41,150 last year.

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RECOMMENDATIONS.

Appropriations which will permit full administration and protection of all areas of the Hawaii National Park.

Living quarters for all permanent employees.

Checking Station at Park Entrance.

Additional roads and trails opening up new areas.

Extension of boundaries to include desirable areas.

Continued publicity.

CONCLUSION.

The many natural wonders of this area the variety of climates, from the sultry sunshine or romantic moonlight of the South Seas, to the crisp air at Haleakala's summit, or perpetual snow on Mauna Loa; combined with the knowledge that the United States Government in backing this Park, guarantees a big future for the Hawaii National Park.

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ADDRESS ONLY
THE DIRECTOR, NATIONAL PARK SERVICE
WASHINGTON, D. C.

DEPARTMENT OF THE INTERIOR
NATIONAL PARK SERVICE
WASHINGTON

May 14, 1924.

Dear Mr. Boles:

For your information and guidance there is inclosed a copy of Acting Secretary Finney's letter, dated April 30, 1924, in regard to the preparation and the submission of the 1924 annual report. You will note the Service's report is limited to 160 printed pages, including the index-but excluding any illustrations. In allocating pages two pages have been allotted to your report. Your report printed in 8-point solid type will permit 1,000 words to the page but you should allow for a reduction of 1,000 words in text for each page devoted to tables.

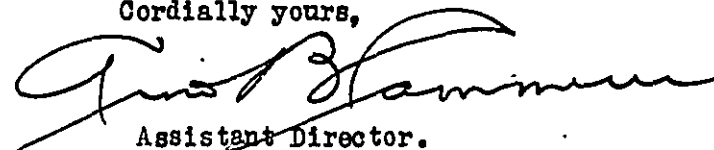
In the preparation of your report please be guided by the inclosed mimeographed instructions. Special attention should be given to paragraph 1, "Special Requirements." It is very important that the instructions regarding size of paper, space, etc., be followed, as these are based on the rules of the Government Printing Office and, unless followed, will necessitate additional work in this Office to put the report in proper form for submission to the Printer.

The official Park season for the purpose of the annual report is from October 1 to September 30, inclusive, and travel statistics should be for this period. Complete tables showing Park travel should be included in your report, omitting only the final travel figures, which must be wired in at the close of the day, September 30. Duplicate pages containing tables with the final figures inserted should be placed in the mail not later than October 1 in order that figures wired in may be checked before the report is sent to the Printer.

It is also requested that you submit a separate review of the year to be used as a basis for the Director's report, covering "The year in the Parks." One and one-half pages of the Director's report have been allocated for this review, which set in 10-point solid type will permit 600 words to the page. Therefore, the review for Hawaii should number about 900 words.

Your report and review for Hawaii should be submitted in duplicate and should be mailed not later than September 1. Suitable photographs for use as illustrations should be included with your report. Addenda may be transmitted with travel statistics October 1.

Cordially yours,


Assistant Director.

Mr. Thomas Boles, Supt.,
Hawaii National Park,
Volcano House, Hawaii.
Inclosure No 17886.

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DEPARTMENT OF THE INTERIOR NATIONAL PARK SERVICE

April 20, 1923.

Preparation of Annual Reports.

In preparation of the Annual Report of the Director of the National Park Service, the attention of each officer having charge of any unit or branch of the field service is called to the following matters affecting the annual report of the activities with which he is charged.

1. Special Requirements.-- Use plain paper, sheets 8 x 12½ inches in size, and write on only one side of the sheet, in lines that are double or triple spaced; use single spacing only for quoted matter that includes several lines. Leave a margin of at least an inch at the top of the page, an inch at the left, and at least half an inch at the bottom. Indent paragraphs 10 spaces. Begin every page with a paragraph; therefore do not start a paragraph near the bottom of the page. The observance of this requirement is necessary because the printers must divide manuscript into "takes," and because each "take," which is put in type by one of many machine operators, must consist of complete paragraphs. A space of 3 inches or more at the bottom of a page may be left at the end of a paragraph if all the next paragraph can not be written on the page. Matter that is not so written is cut up by the printers and pasted together, for the purpose indicated, in renumbered sheets of uneven length, which are not easily handled or referred to by the proofreader while he is reading the proof. Sheets should not be pasted together to form a strip that is longer than 12½ inches.

If new matter must be inserted it should be written on a separate sheet, and the sheet in which it is to be inserted should be cut apart at the proper place and each part pasted on a blank sheet of regular size. Room for wide tables can be obtained by pasting additional sheets at the side only, but this plan should not be employed for additions to the text. Copy for tables should under no conditions be crowded; the whole of a table need not appear on one sheet. Number pages consecutively in center at bottom of page. Page No. 1 of the report manuscript should be headed in the manner shown in the individual reports printed in Appendix C of the Service's Annual Report for 1922, pages 100 to 157.

The several topics treated in the report should be separately headed, in capital letters, as shown in Appendix C of the 1922 report, and may be taken up in logical order, commencing with a general statement relative to the Park, Monument, or activity, and concluding with such recommendations as the officer decides to make for the betterment of his charge. Subheadings for portions of topics if found to be necessary may be underlined and used to start the paragraphs to which they relate.

The final page of the report should be an alphabetical index of headings and subheadings, to be made up as shown on pages 97 to 99 of the Annual Report for 1922. This index should be typed flush to the left-hand margin, and indented where necessary.

Use special care to see that all proper names are correctly spelled, and that every figure is clear cut. In correcting figures erase fully the figure first written before correcting, thereby avoiding uncertain results, as a 3 upon an 8 or a 5 upon a 6.

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2. Travel statistics.--Tables showing travel should be included, omitting only final figures for insertion later. On September 30 a telegraphic report should be made to the Service showing totals from October 1 of the previous year to and including September 30 of the year for which report is made. This telegram must not be overlooked. Duplicate pages, containing tables with complete final figures inserted, must be placed in the mail not later than October 1.

3. General.--The Annual Report is not to be confined to the fiscal year except in so far as it relates to fiscal matters. It is a season report and should contain all data regarding operations during the season October 1 to September 30. While the report must necessarily be concise, it should contain data respecting all matters of special interest which transpire during the year, the work of those persons, firms, or corporations which operate public utilities, information relating to the wild animals, birds, forests, and wild flowers, and the work of the Service itself in encouraging the study and enjoyment of these and other natural features.

As the report is administrative in character, it is well to keep purely descriptive text, scientific classifications, and less important details at the minimum.

5. Transmittal.--The report, when completed, must be forwarded in duplicate to the Service not later than the close of September 1, unless otherwise specially directed by the Service.

STEPHEN T. MATHER,

Director.

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(C O P Y)

DEPARTMENT OF THE INTERIOR
Washington

April 30, 1924.

The Director,

National Park Service.

My dear Mr. Mather:

Will you be good enough to submit to the Department at the earliest practicable date, not later than October 1, 1924, a report of the condition of affairs and the management of the National Parks and Monuments for the fiscal year ending June 30, 1924. If deemed advisable you may make your report cover matters pertaining to the several National Parks and Monuments under your general supervision from the close of the tourist season in 1923 until the close of the present tourist season, embodying therein such recommendations for the betterment of the service as in your judgment may be deemed advisable.

The manuscript of the report should as far as possible be typewritten, free from interlineations, properly paged, and provided with a table of contents. All exhibits should be suitably marked and referred to by such marks wherever mention is made of them in the body of the report. In the interest of economy it is desirable that the report be as brief as the various subjects covered will permit, and that all unimportant exhibits be omitted, as well as maps or photographs not connected with or showing the condition of the service.

The bill making appropriations for the Interior Department for the fiscal year ending June 30, 1924, approved January 24, 1923 (42 Stat. 1176), provides among other things, that "The annual reports of the Department and of all its bureaus and establishments, including the Reclamation Service, shall not exceed a total of 1,250 pages." The number of pages which has been allocated to the report of the National Park Service is 160 printed pages, including the index, but excluding any illustrations.

At the time of the submission of your report a letter should be addressed to the Department embodying suggestions as to the proper treatment of such matters discussed therein as should properly be included in the Secretary's report.

Respectfully

(Sgd.) E. C. Finney,
Acting Secretary.

Incl. 14692.

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DEPARTMENT OF THE INTERIOR

FILE

NATIONAL PARK SERVICE

HAWAII NATIONAL PARK

HONOLULU, HAWAII

Superintendent's Office;
Volcano House, Hawaii, USA.
January sixth 1925.

Hon. Stephen T. Mather, Director,
National Park Service,
Department of the Interior,
Washington, D.C.

Dear Sir:--

The following report on the operation and activities of HAWAII NATIONAL PARK during the month of December 1924 is submitted for your information and approval:--

I GENERAL CONDITIONS:

The general condition of highways and steamship lines serving this park was the same as during the previous month, with the exception of the visit of the Red Star Liner "Belgonland" on the 29th with a round the world tour aboard in charge of the American Express Company. Outside of this, tourist travel was light, but there was considerable local travel to the park during the holidays.

Weather: We are now in the middle of our Rainy Season, but only 4.42 inches of rain fell during the month, and half of this was on one day. The weather conditions during the last ten days of the month I consider worth reporting in detail, for I doubt if it can be matched anywhere else in the world.

Date:	Maximum	Minimum	Rain	Wind	Day.
Dec 20	67	56	Trace	Light SW	Cloudy
21	69	57	.01	Mod SW	P.C.
22	73	52	0	Lt SW	P.C.
23	72	49	0	Lt SW	Clear
24	70	52	0	Lt SW	Clear
25	72	52	0	Lt SW	Clear
26	74	50	0	Lt SW	Clear
27	73	52	Trace	Lt SW	Clear
28	69	56	Trace	Lt NE	P.C.
29	65	52	Trace	Lt NE	P.C.
30	66	52	Trace	Mod NE	P.C.

"Winter everywhere but in Hawaii", our only reminder being the snow-capped mountains in the distance, and the fact that we had before us the "world's greatest fireplace" (but no fire in it).

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Dec 1924 -2

The official report for December as obtained through the local station of the Weather Bureau is as follows:

Mean maximum during December-----	59.0°	
Mean minimum-----	53.2°	
Average temperature for month-----	61.1°	
Maximum during month-----	76	Dec 2
Minimum during month-----	49	Dec 23
Greatest daily range-----	78 to 54-----	221 Dec 2
Total rainfall during December-----	4.42 inches	
Greatest in 24 hours-----	2.22	Dec 12
Days with .01 or more rain-----	16	
Days with Trace-----	7	
Days with NO RAIN-----	9	

Earthquakes: Of the 137 earthquakes registered during the month, only 6 were actually felt, and I believe most of the registered quakes were merely the resulting tremble of the ground from the avalanching walls of the crater two miles distant.

II PERSONNEL:

Number Class Work performed:

1	Supt.	Administration, supervision, clerical, exploration:
1	Ranger.	Guide work and sign painting.
11	Laborer.	General maintenance: Traffic control on big days. 116 man-days.

III WORK IN PROGRESS:

Continued maintenance of existing roads and trails, and safety precautions near the rim of the crater.

IV WORK COMPLETED:

60 new signs painted, but not yet erected and placed.

V WORK PLANNED:

All expenses are being held down to a bare minimum so that we may have extra funds at our disposal during the visit of the men from the American Fleet next spring with their personnel of 45,000 officers and men. This will be the big event of the Hawaii National Park for some time to come, and we must plan in every way to make the visit a success.

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Dec 1924 -3

At present our roads are in excellent condition, but during the coming months the two trails leading to the rim of the crater must be put in first class shape. The trail leading down the face of Uwekahuna Bluff was badly damaged during the May eruptions and the accompanying torrents of water and mud. As this trail is used principally by visitors to Hilauea Military Camp I have effected an arrangement whereby they will donate considerable labor to be used in this reconstruction; the work of course to be performed under the direction of the National Park Service.

VI COST OF OPERATION:

Administration:	01 Superintendent's salary-----	\$250.00	
	Temporary office girl-----	12.50	
	0200 Staty and Office Supplies-----	2.00	
	0230 Light and Heat; (light)-----	5.00	
	0510 Telephone service-----	7.00	
	06 Travel expense----- (quarter)	6.35	
	07 Transp of things-----	.54	\$283.19
Protection:	01 Guide and Crater patrol-----		173.00
12 Repairs and Alterations:			
	1211 Trails-----	31.50	
	1210 Roads-----	119.60	
	1280 Pass carrying vehicles-----	40.63	
	1290 Crater Rim Safety-----	30.00	221.73
13 Special etc:	1387 Opr Pass Carrying vehicles-----		11.10
30 Acquisition of Property:			
	3050 Misl equipment-----		1.60
	Total December expenses-----		\$690.62

VII NEW POLICIES:

No new policies inaugurated or contemplated. The public in general seem to be well pleased with our present system of handling the park and its visitors. The few complaints can be readily traced to one source.

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Dec 1924 -4

VIII OTHER MATTERS OF INTEREST:

Volcanic activity: There has been no molten lava in the pit of Kilauea Volcano since the geyser of last July, but the immense clouds of steam constantly pouring from the pit would indicate that there is plenty of heat but a short distance below. During the evenings, or in the cool mornings, these clouds are magnificent, and greatly impress the visitor as well as the 'old timer'.

Several large avalanches have crashed into the pit from the crater walls, the roar at times being distinctly heard two miles away. Formerly avalanches of this size would send up high columns of red dust, but the steam now evidently keeps the walls pretty well saturated, and very little dust rises above the edge of the crater. However an avalanche about noon the 12th sent up a red cloud which drifted northeast and covered the area between the Hotel and the Military Camp with a blanket of 'brick dust'. A 2 inch rain falling shortly afterwards scoured the road for us so that we were saved the expense of removing it by hand as was the case last May and June.

American Express Tour: The outstanding feature of December was the visit of the Red Star Liner "Belgenland", a round the world tour conducted by the American Express Company, in charge of Mr Mass, Assistant Travel Manager. During the time this ship was docked at Hilo the park was visited by the 462 tourists, 32 conductors, and 150 members of the crew; the weather was perfect, and the 180 autos were handled without a hitch. Notwithstanding the fact that the ship's lecturer had informed them of nothing but the "wonderful lake of fire", they were all well pleased with their visit, and there were many expressions of regret that they could not remain in the park longer. They arrived at 11 AM and departed for their ship at 8 PM, eating two meals at the Volcano House.

Their itinerary had been prepared some months ago, and included a night trip to the rim of the crater, but as there is nothing to see at night, and in view of the real danger in handling a crowd of that size at the edge of the pit in the dark, I drove to Hilo when the ship landed, and called on the tour manager, Mr Mass, and submitted a different trip plan for their stay inside the park limits; this he readily accepted, and seemed greatly pleased to know that we were watching out for the interests of their folks. In my itinerary I mentioned several other attractions than the crater, so that the percentage of 'non-performance' would not seem so great. During their visit I milled around considerably with the crowd, and have no hesitancy in stating that their visit was a success in every respect. During the visit of the American Express tour last year I had no difficulty in obtaining a promise from Dr Babcock, Travel Manager, that he would always include the Hawaii National Park on his tour schedules, and it is very gratifying to the Park Service to know that lack of fire will not cause them to chance their promise, and future trips will always make us a call.

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Dec 1924 -5

On the evening of the 13th an aurora formed immediately surrounding the full moon, with all the colors and brilliancy of a daylight rainbow.

When the clouds cleared away from the mountain tops the morning of the 14th, both Mauna Loa and Mauna Kea were revealed snowcapped down to the 10,000 level, but most of it had disappeared by the end of the month under the influence of the warm winds from the southwest. During the season of these southwest winds the clouds would pile up against both these mountains in most unusual formations and colors, especially about dusk.

On the 18th the winds were quite heavy all day, and broke down some of our smaller trees and flattened many of the large fern fronds along the roads. One large tree was thrown down across the road. The wind of this day seemed to come in puffs, which shook the light frame buildings considerably.

On the 24th the Volcano House had a Christmas Eve dinner and dance which was attended by 125 persons from Hilo and the local neighborhood. Under the present management of this hotel it has increased greatly in popularity among the residents of this island, which means a great deal to the Company in view of the light tourist travel. Reduced rates are allowed to island folks, especially if they remain a week or longer.

Again referring to the wind; on the 17th the steam from the volcano drifted toward the hotel, and the entire hotel district was enveloped in a slightly sulphurous fog during the entire day.

On the 27th 106 young men from the Honolulu Y M CA visited the park, stopping at Ailausa Military Camp overnight. During their short visit they were sent on two rather strenuous hikes, and sent home footsore and weary, but anxious to come back again and see more of our trails.

On the 26th twenty-two guests from the hotel were conducted by the Superintendent through the Postal Tunnel, which is a recent lava tube extending under the floor of the outer crater from the foot of Uwekahuna Bluff to the edge of the fire-pit. Although considerable of the roof formations had been jarred down from the bombardment of last May, still it will require but little expenditure to place this 2000 ft 'underground trail' in good condition again. During the visit last year of Judge and Mrs Baker, they were taken through this tube, and were greatly impressed with the ~~xxx~~ thousands of lava stalactites.

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Dec 1924 -6

Publicity: During December two movie outfits visited the Park; one operated by Captain Wanderwell and his sister, who are just completing a trip around the world in a couple of Ford cars, and will lecture on their experiences upon their return to the United States. During their visit the light conditions were not very good.

Mr Welsh and his two assistants were with the American Express Tour, representing the Eastman Kodak Company. Movies were made of the excursionists at the rim of the crater, and also of the caravan of autoes as they drove through the fern jungle. Mr Welsh pronounced the road through the giant ferns as providing one of the prettiest 'settings' he had ever taken. I detailed one man to assist him on locations, and hope thereby to get a positive of his films upon the completion of their trip. He has promised to mail back to me a set of 'stills' taken in the park; these will reach me from Yokohama, and will be forwarded to Washington if they measure up to my expectations.

Los Angeles Times: The Midwinter Number of this newspaper with an edition of 500,000 devoted one magazine section to Hawaii, and the Superintendent furnished a story on the Hawaii National Park, but it was cut down considerably in order to make room for a very large cut of the volcano in eruption. I was pleased to note that the park article was placed opposite a color page prepared by our artist friend Charles Owens who visited the park last season. In addition to the park page, several other articles were included in which mention was made of park features.

On the 16th Mr Trood, Publicity Agent for the Los Angeles Steamship Company, and Mr Crowder, General Passenger Agent, visited the park to obtain information which they could use in promoting travel to Hawaii over their line. Unfortunately they were in charge of Mr De Vis Norton of Honolulu, and reached the park at 4PM and departed immediately after breakfast the next morning, and had evidently been convinced by Norton that there was very little worth seeing here now that the volcano is inactive. After supper I had Mr Trood come to my office and spent over an hour outlining attractive features here which would interest the tourist, and furnished him thirty recent photos of points of interest other than the volcano, which he promises to include in their advertising, and also hopes to place them in the rotogravure section of Los Angeles newspapers. He stated that Mr Harry Chandler was greatly interested in this area, so I included several prints in which members of the Chandler family appear in scenic surroundings of our park. I hope I am not infringing on Colonel White's territory by advertising this National Park in the Southern California publications.

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Dec 1924 -7-

As heretofore stated, the weather in the Hawaii National Park during the Christmas holidays was as near perfect as one could expect outside of California and Arkansas, and the kodakers and hikers were plentiful along all the park trails; a hiker is always a good booster, and I devote quite a bit of time after supper at the hotel in promoting hikes for the following morning, and if it happens to be a Sunday or a holiday I manage to go along. This is, in my opinion, the best way to offset possible disappointment over lack of fire in the volcano, and as yet I have not heard one expression of regret from any visitor that I have sent out over our trails. This enables us to convert many people to my idea that we are running a "National Park" over here, and not just an intermittant volcano.

Attendance. The December attendance was 4100, quite a decrease from November, but you will recall that in November we were able to count 2400 visitors from the Japanese Training Squadron, without which our showing during that month would have been about our minimum.

Among the more distinguished visitors during December were:

Major General Edward Lewis who will soon command the entire Hawaiian Department of the United States Army. General Lewis spent ten days as the guest of the Military Camp, and was greatly pleased over his visit.

Mr. Crowder, General Passenger Agent, Los Angeles S.S.Co.

Mr. Wood, Publicity Agent, ditto

The following states and countries were represented in December, maintaining our reputation as an International Park:

Arizona	Mass.,	North Dak	Switzerland
Arkansas	Michigan	Ohio	Holland
California	Minnesota	Oklahoma	Canada
Colorado	Mississippi	Oregon	England
Connecticut	Missouri	Penna	Scotland
Delaware	Montana	Rhode Island	France
Dist Columbia	Nebraska	Texas	Guatemala
Hawaii	New Hampshire	Utah	Mexico
Illinois	New Jersey	Virginia	Japan
Iowa	New York	Washington	Australia
Kentucky	North Carolina	West Va	Belgium
		Wisconsin	Fiji Islands.

33 states

12 foreign countries.

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Dec 1924 -8

IX REMITTANCES:

Tehera
During December \$50 was collected and remitted to
Washington from lease within the Hawaii National Park.

Respectfully submitted,

Thomas Boles
Thomas Boles, Superintendent.

Inclose Belgenland itinerary:

3 copies Washington;
1 copy Mr Albright,
1 copy file.

REVISED ITINERARY

S. S. BELGENLAND

Hilo, Hawaii and Hawaii National Park

GROUP "A" MONDAY DECEMBER 29, 1924

- 8:30 A. M. Leave Kuhio Wharf at Hilo by automobile for Onomea Arch and Rainbow Falls; Return through Hilo to Hawaii National Park.
- 11:30 A. M. Reach Hawaii National Park and go direct to Kilauea Volcano House on the outer rim of Kilauea Crater.
- 11:45 A. M. Luncheon at Kilauea Volcano House:
- 12:45 P. M. Automobile drive along Waldron Ledge; Lava Tube; Fern Jungle; Extinct craters Kilauea Iki and Keanakakoi; unload at Airplane Field; Short walk to rim of fire pit "Halemaumau". Return to auto and drive to Uwekahuna Bluff, Tree Molds and Sulphur Banks.
- 5:30-6:30 P. M. Dinner at Kilauea Volcano House.
- 6:45 P. M. Leave Hawaii National Park and drive to Hilo.
- 8:15 P. M. Arrive S. S. Belgenland.

GROUP "B" MONDAY DECEMBER 29, 1924

- 9:00 A. M. Leave Kuhio Wharf at Hilo by automobile for Rainbow Falls and Onomea Arch. returning through Hilo to Hawaii National Park. Go direct to Koa Grove, Tree Molds, thence to Kilauea Volcano House on outer rim of Kilauea Crater.
- 1:00 P. M. Arrive at Kilauea Volcano House:
- 1:15 P. M. Luncheon at Volcano House.
- 3:00 P. M. Auto drive along Waldron Ledge; Lava Tube; Extinct craters Kilauea Iki and Keanakakoi; through Fern Jungle; and unload at Airplane Field. Short walk to rim of fire-pit "Halemaumau". Return to autos and drive direct to Uwekahuna Bluff and Sulphur Banks.
- 6:45 P. M. Dinner at Kilauea Volcano House.
- 7:45 P. M. Leave Hawaii National Park and drive back to Hilo.
- 9:00 P. M. Arrive S. S. Belgenland.

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**DEPARTMENT OF THE INTERIOR
NATIONAL PARK SERVICE
HAWAII NATIONAL PARK
HONOLULU, HAWAII**

Superintendent's Office;
Volcano House, Hawaii, U.S.A.
October fifth 1924.

Hon. Stephen T. Mather, Director,
National Park Service,
Department of the Interior,
Washington, D.C.

Dear Sir:--

The following report on the operation and activities of HAWAII NATIONAL PARK during the month of September 1924 is submitted for your information and approval:

I GENERAL CONDITIONS:

The general condition of tributary highways and steamship lines is the same as during the previous month. Although travel from the mainland is always light in September, the delightful weather during this month caused an unusual number of visitors from the immediate vicinity of the park and from nearby islands, and gave us an increase in attendance over August.

The inactivity of Kilauea Volcano continues, but the visit of one excursion from Los Angeles, and the call of the U.S.S. Seattle with 800 navy men aboard, was of much help in our showing.

Weather: Only 2.82 inches of rain during September, and half of this fell in one day; most of the other days had slight showers, not heavy enough to drive in the hikers and kodakers. The local station of the Weather Bureau reports for the month:

Mean maximum during September 1924	70.2°		
Mean minimum	54.8°		
Average temperature for month	62.5°		
Maximum during month	75. on 16th		
Minimum during month	52. on 18th		
Greatest daily range	75 to 53 16° on 16th		
Total rainfall during September	2.82 inches		
Greatest within 24 hours	1.46 on 26th		
Days with .01 or more rain	22		
Days with TRACE	4		
Days with NO RAIN	4		
Days Clear	3; Days partly cloudy	25; Days cloudy	2
Thunderstorm at noon the 26th.			

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Sept 1924 -2

Earthquakes: Although we had 116 earthquakes during September, only four of these were strong enough to shake the houses. This brings our total number of earthquakes for the travel season up to 6645, but I did not include this in my annual report, as I do not think such information would invite travel, and might offset some of the more impressive, but no less interesting, features of this park. As a matter of fact the tourist when here gets quite a 'kick' out of these shocks, and no doubt elaborates on his experience after he gets back in his home town.

II PERSONNEL:

No	Class	Work performed:
1	Superintendent:	Administration, supervision, disbursing, clerical.
1	Ranger:	Guide work and sign painting. (Off most of month)
6	Laborers:	General maintenance work. Total 115 man-days.

III WORK IN PROGRESS:

Continued maintenance of roads and trails.

IV WORK COMPLETED:

10 new signs painted and erected:

V WORK PLANNED:

Under our modest appropriation our little force will continue their work on existing roads and trails, for by having these in attractive shape the visitor is encouraged to remain longer, and thus see many points of interest not so well known as is *Kilauea* Volcano.

During the next few months we will endeavor to keep operating expenses down to a bare minimum in order that we may have some funds at our disposal during the months of April May and June during which time the United States Fleet will be in Hawaiian waters, and we will have to handle large crowds over the roads and trails.

The roads and trails are in very good shape at present, and we will go slow on betterment work, and will spend only enough to have the park in good shape when our winter rush season, as well as the fleet, arrives.

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Sept 1924 4

VIII OTHER MATTERS OF INTEREST.

Rel-1120

Volcanic activity: Professor Jaggar of the local Observatory predicted activity for Kilauea Volcano around September 23rd, the equinox, but nothing happened. The professor had little faith in his own prediction, for he left the early part of the month for a trip to some of the islands beyond the equator, and will not return until late in October. Professor Jaggar is getting to be quite a stranger in the Hawaii National Park, having been away 11 months out of the past 14, and missed all the big activity of the volcano during the past season. The Volcano Observatory was transferred from the Agriculture Department on July first this year, and placed under the Geological Survey of the Interior Department.

The high columns of steam hovering over the pit, especially in the early mornings, are magnificent. The air at this time is always ~~not~~ free from other clouds, and the rays from the rising sun tint the steam a glowing pink, and also add a purple color to the majestic dome of Mauna Loa beyond. The rough walls of the outer crater, which formerly gave harsh shadows from the morning sun, have been softened by the coating of ashes from the recent eruptions, which gives a silvery pastel effect like a fairyland.

Labor troubles: Although there has been no serious trouble on this island with the striking Philipinos from the sugar plantations, a serious clash on one of the other islands resulted in the death of 16 strikers and 4 special police, and the wounding of 50 persons. A machine gun company from Honolulu has the situation under control. On this island, Hawaii, the strike seems to be weakening; several truck loads of strikers recently passing through the park enroute to the coffee plantations beyond where they have been offered work.

Women's Club. On the tenth at the invitation of the Hilo Women's Club the Superintendent addressed their convention on the work and purposes of the National Park Service here and elsewhere, and its probably effect on the citizenship of Hawaii. Mention was made of the fact that one of the strongest allies of the Park Service was Mrs John Dickenson Sherman, President of their Federation.

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During this month the Hotel Company has fitted up a complete photographic dark room in their Annex, fully equipped with trays, and plenty of chemicals, and has placed it at the disposal of the Superintendent, and will ask Mr Pillsbury to make full use of it during his stay on this island. The Hawaii Tourist Bureau has sent us a supply of roll film with which to obtain news pictures for use in advertising the park in the travel magazines, and we will stress the features other than the volcano. In order to obtain better vantage points for scenic pictures, I have purchased an 18 foot portable tripod, which will enable us to avoid including disturbing foregrounds in our views. Some of our first work will be sent to Mr Comarray and Miss Story for criticism next week.

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Sept. 1924 5

On the 22nd Admiral R. C. Coontz, Commanding the United States Fleet, visited Hilo to examine their harbor, and at the invitation of the Superintendent, visited Hawaii National Park with his staff of ten officers. I was afraid that on account of there being no fire in the volcano they might be led to believe that this area was not worth visiting.

However I personally conducted them around from noon the 22nd until noon the 23rd, and showed them many of the interesting nearby features, and did not take them to the volcano until about one hour before their departure.

The Admiral was very enthusiastic over his visit, and stated to me that if his men saw just half of what I had shown him, that he regarded the park well worth their visit; and promised that during the four months in which the fleet of 208 ships were in Hawaiian waters, to so arrange their calls at Hilo so that his men at the rate of 5000 per week might make the trip up to the park.

Undoubtedly the families of many of the officers will take this opportunity of visiting these islands also; and the Admiral tells me that there will be several Senators and Congressmen who will accompany them.

This will be the biggest event for the Hawaii National Park, if not for the Park Service; and the personal inspection of this area by more than 42,000 men from the fleet will bring to the Hawaii National Park more notice than would thousands of dollars of advertising.

I cabled this information to Washington, knowing that the Director would be pleased to learn that we had booked these visitors for the coming season, at a time when our volcanic prospects were anything but promising. And of course if our lake of fire returns by that time, it will mean just that much more for our visitors.

I have full confidence in the ability of the National Park Service to handle this crowd, and control the situation, to the credit of our Department.

A special issue of 10,000 park folders will be printed for distribution on the ships upon their arrival at Honolulu; the Hawaii Tourist Bureau, gladly assuming the expense. And upon the departure of the ships for the mainland next June I will see that each ship is supplied with folders of the parks along the west coast.

On the 23rd an excursion of 60 people from Los Angeles visited the park. Accompanying this party from Honolulu was Mr De Vis Horton, who had with him three people from some moving picture company. From outside sources I learn that Mr Horton is arranging for a moving picture play to be filmed in the park area, but as yet he has said nothing to the Superintendent about it. It is quite likely that he will encourage them to make their application for permit direct to Washington, as was the case with Miss Varney; Horton is consistent in his efforts to embarrass the Superintendent with the Service as well as with the public, but he is too well known in these islands to have much effect.

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Sept 1924 6

On the 7th the Directors of the Kilauea Volcano House visited the park, and at this time I expressed our appreciation of their cordial cooperation with the Service. The many local folks patronizing the hotel and the golf course attests the popularity of Manager Lovejoy and his management.

The delightful weather during September has brought many folks from various parts of this island up to the park, and the Hotel Golf Course just outside the park limits is at times overcrowded; and the Company is considering enlarging their course to extend over into the park area in order to meet the demand. This would take in an area of no scenic value, being a slightly rolling meadow with a grove of koa trees (which would not be disturbed) and would enable us to get all the loose stones and dead limbs removed at no cost to the Department; and will provide an attractive picnic ground for the 'golf widows and orphans' while their men folks play at the game. This will be covered in a special report.

Attendance : During September 4350 persons visited this section of the Hawaii National Park, and to this figure I have added 1000 to cover the number of persons visiting Haleakala Crater during the past season, this figure having been furnished me by the Maui Chamber of Commerce from the register kept at the Summit Rest-house. This gives the Hawaii National Park a season attendance of 5210, an increase of 27% over the previous season. But even this record will be smashed when we get the 42,000 or more visitors next Spring from the Navy's visit.

Among the more prominent visitors were:

Admiral R. C. Coontz, Commanding United States Fleet;
Rear Admiral W. C. Cole.,
The Admiral's staff of ten officers from the Navy.
The Hon George Fowlds, Minister of Education, New Zealand.
Mr John Willis Baer of Pasadena; friend of President Coolidge.

Mr Fowlds was returning from the Rotary Convention at Toronto, having represented New Zealand. I accompanied him during his visit, and provided him a set of kodak films, which included him, and am sure that the Hawaii National Park will get considerable favorable mention by him before the Rotary Clubs of the antipodes. I have just received a letter from Mr Fowlds expressing his appreciation of his treatment by the National Park Service during his visit.

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During September the following states and countries were represented by our visitors:

California	Michigan	Ohio	Australia
Colorado	Massachusetts	Oklahoma	China
District Columbia	Maryland	Penna	England
Florida	Minnesota	Tennessee	Japan
Illinois	Missouri	Texas	Mexico
Kansas	New Jersey	Utah	New Zealand
Hawaii	New York	Wisconsin	Philippines
Kentucky	Nebraska	Virginia	Scotland.

24 states, and 6 foreign countries.

IX COLLECTIONS AND REMITTANCES:

\$50 collected and remitted for rent of land inside the park leased to Kilauea Military Camp for the year beginning with September first 1924.

Respectfully submitted,

Thomas Boles

Thomas Boles, Superintendent.

TB

3 copies Washington;
1 copy Mr. Albright,
1 copy for file.

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DEPARTMENT OF THE INTERIOR
NATIONAL PARK SERVICE
HAWAII NATIONAL PARK
HONOLULU, HAWAII

Superintendent's Office;
Volcano House, Hawaii, USA.
September sixth 1924;

Hon. Stephen T. Mather, Director,
National Park Service,
Department of the Interior,
Washington, D.C.

File
AUG-1924

Dear Sir:--

The following report on the operation and activities of Hawaii National Park during the month of August 1924 is submitted for your information and approval:

I GENERAL CONDITIONS:

Travel from the mainland to Hawaii is always light during the summer months, as most of the tourists from the states come over here during the winter in order to get away from the snow and ice.

The inactivity of Kilauea Volcano during August had a depressing effect on our park attendance, causing a loss of 20 percent as compared with the previous month, and also as compared with the month of August of last season. Even at that our attendance for this season will be considerably more than the total of last season.

The Inter Island Company is still holding their steamer down to two trip per week from Honolulu, but this is supplemented by the fortnightly trips of the Matson liners and the Los Angeles liners, all of which furnishes excellent transportation service between Honolulu and our island; far better in fact than the passenger business justifies at the present time.

As this is an experimental year for the Los Angeles boats I sincerely hope that we will have enough volcanic attractions of the type that will appeal to the public so that the mainland travel will be such that there may be no temptation for this Steamship Company to cut their present service. However the Los Angeles Company has ample financial backing that will enable them to stand several lean years if necessary, and their officers are of the type that are not easily discouraged by a poor initial year. Los Angeles need an outlet for their tourist overflow, and Hawaii through the Los Angeles Steamship Co will undoubtedly get its share from now on. Of course the passenger rate from the west coast to the Hawaiian Islands is a bit high as compared with the rates across the Atlantic (\$125 each way), but with the competition in sight I am of the opinion that this will be reduced to \$100 before a year passes. This rate, with a slight reduction for the round trip, would increase the travel considerably.

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The thirteen miles of macadam road between the end of the concrete highway and the Park Entrance is in good shape, which encourages many local people to visit the Park on Saturdays and Sundays. The golf course operated by the Hotel Company just outside the park limits attracts many persons up here for the week end; some Sundays there will be as many as sixty persons on the course during the day. About once each month there is a tournament of some kind on these links, and it is surprising to see to what extent golf has taken a hold on the people of this island; possibly is it because about half the white folks on this island are Scotch or of Scotch ancestry. The excellent golf course near the Hot Springs National Park demonstrates what a well kept and convenient recreation ground means even to a National Park, as it is undoubtedly the means of holding people longer.

Weather: Only two days in August were without rain; however the total was but 3.58 inches, just about right to keep down the volcanic dust, and provide sufficient moisture for our ferns. Many of our visitors are as impressed with the fern jungles as they are with the volcano; much more so at the present time; and it requires lots of rain to raise ferns forty feet high. The local Weather Station reports as follows:

Mean maximum during August 1924	68.3°	
Mean minimum	55.5°	
Average temperature for month	61.9°	
Maximum during August	74.0°	22 & 27
Minimum during August	53.0°	14th
Greatest daily range	74-54	20. ° 27th
Total rainfall for August	3.58	inches
Greatest within 24 hours	.81	15th
Days with .02 or more rain	27	
Days with TRACE	2	
Days with NO RAIN	2	
Days Clear	1	
Partly cloudy	23	
Cloudy	7	

Earthquakes: Ninety earthquakes were recorded during August, only ten of which were what might be called noticeable. No damage whatever. This brings our total number of earthquakes up to 5529 for this travel year, however most of them (3961) were during the last two weeks of May 1924.

II PERSONNEL:

No	Class	Work performed:
1	Supt	Administration, supervision, exploration, disbursing;
1	Ranger	Guide work and sign painting.
8	Laborers	Maintenance of roads, trails, and buildings; Also crater patrol and traffic control during visits of large parties.

Total 137 man-days employed.

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III WORK IN PROGRESS:

Maintenance of existing roads and trails; all of which are now in excellent condition.

IV WORK COMPLETED:

20 new signs painted and erected:

V WORK PLANNED:

Our small force will continue their work on our roads and trails, especially the trails, for by having these in attractive shape it encourages the visitor to remain longer, as it gives them an opportunity of seeing many of the points of interest which are not now reached by automobile.

VI COST OF OPERATION:

Administration:	01 Superintendent's salary-----	\$280.00	
	Office girl wages-----	25.00	
	0200 Stationery and Office supplies-----	6.00	
	0230 Fuel and Light (light)-----	6.00	
	0500 Telegraph expense-----	2.28	
	0510 Telephone expense-----	5.90	\$294.18
Protection:	01 Guide and crater patrol-----		168.33
12 Repairs and Alterations:			
	1200 Buildings-----	6.00	
	1210 Roads-----	169.60	
	12111 Kilnua Section Trails-----	50.00	
	1260 Passenger carrying vehicles-----	3.25	228.85
13 Special and Misc current expenses:			
	1387 Operating pass carrying vehicles-----		12.81
	Total for August 1924-----		\$704.17

VII NEW POLICIES:

No new policies inaugurated or contemplated:

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VIII OTHER MATTERS OF INTEREST:

Volcanic Activity: There has been but little change in Kilauea Volcano since the previous month; the floor of lava formed from the fountain of last July is slowly cooling, and as the surface cracks open it exposes the still red hot interior, but this is visible only at night, and probably in a few weeks more no glow whatever will be seen. Professor Jaggard of the Volcano Observatory the return of molten lava during the coming September, and I hope he may prove correct in this prediction; however I am a bit dubious about early activity, as the small number of earthquakes during the present month indicates to me that the volcano will be quiet for some time to come. Several large avalanches fell from the crater walls during August, and while these are spectacular, they last but a few minutes.

Labor Troubles: On all these islands the Philipinos employed at common labor by the sugar plantations have been on a strike for several weeks, asking that their daily wage scale be raised from \$1.50 to \$2.00. On this island all the strikers, some 3000, with their families, have been gathered at Hilo, camping at various places around the town, some in barns, and sheds, or under platforms, with living conditions but little better than generally afforded live stock. Several hundred are camping in the stables at the Fair Ground; others have cots and mattresses stuck around anywhere they can find room. On one side-street of Hilo, the parking space down the center of the street is occupied by a solid row of improvised beds and cots; and whenever it rains they crawl under nearby houses and sheds. Sanitary conditions at times are threatening. Nearly all these people are quite small, very few being over five feet high. Nothing is seen of the strikers up here except as they pass through the National Park with their belongings on their way to Hilo; and I mention this strike merely as a matter of interest, as the Hawaii National Park can in no manner be affected by the strike.

Advertiser Excursion: On the 23rd a group of 23 young folks visited the Park as guests of the Honolulu Advertiser; they were not as good hikers as the previous groups sent over here, but all went away pleased with their trip. Their treatment at the Hotel was in marked contrast to that accorded a similar group last year when the then management of the hotel denied them even the privilege of warming themselves at either of the four big fireplaces.

Kilauea Military Camp: Drivers of army trucks serving this camp located on a lease in the National Park have again interfered with traffic to and from the park by refusing to give a part of the road so that passenger vehicles may pass around them; in one case a sick child was being brought home to the Park from the Hilo Hospital, in a drizzling cold rain, and their arrival was delayed nearly one hour by the slow moving truck refusing to allow them to pass.

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In another case this month a truck moving toward the Park refused to give the road, and by the time the Park Entrance was reached, seventeen automobiles had accumulated behind the slow moving truck.

Both these incidents were outside the National Park limits, but serve to illustrate the attitude toward the public that is held by some of the men permanently stationed at this Camp. It seems a pity that when we are popularizing the Federal Government by our park work, that we must be handicapped by the actions mentioned above.

On the night of August 23rd two soldiers from Hilausa Military Camp prowling on the grounds of the Volcano Observatory made some unintelligible request to the Japanese woman who is the mother of the porter at the Observatory; she thinking they were asking for Professor Jagger directed them to his cottage; they went there, and looked in his window and seeing him there then turned and went back to the Japanese house and became very disorderly, and demanded admittance, and endeavored to force entry; Professor Jagger hearing the disturbance came up, and they left toward Camp. He then went to Camp and reported them to the Commander.

During the month five soldiers from this Camp were reported lost on the slopes of Mauna Loa, but my impression that it is another case of desertion, such as has come up here many times during the past year. You will recall two soldiers reported missing during the eruptions; one of these was later found in a jail for stealing an automobile, and the other is still being sought for desertion. As a matter of fact they were missing from the Military Camp for several days before the eruptions, and the report that they were lost in the eruptions was merely a sensational method of covering up their tracks, and I so expressed the opinion at the time.

TRIP to Haleakala: On the 14th, at the invitation of the Maui Chamber of Commerce I made a trip to the Haleakala Section of the Hawaii National Park; the Maui people assuming practically all the expense of this trip, which was my first visit to this area. I am not aware whether the Director or his Assistant have either visited this Crater, but it was far ahead of my expectations; and the spectacular views at some of the places in and about this enormous crater eight miles across were astounding.

During my trip I rode horseback to the summit of the crater; then down into the pit, and across same, and to the sea coast beyond; and then followed trails along the coastline for two days more until we again reached the automobile road.

On the afternoon of the 19th I met with the Chamber of Commerce at the Fair Grounds, and before a group of representative citizens, I gave my impressions of the trip; and briefly outlined what the National Park Service hoped to eventually do toward developing this scenic area when full title had been given the Interior Department. I have never met with any group of citizens who were so much of one mind as were these people of Maui; and it will be a pleasure to co-operate with them in their work. (this in direct contrast to the present conditions at Hilo where there are so many factions and cliques that it would be unwise for the Park Superintendent to mix up with their affairs)

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I am covering this Maui Trip in a special report to the Director, but my impression is that the National Park Service has a wonderful asset in the Crater of Haleakala, without the uncertainty connected with Kilauea, and that with comparatively little expense for roads and trails, and a water tank or two, this Crater will be the means of obtaining a big increase in the attendance for the Hawaii National Park. I checked over their registers and was astonished to find that 59 persons had visited the summit during the first two weeks of August.

Their concrete rest house, with ~~xxx~~ wire-glass windows in metal frames, built by private subscription at an expense of \$7000.00, and with \$4500.00 now subscribed for another \$7000.00 in extension, is just a sample of how these Maui folks are ready to back this proposition.

I found that the delay in giving title to the Federal Government was caused by the owners being offended by ~~xx~~ unauthorized persons heretofore speaking for them; I met the various owners, and found them high class men, and perfectly willing to see things carried through to a success provided they deal direct with the Government. Although no names were mentioned, it appears that it was Mr Thurston and Prof Jagger who appeared as the self-appointed spokesmen and thus caused their (owners) lack of interest thereafter.

Hawaii Tourist Bureau: This organization, supported by the Territory at an expense of over \$100,000.00 year, handling the publicity for the islands, recognizes the National Park Service as the biggest travel producing agency in the world, and have complimented the Superintendent by regarding him as ex-officio member of their Board, and inviting him to attend all their meetings and enter into the discussions. I met with them at Kahului on Maui on the 19th, and again at Hilo on the evening of the 20th, making a short talk at each session expression our appreciation of the excellent cooperation they have given the Park Service during the past three years; and stating that in my opinion the 200,000 copies of our National Park folder which they have printed and distributed was the most effective piece of literature the Territory had put out, and gave it great credit for the increase in our attendance during the past two years.

Mr Armitage, the Secretary, accompanied me on my 125 mile horseback trip through and around Haleakala; and after the Hilo meeting he and Mrs Armitage spent a week at the Volcano House, as did also Mr McGonagle and his family, President of the Hawaii Tourist Bureau. I need not mention that this gave me the opportunity of further solidifying the friendship between the Hawaii Tourist Bureau and the Park Service.

The new Park Folder for 1924 which is now on the press has practically no changes in the text; but I have selected an entirely new set of recent pictures for the cuts, making it a point to have as many visitors shown in the views as possible.

The Hawaii Tourist Bureau is getting out a special 2000 foot film advertising the islands, and all sections of the Hawaii National Park are given space in this film. During Mr Armitage's visit over here we had a movie operator come up and take some special scenes at my request. Several of these films will be distributed on the mainland, and we may get one.

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Aug 1924 p 7

The Pathe Movie which was taken at the rim of Kilauea on May 13th, when the Superintendent was "blown up by the volcano" was exhibited in Hilo early in August, and in order that our neighborhood might see this film, which contained many things of local interest, four of us rented the film for one night at a cost of \$20 and had it shown at the "Military Camp, inviting the entire neighborhood to see it as our guests. So many attended that the show had to be repeated. At this same show I had them run the Grand Canyon film loaned to me by the Santa Fe, and this film made a great impression of the Hawaiians and Japanese; the "Stomp Dance" of the Indians was the hit of the evening, the native cowboys cheering it loudly as the Indians began to kick up the dust. As a result of this exhibition I have three local persons who will visit the Grand Canyon during the coming year.

Attendance: As previously mentioned in this report, there was a decided slump in our attendance for August, only 4000 visiting the Park; but many of these expressed regret that they could not remain longer. Among the more prominent visitors were:

Hon. John H. Wilson, Mayor of Honolulu;
 Dr Marlatt and family; Chief of one of the Bureaus, Dept of Agriculture.
 Sir Joseph Carruthers and party; ex-premier of Australia.
 Mr Rolla Wells, Formerly Mayor of St Louis.
 General Sherman and party, from Los Angeles.
 Dr McGonagle and family; Chairman Hawaii Tourist Bureau, Honolulu
 Mr George Denison, Manager Oahu Railroad, do do do
 Mr C. Q. Gammon, Manager Gas Company, do do do
 Mr Worth Aiken, Maui Pineapple Co., do do Maui,
 Mr W. H. Hussman, G.P.A., Hawaii Railroad, do do Hilo,
 Mr George T Armitage, Executive Secretary do do Honolulu.
 Mr J. D. McInerney, Merchant, do do do.

The following states and countries were represented during August:

Alabama	Iowa	Ohio	Australia
Arizona	Kentucky	Oregon	Canada
California	Louisiana	Penna.,	China
Connecticut	Massachusetts	South Dak.,	Cuba
Colorado	Michigan	Tennessee	England
District Columbia	Missouri	Texas	Japan
Florida	New Mexico	Utah	Java
Hawaii	New Jersey	Washington	Mexico
Illinois	New York	Wisconsin	Norway
Indiana	North Dakota		New Zealand
			Philippines
			Scotland,

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During the visit of Dr Marlatt of Washington D.C. I rode with him and his daughter across the Park to where the lava came to the surface through earthquake cracks about this time last year; this was his first visit to this area, and he seemed greatly impressed. He was accompanied by Mrs Marlatt and their four daughters.

It was also my pleasure to accompany General Sherman on a horseback ride of several miles before breakfast during his short visit here. The General, nearly 75 years old, is certainly an inspiration to the younger folks. The General had with him two friends from Los Angeles as his personal guests, but he was the only one 'young' enough to do any horseback riding that early in the morning. The General had evidently been informed as to the variety of climate one should expect in the Hawaii National Park, and appeared with a straw hat and a heavy overcoat. Had he known us a little better he would undoubtedly brought along an umbrella.

IX RECEIPTS AND REMITTANCES:

\$25 collected from Maude O Beers as six months rent on her lease in the Hawaii National Park. Remittance hereto attached.

Respectfully submitted,

Thomas Bates

Thomas Bates, Superintendent.

3 copies Washington;
1 copy to Mr Albright;
1 copy for file.

TB.

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DEPARTMENT OF THE INTERIOR

NATIONAL PARK SERVICE

HAWAII NATIONAL PARK

HONOLULU, HAWAII

*not needed until
my return from Hawaii.*

Superintendent's Office;
Volcano House, Hawaii, U.S.A.
August eighth 1924.

Hon. Stephen T. Mather, Director,
National Park Service,
Department of the Interior,
Washington, D.C.

JULY 1924.

Dear Sir:--

The following report on the operation and activities of Hawaii National Park during the month of July 1924 is submitted for your information and approval:

I GENERAL CONDITIONS:

On July 19th the return of molten lava in Kilauea Volcano was so spectacular and unexpected that it caused a big rush of local people to the park, and gave us a pretty good attendance when it looked for a while that we were to have a minimum month.

During the first week of July there was a convention of several church organizations in Hilo, the delegates coming from the other islands, and all of these delegates took this opportunity of visiting the volcano to see the remarkable changes resulting from the explosive eruptions of last May.

The inauguration of steamer service between Los Angeles and Hilo began with the arrival on July 2nd of the palatial liner "City of Los Angeles" with 250 tourists on board, most of whom were members of the Los Angeles Chamber of Commerce, in charge of Mr William Lucy, the President of the Chamber. Although this excursion arrived when there was no fire in the pit, they were fortunate in having two very pretty days which enabled them to enjoy many of the other features of the park.

Under the new schedule the steamers "Los Angeles" and the "Calawail" will reach Hilo every other Tuesday, remaining there two full days, the passengers remaining in the park from noon Tuesday until noon Wednesday. Even before these two boats began to make Hilo a port of call I have checked their passenger lists very close and find that nearly 90 percent of their passengers out of Los Angeles make the trip to the Hawaii National Park; while in case of the Matson boats barely 30 percent of their passengers out of San Francisco make the trip over to this island. This is partly accountable by the fact the most of the business visitors to these islands come via San Francisco, while most of the travellers from Los Angeles are out sightseeing.

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July 1924 p 2

The Hawaii Tourist Bureau, the official publicity agent of the Territory of Hawaii, has recently established an agency in Los Angeles, which insures every prospective visitor being fully advised as to the Hawaii National Park being an essential portion of a trip to these islands. The Hawaii Tourist Bureau is spending \$100,000.00 each year on Hawaii Publicity, advertising in all high grade magazines such as National Geographic, Saturday Evening Post, etc., and their hearty co-operation with the National Park Service is evidenced by their spending \$3000 each year for the printing and distribution of the Hawaii National Park folder. Nor will you find any of their magazine advertising which fails to mention Hawaii National Park. Their Executive Secretary, Mr George T Armitage, is especially consistent in his efforts to popularise this area as a National Park, and play up the volcano as a secondary attraction.

Bids are now being received by the Territory of Hawaii for the extension of the concrete highway from Hilo to within five miles of the National Park entrance, and by the end of next year I believe this highway will be a reality; and I trust that by that time we will have some road money at our disposal so that we can build some of the roads at the low altitudes of the park, and enable visitors even with limited time at their disposal, to see some of the many steaming pit craters and recent lava flows and formations in the nearby sections of the Hawaii National Park. Even Mr Thurston, President of the Hawaii Volcano Research Association, who several years ago went to Washington with a request for \$400,000.00 for a road to the summit of Mauna Loa, concedes that there is a greater and more popular demand for a road through the Pit Crater District of the Park, extending southeastward from Mauna Volcano toward the Kalapana Coast.

Weather: Only three days in July were without rain, but the total was only 4.74 inches, which was just about right to keep down the dust resulting from the caked ash on the trees and bushes, from the May eruptions. This dust is insoluble, and the rain affects it very little, but the wind loosens it from the foliage, and on a dry day it is quite annoying to one's eyes. However I believe that within a few weeks more the leaves will be free from this coating. The local station of the Weather Bureau reports the following for the month of July 1924:

Mean maximum during July-----	68.4	Days with .01 or more rain-----	25
Mean minimum-----	55.0	Days with Trace-----	3
Average for month-----	61.7	Days with NO RAIN-----	3
Maximum during July (27th)-----	74.	Days Clear-----	1
Minimum during July (25th)-----	52.	Days Partly Cloudy-----	24
Greatest daily range(74-55)-----	19.	Days Cloudy-----	5
Total rainfall-----		4.74 inches.	

Earthquakes: 110 quakes recorded during July, most very slight, although several of them rattled the doors and windows for miles around the volcano. No damage whatever; in fact the tourists get a great 'kick' out of these shocks, especially when they happen during meal times.

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July 1924 p 3

II PERSONNEL:

No.	Class.	Work performed.
1	Superintendent-	Administration, supervision, disbursing.
1	Ranger.	Guide work and sign painting.
12	Laborers.	Maintenance of roads, trails, and buildings; Crater patrol and traffic patrol during visits of large crowds; including 6 traffic cops during the Los Angeles excursion. Total 134 man-days.

III WORK IN PROGRESS:

Maintenance of existing roads and trails, which are now in excellent shape, and have earned the many favorable comments from local as well as distant visitors.

IV WORK COMPLETED:

Practically all the effects of the May eruptions, in so far as National Park roads and trails are concerned, have been obliterated; in fact the park roads and trails are in better shape than they have been for several years.

V WORK PLANNED.

Our small force will continue their maintenance of existing roads within the park, and will make improvements in our trails. With the small number of miles of road at present, it is imperative that we get our TRAILS in excellent shape so as to hold the visitor here long enough to enable him to really appreciate the National Park.

VI COST OF OPERATION:

Administration:	01 Superintendent's salary-----	\$250.00	
	Janitress wages-----	6.00	
	0200 Stationery and Office supplies---	6.56	
	0230 Fuel and light (light only)-----	5.00	
	0500 Telegraph Service-----	8.34	
	0510 Telephone Service-----	6.30	\$282.20
Protection:	01 Guide and Crater Patrol-----		183.50
12 Repairs and Alterations:			
	1200 Buildings-----	8.75	
	1210 Roads-----	157.00	
	12111 Kilauea Trails-----	49.50	
	1280 Passenger carrying vehicles-----	14.55	229.00
13 Special & Miscel:	1307 Operating Pass Carryg vehicles-----		11.78
30 Acqn of Property:	3050 Miscel equipment (tools)-----		16.46
	Total for July 1924-----	\$725.74	

282.20

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July 1924 p 4

VII/ NEW POLICIES:

No new policies inaugurated or contemplated. Our present policy of making everyone welcome to this park, and urging them to remain longer, seems to be satisfactory to 99% of our visitors, and is therefore satisfactory to the Service.

The uncertainty of Kilauea Volcano compels us to concentrate our publicity on other features of the park, otherwise we will be unable to get visitors to Honolulu to make the trip over to this island. Most travellers from the mainland are familiar with National parks, and when we can bring to their attention the fact that a National Park is but a short distance from Honolulu we will have little difficulty in getting them to come over here, and they will not be influenced by the depressing information furnished them by certain parties in Honolulu to the effect that 'the volcano is the only thing to see, and it is very quiet'.

I have recently borrowed a large kodak and with it have taken quite a number of pictures of points of interest which are convenient to our park trails, but which are not generally known to the public; and these pictures are being sent out to where they will do the most good, and am also sending sets to Mr Demurray so that he can have them in rotogravure sections of the leading newspapers, and in magazines. At the request of Mr Harry Chandler I am now preparing a full page article to appear in the Midwinter number of the Los Angeles Times, 500,000 copies of this are to be distributed in addition to their regular circulation. This costs us not one cent.

VIII ~~IX~~ OTHER MATTERS OF INTEREST.

Hotel: Effective July 1st the Kilauea Volcano House authorized a rate of \$100 per month, or \$25 per week, for room and board at their hotel, and this should be an incentive to bring Honolulu and other nearby islanders to spend their vacation in the park. This is the same service exactly that costs the one day visitor \$7.50 per day. Under Manager Lovejoy the food and service at this hotel has reached the high standard established by the hotels in other National parks, and the hostility of Hilo people against the hotel is fast disappearing, as is evidenced by the fact that 450 persons attended the dinner dance at the hotel on July 5th.

Volcanic activity: On July 19th at 3PM the liquid lava unexpectedly returned to the fire pit of Kilauea Volcano as an enormous geyser sending up a continuous spray of lava which at times was nearly 300 feet above the opening in the floor of the crater, nearly 1500 feet below the rim. However by the end of the month this had dwindled away until now only the glowing orifice may be seen at night. Maybe one of the earthquakes out off the supply: if so, maybe another earthquake will turn it on again.

New Steamer Service: The most important event during the past month was the inauguration of steamer service to Hilo by the Los Angeles Steamship Co: To have a direct line from Southern California to the Hawaii National Park means much to our attendance, for Southern California is full of people who have the time and money to enjoy just this sort of a trip. The first ship "City of Los Angeles" with 250 passengers, visited the park on July 2nd, and although no molten lava was visible, they seemed to enjoy their visit.

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July 1924 p 5

This same ship called again on the 29th with 135 passengers, among them being Mr Harry Chandler of the Los Angeles Times, and Mr Ralph Chandler, President of the Steamship Company. I accompanied them during their entire visit and took this opportunity of impressing upon them the importance of advertising this place as a National Park, and called attention to the fact that none of their advertising matter or itineraries even mentioned the existence of a National Park in Hawaii. (I am advised that this itinerary was prepared by Mr Norton of Honolulu who is well aware of the existence of the Hawaii National Park, but takes it upon himself to criticize and embarrass the National Park Service in many instances.)

During July 200 Japanese naval cadets visited the park, coming on training ships and tankers. As Japan is famous for its volcanoes, these young men were very interested and appreciative visitors.

On the 6th thirty Japanese ministers visited the park.

On the 8th about sixty native Hawaiians from the various islands assembled at the rim of the volcano, and their astonishment at the present size of the pit was such that they spent nearly one hour in prayers, chants, and lamentations, all absolutely serious. Then just as they started away from the rim an avalanche roared down from the opposite wall sending up a swirling cloud of red dust; this brought them all back to the rim, and their previous performance was repeated. All these folks were delegates to a convention commemorating the Hundredth Anniversary of the establishment of a Christian Church in the islands, but it was quite apparent that all of them has great respect for "Pele", Hawaiian Goddess of Volcanoes.

Honey hunters from Kilauea Military Camp started a fire in the forest just beyond Bird Park. The Captain commanding this camp declined to assist in extinguishing this fire until it was proven within the National Park boundaries, and had been started by his men. This is quite a different attitude from a previous commander who upon being notified of a woods fire said "Well, Boles, we will go put it out, and then discuss who started it" I have positively prohibited honey hunting within the park, for it is practically impossible to obtain the honey without using the axe or fire.

On July 5th an army truck carrying supplies to Kilauea Military Camp struck a slowing moving Ford car in the rear, knocking the light car off the road, but not injuring any of the six passengers. The driver of the truck was fined half the damage to the light car by a Board of Inquiry from the Military Camp, and the truckdriver resumed his driving within a few days. This accident was at noon, and the driver had a clear vision for over 200 feet. It is a matter of regret that the local Military Camp cannot see their way clear to get rid of truck drivers who are so careless about other peoples rights on the public highways.

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July 1924 p 6

On July 23rd three Martin Bombers, the largest type airplanes, flew across the Hawaii National Park with a moving picture operator from the Fox Film Company. I am not aware of what success they had, as they did not land on this island.

On July 30th I walked around the Crater of Kilauea with Dr Poundstone of Chicago, who was taking color photographs for use in his lectures which he will give during the coming fall and winter. He was very much impressed with the park features, and took in all 50 color plates, and about 60 common pictures.

Attendance: During July 1924 there were 4950 visitors to this park, and many of them expressed regret that their itineraries had been so prepared in advance that they could not remain here longer. Among the more prominent visitors during July were the following:

Hon. Wallace R. Farrington, Governor of Hawaii.
Mr Charles Boyer, Manager Travel Dept Los Angeles.
Mr William Lacy, President Los Angeles Chamber of Commerce,
Mrs Cowles, recently President of Federation of Women's Clubs.
Mr P. C. Van Schaack and son, of Chicago. Neighbor to Mr Kather.
Dr and Mrs Boardman of the Sierra Club. (Both good hikers)
Mr Frank Keenan and bride, of Hollywood California.
Dr Poundstone, Lecturer from Chicago, Illinois.
Mr Harry Chandler and family, of Los Angeles Times.,
Mr Ralph Chandler, President of the Los Angeles Steamship Co.,
Mr James Merideth, Editor from Sacramento California.,
Mr Lorrin A Thurston, "Father of Hawaii National Park"

The following states and countries were represented during July:

Arizona	Indiana.	New York	Australia
California	Kentucky	Ohio	Canada
Colorado	Louisiana	Oregon	China
Connecticut	Maryland	Pennsylvania	England
District Columbia	Massachusetts	Philippines	Germany
Florida	Michigan	Tennessee	Holland
Georgia	Minnesota	Texas	Japan
Hawaii	Missouri	Utah	Korea
Idaho	Montana	Washington	New Zealand
Illinois	Nebraska	Wisconsin	Scotland
(31 states)		Wyoming.	(10 countries)

During the visit of the persons mentioned above by name it was the pleasure of the Superintendent to accompany each of these persons over some portion of their trip, and I am very much gratified over their many complimentary remarks over the work of the National Park Service in this area, and to learn from them that the HAWAII National park is measuring up to the high standard which has been established by the older parks on the mainland.

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July 1924 p 7

Mr Van Schaak of Chicago was especially delighted with his visit, and gave our Director full credit for 'turning on' the volcano while the Von Schaak party was in the park.

By taking photographs of special visitors to the park, and sending these pictures to their home paper with our compliments, the park will obtain quite a bit of favorable publicity at practically no cost; and persons in such locality contemplating a visit to these islands will naturally ask these recent visitors for their opinion as to the worth-while of the trip.

IX RECEIPTS AND REMITTANCES.

Nothing to report for July.

Respectfully submitted.,

Thomas Boles.

Thomas Boles, Superintendent.

3 copies Washington;
1 copy to Mr Albright
1 copy for file.

Total attendance this season to date-----4 2 7 6 0

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DEPARTMENT OF THE INTERIOR
NATIONAL PARK SERVICE
HAWAII NATIONAL PARK
HONOLULU, HAWAII

Superintendent's Office;
Volcano House, Hawaii, USA.
May fifteenth 1934.

Mr. Stephen T. Mather, Director,
National Park Service,
Department of the Interior,
Washington, D.C.

Dear Mr. Mather:-

The events in the Hawaii National Park during the past few days have been so unusual that I believe it worth making up a special report to you, rather than wait and include it under the heading 'matters of general interest' in my monthly report.

Kilauea Volcano, far from being dead, has proved to be about the liveliest, and for some moments the most dangerous, thing in our National Park system. It is unquestionably the most spectacular wonder in the world today, as you will admit after seeing the photographs which accompany this report. I will state that at times the cloud was even higher than in this picture, which was taken Sunday morning, May eleventh; the appearance of the column depending a good deal on the sunlight as well as the direction of the wind; when the wind was light, the clouds three-quarters of a mile in diameter would roll up nearly three miles high. An officer at Kilauea Military Camp made one observation which indicated a height of nearly four miles.

The first signs of activity in the volcano was noted by the night watchman at the Hotel at 12:30 AM May 9th; he immediately awakened the Hotel Manager and the Park Superintendent, and we went to the edge of the outer crater but could see only a faint glow and I felt certain that it was but a deep avalanche which had uncovered a red hot surface deep down inside the pit, and that such glow would fade out in a few hours.

However next morning we were a bit surprised to find immense clouds of salmon colored ash rolling out of the crater to a height at times of two miles. I visited the pit soon after breakfast and found all the walls secure, and found that none of the cracks around the crater were widening. The avalanches inside were roaring continually and it was impossible to see down in the pit for more than one or two hundred feet when the swirling winds would clear away the dust.

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Mr Mather -

The Matson steamer "Maui" with forty passengers was in the port of Hilo, and before allowing these people to visit the rim of the pit I satisfied myself that the rim was perfectly safe, and that there would be no danger in allowing them to visit it. Three of my men were kept at the rim to observe the concentric cracks, with instructions to clear the area should these begin widening the least bit. I will state that at about 100 foot intervals I have DANGER signs on stakes driven in these cracks, and a slight widening of the crack is at once evidenced by a tilting of these signs.

Moving pictures were made this morning by the Buick people of one of their new cars equipped with balloon tires going over some of the rough lava to a point within a short distance of the rim of the pit. This will be generally exhibited throughout the world and will advertise not only their tires, but will bring out the fact that in the Hawaii National Park cars may be driven to the very brink of a volcano.

On the morning of the 10th the Steamship 'Samaria' having on board 350 persons in charge of Thomas Cook & Company, on the homeward stretch of a round the world tour, in charge of Manager Ross Skinner and his several assistants.

These reached the Park in two sections, one visiting the park while the other made the railroad trip along the east coast of the island. Both parties had lunch at the Volcano House, but returned to Hilo in time for dinner on the ship, which departed at 8 PM for San Francisco, and thence to Panama Canal.

During the visit of the first group the weather was perfect; bright sunshine, with no clouds in the sky except the cloud of ashes pouring up from the volcano. To say that these people were astounded at the view is really putting it mild. Many expressed themselves to the Superintendent that it was the most impressive thing of their entire trip. Nearly everyone had a camera of some sort, and 'shot' the volcano from every angle, and soon exhausted the stock of films at the hotel.

I remained at the rim of the crater during the visit, and noted one man with high class kodak equipment who seemed to be getting some especially good views, and upon introducing myself found him to be Mr Decou, celebrated for his 'Dream Pictures' of the various National Parks. I took personal charge of Decou, and at my suggestion he cut the railroad trip for the afternoon, and remained with me getting pictures of many points of interest to which the bulk of the visitors were not being taken. Decou soon exhausted his film packs for his graflex and then bought up a lot of roll films and started in again; he seemed to be afraid that the volcanic action would stop any moment, and didn't want to miss a thing (nor did he), and as he will shortly be in Washington I

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Mr Kather -3-

made him promise to bring his entire set of pictures to you for inspection. Mr DeCou weighs about 220#, and recently twisted his ankle, but his enthusiasm carried him over the rough places. It is likely his views will be copyrighted, but I hope you may secure a set of colored slides from his films.

A singular coincidence was that the front cover of our Hawaii National Park folder had a picture of the volcano almost exactly like it was appearing this day, and the demand for folders was immediate; something over 1200 folders being distributed to the members of this tour during the day.

The Volcano Kilanea certainly put Hawaii National Park in the limelight for the Cook Tours during this visit; and I have a pledge from Mr Skinner that this place will never be passed up by any of the Cook Tours, as it was by the Frank Clark Tour last winter.

Extra policemen in uniform were used during the day, and everything went off just like clockwork, and Mr Skinner was profuse in his acknowledgment of the attention given his patrons.

Early Sunday morning, the 11th, I sent one of our men to the pit, and he reported that during the night many rocks and boulders had been thrown outside the rim of the pit, some landing on the parking space. He remained there over half an hour and none fell during his visit. I at once put my men on Sunday duty to protect the many visitors which we have on Sundays, and also built a rough wall of lava across the road to the pit at a point 2000 feet distant from the rim of the crater. One man remained here to warn visitors that cars must be left here, and that in walking beyond this point they would incur risk of accident from the volcano.

By inspection of the area disclosed some boulders 300# in weight thrown 200 or 300 feet outside the crater, while others weighing 10 or 20 pounds were found nearly one thousand feet distant. As no explosions had been heard during the night I was then of the opinion that these had been caught in some of the terrific whirlwinds rising from the pit.

Everything went well during Sunday, many magnificent pictures being made, as well as Pathe Movies, and you will doubtless see these in your local theaters shortly. I have asked the Pathe folks in New York to send special invitation to the Washington Office when these films are shown locally.

Mr Roy Finch, Acting Director of the Observatory, spent the night at the edge of the danger zone, and reported nothing unusual during the evening except several rather heavy earthquakes.

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Mr Mathor -4-

The Observatory, being equipped with several high class cameras with special screens and filters, has obtained some excellent pictures, and I hope to obtain some prints from them soon. With my small kodak I got many good views, and will print up several sets so that Mr Demurray may distribute them around to various publications.

On the twelfth there were only local visitors present, and during the morning some magnificent dust clouds arose from the pit. Probably just as many during the afternoon, but it nearly always drizzles during the afternoon.

On the morning of the thirteenth Mr Emerson from the Observatory, equipped with gas mask, walked entirely around the pit, and reported that more stone had been thrown up, and that although the ashes were dense, there was little or no gas. In fact he suggested that my barrier might as well be thrown open; but in talking with Mr Finch later in the day Finch stated that there was still an uncertain element of danger; so I maintained the barricade, and also my guards.

Shortly after lunch the Math Movie man came again, accompanied by a representative of the Associated Press, and as no rock had been thrown up during the day, I allowed them to enter the danger zone, accompanying them myself so as to determine if it would be alright to allow the "Empress of Canada" tour members to visit the pit when they arrived here on the seventeenth.

Inspection revealed very little change of the rim next to the parking space, but the walls on the opposite side had fallen in for maybe a hundred feet beyond the depressed shelf, which is shown so plain in the airplane pictures recently sent to you.

We did however find one hot rock, and the movie operator set up his machine to take a picture of the Superintendent 'juggling' this rock to indicate its heat, but just at 4pm, when he started cranking his camera the volcano 'cut loose'; there was no roar or boom, but it sounded more like a mighty "whoosh" sustained for maybe a minute, together with the whistling of the red hot boulders as they shot up into the clouds. These rocks could be plainly seen by us, but it did not appear that any would fall outside the rim of the pit, and our first information to the contrary was when one about twice the size of a brick crashed about 30 feet from us.

The four of us then started every man for himself across the field of lava extending to the east, with red hot boulders of all size smashing around us, some sticking in the red lava, others bounding along with us.

Mr Bellmap, movie assistant, and Mr Phillips from a local plantation were struck with small rocks, but continued at full speed. The Superintendent was struck on the shoulder by a bounding boulder

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Mr Mather -5-

and knocked forward, falling on the brittle lava and tearing the skin from both hands, and his right knee, and making a severe cut on his left knee. Arising, he started forward again, but after reaching a point some hundred yards from the crater, the red-hot boulders were coming down rather thick, when I tripped up and fell again, and decided it was of no use trying to dodge, so I rolled to one side and sheltered my head and shoulders by a small ledge maybe 15 inches high. This protected me from bouncing rocks, and I took the risk of direct hits, many of which struck within several feet of me, touching me now and then with splinters of lava crust.

The hissing and whistling continued nearly a minute, and I was beginning to think it was going to be a real eruption which would finally cover the area with stones and ashes, and I began to worry whether the rock which would finally hit me would be a hot one or a cold one.

The eruption being over, the other members returned to pick me up, one man being certain he had seen me struck; and there was a general jollification when we all signaled 'alright'.

The two ladies in the auto 2000 feet distant were hurrying toward us, nearly hysterical, as they were certain they saw three of us struck with rocks. As a matter of fact one hot rock weighing close to a hundred pounds pass entirely over their car 2000 feet away.

The movie man has saved his machine, and I ran back to the rim of the pit and got my hat. And the Superintendent then posed beside one of the large hot boulders which struck near him during this bombardment. I may look a bit ragged in this picture, but believe you should recognize me.

We went to the Military Camp and got patched up, and the Associated Press man sent in his report, and I also sent you a report for fear the Press report might be a bit enlarged as to details. I did not make any suggestions to the press man as to his report, for he was as much on hand as I was, and maybe better able to determine what was news.

No more rocks have been blown up, but our Danger Zone has been set at 2 miles, which is the outer rim of the volcano, from which point excellent view of the smoke cloud may be obtained. And, as I have always maintained, there is lots more to be seen in the Hawaii National Park beside Kilauea Volcano.,

Yours very truly,

cc Albright San Francisco
cc C K Boles Fort Smith

Thomas Boles, Supt.,

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DEPARTMENT OF THE INTERIOR
NATIONAL PARK SERVICE
HAWAII NATIONAL PARK
HONOLULU, HAWAII

FILE.

Superintendent's Office;
Volcano House, Hawaii, USA.
May sixth 1924.

Mr. Stephen T. Mather, Director,
National Park Service,
Department of the Interior,
Washington, D.C.

APRIL 19 24

Dear Sir:--

The following report of the activities and operation of the Hawaii National Park during April 1924 is submitted for your information and approval:

I GENERAL CONDITIONS:

The inactivity of Kilauea Volcano since February 18th has had a depressing effect on our attendance, the decrease being 25 percent from the previous month. We were helped a little by the Easter holidays lasting about ten days during the early part of the month, during which period many persons took advantage of the good weather and excellent roads and visited the park. All the summer cottages in the park and nearby were filled to capacity during these holidays, mostly with teachers from this island. The 17 miles of concrete highway leading toward the park from Hilo was also quite an incentive for Saturday and Sunday auto trips, many people from Hilo coming up to use the golf links of the Hotel Company located near the Koa Grove.

April is a light tourist month, but unless something happens unusual during the coming month I fear our showing in attendance will be ever worse. Owing to the light travel to this island, the Steamship 'Haleakala' has been put back on a twice-per-week ~~the~~ schedule, instead of the regular tri-weekly service. This service will be maintained until travel warrants resuming the tri-weekly trips. Under the present arrangement the tourist arrives at Hilo at 7AM and departs from Hilo at 5PM the next day, allowing only from 4PM of one day to 1PM the next day to remain in the Park. Under the former schedule they had an extra day, which enabled me to send lots of them out on the trails, but at present we will be able to send them only on the three mile hike across the floor of the outer crater.

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April report--2

The County Engineers have staked out the extension of the paved highway from Hilo toward the Park Entrance, and with the present territorial appropriation, together with probable Federal Aid, the concrete highway will be brought to within FIVE MILES of our Park gate during the coming two years. It is to be hoped that our Park Highway money will be available so that the interior park roads can be put in such shape as to prevent unfavorable comparison with our tributary highways. Of course we do not intend to build such expensive highways as the County is doing (\$50,000 per mile), as the control we have over the weight and speed of vehicles inside the park enables us to build a suitable highway with a great deal less money. Besides, we have almost an unlimited amount of excellent road material available for our work.

Weather: Only two days in April were without rain; however the total of 13.27 inches is considerable below the average for this month. Our rainfall for the first four months of 1924 shows a deficiency of nearly 60. inches from the ~~precipitation~~ same period of last year. Rain is the only water available in the park, and a dry season with us is undesirable. However the Hotel Company has over 600,000 gallons in their tanks, and unless business picks up this will last them a long time. A snowstorm on the 9th covered the tops of both mountains with a blanket of snow, but this has nearly all disappeared by the end of the month. The local station of the Weather Bureau report as follows:

Mean maximum temperature for April	-----	66.6°
Mean minimum for month	-----	54.0
Average temperature for month	-----	60.3°
Maximum during April	-----	74. 24th
Minimum during April	-----	46. 1st
Greatest daily range: 73° to 54°	-----	19. 10th
Total rainfall	-----	13.27 inches
Greatest daily rain	-----	4.09 14th
Days with .01 or more rain	-----	25
Days with Trace	-----	3
Days with NO RAIN	-----	2
Days Cloudy	-----	16
Days partly cloudy	-----	14
Days Clear	-----	0

Earthquakes: A total of 359 earthquakes were registered during April, several of which were strong enough to rattle the houses, and one on the 10th was strong enough to break dishes at Hilo 30 miles distant.

The center of earthquake activity during April was near the village of Kapoho thirty miles distant, where 800 earthquakes were counted without instruments. This is covered in a later paragraph of this report.

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April report -3-

II PERSONNEL:

No.	Class.	Work performed:
1	Supt.	Administration, supervision, disbursing, exploration.
1	Ranger	Guide work and sign painting.
1	Clerk.	Correspondence, reports, information.
4	Laborers.	Maintenance of roads, trails, and buildings; also crater patrol during visits of large parties. 69 man-days employed during the month.

III WORK COMPLETED:

60 new signs painted;
20 signs renewed around the rim of the crater.

IIII WORK IN PROGRESS:

Many new signs identifying trees and shrubs have been painted during this month; these signs give the Hawaiian names, and also the American, and scientific names of these plants.

Our little force of laborers have been used on maintaining our roads and trails; the park roads are in good shape, all ruts and holes filled, side ditches and cross ditches in fine condition, so that no matter how heavy the rainfall there will be little if any damage to the surface. The use of a light dump truck during the early part of the month, through the courtesy of the county officials, has assisted us greatly in our road work.

V WORK PLANNED:

Our small force will continue their work on our existing roads and trails, for in this way, even with our present modest appropriation, can more visitors be benefited.

Through the courtesy of Mr J. M. Young, leading Civil Engineer of Honolulu, and Prof Kellar, Head of the Engineering Department of the University of Hawaii, I expect shortly to receive a light mountain transit and a wye level, with rods, etc., and will begin preliminary surveys of the roads which are to be built when our Park Highway money is available. A day or two spent at this each week will put us away ahead when we begin our actual road development.

The running of several lines over the proposed route of any of our new roads will be the means of saving many thousands of dollars in their construction.

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April report -4-

VI COST OF OPERATION:

Administration:	01 Superintendent's salary-----	\$220.00	
	Allowance for quarters-----	50.75	
	Clerk's salary-----	75.00	
	0200 Stationery and Office Supplies-----	.60	
	0250 Fuel and Light (Light only)-----	5.00	
	0500 Telegraph expense (Radio)-----	2.76	
	0510 Telephone expense-----	6.30	
	0600 Travel expense-----	10.00	
	0700 Transportation of things-----	3.20	\$373.81

Protection:	01 Guide and Crater Patrol-----	120.00	
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12 Repairs and Alterations:

1200 Buildings-----	6.00	
1211 Roads-----	77.50	
12111 Kilauea Trails-----	9.15	
12112 Mauna Loa Trail-----	21.00	
1280 Passenger carrying vehicles-----	6.99	
1290 Crater Rim safety-----	35.00	155.64

13 Special and Misc Current expenses:

1387 Operating passenger carrying vehicles-----	11.44	
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April 1924 expenditures-----\$660.69

(\$40.00 Inc Comp included)

VII NEW POLICIES:

No new policies inaugurated or contemplated.

The present inactivity of Kilauea Volcano compels us to use every effort to send visitors over our trails, so as to offset possible disappointment over the volcano, and so that they can see for themselves the many things of interest in the Hawaii National Park other than Kilauea Volcano. Most of our visitors are past middle age, and lack of park roads except to the rim of the volcano, handicaps our efforts to bring to the attention of the visitor the many other interesting features of the park. When our Park Road fund is available the immediate construction of the Chain Crater Road will open up to the tourist one of the most interesting sections of the park, as it will bring the visitor to the rim of nearly a dozen pit craters, many of them constantly steaming, and two cases of actual molten lava during the past two years. One of these steaming pits is 1000 feet deep, and over a mile across, and only a few months ago this pit contained several cascades of molten lava. Of course Kilauea, and at long uncertain intervals Mauna Loa, are probably the most spectacular feature of the National Park System, but the Pit Crater Road can be built quickly and cheaply, and will prevent disappointment to many of our visitors.

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April report -5-

VIII OTHER MATTERS OF INTEREST.

Word has just been received from Washington approving the design of the summer camp cottages to be built by the Hotel Company, and construction will begin within a week, and camp should be ready for use by the time the summer vacation begins.

On April first Mr Channing J Lovejoy was appointed Manager of the Kilauea Volcano House, succeeding Mr P. T. Phillips, resigned. Mr Lovejoy has for some years managed the 'Commercial Club' at Honolulu, the leading private dining room in the territory. I did not meet Mr Lovejoy until he arrived in the Park, but from what I can learn he will make an excellent manager for the Volcano House. His wide acquaintance in Honolulu will do much to popularize the Hawaii National Park as a summer resort for island residents. His willingness and desire to cooperate with the Park Service is very much appreciated by the Superintendent, and the marked change in the local 'atmosphere' is quite noticeable to the Superintendent as well as the hotel patrons.

Publicity: During the past month much publicity has been secured which is bringing the Hawaii National Park favorable notice and attention. Not only did we get several pages in the Honolulu papers; but also nine full pages and 18 photographs were included in the April issue of "The Paradise of the Pacific"; also six full pages and 9 illustrations in the May issue of "Asia", and of course you are aware of the magnificent publicity obtained through the article by Mr Grosvenor in a recent National Geographic Magazine; of his 139 illustrations, nearly 50 were of scenes within the Hawaii National Park. (only 2 however were so identified) but of course at the time of Mr Grosvenor's visit the Park Service was not locally represented.

Folders: The Hawaii Tourist Bureau, a territorial institution, is now printing 50,000 park folders similar to the 100,000 issued and paid for by them last season. The whole hearted cooperation of the Hawaii Tourist Bureau, and their Secretary Mr Armitage in particular, has meant much to our park.

Kilauea Military Camp: During the past month very little trouble has been given by members from this camp. Five cases of their men appearing drunk and noisy on the highways were turned over to the Camp Commander, and parties at fault are now in confinement. I do not believe any liquor is being sold inside the Park, but it seems easily obtained in Hilo, even by a man in uniform. I will mention that the Federal authorities recently arrested a Hilo man who had nearly \$60,000 worth of liquor in storage. His case comes up in Honolulu in the next few weeks.

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April report -6-

Volcanic activity : Kilauea Volcano continues dormant; the pit is filled with dense sulphur fumes, and only now and then may a glimpse of the interior of the pit be seen. During the earthquake period the last week of April the pit deepened until, now it is 600 feet deep. No molten lava is present, but as the settling crags split open the red hot interiors illuminate the fumes at night. Our 359 earthquakes would indicate that the Park is 'active' even though the volcano is quiet.

Kapoho Earthquakes: On Sunday evening April 21st I was notified by telephone that many earthquakes were taking place in Kapoho, a small village near the coast about thirty miles east of Kilauea Volcano, and I at once notified Prof Finch of the Volcano Observatory, and we drove to the Kapoho District early next morning.

For several days the instruments at the Observatory had indicated a progressive movement of local earthquakes toward Kapoho, and as during the past two years this has been accompanied by lava flows, we felt sure that we would find molten lava somewhere along the line of cinder cones and pits extending across the Hawaii National Park clear to the coast at Kapoho.

The tremors were continuing when we reached Kapoho, but at that time no cracks had opened up; but by using the geophone we could hear subterranean noises that might be either molten lava forcing its way underground, or possibly the grinding of rock faults adjusting themselves in new positions. We examined many of the cinder cones enroute, but found nothing unusual except at Pua Lena which was steaming.

That night however the earthquakes began again, totalling 235 in one day, and by morning the ground was found split open in many places; no lava was present, nor was there any sign of heat in these cracks.

Many of these cracks ran down the middle of the roads, and were less than a foot wide, making it possible to drive along these roads with auto wheels on each side of the crack. While photographing our car in this position a quake occurred opening up the crack under the car an additional inch or so; we took the hint, and drove the car out of the sinking area, and continued our investigations afoot.

The best general view of the area was obtained from the top of a 125 foot cinder cone, the slopes of which were very steep. While the Superintendent and Prof Finch were on this point making making observations we experienced several shocks which seemed to give the cone an easy swinging motion like a rocking chair, making sketching difficult, and photography impossible. Twenty minutes of this satisfied us, and we descended of our own accord. (A day or two later this cone split open, and warm moist air came from the cracks)

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April report -7-

Although the heaviest of the quakes were felt at a distance of fifty miles, the actual shattering and sinking of the ground was confined to a strip about one mile wide and five miles long, extending out in to the ocean. Some of the cracks across the road were 3 or 4 feet wide, but the settlement of one side formed a step 2 or 3 feet high, making the crack invisible from the high side until you were right at it, but appearing like a wall across the road when approached from the low side.

The largest crack we found was directly across the road; it was 12 feet wide when we reached it, and while we ate our lunch nearby it widened to 13½ feet. This crack finally widened to 18 feet, and formed a step 8 feet high. (Photo inclosed)

It appears that the entire valley has subsided about 8 feet; this being very noticeable where the railroad enters the valley. The ties and rails were swinging like a suspension bridge for a distance of 200 feet, from the top of the 8 foot step, to a point on the sunken land. I ran two lines of levels across the valley at places about one mile apart, and by comparing this with previous profiles the exact subsidence at various points can be determined; and our new profiles will be of great use in checking up further displacements in the valley. Prof Fitch, in charge of the Volcano Observatory, has expressed great appreciation over the assistance given him in his exploration and investigations.

On the second day of our visit we followed one of the large cracks to the coast, and then followed along the waters edge for a distance of 4000 feet to where the other crack entered the sea. Much of this trip was through and over clinker lava 10 and 15 feet high, with no shade available except an occasional cluster of cocconut palms, which by the way were very much appreciated when our canteens were empty, as each cocconut contains about a pint of cool refreshing drink. As many of the nuts had been shaken to the ground we were spared the exertion of climbing after them. A palm tree has no branches, and climbing one is like going up a telegraph pole without spikes.

On visiting this area a day or two later we found that the palms under which we had rested were now out some distance in the sea, the coast line having sunk nearly 12 feet. While we were there we could feel and hear the ground rumbling, but had no idea the subsidence would be so much.

Probably 500 persons lived in this area, most being Japanese plantation laborers. All of these moved out with such belongings as they could carry, and we had the town to ourselves during our stay. A squad of native police sent from Hilo to guard the vacated houses and store decided by 9 PM they had enough of the earthquakes, and returned to Hilo.

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April report -8-

It appears that a short time ago, in opening up a local rock quarry, two stones were removed which bore inscriptions of some sort, and the older Hawaiians predicted trouble, and are firmly convinced that the recent shakeup was a penalty inflicted by 'Pele' Goddess of Volcanoes. It is a fact that the quarry suffered the most damage from the quakes, the railroads tracks at that point being greatly distorted.

It was interesting to watch the ~~mynah~~ mynah birds during the quakes; they would alight in a tree, and in a minute or two the tree would begin to shake, whereupon they would fly to another, only to be disturbed again. At the end of the first day all the birds had left the country. These birds are about the size and disposition of a jay bird, and their loss, even though temporary, was good riddance.

The country being abandoned, our party established field headquarters in the residence of Mr Henry Lyman, which by the way was where Richard Tully wrote the most famous play of Hawaiian life, "The Bird of Paradise". Had Tully been there this week he would have found no birds, and little evidence of a 'paradise'.

During this activity the fumes from one vent in the pit of Kilauea became so hot that the side of the gas vent were nearly white hot, but this seems to be cooling off again. Manna Iki, (named by Mr Albright during his visit) was reported active, but investigation proved that it was steaming no more than usual.

Attendance: During April but 5000 persons visited the Park, many of whom were local people who were curious to see what the volcano was ~~doing~~ doing during the earthquakes. As previously mentioned, it was doing nothing. A check of the register shows the following states and countries represented during April:

California	Maine	New York	Australia
Colorado	Maryland	Ohio	Canada
Connecticut	Mass.	Oregon	China
Illinois	Minn.	Penn.	England
Indiana	Miss	South Dak.	Holland
Iowa	Missouri	Texas	New Zealand
Kansas	Montana	Utah	Scotland
Kentucky	Nebraska	Wisconsin	Wales
Louisiana	New Jersey	Hawaii	Japan
			Korea
			Phillipines.

Among our visitors were Mr Nalley, Secretary of the Tourist Bureau of Australia;
Mrs Paul Rieger, Governor of the West Coast Rotarians.
Mr Lorrin A Thurston, 'Father of the Hawaii National Park'

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April report -9-

IX RECEIPTS and REMITTANCES:

During April 1924 the sum of \$500.00 was collected from lessees occupying land within the Hawaii National Park, and this amount remitted direct to Washington.

Respectfully submitted,

Thomas Boles
Thomas Boles, Superintendent.

TB-JB

3 copies Washington
1 copy to H M A
1 copy for file.

3 kodak prints inclosed.

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DEPARTMENT OF THE INTERIOR
NATIONAL PARK SERVICE
HAWAII NATIONAL PARK
HONOLULU, HAWAII

file
Superintendent's Office;
Volcano House, Hawaii, USA.
April fourth 1924:

Mr. Stephen T. Mather, Director,
National Park Service,
Department of the Interior,
Washington, D.C.

MARCH 1924

Dear Sir:--

The following report on the operation and activities of the Hawaii National Park during March 1924 is submitted for your information and approval:

I GENERAL CONDITIONS:

Inactivity of Kilauea Volcano during March had a depressing effect on our attendance, causing a decrease of nearly 25 percent from the previous month. Nor did we have any visits from any ships except the regular calls of the Interiorland and Watson Line boats, and even these did not bring over their usual number.

The concrete highway between Hilo and the Park has been completed for a distance of 17 miles, to within 13 miles of the Park Entrance; of these 13 miles only 2 are really rough, and the County now has enough men and machinery on this section to have these two miles in good shape by the end of April. We will then have 17 miles of excellent concrete pavement, and 13 miles of macadam highway with easy grades and fairly good surface, but a bit narrow in places.

This completes the present contract, but the Territory still has \$200,000 available for extension of this highway, and new contract may be started this summer. If the same type of construction is adopted this amount should bring the highway pavement four miles further up the hill, but should a cheaper type of metal or more narrow wearing surface be adopted then this amount should cover 6 or 7 miles of pavement. Owing to the difficulty of making detours I hardly think concrete will be used, but probably some quick-setting composition which would obviate the use of detours entirely.

This will of course bring the National Park in closer touch with Hilo and the villages along our east coast, and the summer camp cottages would undoubtedly be used by local visitors for week end trips even during the winter season.

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March 1924 Report--2

Weather: Only four days in March were without rain, but the total rainfall was but 10.41 inches, which is much below the average for this month. These rains were mostly sudden showers, and altho the hikers were drenched, they would dry out quickly in the sunshine which followed soon thereafter. These warm rains are bringing out the new fern fronds in fine shape, and in a month or two more there will be little of any evidence of our January frosts. Our local Weather Observatory reports as follows:

Mean average ^{maximum} temperature for March 1924-----	65.3°
Mean minimum for month-----	50.4
Average temperature for month-----	57.9
Maximum during month-----	73.0 7th
Minimum during month-----	46.0 15th
Greatest daily range-----73 to 52-----	21 7th
Total rainfall during month-----	10.41 inches
Greatest within 24 hours-----	1.59 15th
Days with .01 or more rain-----	27
Days with TRACE-----	2
Days with NO RAIN-----	2
Days Clear-----	2
Days partly cloudy-----	9
Days Cloudy-----	20

Snowstorms on Mauna Loa (13675') and Mauna Kea (13825') 17th, 18th, 20th.
Thunderstorms in vicinity of Kilauea on 16th, 17th, 19th, 20th, 25th, 26th.

Seventy-eight earthquakes during March, only eight of which were strong enough to rattle the houses. Evidently did not affect the volcano.

II PERSONNEL:

No.	Class.	Work performed:
1	Supt.,	Administration, supervision, disbursing.
1	Ranger.	Guide work and sign painting.
1	Clerk.	Correspondence, reports, information.
3	Laborers.	General maintenance of roads, trails, and buildings. and crater patrol of steamer days. Total 62 man-days.

During the previous month I had a man on as laborer in training for prospective permanent ranger, he even offering to build his own quarters; however he obtained employment with the Custom Service in Honolulu, where he will receive more than we could offer him.

III WORK COMPLETED:

40 new signs painted and erected;
30 signs renewed around volcano rim.

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March 1924 Report -3-

IIII WORK IN PROGRESS:

General maintenance of our roads, trails and buildings. Our park roads are now in very good condition. During the past month I was able to secure a light dump truck from the County for delivery of road materials along our park roads at intervals which makes their repair simpler and cheaper. You realize that our regular equipment for repairing roads consists of two wheelbarrows and some picks and shovels, and the use of a motor truck even for a few days puts us way ahead with our work.

During the month immediately after the volcano ceases its activity the cooling walls of the crater have a tendency to scale off, I have therefore done considerable safety work around the rim of the volcano during the past month, wedging off particularly dangerous portions, and placing danger signs at all other threatening areas. You realize that the deeper the crater is the nearer one must stand to the rim to look down in it, whereas during the period of great activity the heat alone was sufficient to keep the visitor many feet back from the edge. However just now the fumes are making the visitor keep his distance, except on the windward side.

V WORK PLANNED.

Our small force will be used in bettering our existing roads and trails to hold them against deteriorating during the heavy spring rains.

VI COST OF OPERATION:

Administration 01	Superintendent's salary	-----	\$220.00	} 785.04
	Allowance for quarters	-----	54.25	
	Clerk's salary	-----	72.00	
0200	Staty and Office supplies	-----	12.25	
0230	Fuel and Light (Light)	-----	5.00	
0500	Telegraph expense (radio)	-----	2.34	
0510	Telephone expense	-----	6.40	
0600	Travel expense	-----	2.15	
0700	Trans of things	-----	10.69	
			385.08	
Protection: 01	Guide and Crater patrol	-----	122.00	
12	Repairs and Alterations:			
	1200 Buildings	-----	38.29	
	1210 Roads	-----	60.00	
	12112 Mauna Loa Trail	-----	30.00	
	1280 Passenger carrying vehicles	-----	1.30	
	1290 Crater Rim Protection	-----	20.60	150.19
13	Special & Miscel Current expenses:			
	1387 Operation Passenger carrying vehicles	-----	14.24	
			\$671.51	

(\$28.00 Inc Comp Included in above.)

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March 1934 Report -4-

VII NEW POLICIES:

No new policies inaugurated or contemplated:

The present inactivity of the volcano necessitates redoubling our efforts to convince the public that there is plenty to see in the Hawaii National Park regardless of the state of the volcano. Several times during the past month I have induced ~~groups~~ groups of disappointed tourists to start out on some of our nearby trails, accompanying them many times myself, and have sent them away enthusiastic, and with expressions of regret that they could not remain here longer.

VIII OTHER MATTERS OF INTEREST.

Authority has been received from the Director permitting the Kilauea Volcano House Company to establish a Summer Camp in the Hawaii National Park. Work has been started clearing off the sites for the twelve cabins and opening up a road to the camp site. All this work is of course being done by the Hotel Company under the supervision of the Superintendent. The cottages are so located that no trees will have to be removed. Although actual work on the cottages will not begin until plans have been approved by the Landscape Engineer and the Director, the galvanized roofing has been erected into a temporary rainshed for the collection of water into a large tank; this shed will be dismantled as the cottages are built.

This camp will start with a capacity of 40 persons, but over 100 applications are now on file, mostly from teachers and girl scout organizations. Much favorable comment has been received on the establishment of this Summer Camp. The camp should be completed by the first week in June for housekeeping only; the main building for the serving of meals will be built a little later. The Hotel Company wishes to experiment for a few weeks to ascertain just what is demanded by the camp patrons.

Messrs Kennedy, Dowsett, and Wilcox, directors of the Hotel Company were here and expressed themselves well pleased with the camp location, as it will permit the extension of the camp should the expected patronage develop.

No name has yet been selected, altho "Crater Camp" and "Lehua Lodge" have been suggested. The camp is in a grove of lehua, the blossom of which is the 'island flower'. At this season of the year these trees are ablaze with their brilliant scarlet pompom flowers. The native Hawaiians believe that to pick one of these blossoms causes a rain within twenty-four hours. If such is a fact our regulation against picking flowers should bring about a little less wet weather.

The Hawaiian Educational Association, composed of nearly all the teachers in the Territory contemplate applying for a summer camp privilege in the Park, but as yet I have not received their formal application. It is quite likely however that the Hotel Company will be willing to ~~enlarge~~ enlarge their camp to accommodate the teachers if a certain

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March 1924 Report -5-

amount of patronage can be guaranteed. When formal application is received, I will transmit same to the Director with full details bearing on the subject.

The Captain in charge of Kilauea Military Camp has evidently stiffened up on his control of his men, as there have been but few violations from this source during the past month.

Volcanic activity: There has been practically no change in Kilauea Volcano during March. No liquid lava can be seen, and the clouds of fumes are so dense and offensive that only a glimpse now and then can be obtained of the jumbled masses within the crater. At night several glowing areas may be seen, but until these openings begin hissing or puffing there is little likelihood of the molten lava reappearing. However no one can predict with certainty just what this volcano will do. However the number of earthquakes is increasing, seventy eight during March, and I am hopeful that something may occur underground that will again divert the molten lava to the crater of Kilauea, so that our 'lake of fire' will again do with us.

During the past few days the wind has been from the southwest (very unusual), and the section of the park in the vicinity of the Superintendent's Office and the Hotel has been in ~~cloud~~ a cloud of steam which at times smells strongly of sulphur.

Attendance: During the month of March 3990 persons visited the Park, registering from the following places, which will convince one that this is almost an International, as well as a National park.

Arkansas	Maryland	Ohio	Australia
California	Maine	Oregon	China
Colorado	Massachusetts	Pennsylvania	Canada
Connecticut	Michigan	Rhode Island	England
Delaware	Minnesota	Tennessee	Germany
Florida	Missouri	Texas	Japan
Georgia	Montana	Utah	New Zealand
Hawaii	Nebraska	Virginia	Norway
Illinois	New Jersey	Vermont	Philippines.
Indiana	New Mexico	Washington	
Iowa	New York	West Virginia	
Kansas	North Carolina	Wisconsin	

Among the visitors were:

Hon. Raymond C. Brown, Acting Governor of Hawaii;
Mr. W. W. Husband, Commissioner General of Immigration, US
Mr. Nixon, Assistant to Mr Husband,
Mr L. H. Fisher of the Civil Service Comm at Washington.
Mr Frank Murphy, General Manager Missouri Pacific Railway.
Mr du Pont and family, of Delaware. (did not meet him)

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March 1934 Report -6-

IX RECEIPTS AND REMITTANCES:

\$10.00 was collected from the Kilauea Volcano House Company, and remitted direct to Washington as payment of their 1934 camp privilege.

Respectfully submitted,

Thomas Boles
Thomas Boles, Superintendent.

33 copies to Washington
1 copy to H N Albright.
1 copy for file.

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March visitors; Geographical:

Arkansas 2
 California 12
 Colorado 9
 Connecticut 11
 Delaware 4
~~Fla~~
 Georgia 3
 Hawaii
 Illinois 38
 Indiana 5
 Iowa 6
 Kansas 6
~~Maine~~
 Maine 2
 Mass 33
 Michigan 17
 Minnesota 7
 Missouri 5
 Montana 1
 Nebraska 5
 New Jersey 8
 New Mexico 3
 New York 52
 North Carolina 1
 Ohio 15
 Oregon 6
 Penna 23
 Rhode Island 2
 Tennessee 1
 Texas 6

Utah 4
 Virginia 2
 Vermont 3
 Washington 5
 West Virginia 7
 Wisconsin 12
 Australia 4
 China 1
 Canada 9
 England 5
 Germany 1
 Japan 50
 New Zealand 3
 Norway 1
 Philippines 2

481

544

48

45

15/45

2700.

481

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DEPARTMENT OF THE INTERIOR
NATIONAL PARK SERVICE
HAWAII NATIONAL PARK
HONOLULU, HAWAII

File

Superintendent's Office;
Volcano House, Hawaii, USA.
March fifth 1924.

Mr. Stephen T. Mather, Director,
National Park Service,
Department of the Interior,
Washington, D.C.

Feb 1924

Dear Sir:--

I submit for your approval the following report on the operation and activities in the Hawaii National Park during the month of February 1924:

I GENERAL CONDITIONS:

Local travel to the Hawaii National Park has been encouraged by the opening up of one-half mile of additional concrete highway between Hilo (our port) and the Park entrance.

In addition to the regular visits of the Inter-Island steamers and the fortnightly visits of the Matson Liners, the following brought visitors to the park.

- Feb 3rd: "Jenne d'Arc" French cruiser with 600 cadets;
- Feb 3rd: "Mojave" and "Pelican", U.S. Mine Sweepers;
- Feb 14: Private yacht "Casiana", Young Dohany and party.
- Feb 20: "S.S. Buford" with 60 South Sea excursionists.
- Feb 20 "Pelican" again, with two seaplanes.
- Feb 21: Three land planes, with 8 men.

Weather: Taken all in all, February was a fairly delightful month, with moderate temperatures and but 3.85 inches of rain, most of which fell toward the end of the month. Many tourists even with their limited time, took advantage of the weather and walked from the hotel to the volcano over the "Crater Trail" across two miles of recent lava, and were unanimous in stating that this is indeed "The World's Wierdest Walk"

HAWAII NATIONAL PARK

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Feb Report -2-

The local Weather Observatory report as follows for February:

Mean maximum for February 1924	56.9°	
Mean minimum for month	51.1°	
Average temperature for month	58.5°	
Maximum during month	78	Feb 1
Minimum during month	48	Feb 22
Greatest daily range; 74 to 51	23°	Feb 19
Total rainfall during month	3.85	
Greatest within 24 hours	.75	Feb 24
Days with .01 or more rain	16	
Days with TRACE	10	
Days with NO RAIN	3	
Clear days	4	
Partly cloudy	16	
Cloudy	10	

Snowstorm on the summit of Mauna Loa, 13675 ft elevation, on February 25th, but this soon drifted away except in patches.

Thirty six earthquakes registered during February, only four of which were strong enough to rattle the houses.

II PERSONNEL:

No changes in the permanent force.

No.	Class.	Work performed:
1	Supt.	Administration, supervision, disbursing.
1	Ranger.	Guide work and sign painting.
1	Clerk	Correspondence, reports, information.
4	Laborers (84 man- days)	General maintenance of roads, trails and bldgs., and Crater patrol on days with large crowds.

III WORK COMPLETED:

25 new signs painted and erected.

IIII WORK IN PROGRESS:

General maintenance of roads, trails, and buildings:
Considering the recent heavy traffic, our roads are in very good condition; only about 1000 feet of rough road near the Lava Tube, and this will be put in shape when I can borrow the county roller for a couple of days. Considerable work was done on the park trails during the past month.

HAWAII NATIONAL PARK

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Feb Report -3-

V WORK PLANNED:

Our small force will be kept on general maintenance of existing roads and trails so that when the spring rains do come there will be little deterioration. I hope to put on another road man, but it is difficult to get a good man to remain here unless we provide suitable living quarters.

VI COST OF OPERATION:

Administration	01	Superintendent's salary	-----	\$220.00	
		Allowance for quarters	-----	50.75	
		Clerk's salary	-----	69.00	
	0200	Stationery and Office supplies	-----	13.11	
	0230	Fuel and Light (light only)	-----	5.00	
	05000	Telegraph expenses	-----	2.38	
	0510	Telephone expense	-----	8.05	
	06	Travel expense	-----	16.58	
	07	Transp of things	-----	10.45	\$396.09
Protection:	01	Guide and Crater Patrol	-----	185.00	
12 Repairs and Alterations:					
	1200	Buildings	-----	53.60	
	1210	Roads	-----	74.40	
	1211	Kilauea Section Trails	-----	104.69	
	1280	Passenger carrying vehicles	-----	36.82	249.41
13 Special and Misc Current Expenses:					
	1387	Operating pass carrying vehicles (auto and motorcycles)	-----	15.52	

\$40 Inc Comp included: February 1924 expenditures \$816.02 ✓

"Travel Expenses" includes sleeper fares omitted in October 1923.
and correction of Steamer fare from November 1923:

VII NEW POLICIES:

No new policies inaugurated or contemplated:

Will continue our efforts to popularize Hawaii National Park to the local visitors as well as to the long distance tourists.

HAWAII NATIONAL PARK

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Feb Report -4-

VIII OTHER MATTERS OF INTEREST:

For some time I have suspected the sale of liquor to soldiers at the Garage located on the lease held by Mana Transportation Company, and have made many efforts to locate the person conducting this business. Early in February I obtained sufficient evidence to convict the bootlegger, and she has been fined \$250 and costs, and barred from reentering the Park. The building has been vacated, and will not be permitted to reopen with another tenant unless the Park Service can be given sufficient assurance that liquor will not be sold. According to the existing lease, the Government can cancel same, but I would not recommend doing this just now.

A week later this building was broken into by soldiers from Kilmaea Military Camp, who built fires in the stoves, and were making themselves very much at home on the premises. The four men gave fictitious names, but were taken to the Military Camp and turned over to the Camp Commander for discipline.

A few nights later soldiers from Kilmaea Military Camp came to the servants quarters of the Hotel after midnight, and made themselves generally obnoxious demanding liquor. On being ordered away, they robbed the clothline of several silk shirts and suits of clothes belonging to the hotel employees, and in their hurried departure left part of their army equipment. Three men are still absent without leave from the Military Camp and it is likely these are responsible for the theft.

On February 12th a brush fire along the Mauna Loa Trail, some four miles distant from Park Headquarters burned over several acres, and killed four large koa trees, one several feet in diameter. My investigation convinces me that this fire was caused by soldiers from Kilmaea Military Camp who are always roaming in this section of the park, making camp fires, or carelessly dropping matches. It is impossible to determine just what group of men started the fire. Under ordinary weather conditions there would have been no damage, but considering the drought at that time, we were fortunate in having such little damage to the forest.

Mr Emerson of the Volcano Observatory, with two companions, made a trip to the summit of Mauna Loa on the 3rd, returning on the 6th. He reports no sign of activity at the summit crater.

On the 16th a car driven by local Japanese got beyond control and swerved off the road, tearing up two large tree ferns about 12 feet high. I pulled his car back on the road, and collected \$5.00 which will be spent in replacing the ferns and repairing the road at this point.

HAWAII NATIONAL PARK

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Feb Report -5-

Nothing new to report on the camp situation, other than information on this subject contained in detailed report to the Director on February eighth. All parties concerned are awaiting the decision of the Director on this question.

On February 27th the Steamer Watsonia brought 134 visitors to the Park, most of them being members of the Lions Clubs from California. Although the smoke in the crater was so dense that the bottom of the pit could not be seen, still those who visited the pit at night were quite satisfied over the glowing fumes, caused by lava crags splitting open.

Volcanic activity:

February first found the lake of lava in Kilauea Volcano 175 feet below the rim, rising steadily until it would get within 125 feet of the top, then it would suddenly drain away through subterranean exits, but did not re-appear in the pit craters in the east end of the park as during the previous two years.

On February 10th, while Mr Baker of Kentucky, was at the edge of the crater, the lake was within 125 feet of the top, and practically smooth and level, when at 5 PM a dome suddenly formed on the surface of the lake which bulged up 15 or 20 feet high and over 100 feet across; this burst with a roar sending up sheets of lava nearly 100 feet in the air. as the dome collapsed it was replaced by a ~~well~~ well one hundred feet across into which the molten lava poured from all sides with a continuous roar which could be heard two miles distant.

This continued until by the following day all the liquid lava has disappeared, and instead of a fifty acre lake of molten rock, there was but an immense pit nearly 200 feet deep, filled with dense fumes of sulphur. Now and then a gust of wind will clear the pit for a few seconds showing but a jumbled mass of blackend crags of gigantic clinkers, which now and then break open exposing their red hot interior.

No one can safely predict when the molten lava will return; but as I have stated in former reports, we must advertise this area as a "National Park", instead of confining our publicity to our famous but fickle volcano.

February second was a big day in Hawaii National Park. The weather was perfect, and there were nearly 600 visitors at the edge of the crater during the day, most of whom were French naval cadets from the Training Cruiser "Jeanne d'Aro" ~~was~~ anchored in Hilo harbor.

Annual report

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Feb Report --8-

A most unusual incident occurred during the visit of these French sailors to the volcano. While they were looking into the pit the lake of lava began to slowly subside, and a blackened crag of solid lava slowly rose through the surface of the molten lava; this crag was about 80 feet long and 20 feet wide and almost the EXACT SHAPE OF THE HULL OF A BATTLESHIP, and as the liquid lava would flow past it it would appear to travel forward on the surface of the lake, the small cakes of floating lava being thrust aside as they would strike the prow of this "ship" This created quite a furor among the onlookers, but I hastened to assure them that this was a special performance for their benefit. Frenchmen as a rule are quite talkative, but Kilauea Volcano absolutely astounded them into silence.

The following day, a lava geyser drifted up alongside the battleship of stone, and within thirty minutes had blasted it beyond recognition.

(For the benefit of doubters, I will state that moving pictures were made of each of the above incidents; and I sincerely trust my Washington friends will see these events reproduced on the screen of their local theaters. Ask the Pathe folks for notice.)

Donald Thompson, famous war photographer, had his camera set up at the edge of the crater, and was able to show nearly three hundred persons on the rim, with eighty automobiles parked close behind them, and in the same scene was able to include the lake of fire with several tremendous lava geysers in action.

These are the kind of views I like to send out, showing not only the spectacular features of the park, but also showing how conveniently accessible the National Park Service has made it to the visiting public.

IX RECEIPTS & REMITTANCES:

Nothing to report this month.

Respectfully submitted,

Thomas Beles
Thomas Beles, Superintendent.

3-Wash
1-HMA
1 File

UNITED STATES NATIONAL PARK

DEPARTMENT OF THE INTERIOR
NATIONAL PARK SERVICE
HAWAII NATIONAL PARK
HONOLULU, HAWAII

Superintendent's Office;
Volcano House, Hawaii, USA.
March tenth 1924.

Add to February 1924 Report
Hawaii National Park.

" Attendance during February 1924 was 5400 persons,
which establishes a record for this park, which I doubt
will be equalled for some time, unless we again happen
to have a combination of good weather and extraordinary
volcanic activity."

Thomas Boles
Thomas Boles, Superintendent.

3-Wash
1-HMA
1-Filo

DEPARTMENT OF THE INTERIOR
NATIONAL PARK SERVICE
HAWAII NATIONAL PARK
HONOLULU, HAWAII

File

Superintendent's Office;
Volcano House, Hawaii, U.S.A.
February sixth 1924.

To the Director,
National Park Service,
Department of the Interior,
Washington, D.C.

Jan 1924
Report

Dear Sir:--

I submit the following report on the operation and activities in the HAWAII NATIONAL PARK during the month of January 1924.

I GENERAL CONDITIONS:

No steamer service was provided during January other than the tri-weekly trips of the Inter Island boats, and the fortnightly visits of the Matson liners. But the well advertised activity of the volcano filled up the space on these boats several times during the month, one trip of the "Haleakala" alone bringing over 200 visitors.

Another half-mile of the concrete highway now being built by the County of Hawaii was thrown open to traffic, and encouraged many local people to drive to the Park on Saturdays and Sundays, and was of great help to our January attendance.

Weather: January 1924 was probably the driest month for years, although it is really in the rainy season; only 0.78 inches of rain as compared with over 26.0 inches last January; this has caused a fire risk to our forests, and with the number of hikers on our trails I was very much afraid that we would have trouble; one thing in our favor is that only 'safety' matches are used over here, and these hardly hold a flame long enough to be of much danger. The most unexpected feature of the weather was a frost on the night of the 26th which blackened the fern leaves in two areas extending about 1000 feet along the road; the stalks of course were not affected, and a few months of rainy weather will bring out a new set of fronds. The frost did not reach our real fern jungles, where the forty foot ferns are located, nor did any vegetation appear to suffer except the one type of fern (Sedleria).

The dry weather seemed to have a bad effect on the persons living in this vicinity, and there was considerable sickness, mostly light cases of 'flu' which although lasting but a few days, weakened a person for some weeks afterwards. The Superintendent and his family were among the many who suffered in this respect.

Jan 1924 2

The local Weather Observatory reports as follows for January:

Mean maximum for January 1924-----	64.3°	
Mean minimum for month-----	48.5°	
Average temperature for month-----	56.4°	
Maximum during month-----	71	Jan 22
Minimum during month-----	45	Jan 26
Greatest daily range, 70 to 45-----	25	Jan 26
Total rainfall during month-----	0.78	A RECORD
Greatest within 24 hours-----	.34	Jan 1st
Days with .01 or more rain-----	10	
Days with TRACK-----	8	
Days with NO RAIN-----	13	A RECORD

Snow in patches on summit of Mauna Loa (13675') and Mauna Kea (13825')

21 slight earthquakes during January, only 3 of which were sufficient to rattle the houses.

II PERSONNEL:

No changes among the permanent force:

No	Class	Work performed:	
1	Supt	Administration, supervision, disbursing;	
1	Ranger	Guide work and sign painting.	
1	Clerk	Correspondence, reports, information.	
5	Laborers	Road work, trail work, crater patrol.	50 man-days

III WORK COMPLETED:

30 new signs painted and erected.

IV WORK IN PROGRESS:

General maintenance of roads and trails: Our roads and trails at the present time are in excellent condition, and has received much favorable comment from local visitors. The condition of the park roads is accounted by the two miles of rough county road just outside the park limits.

V WORK PLANNED:

Our small force will be kept on existing roads and trails, that they may pass through the spring rains without deterioration.

Jan 1924 3

VI COST OF OPERATION:

Administration:	01	Superintendents salary-----	\$220.00	
		Allowance for quarters-----	49.00	
		Clerk salary-----	69.00	
	0200	Stationery and Office supplies-----	17.00	
	0230	Fuel and Light (Light)-----	5.00	
	0500	Telegraph expense-----	7.10	
	0810	Telephone expense-----	5.00	
	0600	Travel expense-----	11.25	\$393.35
Protection:	01	Guide and Crater Patrol-----		112.00
12 Repairs and Alterations:				
	1210	Roads-----	77.50	
	1211	Kilauea Section trails-----	42.50	
	1250	Passenger carrying vehicles-----	42.55	162.55
13 Special and Miscellaneous Current expenses:				
	1397	Operating passenger carrying vehicles-----	12.41	

January expenditures-----\$669.61

(\$36.00 Inc Comp included)

Passenger carrying vehicles include one auto and two motorcycles.

VII NEW POLICIES:

No new policies. I believe the present policy as outlined in previous reports require no additions. Permit me at this time to plagiarise from National Park Service bulletin 21 the following:

" It is my great desire to attain for the Hawaii National Park the reputation of being the most cordial and pleasant park in the system; 'the park with a smile', where the visitors are always right unless they are so wrong that must be arrested." (Sounds like Supt White)

VIII OTHER MATTERS OF INTEREST:

Our trails were well patronized during January, but dry weather hiking in an area where there are no springs or streams, is not nearly so pleasant as during a Scotch mist, or light shower. I am afraid the dry weather will also drive the Chinese pheasants down to the lower altitudes where there is more water, and the hunters will make short work of these beautiful birds.

Jan 1924 3

VI COST OF OPERATION:

Administration:	01	Superintendents salary-----	\$220.00	
		Allowance for quarters-----	49.00	
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	0200	Stationery and Office supplies-----	17.00	
	0230	Fuel and Light (Light)-----	5.00	
	0500	Telegraph expense-----	7.10	
	0510	Telephone expense-----	5.00	
	0600	Travel expense-----	11.25	\$383.35
Protection:	01	Guide and Crater Patrol-----		112.00
12 Repairs and Alterations:				
	1210	Roads-----	77.50	
	1211	Kilauea Section trails-----	42.50	
	1280	Passenger carrying vehicles-----	42.85	162.85
13 Special and Miscellaneous Current expenses:				
	1307	Operating passenger carrying vehicles-----	11.41	
		January expenditures-----		\$669.61

(\$36.00 Inc Comp included)

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Jan 1924 4

Volcanic activity:

January first found the lake of fire in Kilauea Volcano 220 feet below the rim, and at the end of the month it is but 175 feet down; but during the month it has slowly risen for about forty feet, and would then subside the same distance in about one hour with a great roar and tremendous lava fountaing which at times would spatter molten lava outside the rim of the crater. There being little rain or wind during the month the visitors would remain at the edge of the pit for hours truly fascinated by the wonderful sight before them. The heat was intense, and visitors were provided with paper plates with eye holes cut in them, by the use of which a person could approach fairly close to the rim of the pit. It was indeed a wierd sight at night to see a hundred or so persons rigged out with these "pie faces" standing in the lurid glow of the crater, with an atmosphere of fire and brimstone surrounding them.

Owing to the slight breeze, the steam and fumes from the volcano would form an immense column above the fire pit, at times reaching miles up into the air, and even at this height the top of the cloud would be brightly illuminated at night; in fact persons residing in Honolulu have reported seeing the glow on this steam cloud from a distance of 200 miles at Waikiki Beach. Owing to the curvature of the earth this would require a column of steam 20,000 feet high even at our 4000 ft elevation; but at that the conditions several times during January have been such that I believe it probable that their claim is justified. I can state that standing two miles distant from the volcano I have had to look upward at an angle of 60 degrees to see the top of this steam column, which would give it a height of approximately four miles. I might mention that the "Ballot Dancer" of Mauna Loa shown in our park folder attained a height of 40,000 feet.

4250 visitors patronized the Hawaii National Park during the past month, most of whom were island folks attracted by the unusual activity of the lava fountains in the lake of fire. The park will get considerable favorable publicity from the enthusiastic reports which these visitors will make to their friends in the mainland.

Among the visitors of special interest were Honorable Lorrin A. Thurston of Honolulu, owner of the Honolulu Advertiser, and President of the Hawaiian Volcano Research Association; and whose personal efforts during the initial stage of this park justly entitle him to the honor of being "The Father of Hawaii National Park" Notwithstanding his many visits during the past 45 years, he was greatly impressed with the display, and wrote an article for his paper urging everyone to take this opportunity of seeing the volcano.

Jan 1924 5

Mr Frank C Atherton, President of the Honolulu Chamber of Commerce spent ten days in the park; Mr Atherton is a leader in all activities affecting public welfare in these islands; and is also a National Park enthusiast, spending his vacation each year in one of our National Parks, spending over a month in Glacier last season.

Miss Cora Varney of the Lake Camp of Yellowstone spent one day in this park looking over the possibilities of establishing a similar camp here, except that she believes that the patronage would warrant its being kept over throughout the entire year. Miss Varney ~~was~~ did not make application for a camp permit, but I believe she intends doing so by taking the matter up direct with the Washington Office. Miss Varney's visit has been covered in detail in a separate letter to the Director.

On January 2, 3, and 4th a delegation of 165 young men from the Honolulu Y M C A visited the Park and were successfully handled over the nearby trails by the Superintendent assisted by Professor Kollar, Dean of Engineering, University of Hawaii, who was used by me as a Park Guide during the visit of these boys. An unusual feature of this trip was that one of the young men was totally blind, but covered the trails with the group, even climbing down the west wall of the outer crater, 550 feet, and walking across the floor of the outer crater to the edge of the fire pit. He sat for hours at the edge of the crater listening to the roar of the geysers, and sniffing the sulphur fumes, and upon reading his report of the trip it was astonishing how much a blind man can "see" on a trip like this.

On January first I made a quick trip to Honolulu at the invitation of the Hawaii Educational Association, and addressed them on the Hawaii National Park as an educational asset, urging them to spend their vacation here instead of going to the mainland. My talk was well received, and they have intimated they would like to establish a summer camp for teachers at some point in the park, but as yet have made no formal application. I believe that if some regular camps company would arrange sufficient accommodation for the teachers that there would be no necessity of the teachers having a private camp of their own; but if no public camp is established I believe the Service will be warranted in accepting an application for the establishment of a summer normal in the Park limits. Should application be filed I will cover this with a special report to the Director.

IX RECEIPTS AND REMITTANCES:

\$675.00 collected from holders of leases in the Park, was remitted to the Washington Office during January.

Respectfully submitted,

Thomas Boles
Thomas Boles Superintendent.

ADDRESS ONLY
THE DIRECTOR, NATIONAL PARK SERVICE
WASHINGTON, D. C.

DEPARTMENT OF THE INTERIOR
NATIONAL PARK SERVICE
WASHINGTON

February 11, 1924.

Annual Rpt.

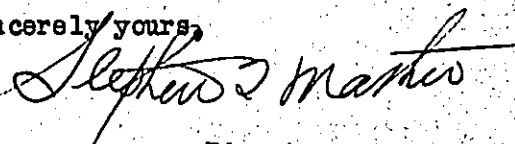
Dear Mr. Boles:

I am glad to know that you think the Annual Report so interesting, and that you are pleased with the space given to Hawaii National Park.

I am sending you fifty copies of the Report, for I know you can make an excellent distribution of them.

With kind regards, I am

Sincerely yours,



Director.

Mr. Thomas Boles, Supt.,
Hawaii National Park,
Volcano House,
Hawaii.

Superintendent's Office;
Volcano House, Hawaii, USA.
January twenty sixth 1924.

Hon. Stephen T. Mather, Director,
National Park Service, Department of the Interior,
Washington, D.C.

Dear Mr Mather:-

A bound copy of your 1923 Annual Report
to the Secretary of the Interior was recently received, and
I have read same through with much interest, and wish to
express my appreciation of the amount of space which you
have given the Hawaii National Park, both in the text and
in the illustrations.

I should like at least twenty more copies
for distribution among some of our principal local friends
of the park.

Yours very truly,

Thomas Boles, Superintendent.

Superintendent's Office,
Volcano House, Hawaii, USA,
July twenty seventh 1923.

Mr. Arno B. Cammerer, Acting Director,
National Park Service,
Department of the Interior.
Washington, D. C.

Dear Mr Cammerer:-

I have received your letter of June 25th relative to the preparation of the annual report for the Hawaii National Park, and have read same, and understand it as follows:

My report must not exceed 900 words, and must be submitted in duplicate, not later than September first 1923, and shall be prepared as outlined in mimeographed letter of instructions over signature of Mr Mather dated April 20th 1923, and letter from Secy. Work to Mr Mather dated April 16th.

In addition to the annual report, I must submit letter containing a special review of the park's activities and contain matter suitable for the Director's report "The Year in the Parks".

I shall also send a letter stating what, in my opinion, has been the value of this park to the Territory of Hawaii, and to our visitors in general.

My annual report is now written, but will require considerable condensing before I boil it down to the limit of 900 words.

Yours very truly,

Thomas Boles, Superintendent.

ADDRESS ONLY
THE DIRECTOR, NATIONAL PARK SERVICE
WASHINGTON, D. C.

DEPARTMENT OF THE INTERIOR
NATIONAL PARK SERVICE
WASHINGTON

June 25, 1923.

Dear Mr. Boles:

At the Yosemite conference three superintendents called tomy attention that things they felt were desirable to stress in the Annual Report had not been touched upon in the main body of the report. As a result it was decided that each superintendent should submit his regular report to go in the appendix, and also a special review of the park's activities for inclusion in the main text of the report. These instructions were transmitted to you on April 20th, and the purpose of this letter is again to call your special attention to the two things you will have to submit, - your regular annual report and the separate review, usually prepared in the Washington Office, of your park's activities during the year, limited as to words and pages, as indicated in the Service letter of April 20th.

A reference to the past annual reports of the Service will indicate to you how this has been handled in the past. Our 1920 Annual Report was written without any limitation as to pages, but doubtless this will be the last report that we will ever be able to get out just as we want it. Congress since has set limitations on printing, as to pages of the annual reports of the Departments, and we must come within them. Last year we even went over twenty-five pages but were able to come in under the wire. This year our entire report must be kept within 160 printed pages, and any superintendent's report, exceeding the limit of words or pages prescribed for him, will have to be cut down here. The Service does not want to find it necessary to cut down any superintendent's reports because instructions as to paging and words have not been followed.

In order that the Service may know that each superintendent fully understands these instructions, and that we may depend upon receiving the report in Washington within the time limit set in the letter of April 20th, you are instructed to acknowledge this letter after having received and read it.

Sincerely yours,

Geo B. Cameron
Acting Director. *GB*

Mr. Thos. Boles,
Superintendent,
Hawaii National Park,
Volcano House, Hawaii.

ADDRESS ONLY
THE DIRECTOR, NATIONAL PARK SERVICE
WASHINGTON, D. C.

DEPARTMENT OF THE INTERIOR
NATIONAL PARK SERVICE
WASHINGTON

April 20, 1923.

Dear Mr. Boles:

For your information and guidance there is inclosed a copy of Secretary Work's letter, dated April 16, 1923, in regard to the preparation and the submission of the 1923 annual report. You will note the Service's report is limited to 160 printed pages, including the index but excluding any illustrations. In allocating pages two pages have been allotted to your report. Your report printed in 8-point solid type will permit 1,000 words to the page but you should allow for a reduction of 1,000 words in text for each page devoted to tables.

In the preparation of your report please be guided by the inclosed mimeographed instructions. Special attention should be given to paragraph 1, "Special Requirements." It is very important that the instructions regarding size of paper, space, etc., be followed, as these are based on the rules of the Government Printing Office and, unless followed, will necessitate additional work in this Office to put the report in proper form for submission to the Printer.

The official Park season for the purpose of the annual report is from October 1 to September 30, inclusive, and travel statistics should be for this period. Complete tables showing Park travel should be included in your report, omitting only the final travel figures, which must be wired in at the close of the day, September 30. Duplicate pages containing tables with the final figures inserted should be placed in the mail not later than October 1 in order that figures wired in may be checked before the report is sent to the Printer.

It is also requested that you submit a separate review of the year to be used as a basis for the Director's report, covering "The year in the Parks." One and one-half pages of the Director's report have been allocated for this review, which set in 10-point solid type will permit 600 words to the page. Therefore, the review for Hawaii should number about 900 words.

Your report and review for Hawaii should be submitted in duplicate and should be mailed not later than September 1. Suitable photographs for use as illustrations should be included with your report. Addenda may be transmitted with travel statistics October 1.

Cordially yours,

Mr. Thomas Boles, Supt.,
Hawaii National Park,
Volcano House, Hilo, Hawaii.


Acting Director.

Inclosure 5410.

5
10/10/23

CONF, 720

THE SECRETARY OF THE INTERIOR
WASHINGTON

April 16, 1923.

My dear Mr. Mather:

Will you be good enough to submit to the Department at the earliest practicable date, not later than October 1, 1923, a report of the condition of affairs and the management of the National Parks and Monuments for the fiscal year ending June 30, 1923. If deemed advisable you may make your report cover matters pertaining to the several National Parks and Monuments under your general supervision from the close of the tourist season in 1922 until the close of the present tourist season, embodying therein such recommendations for the betterment of the service as in your judgment may be deemed advisable.

The manuscript of the report should as far as possible be typewritten, free from interlineations, properly paged, and provided with a table of contents. All exhibits should be suitably marked and referred to by such marks wherever mention is made of them in the body of the report. In the interest of economy it is desirable that the report be as brief as the various subjects covered will permit, and that all unimportant exhibits be omitted, as well as maps or photographs not connected with or showing the condition of the service.

The bill making appropriations for the Interior Department for the fiscal year ending June 30, 1924, provides among other things, that "The annual reports of the Department and of all its bureaus and establishments, including the Reclamation Service, shall not exceed a total of 1,200 pages." The number of pages which has been allocated to the report of the National Park Service is 160 printed pages, including the index, but excluding any illustrations.

At the time of the submission of your report a letter should be addressed to the Department embodying suggestions as to the proper treatment of such matters discussed therein as should properly be included in the Secretary's report.

There is herewith enclosed a copy of departmental regulations governing printing and binding.

Respectfully,

(Sgd) Robert Wark

Secretary.

The Director,

National Park Service.

DEPARTMENT OF THE INTERIOR
NATIONAL PARK SERVICE

April 20, 1923.

Preparation of Annual Reports.

In preparation of the Annual Report of the Director of the National Park Service, the attention of each officer having charge of any unit or branch of the field service is called to the following matters affecting the annual report of the activities with which he is charged.

1. Special Requirements.-- Use plain paper, sheets 8 x 12½ inches in size, and write on only one side of the sheet, in lines that are double or triple spaced; use single spacing only for quoted matter that includes several lines. Leave a margin of at least an inch at the top of the page, an inch at the left, and at least half an inch at the bottom. Indent paragraphs 10 spaces. Begin every page with a paragraph; therefore do not start a paragraph near the bottom of the page. The observance of this requirement is necessary because the printers must divide manuscript into "takes," and because each "take," which is put in type by one of many machine operators, must consist of complete paragraphs. A space of 3 inches or more at the bottom of a page may be left at the end of a paragraph if all the next paragraph can not be written on the page. Matter that is not so written is cut up by the printers and pasted together, for the purpose indicated, in renumbered sheets of uneven length, which are not easily handled or referred to by the proofreader while he is reading the proof. Sheets should not be pasted together to form a strip that is longer than 12½ inches.

If new matter must be inserted it should be written on a separate sheet, and the sheet in which it is to be inserted should be cut apart at the proper place and each part pasted on a blank sheet of regular size. Room for wide tables can be obtained by pasting additional sheets at the side only, but this plan should not be employed for additions to the text. Copy for tables should under no conditions be crowded; the whole of a table need not appear on one sheet. Number pages consecutively in center at bottom of page. Page No. 1 of the report manuscript should be headed in the manner shown in the individual reports printed in Appendix C of the Service's Annual Report for 1922, pages 100 to 157.

The several topics treated in the report should be separately headed, in capital letters, as shown in Appendix C of the 1922 report, and may be taken up in logical order, commencing with a general statement relative to the Park, Monument, or activity, and concluding with such recommendations as the officer decides to make for the betterment of his charge. Subheadings for portions of topics if found to be necessary may be underlined and used to start the paragraphs to which they relate.

The final page of the report should be an alphabetical index of headings and subheadings, to be made up as shown on pages 97 to 99 of the Annual Report for 1922. This index should be typed flush to the left-hand margin, and indented where necessary.

Use special care to see that all proper names are correctly spelled, and that every figure is clear cut. In correcting figures erase fully the figure first written before correcting, thereby avoiding uncertain results, as a 3 upon an 8 or a 5 upon a 6.

2. Travel statistics.--Tables showing travel should be included, omitting only final figures for insertion later. On September 30 a telegraphic report should be made to the Service showing totals from October 1 of the previous year to and including September 30 of the year for which report is made. This telegram must not be overlooked. Duplicate pages, containing tables with complete final figures inserted, must be placed in the mail not later than October 1.

3. General.--The Annual Report is not to be confined to the fiscal year except in so far as it relates to fiscal matters. It is a season report and should contain all data regarding operations during the season October 1 to September 30. While the report must necessarily be concise, it should contain data respecting all matters of special interest which transpire during the year, the work of those persons, firms, or corporations which operate public utilities, information relating to the wild animals, birds, forests, and wild flowers, and the work of the Service itself in encouraging the study and enjoyment of these and other natural features.

As the report is administrative in character, it is well to keep purely descriptive text, scientific classifications, and less important details at the minimum.

5. Transmittal.--The report, when completed, must be forwarded in duplicate to the Service not later than the close of September 1, unless otherwise specially directed by the Service.

STEPHEN T. MATHER,

Director.

Superintendent's Office,
Volcano House, Hawaii, USA.
September first 1923.

Dear Mr Cameron:-

My annual report went forward yesterday, and my "The Year in the Parks" data will go forward this afternoon. My report has been condensed as much as possible so that one or two photos might be included, and I inclose an assortment from which you can make selection. Would like to included one of my steam heated office, but have been unable to get one that shows the office sign to suit me, but may have one for the next mail. My choice of the inclosed prints would be of the Earthquake cracks in the Mau Desert, and the Cloud of Ashes rising from Kilauea Volcano. These two, with the office picture, would give my park fair representation, and are views which are of especial interest to visitors.

Yours very truly,

Thomas Boles, Superintendent.

HAWAII NATIONAL PARK.

Thomas Boles, Superintendent; Volcano House, Hawaii.

GENERAL STATEMENT.

HAWAII NATIONAL PARK, 187 square miles, located in the Territory of Hawaii, U.S.A. Established by Congress August 1916; formally dedicated July 1921; actual development started February 1922. General location 2200 miles southwest of San Francisco, and 200 miles southeast of Honolulu. Consists of three sections.

KILAUEA SECTION, 79367 acres, on Island of Hawaii. Contains Kilauea Volcano with its fifty acre lake of molten lava; also scores of smaller craters, many continually smoking; two in eruption during 1922; forest of tropical trees and gigantic ferns; miles of tunnels and caverns, one being formed in 1921; deserts of volcanic ash gashed with terrific earthquake cracks, many emitting steam; sulphur banks; steaming bluffs; and tree molds; all conveniently accessible via park roads and trails.

125
124 sq. miles

MAUNA LOA SUMMIT, 13675 elevation, on Island of Hawaii, contains the enormous Crater of Mokuaweoweo, 17380 acres in area, which at irregular intervals pours out rivers of lava at times extending to the sea. Has threatened to destroy Hilo forty miles distant. Active on flank in 1916 and 1919. Connected with Kilauea Section by a thirty mile trail.

26
27 miles

HALEAKALA SECTION, 21150 acres on Island of Maui, contains Haleakala Crater, 10000 feet high, 2600 feet deep, and eight miles across; large enough to contain the City of Philadelphia. Cinder cones 800 and 900 feet high inside crater. Suitable sleeping quarters at summit easily reached by horseback.

LOCAL DEVELOPMENT.

Our modest appropriation was devoted to improving existing roads and trails in Kilauea Section, the volcano being the objective of nearly all visitors. The half-mile approach to the volcano, which was destroyed by lava in 1918, has been rebuilt so automobiles can now be driven to the very edge of the crater.

Public Camp Site, with water supply, has been established convenient to the volcano and park trails. Grates have been built over hot cracks near the volcano so meals may be cooked by volcanic heat.

There is no spring nor stream in our 118,000 acres of park, and 'getting lost' is a real disaster; therefore hundreds of trail markers have been erected, and all points of interest properly signed.

A three-room frame building erected near the Hotel, and heated by controlled volcanic steam, serves the present need of an Administration Building. The Information Bureau fills a long felt need.

A small cottage purchased has been converted into a Paint Shop and Ranger quarters.

FORESTS.

Paunal famine is offset by floral abundance, and many find our forests as interesting as the volcanic features. Bird Park of only one hundred acres contains nearly every variety of Hawaiian trees. A magnificent specimen of koa (Hawaiian mahogany) was preserved when a prehistoric lava flow stopped twenty feet from its base. The road to the volcano winds through a paradise of ferns, many forty feet high, arching gracefully over the road to the volcanic inferno.

VOLCANIC ACTIVITY.

Kilauea Volcano's activity during the past season has been varied and astonishing. The risings of the "lake of fire" has been accompanied by fountains of incandescent lava brilliantly illuminating the fumes and clouds above the crater at night. On May 18th scores of fiery geysers poured nearly TWO MILLION cubic yards of liquid rock into the pit, raising the level nearly thirty feet. The crater in July 1922 was 1000 feet deep, but by July 4th 1923 the lake was within 120 feet of the rim, when the level began to slowly subside. On August 25th a score of earthquakes rapidly lowered the level 600 feet, the liquid lava disappearing from the crater, to reappear next day spurting up through fresh earthquake cracks eight miles distant, destroying many acres of forest, and bleaching thousands of ferns with dense clouds of sulphuric acid gas.

VOLCANO OBSERVATORY.

The Department of Agriculture and Hawaiian Volcano Research Association jointly maintain the Volcano Observatory located just across the road from the Administration Building, and to this are directed visitors requesting technical information about volcanoes.

WEATHER.

Although located in the tropics, Kilauea's 4000 foot elevation furnished fairly equable temperature; the days averaging 70 degrees, and the nights 55; Season's highest temperature 75; lowest 43. The mean temperature for December and June differed but $4\frac{1}{2}$ degrees. Total rainfall during past year was 124 inches, 124 but no mud at any time, the water vanishing into the porous ground, or flowing into earthquake cracks, coming up the next day as live steam. You can imagine the difficulty in maintaining our roads with 10.6 inches of rain falling within three hours. Appreciating the park's scenery and invigorating climate the War Department operates a Recreation Camp within the park to which are sent over 100 soldiers each week from Honolulu.

TRAVEL.

The visits of many World Tour parties; and ships from the American, British, and Japanese navies; the distribution of 100,000 park folders throughout the mainland; and the almost continuous activity of Kilauea Volcano, brings our total attendance up to _____ as against 27,750 during last year.

HOTEL ACCOMMODATIONS.

Kilauea Volcano House, a recently completed modern hotel with 120 rooms, is delightfully located on the outer rim of Kilauea, and from its windows may be seen the lurid glow from the lake of fire at night. Over \$200,000 was spent in improving this hotel, including a nine-hole golf course nearby. The confidence of the Hotel Company in the future of the Park is very gratifying. The Company now has under consideration the establishment of a summer camp.

RECOMMENDATIONS.

Removal of appropriation restriction;
Continued development of roads and trails;
Suitable summer camp with moderate prices;
Residence for the Superintendent.
Checking Station at Park Entrance;
Extension of park to include additional features.
Continued publicity.

CONCLUSION.

Travel is increasing from the mainland as well as from foreign countries. The Territory of Hawaii is spending \$100,000 for publicity; The palatial tourist steamer "Haleakala" provides tri-weekly service between Honolulu and Hilo; a million dollar highway is under construction between Hilo and the Park Entrance; and every day we have a choice of climates varying from the tropical sunshine of the South Seas, to the perpetual snow on Mauna Loa; All these guarantee a big future for the Hawaii National Park.

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DEPARTMENT OF THE INTERIOR
 NATIONAL PARK SERVICE
 HAWAII NATIONAL PARK
 HONOLULU, HAWAII

Superintendent's Office;
 Volcano House, Hawaii, U.S.A.
 January fifth 1924.

To the Director,
 National Park Service,
 Department of the Interior,
 Washington, D.C.

Dec 1923.

Dear Sirs:--

I submit the following report on the operation and activities in the HAWAII NATIONAL PARK during the month of December 1923:

I. GENERAL CONDITIONS:

In addition to the tri-weekly service of the S.S. Maloakala and the fortnightly visits of the Matson liners, there were three extra steamers which stopped at our port of Hilo in order that their passengers and crew might visit the Hawaii National Park.

An additional half-mile of concrete highway between Hilo and the Park was thrown open at the beginning of the holidays, and this eliminated the roughest portion of the trip. It encouraged many Hilo people to include the Hawaii National Park in their Saturday and Sunday outings.

Weather: "Winter everywhere but in Hawaii". We have no snow except at the 14,000 summit of our highest volcano; surf bathing along our 'south sea' coast line; trees and flowers all in full bloom. In fact the only Christmas feature we have in the Hawaii National Park is "The World's Biggest Fireplace" two thousand feet wide.

The local Weather Observatory reports for December as follows:

Mean maximum for December	-----	63°	
Mean minimum for December	-----	53.5°	
Mean temperature for month	-----	58.3°	
Maximum during month	-----	71°	Dec 9
Minimum during month	-----	49°	Dec 14
Greatest daily range; 70° to 50°	-----	20°	Dec 30
Total rainfall for December	-----	14.66 inches	
Greatest rain in 24 hours	-----	4.18 inches	Dec 23;
followed next day by	-----	2.02 inches	Dec 24;
Days with .01 or more rain	-----	25;	Days with Trace-----5;
Days Clear	-----	3;	Days No Rain-----1
			Days Partly Cloudy-----9
			Cloudy-----19

(This makes the 2nd day with NO RAIN in the present fiscal year)
 Mauna Kea, 13825', and Mauna Loa, 13675', both heavily snow capped.

16 quakes -

II PERSONNEL:

On December 10th during the visit of the American Express tour I used six uniformed traffic police in addition to our regular force.

No.	Class.	Work performed.
1	Supt.	Administration, supervision, disbursing.
1	Ranger	Guide work, crater patrol, sign painting.
1	Clerk	Correspondence, reports, information.
9	Laborers	Road and trail repair, crater patrol, traffic control. 57 man-day

III WORK COMPLETED:

20 new signs painted and placed.

IV WORK IN PROGRESS:

General maintenance of roads and trails.

V WORK PLANNED:

Our small force will be worked on existing roads and trails so they will not deteriorate during the winter rainy season. Other than this no improvement work is contemplated during the coming month.

VI COST OF OPERATION:

Administration:	01	Superintendent's salary	220.00	} 334.75
		Allowance for quarters	54.25	
		Clerk's salary	60.00	
	0200	Station and Office Supplies	.20	
	0230	Fuel and Light	5.00	
	0500	Telegraph service (Radio)	2.64	
	0510	Telephone service	6.75	351.04
	0600	Travel expense	2.25	361.02
Protection:	01	Guide and Crater Patrol	147.00	
12 Repairs & Alt:	1200	Buildings	45.00	
	1210	Roads	77.50	
	12111	Trails	22.20	
	1280	Passenger carrying vehicles	6.85	111.55
13 Special & Misc Current Expenses:				
	1387	Operating Passenger carrying vehicles	4.12	
		Total December 1923 expense	613.76	

(\$40 Inc Comp included)

Dec 1933 p 2

II PERSONNEL:

On December 10th during the visit of the American Express tour I used six uniformed traffic police in addition to our regular force.

No.	Class.	Work performed.
1	Supt.	Administration, supervision, disbursing.
1	Ranger	Guide work, crater patrol, sign painting.
1	Clerk	Correspondence, reports, information.
9	Laborers	Road and trail repair, crater patrol, traffic control, 57 man-day

III WORK COMPLETED:

20 new signs painted and placed.

IV WORK IN PROGRESS:

General maintenance of roads and trails.

V WORK PLANNED:

Our small force will be worked on existing roads and trails so they will not deteriorate during the winter rainy season. Other than this no improvement work is contemplated during the coming month.

VI COST OF OPERATION:

Administration:	01	Superintendent's salary	-----	\$220.00	
		Allowance for quarters	-----	54.25	
		Clerk's salary	-----	60.00	
	0200	Staty and Office Supplies	-----	.20	
	0230	Fuel and Light	-----	5.00	
	0500	Telegraph service (Radio)	-----	2.64	
	0510	Telephone service	-----	6.75	
	0600	Travel expense	-----	2.25	\$361.09
Protection:	01	Guide and Crater Patrol	-----		147.00
12 Repairs & Mt:	1200	Buildings	-----	\$5.00	
	1210	Roads	-----	77.50	
	1211	Trails	-----	22.20	
	1280	Passenger carrying vehicles	-----	6.05	111.55
13 Special & Miscel Current Expenses:					
	1307	Operating Passenger carrying vehicles	-----		4.12
		Total December 1933 expense	-----		\$613.76

(\$40 Inc Comp included)

HAWAII NATIONAL PARK

VII NEW POLICIES. none.

VIII OTHER MATTERS OF INTEREST:

Volcanic Activity: On December 1st the lake of lava in the fire pit of Kilauea Volcano was 210 feet below the rim of the crater; and the end of the month finds it 220 feet down; but during the month the lake of fire has made several rapid rises and falls, the lake at one time being but 180 feet down, and at another time 265 feet down. These displays were particularly interesting on December 7th, 14th, and 21st, and even these displays were outdone on the evening of the 27th. On each of these dates two enormous geysers of lava, just about dusk, would start spouting up molten lava at a rate of 2,000,000 cubic feet per hour. Our course at this rate it would require but a day or two to fill the crater, but it seems that when the gushers are at their best something happens down below and the lake of lava begins to drain away through some subterranean passage, and the lake begins to subside. On the evenings of the 7th and the 14th and also on the 21st there was a depressed pool in the floor of the crater on the section opposite to the geysers, over 100 feet in diameter, and when the lava from the geysers would cover the floor of the crater it would then pour into this pool as a roaring, fiery, circular cascade, with sheets of blackened lava warping over the crest like sheet ice over a dam. The drain from below this pool was of about the same capacity as the gushers, for it required over three hours to fill up the pool. The inclosed prints taken at night at a distance of about 800 ft with special plates, give but a faint idea of the splendor of the display.

Earthquakes: Only 25 earthquakes were registered during December, all were slight and of no consequence. However there was a sharp shock in Honolulu on the evening of the 25th, but none did not register on the local seismograph.

Attendance: ³⁹⁸⁰ 3980 persons visited the Hawaii National Park during the month of December. Not so many stopped at the Volcano House from the regular steamer trips, but this was more than offset by the number of local visitors spending their vacation in this vicinity.

The event of the month was the visit of the Cunard steamship 'Franconia' with over 400 around the world tourists and over 100 employees; all in charge of Dr Clarence L Babcock of the American Express Travel Dept. They reached the Park at 10:30 and departed at midnight; the weather was perfect, and the volcanic display fine, and all were delighted. I spent most of my time on this day milling around with the crowd, and heard nothing but enthusiastic comments; and I am sure that Hawaii National Park will always have a place on the itineraries of the American Express tours.

The Mine Sweeper "Pelican" with 60 men, and a Japanese ship sunk with 100 men, also stopped at Hilo to permit the men to see the volcano.

On Christmas the S.S. "Haleakala" brought over 50 tourists from Honolulu. And on Christmas eve there were nearly 200 guests at the hotel for dinner, most of whom were Hilo and neighboring villagers.

Dec 1923 p 4

Among the more distinguished visitors to the park during the month were the following:

Honorable Thomas E. Kilby, ex-Governor of Alabama.
Honorable Arthur H. Curtis, ex-Mayor of Boston,
Mrs Alec Tweedie of London; writer of fiction and history.
Mr. P. W. Whatmough, General Manager Cunard Steamship Co.,
Dr. Clarence L. Babcock, Travel Department American Express.
Don Vicente Blasco Ibanez, Spanish author; "Four Horsemen etc"

Don Ibanez (before seeing our volcano) gave as his opinion that the two greatest wonders of America were the Grand Canyon and the City of New York, but he failed to note any 'Angel Trails' in the latter.

During December it was the pleasure of the Superintendent to address the Rotary Club of Hilo, and their guests, on the future of the Hawaii National Park. and a few days later an opportunity was also grabbed to address the Teachers of Hawaii, some 200 members, inviting them to avail themselves of our trails and scenery.

IX RECEIPTS AND REMITTANCES:

In December \$150 was collected from holders of leases within the park, and this amount remitted to the Washington Office.

Respectfully submitted,

Thomas Boles
Thomas Boles, Superintendent.
Hawaii National Park.

3-Wash
1-Albright
1-Files

TB-JB

* Vicars	75.
Tahara	75.
Henderson	75.
Jaggar	75.
Scott.	50 # 150

J.

DEPARTMENT OF THE INTERIOR
NATIONAL PARK SERVICE
HAWAII NATIONAL PARK
HONOLULU, HAWAII

Superintendent's Office;
Volcano House, Hawaii, USA.
December sixth 1923.

To the Director,
National Park Service,
Department of the Interior,
Washington, D.C.

Nov. 1923

Dear Sir:--

I submit the following report of the operation and activities in the HAWAII NATIONAL PARK during the month of November 1923:

I GENERAL CONDITIONS:

~~October~~ ^{November}, usually a dull month, made a fair showing this year; and although the tourist travel was light, it was more than offset by the number of local visitors who are taking advantage of the seventeen miles of concrete highway between Hilo and the Park, and who make "seeing the volcano" part of their regular Sunday drives. The rainfall has been light, and the weather delightful, and our increase in attendance over the same month of last season is very gratifying.

Weather: Disregarding for the moment our volcanoes and our tropical jungles, our salubrious climate alone should make an immense appeal to the traveller who wishes to get away from the snow and ice of other parts of the United States. Even though the Hawaii National Park is located in the tropics, our 4000 feet elevation above the sea provides a uniformity of temperature which must appeal to the most fastidious. Where else in the United States can one enjoy wild flowers in mid-winter, or sleep under two heavy blankets during July?

The local station of the Weather Bureau reports as follows for November:

Mean maximum for November-----	66.1°	173.41
Mean minimum for November-----	53.3°	3.10
Mean temperature for November-----	59.7°	177.06
Maximum during month-----	75° on Nov 14th;	
Minimum during month-----	50° on Nov 13, 29 and 30;	
Greatest daily range-----	75° to 56°-----19° on Nov 14th;	
Total November rainfall-----	3.14" (0.32 on Nov 8)	
27 days with RAIN; 3 days with TRACE; No days with NO RAIN.		
6 days Clear; 15 days Partly cloudy; 9 days Cloudy.		

Forty nine earthquakes during month; all slight and of no consequence.

Snow in sheltered patches on Mauna Loa (13675') and Mauna Kea (13825').

November 1923 p2.

II PERSONNEL:

During November the park force was held at the minimum:

Number:	Class:	Work performed.
1	Supt.	Administration, supervision, disbursing.
1	Ranger.	Guide work, crater patrol, sign painting.
1	Clerk	Correspondence, reports, information.
2	Laborers.	Road and trail repair; crater patrol; (53 man-days)

III WORK COMPLETED:

13 new signs painted and erected.

IV WORK IN PROGRESS:

General maintenance of roads and trails.

V WORK PLANNED.

Our small force will be held on the existing roads, so that they will not suffer deterioration during the rainy season which is now due. Other than this, no improvement work is contemplated.

VI COST OF OPERATION:

Administration:

01	Superintendent's salary	220.00	} 316.00
	Allowance for quarters	21.00	
	Clerk's salary	75.00	
0200	Staty and Office Supplies	8.62	
0230	Fuel and Light; Lights for Nov	5.00	
0500	Telegraph expense; wireless	15.53	
0510	Telephone expense	5.00	
0600	Travel expense (Yellowstone Trip)	139.68	\$489.23

Protection: 01 Guide and Crater Patrol----- 150.00

12 Repairs and Alterations:	1210 Roads	74.40	
	1211 Trails	17.00	
	1280 Auto Maint	3.50	94.90

13 Special and Misc Current Expenses:

1387 Operation of Passenger Carrying vehicles----- 6.45

TOTAL November expense-----\$741.18

(\$40.00 Inc Comp included)

DOCUMENT CAPTURED AS RECEIVED

November 1923 p2:

II PERSONNEL:

During November the park force was held at the minimum:

Number:	Class:	Work performed:
1	Supt.	Administration, supervision, disbursing.
1	Ranger.	Guide work, crater patrol, sign painting.
1	Clerk	Correspondence, reports, information.
2	Laborers.	Road and trail repair; crater patrol; (83 man-days)

III WORK COMPLETED:

13 new signs painted and erected.

IV WORK IN PROGRESS:

General maintenance of roads and trails.

V WORK PLANNED.

Our small force will be held on the existing roads, so that they will not suffer deterioration during the rainy season which is now due. Other than this, no improvement work is contemplated.

VI COST OF OPERATION:

Administration:

01 Superintendent's salary	-----	\$220.00	
Allowance for quarters	-----	21.00	
Clerk's salary	-----	75.00	
0200 Station and Office Supplies	-----	8.62	
0230 Fuel and Light; Lights for Nov	-----	5.00	
0500 Telegraph expense; wireless	-----	15.53	
0510 Telephone expense	-----	5.00	
0600 Travel expense (Yellowstone Trip)	-----	139.68	\$489.23

Protection: 01 Guide and Crater Patrol----- 150.00

12 Repairs and Alterations:	1210 Roads-----	74.40	
	1211 Trails-----	17.00	
	1280 Auto Maint-----	3.50	94.90

13 Special and Misc Current Expenses:

1307 Operation of Passenger Carrying vehicles	-----	6.48	
---	-------	------	--

TOTAL November expense-----\$741.18

(\$40.00 Inc Comp included)

November 1923 p3

VII No new policies.

VIII OTHER MATTERS OF INTEREST:

Volcanic activity: November first found the lake of lava in Kilauea Volcano 320 feet down, and as the lava fountains were almost continually active during the month the level of the lake of fire was raised to within 210 feet of the rim of the crater.

Cowboys passing near the smaller pit craters in the eastern end of the park reported unusually large steam column, but investigation leads me to believe that it was merely the cool days which made the ~~extraordinary~~ ordinary amount of steam more visible, without any increase in volume.

Attendance: 3615 persons visited the Hawaii National Park during the month of November 1923; the smaller number of tourists stopping at the Hotel being more than compensated by the increased number of ~~xxxx~~ local visitors, and the call made by 200 members of the Los Angeles Chamber of Commerce on the 15th; and the 200 sailors from the Scout Cruiser Milwaukee which stopped at Hilo two days (13 and 14) to permit the men to visit the park. On the 22nd General Mitchell of Washington, head of the Air Service of the United States Army, was a visitor to the Park, and was very much interested in the landing field which is afforded the airplanes.

The most important event during November was the landing of four Army airplanes from Honolulu (200 miles distant) on the temporary landing field afforded by removing the surface boulders from the 'sandbar' of volcanic ash which extended out into the main crater of Kilauea, within 2000 feet of the lake of fire. A complete set of aerial views were made of the park, and prints will be sent to Washington as soon as same are received by me. I have seen the first prints, and the detail is excellent, and will be ~~of~~ the means of saving much money for the Interior Department in future surveys of this area, both by the Park Service and by the Geological Survey. These will be especially valuable in the future development of the Hawaii National Park. A movie camera was taken up on the second flight, and this will appear in the Weekly News Bulletins. Watch for them at your local theaters.

IX RECEIPTS AND REMITTANCES:

Nothing to report.

Respectfully submitted,

Thomas Boles
Thomas Boles, Superintendent.
HAWAII NATIONAL PARK

3-Wash
1-Albright
1-File.

HAWAII NATIONAL PARK

CORRECTION

THE PRECEDING DOCUMENT(S) HAS
BEEN REPHOTOGRAPHED TO ASSURE
LEGIBILITY
SEE FRAME(S)
IMMEDIATELY FOLLOWING

November 1923 p3

VII No new policies.

VIII OTHER MATTERS OF INTEREST:

Volcanic activity: November first found the lake of lava in Kilauea Volcano 320 feet down, and as the lava fountains were almost continually active during the month the level of the lake of fire was raised to within 210 feet of the rim of the crater.

Cowboys passing near the smaller pit craters in the eastern end of the park reported unusually large steam column, but investigation leads me to believe that it was merely the cool days which made the ~~xxxxxxxx~~ ordinary amount of steam more visible, without any increase in volume.

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IX RECEIPTS AND REMITTANCES:

Nothing to report.

Respectfully submitted,

Thomas Boles
Thomas Boles, Superintendent.
HAWAII NATIONAL PARK

3-Wash
1-Albright
1-File.

HAWAII NATIONAL PARK

Oct. 1923

Superintendent's Office;
Volcano House, Hawaii, U.S.A.;
November nineteenth 1923.

To the Director,
National Park Service,
Department of the Interior,
Washington, D.C.

Dear Sir:-

The writer has just returned from the Superintendents' Conference at Yellowstone National Park, and begs to submit the following report on the operation and activities of the Hawaii National Park during the month of October 1923:

I GENERAL CONDITIONS:

General conditions affecting travel to this Park during October were the same as during the previous month, but there was not so many visitors here from the continental United States, but such is always the case during the months of October and November, but at that there was an appreciable gain over October of 1922.

Weather: The weather also was almost identical with the previous month, both as to temperature and rainfall. Although there was some rainfall registered on every day in October, most of it was as light showers locally known as "liquid sunshine", and our gorgeous circular rainbows suspended in the extinct craters will be remembered by the visitor long after he has forgotten the slight discomfort of a tropical shower. October's 7.55 inches of rain brings our 1923 total up to 123.91, but in spite of this there is not a spring, stream, or even a mud-puddle in the entire 187 square miles of the Hawaii National Park.

The Local Station of the United States Weather Bureau gives as follows:

Mean maximum for October—70.2°	Mean minimum—55.5°
Average for October—62.9°	Greatest range 26°; .80-54; Oct 9th
Maximum during month Oct 9th—80°	Minimum during month—53° 51st
Total rainfall during October—7.55"	Greatest daily rain—1.08 Oct 30;
Days with .01 or more rain—22; Days with Trace—9; Days NO RAIN—0	
Days Clear—9	Days partly cloudy—11
	Cloudy—11

Snow in sheltered patches on Mauna Loa (13675') and Mauna Kea (13825')

Thirty earthquakes during October; all slight and of no consequence.

Oct 1923-2

II PERSONNEL:

During October the park force was held at the minimum:

Number:	Class:	Work performed:
1	Supt.	Administration, supervision, disbursing.
1	Ranger	Guide work, crater patrol, sign painting.
1	Clerk.	Correspondence, reports, information. (Temp in charge)
2	Laborers	Road and trail repair, crater patrol; 48 man-days.

III WORK COMPLETED:

20 new signs painted and erected.
2 cooking fireplaces built at public auto camp site.

IV WORK IN PROGRESS:

General maintenance of roads and trails.

V WORK PLANNED.

No new work planned at this writing.

VI COST OF OPERATION:

Administration:

01	Superintendent's salary	220.00	} 309.75
	Allowance for quarters	8.75	
	Clerk's salary	81.00	
0230	Lights for office, Sept and Oct	10.00	
0510	Telephone service	7.05	
0600	Travel expense (Yellowstone meeting)	288.20	\$618.00

Protection: 01 Guide and crater patrol 150.00

12 Repairs and Alterations: 1210 Hoods 82.40
1280 Passenger carrying vehicles 7.25 89.65

13 Special and Misc Current expenses:
1387 Operating passenger vehicles 10.32

32 Structures and parts, etc.,
3211 Misc: 2 cooking fireplaces at camp site 11.71

\$40 Inc Comp included in above. Total October \$876.68

Oct 1923 3

VII POLICIES: No new policies.

VIII OTHER MATTERS OF INTEREST:

Volcanic Activity: October first found the lake of molten lava in Kilauea Volcano 400 feet below the rim, but it rose steadily until by the end of the month it was but 330 feet down. On October nineteenth from 3PM to 10PM the rise was rapid and spectacular; the glow from the incandescent lava being reflected from the clouds passing over the crater at night to such an extent that newspapers could be easily read two miles distant.

Attendance: 3550 persons visited the Park during October; quite a drop from the previous month, but showing a gratifying gain over October 1922, a great deal of which I attribute to the distribution of our 100,000 attractive park folders throughout the world during the past months; the travelling public in general realises that governmental endorsement of this area is a guarantee of its scenic supremacy.

During October the Park was visited by 100 members of the San Francisco Chamber of Commerce; coming as they do from a state that boasts four National Parks, it is a pleasure indeed to hear their enthusiastic expressions over the features of this park.

Accompanying this group, but not members of the excursion, was Mr and Mrs Hal G Everts of Yellowstone National Park and Hutchinson Kansas. Mr Everts figuratively "kicked himself" for wasting so much time over in Honolulu, instead of spending it on our park trails, and promises to come again and see what we really have back in the jungles away from the main travelled roads. Of course he will miss "Bald Face" and the other wild life to which he is accustomed, but surely he can make a great story using our live mountains as a background.

IX RECEIPTS AND REMITTANCES:

Nothing to report.

Respectfully submitted,

Thomas Boles

Thomas Boles, Superintendent:

3-Wash 1-HEA 1-File

DOCUMENT CAPTURED AS RECEIVED

Room
1923

Department of the Interior;
National Park Service;
Hawaii National Park.

Superintendent's Office.
Volcano House, Hawaii, USA.
September first 1923.

Hon. Stephen T. Mather, Director,
National Park Service,
Department of the Interior,
Washington, D.C.

Dear Mr Mather:--

The following summary of conditions in the Hawaii National Park is submitted in addition to my Annual Report for the season of 1923:

Hawaii National Park's appreciation by the public is attested by our 1923 attendance of 41150, compared with 27750 in 1922, and 16071 in 1921; a rate of increase not equalled by any other Park. The printing and distribution of 100,000 park folders by the Territory of Hawaii through the Tourist Bureau had much to do with our attendance, for the travelling public appreciates the value of United States Government endorsement by the creation of a National Park. Kilauea Volcano during nine months of the past season has been unusually spectacular, the lake of fire within the crater being larger than has been known in the history of man. The Kilauea Volcano House, at the 4000 foot elevation, provided people of these Islands with a change of climate thought heretofore to be obtainable only by a trip to California. All these, combined with a better appreciation of our many other natural attractions, has enabled the Hawaii National Park to make a satisfactory showing for the past season.

Publicity:

The Hawaii National Park requires more advertising than the older parks with their established reputations; and in addition to the distribution of the 100,000 park folders above mentioned, due credit must be given to the favorable publicity received from our 41150 visitors. Next comes the valuable cooperation of the Honolulu Advertiser, Honolulu Star Bulletin, and the Hilo Tribune Herald, neither of which has missed an opportunity to boost the Hawaii National Park as a Territorial asset. The liberal mention of the Hawaii National Park in the advertising of the Kilauea Volcano House, the Inter Island Steam Navigation Company, Matson Navigation Company, and the Los Angeles Steamship Company have been the means of bringing many tourists to this Park. The Honolulu Postoffice prints "VISIT HAWAII NATIONAL PARK: OPEN ALL YEAR" on 700,000 pieces of first class mail matter each month; The Hilo Postoffice similarly marks at least 30,000 each month.

Roads and Trails:

With but fourteen miles of good auto roads inside the Park, the visitor remaining longer than one day must necessarily use our trails; the more popular of which I find are: The Crater Trail leading across the floor of Kilauea Crater over two miles of recent lava; the Bird Park Trail leading to a small oasis in a field of rough lava, where may be found nearly every variety of Hawaiian tree and shrub; and the Six Crater Trail, a ten mile loop passing the Thurston Lava Tube and ten craters of various sizes, two of which are always steaming. The popularity of the Six Crater Trail convinces me that our first road development should be done in this direction.

Administration Building:

The urgent need of Park Headquarters was met by the construction of a three room frame building, heated by volcanic gases, and reached over a rustic bridge across a steaming earthquake crack. This provides a convenient office, and drafting room, and also a large room for the public, and will be the means of a better appreciation of the Park.

Protection:

Travel is fairly well distributed throughout the year, and thus enables our small force to protect the park as well as the public, and vandalism has been held to a minimum. Carrying off blossoming limbs and fern leaves has been pretty well discouraged by holding the car driver responsible for the conduct of his passengers?

The native red birds are becoming plentiful on Byron Ledge; and the Chinese pheasant introduced outside the Park is also becoming numerous inside the park. Wild goats, descended from domestic goats introduced by Captain Cook are quite plentiful on the slopes of Mauna Loa and along our sea coast; I estimate at least 20,000 goats inside the Park.

Public Utilities:

Early in the season the Kilauea Volcano House Company purchased the Crater Hotel, located just outside the park entrance, and used the material to build two cottages, which now gives the present Kilauea Volcano House a total of 120 rooms, but even with these they have been filled to capacity during at times during the past season. The satisfactory handling of nearly 1000 visitors on February 15th by the Volcano House was highly commendable. The Hotel Company now has under consideration the establishment of an experimental summer camp.

The War Department maintains Kilauea Military Camp on a lease in

the Park, and has enabled over 7000 soldiers from the Honolulu camps to enjoy a visit to this volcanic district at slight personal expense. Their conduct has been a credit to their Department.

Park Boundaries:

I believe the Park should be enlarged to include Thurston Lava Tube, the fossil footprints, and the Kau petroglyps, all of which are just outside our present boundaries.

Conclusion:

Our attendance for the past season is an unanswerable argument for the removal of the restriction now placed on our annual appropriation. In fact the United States Government can well afford to be liberal with the Hawaii National Park, located as it is in the friendly outpost of a friendly nation, and enables the ~~xxxx~~ traveller from Asia, Australia, and New Zealand to form a most excellent impression of the United States Government.

The world beyond the Pacific is shown by the fortifications of Honolulu that the United States has a fist; the same Government by its development of the Hawaii National Park will show that it also has a heart.

Respectfully,

Thomas Boles

Thomas Boles, Superintendent.

DOCUMENT CAPTURED AS RECEIVED

DEPARTMENT OF THE INTERIOR
NATIONAL PARK SERVICE
HAWAII NATIONAL PARK
HONOLULU, HAWAII

Sept 19 23
Report.

Superintendent's Office;
Volcano House, Hawaii, USA;
October sixth 1923.

To the Director,
National Park Service,
Department of the Interior,
Washington, D.C.

Dear Sir:-

I beg to make the following report on the operation and activities of the Hawaii National Park during October-1923:

I GENERAL CONDITIONS:

General conditions affecting travel to this Park in September were the same as during the previous month, but the inactivity of the volcano during the early days of the month, and the beginning of the school season, had a depressing effect on the attendance. However quite a number of local visitors came up to see the fresh lava which came up through the new earthquake cracks in the eastern end of the park.

Weather: September was an ideal month, and although we had 8.82 inches of rain, most of it fell during the nights, brightening up the foliage for the following day. Our total rainfall since January first is now 116.36 inches (about as much as Grand Canyon gets in a century).

Earthquakes: September's 50 earthquakes were all slight and of little or no consequence, and had no effect on the lava in the crater.

Weather data as obtained through the Local Observatory is as follows:

Mean maximum for September---71.7	Mean minimum for September 56.9	
Average for September-----64.3	Maximum during month-----76.0	
Minimum during month-----54.	Greatest daily range-19; 75-56; 19th:	
Total rainfall-----8.82	Greatest daily rain-----2.52	
Days Clear-----10	Partly cloudy-----18	Cloudy-----2
Days with Rain-----24	Days with Trace----- 5	Days with No rain--1
Snow visible in patches on Mauna Loa (13675') and Mauna Kea 13825'.		

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Correct distribution of September 1923 expenditures:

Administration:

01	Superintendent's salary-----	\$220.00	
	Allowance for quarters-----	52.50	
	Clerk's salary-----	63.00	
0200	Stationery & Office supplies-----	10.34	
06	Travel expense-----	5.85	\$351.69

Protection:

01	Guide and Crater Patrol-----		152.00
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12 Repairs and Alterations:

1200	Buildings-----	14.79	
1210	Roads-----	85.05	
12111	Kilnusa Trails-----	1.30	
1280	Maint Pass vehicles-----	13.25	114.39

13 Special & Misc Current expenses:

1367	Operation of Pass vehicles-----		9.36
------	---------------------------------	--	------

30 Equipment, including live stock:

3010	Furniture and fixtures-----	\$10.00	19.84
3050	Misc equipment (tools)-----	9.84	

(\$40 Inc Comp INCLUDED) \$647.28

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September report ---3

DEPARTMENT OF THE INTERIOR
NATIONAL PARK SERVICE
HAWAII NATIONAL PARK
HONOLULU, HAWAII

VII POLICIES: No new policies:

VIII OTHER MATTERS OF INTEREST

Volcanic Activity: September first found the crater 600 feet deep, smoking, but with no liquid lava in sight, and our local scientist predicting that the lava would probably not return until November. However the molten lava reappeared on September fourth, and the level of the 'lake of fire' has steadily risen until the end of the month finds it but 400 feet below the edge of the crater.

No new lava has come up through the earthquake cracks in the eastern end of the Park, but the noxious fumes and hot gases continue to pour out and bleach the surrounding vegetation. It is probably that nothing startling will occur in this portion of the park until the lava again subsides in the Crater of Halemaumau. An interesting feature of these gas clouds sifting through the fern jungles is that it has driven many goats out into the open desert, some flocks crossing the main road between the Hotel and the Volcano.

The volcanic activity in the Hawaii National Park which is of great interest during ordinary times, has been dwarfed into insignificance by the disaster in Japan; but it is reassuring to us folks living here on a 'live volcano' to feel that it is in reality a safety valve which will insure us against such a catastrophe. At this time I will mention with pride that the little Territory of Hawaii, U.S.A. has sent to Japan in cash over \$600,000 of the \$5,000,000 assessed against the entire United States by the Red Cross for the relief of Japan. (our population 250,000)

Attendance: During September 4195 persons visited the Kilauea Section of the Hawaii National Park, to which I have added 673 persons visiting the Crater of Haleakala during the busy season, making the total attendance for the Hawaii National Park during the season of 1923 41,150 visitors. The nearly continuous activity of Kilauea gets most of the credit, but due allowance must be made for the widespread publicity given the Park by the distribution of our 100,000 copies of the Hawaii National Park folder.

To have handled this number of visitors with NO ACCIDENTS, few arrests, maybe some complaints, must indeed be as gratifying to the Department as it is to the little group of local employees.

IX RECEIPTS AND RECEITTANCES: Nothing to report.

Respectfully submitted,

Thomas Boles
Thomas Boles, Superintendent.

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DEPARTMENT OF THE INTERIOR
NATIONAL PARK SERVICE
HAWAII NATIONAL PARK
HONOLULU, HAWAII

Monthly Report

August 1923.

Superintendent's Office,
Volcano House, Hawaii, U.S.A.,
September fifth 1923.

To the Director,
National Park Service,
Department of the Interior,
Washington, D.C.

Dear Sir:--

I submit the following report on the operation and activities of Hawaii National Park during August 1923:

I. GENERAL CONDITIONS.

General conditions affecting travel to this park during August have been the same as during July; the continued activity of Kilauea Volcano, and the lava outbreak in the pit crater district, brought many persons to the park from neighboring areas. The park roads are in good shape, as is also the road from Hilo to the park entrance, and this has brought many people up here on Sundays.

Weather: August is usually a dry month, and although there was 7.19 inches of rain, most of it fell on one day, the 16th; and taken all in all August was quite a delightful month. Our total rainfall for 1923 is now 107.84 inches.

Earthquakes: With 194 quakes during August, our yearly total is now 536. Most of these were but slight tremors, but several gave the buildings a good rattling, but without damage. The extra strong ones during the latter part of August opened up hundreds of fresh cracks in the pit crater district, and were disastrous to our lake of fire, draining away the liquid lava from the crater until the end of the month finds the pit but a smoking abyss over 600 feet deep.

August 1923-2-

Weather data as obtained by Local Observatory is as follows:

Mean maximum for August	69.0°	
Mean minimum for August	55.5	
Average for August	62.3	
Maximum during month	80	Aug 7th
Minimum during month	53	30th
Greatest daily range 80 to 57	23	7th
Total rainfall	7.19 inches	
Greatest daily rain	5.40 inches	
Days clear	9	
Partly cloudy	20	
Cloudy	2	
Days with Rain	25	
Days with Trace	6	
Days with NO RAIN	0	

Snow visible in patches on Mauna Loa 13675elevation; and Mauna Kea 13825:

II PERSONNEL:

No change in our regular force: Extra men used on road repair; and carpenter used two days building office furniture:

Number:	Class:	Work performed:
1	Supt.	Administration, supervision, disbursing.
1	Ranger	Guide work, crater patrol, sign painting.
1	Clerk:	Correspondence, reports, information.
9	Laborers:	Crater and road patrol: Road repair 170 MAN-DAYS.
1	Carpenter:	Building office furniture 2 man-days.

III WORK COMPLETED:

The heavy repair work necessary on the main road from the Hotel to the Volcano was finished in August by the use of men and roller from the County forces. Heavy rains this spring, and heavy travel had cut up the road quite badly. It is now in good shape. Our oiled surface roads have been disappointing, heavy rains floating off a goodly portion of the oil before it had time to get fairly 'set'.

IV WORK IN PROGRESS.

While there is quite a bit of local interest in the lava outbreak in the east end of the Park I will keep one or two men working on the worst places on the Keaunohu Road so that light cars can make this trip. I regard the Keaunohu Road only as a trail.

August 1923 -3-

V WORK PLANNED:

The heavy road expense in August will necessitate holding September expenditures to a minimum in order to keep within my quarterly allotment. No new work planned.

VI COST OF OPERATION:

Administration:

01 Superintendent's salary	\$220.00	} 349.75
Allowance for quarters	54.25	
Clerk's salary	75.00	
0200 Stationery and office supplies	36.10	
0510 Telephone service	10.60	
0600 Travel expense	5.00	\$400.95

270.
54.25
75
185
534.25
444.75 ✓

Protection:

01 Guide and Grater Patrol	185.00
----------------------------	--------

12 Repairs and Alterations:

1200 Buildings	36.75	
1210 Roads	419.59	
12111 Kilmea Section Trails	8.90	
1260 Passenger carrying vehicles	36.99	502.23 -

13 Special and Misc current expenses:

1367 Operation passenger vehicles	16.50	-
-----------------------------------	-------	---

30 Equipment, includes live stocks:

3010 Office furnishing and fixtures	22x 57.18	
3050 Other equipment (tools)	4.03	61.21

August expenditures ----- \$1,165.89

(\$40 Inc Comp included)

VII POLICIES:

No new policies: The hotels of Honolulu take advantage of the inactivity of the volcano and thus keep many tourists away from this Island. I shall continue my efforts to bring about an appreciation of the many other interesting features of this Park.

August 1923--4-

VIII OTHER MATTERS OF INTEREST:

Volcanic Activity: August 1st found the slowly subsiding lake of lava 200 feet below the rim of the crater; On August 25th severe earthquakes caused the lava to drain away entirely, and in a few days no liquid lava was visible in the crater, it being but a smoking pit 1500 feet wide, 2000 feet long, and over 600 feet deep.

The liquid lava after passing through subterranean passages reappeared eight miles distant, spouting up through new earthquake cracks just east of Makaopuhi Crater, covering many acres with fresh lava, and destroying thousands of trees and big ferns with clouds of sulphuric acid fumes. Spatters of lava were in some instances thrown 200 feet distant from the openings, festooning the limbs of nearby trees.

August 26th and 27th (Sunday and Monday) were spent in this area by the Superintendent, but complete observation was limited by the blinding and choking fumes which at times would sweep through the nearby jungles.

A fair reconnaissance was made by the Superintendent on Sunday, and anticipating the curious crowds to follow, I returned early the next day with Ranger Lancaster, and established a new trail (Reg Trail) plentifully marking it with cloth streamers, so that visitors might safely reach the lava flows without having to enter the gas area. This trail was well patronized and appreciated by hundreds of hikers, but I note the newspaper men preferred to go the old route, and consequently soon encountered the gases of which they had been given ample warning.

Being the first on the scene of activity, the Superintendent was enabled to furnish the press with first information, accompanying my reports with suitable sketches, and in this manner obtained quite a bit of favorable publicity for the Park.

The fumes are becoming weaker, and by next week full detailed of the flow will be obtainable.

Attendance: 5050 visitors to the Park during August, establishing a record. Nearly 800 were guests at the Military Camp; 2100 at the Hotel; and the balance were visitors from the immediate neighborhood who were interested in the falling of the lake of fire, and the lava outbreak in the jungle.

IX REMITTANCES:

Nothing to report.

Respectfully submitted,

Thomas Boles

Thomas Boles, Superintendent.

3 copies Washington;
1 copy to Mr Albright.

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July 1923.
Report.

DEPARTMENT OF THE INTERIOR
NATIONAL PARK SERVICE
HAWAII NATIONAL PARK
HONOLULU, HAWAII

Superintendent's Office,
Volcano House, Hawaii, USA,
August sixth 1923.

To the Director,
National Park Service,
Department of the Interior,
Washington, D.C.

Dear Sir:--

I submit the following report on the operation and activities
in the Hawaii National Park during the month of July 1923:

I GENERAL CONDITIONS:

General conditions affecting travel to the Park during July were even better than during the previous month. The good condition of the road from Hilo and the continued activity of the Lake of Fire in the Crater of Mauna Loa has drawn hundreds of local visitors to the Park every Saturday and Sunday, and the hotel golf course has been the means of bringing fifty or sixty people up here from Hilo for the week ends.

Weather: July's 3.93 inches of rain brings our 1923 total up to 100.35 inches, almost as much rain during the past seven months as during the entire year 1922; but as I have mentioned before, it takes a lot of water to make ferns grow forty feet high. Of course these rains, together with unusually heavy travel have affected our roads, but the end of August will find our park roads in good shape again. Our days average 70 degrees, and our nights 55, a most invigorating combination as is well attested by our popular trails.

Earthquakes: Forty two earthquakes during July, only two of which were of appreciable size, causing the lake of lava to drop eighty feet, with several minor avalanches from the west rim of the crater.

Weather data obtained by Local Observatory is as follows: (Dec 1922)

Mean maximum for July	69.3°	67.7
Mean minimum for July	55.5°	51.4
Average temperature July	62.4°	59.7
Maximum during July	74.°	18, 23, 24, 25
Minimum during July	53.°	1 and 21;
Greatest daily range, 71-53	18°	21st
Total July rainfall	3.93	.70 on 22nd.
Days with Rain	24-27; Trace-4;	NO RAIN--None.

Snow visible on summits Mauna Loa (13675') and Mauna Kea (13825')

HAWAII NATIONAL PARK

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July report -2-

II PERSONNEL:

Slight changes from previous month. The extra road men began work for the Park Service on July 30th.

Number.	Class.	Work performed.
1	Supt.	Administration and Supervision.
1	Ranger	Guide work and sign painting.
1	Clerk.	Correspondence, reports, and information.
10	Laborers.	General maintenance work. \$4 man-days used.

III WORK COMPLETED:

The Superintendent's Office was completed during the latter part of July, the contractors illness preventing earlier completion. Building is now occupied, and is becoming popular with the visitor. The first actual labor on this structure was by Congressman Baker of California, who assisted in the excavation; the final touch was by Congressman Linthicum of Maryland, who turned the valve which sent the volcanic steam through our heating plant. The tourists seem to get a great 'kick' out of the Department's volcano heated office, approach to which is via a rustic bridge across a steaming earthquake crack.

Handwritten note: To be lost full name

WORK IN PROGRESS:

The road to the Loa Grove is finished, and now allows park visitor to go to any part of the Hawaii National Park without having to cross private lands. This road is well patronized on account of the popularity of Bird Park as a picnic ground. After using the ten ton roller on this a day or two more, I will shift the gang to the main road to the volcano and put it in first class shape.

V WORK PLANNED:

While the roller is at my disposal I will enlarge the parking space at the rim of the volcano so as to accommodate at least 125 cars, as I find that the 80 car capacity is insufficient. The present area was beaten down by hand, and a much better surface will be obtained by rolling.

The three-room cottage mentioned in previous report has been purchased for \$100.00 and will be moved to inside the Park limits, and several bunks built therein for road workers, which at present must be housed in a local garage at Government expense. This cottage will be set back from the road near the Park Entrance, and will later serve as a Ranger Cottage for the checking station.

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July report -3-

387.60
1.6
387.60
4
307.60

VI COST OF OPERATION:

Administration:

01	Superintendent's salary	220.00	
	Allowance for quarters	51.25	
	Clerk's salary	55.00	
0200	Stationery and Office Supplies	8.00	
* 0230	Fuel	3.00	
0500	Telegraph service	4.50	
0510	Telephone service	7.15	
06	Travel expense	4.90	
* 11	Rent (Supt Office)	20.00	

300.25
307.60
71.25
221.80

Protection:

01	Guide and Crater Patrol	160.00	
----	-------------------------	--------	--

12 Repairs and Alterations:

1200	Park buildings	159.35	
1210	Park Roads	77.50	
1200	Park automobile and motorcycles	35.34	172.19 ✓

13. Spl. Insp. 1837. Op. Adv.

30 Acquisition of Property:

3010	Office Equipment	17.50	
	(Ditts board and blue print frame)		
3050	Tools	5.25	220.00 ✓

52 Structural improvements:

	Three room cottage	100.00	
	Frame toilet	5.00	105.00 ✓

July expenditures 882.03

(240 Inc Corp included)

*These items will be eliminated from now on.

882.03
47.93
847.03
HNP

VII POLICIES:

To new policies- The Administration Building will call attention to the fact that the United States Government is back of this Park; and the Information Bureau will enable the visitor to get first hand accurate information about the many interesting features of this area. Heretofore the tourist obtained his information from taxidrivers and hotel employees, few of whom speak English freely.

DOCUMENT CAPTURED AS RECEIVED

July report -3-

VI COST OF OPERATION:

Administration:

01	Superintendent's salary-----	\$220.00	
	Allowance for quarters-----	54.25	
	Clerk's salary-----	66.00	
0200	Stationery and Office Supplies-----	8.00	
* 0230	Fuel-----	3.00	
0500	Telegraph service-----	4.50	
0510	Telephone service-----	7.15	
06	Travel expense-----	4.90	
* 11	Rent (Supt Office)-----	20.00	\$387.60

Protection:

01	Guide and Crater Patrol-----		160.00
----	------------------------------	--	--------

12 Repairs and Alterations:

1200	Park buildings-----	\$59.35	
1210	Park Roads-----	77.50	
1230	Park automobile and motorcycles-----	55.34	172.19

50 Acquisition of Property:

5010	Office Equipment-----	17.50	
	(Dftg board and blue print frame)		
5050	Tools-----	5.14	23.14

32 Structural Improvements:

	Three room cottage-----	\$100.00	
	Frame toilet-----	5.00	105.00

July expenditures-----\$882.03

(\$40 Inc Comp included)

*These items will be eliminated from now on.

VII POLICIES:

No new policies. The Administration Building will call attention to the fact that the United States Government is back of this Park; and the Information Bureau will enable the visitor to get first hand accurate information about the many interesting features of this area. Heretofore the tourist obtained his information from taxidrivers and hotel employees, few of whom speak English freely.

July report -4-

VIII OTHER MATTERS OF INTEREST.

Volcanic Activity: Hawaii National Park has thirty six craters, many of them hot and steaming, but the Lake of Fire in the Crater of Kilauea will always be the outstanding feature of the park. July first found the lake of molten lava within 120 feet of the rim of the crater, but within a few days it began to subside until the end of July finds it 200 feet down. Kilauea Volcano put on an elaborate show on July Fourth, which is quite fitting for an American volcano. As many as thirty fountains were in action at one time, sending up their blasts of fiery spray which at times would fall outside the rim of the crater. I am sure that no other little American girl had such elaborate fireworks on the Fourth of July as did my little six year old daughter Margaret comfortable seated near the rim of a live volcano with fifty acres of molten lava with scores of white hot roaring geysers in action. (However she insisted on several bunches of firecrackers in addition to the volcano).

In July thirty two girl scouts spent a couple of days in the Park as guests of the Honolulu Advertiser (Mr. Thurston's paper), and I know of no group more enthusiastic over our trails and attractions. Twelve nationalities were represented in the party. On the second day I put them in charge of a guide and sent them over the Six Crater Trail, an eleven mile hike over lava, cinders, and ashes; after going three miles their shoes began to hurt, so they all made the balance of the trip BARE-FOOTED. Any group that can walk barefooted over a rough trail for eight miles, and still be enthusiastic over the trip, is entitled to rank as 100% boosters. Some of these girls were but 11 and 12 years old. (Shabby treatment given this party by the hostess of the Hotel has been detailed in another letter) Later on a group of boys came over, also guests of the "Advertiser", but they failed to break the record established by the girls. The National Park Service can cultivate no better friends than the Girl Scouts and Boy Scouts of America, for it is from their ranks will come the future Theodora Roosevelts, Emerson Loughe, and Mary Roberts Rinehart.

General Sumnerall, Commanding the Hawaiian Department, on a recent visit to the park expressed a desire to establish a landing field on this island, and I suggested one in the Park; and later in company with Captain Kirkpatrick I have selected a desirable site just east of the extinct crater of Heanakui, where the ground is open, and fairly level, and can be put in condition for about \$100. Within a few hours after the item appeared in the Hilo Tribune I was notified by Mr. John Kal, Manager of the Peoples Garage, that he would provide the \$100. The aviators have promised us full sets of aerial photographs of the entire park area, which will be of inestimable value in the development of our park and roads.

On July 27th Henry Kini, Hawaiian cowboy from Brown's Ranch nearby, was arrested for selling liquor inside the Park. The United States Commissioner will not be available for a few days, at which time the case will be pressed to a finish.

HAWAII NATIONAL PARK

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July report -5-

On July fifteenth the baby daughter of Yamada, electrician of the Hotel, died of some infantile ailment. Only a few days prior to its death, the father was severely burned about the face by the flash from a gasoline blowtorch.

Attendance: 4800 persons visited the Hawaii National Park during July; 750 were guests at Kilmaes Military Camp from the various Army camps near Honolulu; 2050 were guests at the Kilmaes Volcano House; and the balance were visitors from neighboring districts of this Islands.

Among the more prominent visitors were:
Congressman Charles Garry and party, from California.
Ex-Governor McCarthy of Hawaii.
Delegate William Jarrett, of Hawaii.
Raymond O Brown, Secretary of Hawaii.
Mrs George B Christian, wife of the President's Secretary.
Congressman Cleveland A Newton and family, of Missouri.
Congressman Charles Lighthum and wife, of Maryland.
Miss Helen Snell, daughter of Congressman Snell of New York.

Each of these folks expressed themselves as delighted with the Hawaii National Park, and each group happened to come at a time when the weather was especially pretty. While none of them had as much time at their disposal as did Congressman Baker, nevertheless they seemed to enjoy every minute of it, and I believe each will have a personal interest in this Park from now on.

IX RECEIPTS AND REMIT TAXES.

\$50

During July the sum of \$50 was collected as rents from private leases within the Park, and such amount remitted direct to Washington, and not taken into the Park accounts, but I trust will be treated as Revenue from the Hawaii National Park.

Respectfully submitted,

Thomas Beles
Thomas Beles, Superintendent

3 copies Washington
1 copy to Albright.

Trans to July 31: 31-732

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DEPARTMENT OF THE INTERIOR
NATIONAL PARK SERVICE
HAWAII NATIONAL PARK
HONOLULU, HAWAII

June 1923

Superintendent's Office,
Volcano House, Hawaii, USA,
July sixth, 1923.

To the Director,
National Park Service,
Department of the Interior,
Washington, D.C.

Dear Sir:--

I submit the following report on the operation and activities
in the Hawaii National Park during the month of June 1923:

I GENERAL CONDITIONS:

General conditions affecting travel to the Hawaii National
Park during June were much better than during the previous three months;
The rough detour between Hilo and the Park has been discontinued, and
this together with the unusual activity of the Volcano of Kilauea has
drawn hundreds of local visitors to the Park every Saturday and Sunday;
sometimes as many as 100 cars being in the Park at one time.

Weather: 4.14 inches of rain during June brings our total rainfall for
1923 up to 96.42 inches, as against but 103 inches for the entire year
of 1922. Only two real rains during June, the balance being light showers
or heavy Scotch mists, which with the sunshine serve to accent the
brilliant coloring of the foliage and flowers. Many ohia trees over 30
feet high appear as enormous bouquets of scarlet pompons, the blossoms
easily outnumbering the leaves.

Earthquakes: June averaged an earthquake each day, with an extra one
thrown in for good measure. Of the thirty one quakes only one was really
noticeable, this being accompanied by a slight subsidence of the lake of
fire in the volcano.

Weather data in detail as obtained by Local Observatory:

Mean maximum for June	68.2°	68.2
Mean minimum for June	54.2°	54.2
June average temperature	61.2°	61.2
Maximum during June (June 7th)	74	
Minimum during June (June 2nd)	49	
Greatest Daily Range (June 3rd)	51 to 70	19°

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Weather report continued:

Total rainfall during June-----4.14 inches
 Greatest rain in 24 hours----- .87 inches
 Days with .01 or more rain-----26
 Days with Trace----- 1
 Days with No Rain----- 4
 Days clear-----4
 Days partly cloudy-----21
 Days cloudy----- 5

Summits of Kama Ica(13075'), and Manna Ica (13025') snowcapped.

II PERSONNEL:

No changes during June from previous month. The carpenters employed on the Superintendent's office were under contract, and are not included below.

Number.	Class.	Work performed.
1	Supt.	Administration and supervision.
1	Ranger.	Sign painting and crater patrol.
1	Clerk.	Correspondence and information.
4	Labourers.	General maintenance work. 61 man-days.

III WORK COMPLETED:

No work entirely completed during June.
 Twenty five additional signs painted and erected.
 The koa trunk which I intended using as an arch at the Park entrance proved defective, and another one must be found. However the sign, 2 ft by 10 ft, has been suspended across the road, and has caused quite a bit of favorable comment. The sign reads as follows:

U.S. Department of the Interior-----National Park Service.
 HAWAII NATIONAL PARK.
 "Set apart for the pleasure of the People."

This not only identifies the area, but in an invitation as well.

IV WORK IN PROGRESS.

The Office of the Superintendent as authorized by the Department is practically completed. The painting, wiring, plumbing and the steam chimney are yet to be done, but materials are on hand and the labor contracted. In a few more days when the painting is done I will send in photograph of same; it is already getting quite a bit of attention from our visitors.

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This office, which at some later date can be easily converted into a Ranger Cottage when authority and funds are given us to build an Administration Building commensurate with the dignity of the Park, will answer our present requirements, and will be the means of enabling our patrons to obtain information and directions so they can really appreciate the Hawaii National Park.

The cost will be \$1470.00 It contains the Information Room and Museum 20x20 ft; an office 10x14; a drafting room 10x14. Seven windows in the large room, and three windows in each of the smaller ones. The basement has 7 feet headroom, large enough to store materials, tools, motorcycles, and the Park Lodge car. There is one lavatory with hot and cold water. Electrically wired, with sufficient fixtures for all purposes. Also a steam heating system, designed by the Superintendent, which enables the office to be kept at a uniform temperature through controlled volcanic heat. Being a Department of the Interior structure it was quite proper that we should obtain the heat from the Interior Department of the Earth. "The Gentlemen with horns" will be the fireman, but will not be shown on the payroll.

V PLANS.

The Ten-ton roller with truck and six road men has been engaged for work of our Park roads during July. These will be first used in surfacing the road leading by the Golf Links to the Koa Forest and Tree Molds, and will then be used in surfacing and rolling some rough stretches in the main road to the crater.

From my 1924 funds I will purchase a three room cottage and re-erect it within the Park near the entrance, to be used as a laborers lodge. It will be so located in a fern fern grove so as not to be conspicuous from the roadway. Notwithstanding our modest appropriations, I believe it to be in the interest of the Service, as well as to the interest of the visitors, that we provide our employees with comfortable and convenient houses. With the completion of this cottage, and the little cottage built in May 1923; and the completion of the Office Building, everything is taken care of except a residence for the Superintendent. However this is being taken care of through a per diem allowance, but I trust that the next session of Congress will authorize the construction of a suitable residence so that the Superintendent will not be compelled to board at the Hotel. I have already prepared plans for such a residence and will submit same for approval through the Park Architect, so that no time may be lost when authority is obtained for its erection.

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VI COST OF OPERATION:

Administration:	Superintendent's salary-----	\$220.00	
	Allowance for Quarters-----	52.50	
	Clerk's salary-----	72.00	
	Office rent, Park Headquarters-----	20.00	
	Telephone service-----	10.00	
	Radio messages-----	8.14	
	Travel expense-----	4.25	
	*Office supplies-----	25.00	\$411.89
Protection:	Crater patrol-----		50.00
Maintenance:	Roads and trails:		
	Wages-----	156.50	
	Salaries-----	30.00	
	Materials-----	14.00	200.00 ⁵⁰
Auto expense:	Maintenance: None		
	Operations:-----	12.00	12000

in correct

Acquisition of Property:

*2 motorcycles with side cars-----	50.00	
Building: Supt Office:		
Materials,		
Freight,		
Labor-----	1470.00	1520.00

Total June expenditures-----	\$2,193.89	
(\$40 Inc Comp Included)		4
		2153.89
*Paid through Washington Office.		2103.89

VII. POLICIES:

I sincerely trust that the Hawaii National Park will continue to merit the good will of its neighbors, and the enthusiasm of its visitors. The comparative few complaints during the past fiscal year has been indeed gratifying to the Superintendent

HAWAII Page 4

I sincerely trust that the Hawaii National Park will continue to merit the good will of its neighbors, and the enthusiasm of its visitors. The comparative few complaints during the past fiscal year has been indeed gratifying to the Superintendent, who is anxious to do his part toward making the people of this Territory as loyal to the Hawaii National Park as the Californians are to the Yosemite.

VIII OTHER MATTERS OF INTEREST:

Volcanic activity. During June the level of the lake of fire in the fire pit of Kilauea Volcano rose from 160 feet below the rim to within 120 feet of the top. At the 140 foot stage the lake had several set-backs, with later recoveries. The rising lake increases in area very slowly, as the walls of the crater are practically vertical. The area just now is about fifty acres, equivalent to twenty city blocks; Visualize an area four blocks wide by five blocks long, entirely of of seething molten lava, with noisy geyzers sending up their fiery spray 50 to 100 feet high and coating the crater walls with an incandescent veneer, with a sound like the incessant beating of a heavy surf, with now and then a gust of vapor which fills the air with the smell of real fire and brimstone. This gives a faint impression of the main feature of the Hawaii National Park as it greets the visitor as he steps from his auto at the end of the volcano road. In Europe the people are fleeing in terror from Mount Etna, while in one of America's National Park folks may stand with safety and comfort around the active crater of Kilauea.

The Hawaii National Park contains thirty six craters, varying in size from the Devil's Throat 30 feet across, to the tremendous crater of Haleakala eight miles wide and one-half mile deep. K Although Haleakala has been explored many times, it was not until June 25th that the interior of the Devil's Throat was visited. On this date William Sinclair of Honolulu was lowered into this crater, alighting on a pyramid of talus 258 feet below the rim. The surface opening is but thirty feet, but the crater widens out to 222 feet at the bottom. The air at the bottom of the pit was considerably warmer than the outside air, and it is quite likely that this heat ~~was generated~~ was generated last summer when the lava from Kilauea Crater drained through the tunnel passing under all the pits along Cook's Trail to where it made its exit at the Crater of Makenapuhi. Devil's Throat, although the smallest crater in the Park has always been the most terrifying, on account of its small opening with depressed rim, making it necessary to approach the rim on all-fours in order to look into the pit with safety.

During June five persons ascended Mauna Loa and viewed the Crater of Mokuaweoweo. Although Professor Jagger predicted that this crater would be in action during the Spring of 1923, these visitors report nothing unusual present or visible, only the few wisps of steam as may be found there during any visit. The altitude of the crater, 13,675 feet above the sea, will prevent it from ever becoming a popular point of interest to the visitor. Not over one-half-of-one percent of the park visitors make this trip, and most of these are goat hunters. This crater will always have a scientific interest, but to the layman its attraction will always be more or less limited to the brief periods of activity estimated to be nine years apart.

Fact-F

Attendance: During June 1923 forty four hundred persons visited the Hawaii National Park; 700 of these were officers and men from the Army camps near Honolulu who spent their vacation at the Kilauea Military Camp about one mile west of the Hotel. A ship of the Japanese Navy, with Admiral Atsuka aboard, stopped at Hilo two days in order that the entire crew of 150 might visit the Park. Hon. Lorris A Thurston 'discoverer of the park' spent a couple of days here and ~~six~~ states with authority that the lake of fire at present is larger than has been known in the history of man. During his visit he also pointed out to the Superintendent the few remaining living specimens of the Sandalwood tree, only six out of a once unlimited forest. These will be protected, and I will enlist the services of Charles Judd, Territorial Forester, in obtaining some sandalwood seedlings from the Island of Molokai with which to start a ~~small~~ small grove within the park limits.

IX RECEIPTS AND REMITTANCES.

Phy-lone

During June the sum of \$75 was collected as rents on private leases within the Park, and such amount remitted to the Washington Office.

Respectfully submitted,

Thomas Boles
Thomas Boles, Superintendent

* 3 copies Washington;
1 copy to Mr Albright.

Mrs Newman, wife of Judge Wm. B. Newman, Solicitor for the Department of the Interior, was an interested visitor to the park for several days this month.

Crater photo incl.

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DEPARTMENT OF THE INTERIOR

NATIONAL PARK SERVICE

HAWAII NATIONAL PARK

HONOLULU, HAWAII

May 1923.

Superintendent's Office,
Volcano House, Hawaii, USA,
June fifth, 1923.

To the Director,
National Park Service,
Department of the Interior,
Washington, D.C.

Dear Sir:-

I submit the following report on the operation of
the Hawaii National Park during the month of May 1923:

I GENERAL CONDITIONS:

General conditions affecting travel to the Hawaii
National Park were about the same for May as for the previous month.
Travel from the mainland is lessening, but the activity of the vol-
cano has drawn many visitors from the neighboring islands. The visit
of two ships of the United States Navy to Hilo (our port) enabled
over 600 of this branch of the service to see the Park at its best.

Good weather has permitted excellent progress to be
made by the County in connecting the highway between Hilo and the
Park Entrance, but the three mile rough detour must be used for a
few days yet in order to insure best results from the pavement.

The high price of sugar, with its resulting wage-
bonns, is making it difficult and expensive to obtain common labor
for other classes of work

Weather: May's ~~4~~ 4.33 inches of rain brings our 1923 total
up to 92.28 Four days in a row, without any rain, as was the case
during the middle of last month, establishes a record for this area.
This with our average temperature of 58.6° has caused our trails to
be well patronized with hikers, and has furnished the amateur photo-
grapher unlimited opportunities of recording some of our scenery, as
proven by the empty film cartons found near our "Kodak supports" lo-
cated at all especially attractive vistas.

Earthquakes: Our earthquake schedule is down to a minimum of 20 for
the month, only 2 of which were really felt. As the lava rises in the
crater of the volcano we have comparatively few earthquakes; and it is
when the lava begins to subside that the real commotion begins.

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May 1923—2

Weather data in detail as obtained by Local Observatory:

Mean maximum for May	64.2°	
Mean minimum for May	53.0°	
Average for May	58.6°	
Maximum during May	79.	May 13th
Minimum during May	47.	May 1st
Greatest daily range:	77 to 62	25 May 12th
	79 to 54	25 May 13th
Total rainfall during May	4.33	inches
Greatest daily rain	.75	May 22nd
Days with .01 or more rain	25	
Days with Trace	1	
Days with NO RAIN	5	
Days Clear	8	
Partly cloudy	12	
Cloudy	14	

Summit of Mauna Loa (13,675 ft), and of Mauna Kea (13,675 ft) snow capped.

Pm

II PERSONNEL: Beginning with May first this office has been supplied with a Clerk, as authorized by Civil Service Commission on March 16 1923. This allows the Superintendent much more time for the field work, which is so essential at this period of the year. The three laborers were employed a total of 74 man-days during May.

Number	Class	Work performed.
1	Supt	Administration and supervision.
1	Ranger	Guide work and sign painting.
1	Clerk	Correspondence and information.
3	Laborers	Road maintenance and crater patrol.

III WORK COMPLETED:

No work completed during May:
Thirty additional signs painted and erected.

IV WORK IN PROGRESS:

Road

Nothing more has been done on the temporary road toward Bird Park, mentioned in previous report, as the County has been unable to spare their heavy roller, and at least four days rolling with 10 ton roller is essential before turning this road over to traffic.

May 1923 -3-

Ranger Cottage: The 15'x18' box house which was purchased last January has been dismantled and moved to a point in a grove of ohia and tree ferns, about 150 feet east of the site of the Superintendent's Office, and has been re-erected into a three room cottage for Ranger Lancaster, who will use one room for sleeping, one for cooking, and the other for a paint shop. No new material was required, and the labor was done by our day laborers. This gives Lancaster conveniently located comfortable quarters, and saves him the \$10 per month which he has been paying for a little back room in the garage. Lancaster is getting pretty well along in years, ~~and~~ and I am glad that it is possible for us to give him a decent living place with such a small expenditure.

Superintendent's Office: Bids submitted for the construction of three room frame office for the Superintendent were all well above the \$1500 limit. I have therefore ordered the materials and will put up the building myself, using local carpenters where required. Two of my laborers are handy with tools, and can do most of the rough work.

Actual work was commenced on May 28th, the first shovel full of earth being turned by Congressman John E. Baker of the Mount Lassen District of California. Judge Baker also made personal selection of an unusually brilliant colored slab of lava to be used in the foundation of this office, and later on in the fireplace of the ~~real office~~ ^{Administration Bldg.} which will be built at some later date.

This office will be completed and occupied during June 1923, and I will then send you photographs of same showing our "volcanic heating plant" in full operation. I look for this office to prove one of the interesting features of the Hawaii National Park.

PLANS: V I have arranged to purchase another small cottage out of my 1924 Appropriation early in July, and will re-erect it inside the Park a little ways back in the fern jungle near the Main Entrance, and will use it to house my laborers. So far as the success of the Hawaii National Park is concerned, the comfort of our employees is just as essential as the comfort of the visiting public.

I also have a quantity of good second hand lumber in view which I hope to purchase early in July, and use it to build the public toilets and the shelter near the volcano, as detailed in my suggested allotment for 1924. I have purchased about \$50 worth of new carpenter tools, and will handle all our own light construction and repair work.

Not over one out of five visitors to this area knows beforehand that this is a National Park, ^{so have} and selected a dead koa tree which will make a suitable arch over the road at the entrance, and will support it on two poles of ohia, and will suspend therefrom suitable inscription, which will not only announce that this is the Hawaii National Park, under the supervision of the Department of the Interior and the National Park Service, but will also invite the public to enjoy it as their own property.

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May 1923 -4-

200
54.25
76.00
329.25

VI COST OF OPERATION:

Administration:	Superintendent's salary-----	2220.00	
	Allowance for quarters-----	54.25	
	Clerk's salary-----	76.00	
	Office rent Park Headquarters-----	20.00	
	Telephone service for month-----	5.00	
	Fuel for office-----	3.00	
	Office supplies-----	8.45	
	Travel expense-----	6.30	\$392.00 - 20
Protection:	Guides and crater patrol-----	100.00	100.00 - 20
Maintenance:	Labor-----	164.50	
	Supplies and materials-----	42.65	207.15
Miscellaneous:	Auto expense (and motorcycles)		
	Gasoline and oils-----	19.80	
	Repairs to auto-----	6.56	26.36
Acquisition of property:	Advt for bids on Office-----	6.00	
	May expenditures-----		\$733.51

392.00

200
14.25
15
329.25

(\$40 Inc Comp included)

733.51

VII POLICIES: No new policies. I sincerely hope that all our future visitors will leave the Park with the same enthusiasm as did those who were so fortunate as to visit our Park last month.

VIII. OTHER MATTERS OF INTEREST:

Volcanic Activity: During the month of May the level of the lake of molten lava in the Crater of Halemauau, the firepit of Kilauea, rose from 220 feet below the rim to within 150 feet of the rim. At the 150 stage the surface would subside several feet one day, only to regain it a day or two later. The most remarkable recovery was on May 12th when the surface of the lake rose thirty feet inside of one day, making a total volume of molten lava poured out by the scores of fountains ~~total~~ OVER TWO MILLION CUBIC YARDS IN ONE DAY. Bear in mind that this is all molten rock, and if figured in terms of a Contractor of Excavation would represent practically Three Million Dollars worth of work done by the Volcano of Kilauea in ONE DAY.

The area of the lake is over 45 acres, or nearly 18 city blocks, and is so intensely hot that one can stand at the rim but a few seconds at a time unless some kind of a mask is used to protect the face. At times over thirty fountains are in action at once, sending up their incandescent spray, and forming geysers of fire which start at one side of the crater and slowly travel across the lake until they are stopped by the vertical walls of the other side of the crater. Enormous clouds of steam and sulphur fumes hang over the crater, brilliantly illuminated

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May 1923 -5-

at night by the brilliant fountains, or by the lurid glow from the molten surface of the lake of fire. Those on the mainland who were fortunate to see the moving picture "The White Flower" would readily see how natural it was for the Hawaiians to worship the Goddess Pele whose abode was within the Volcano of Kilauea. "The White Flower" was filmed in Hawaii, the first and last scenes being taken in the Hawaii National Park.

Other craters: At this time last year we had ~~three~~ craters in active eruption pouring out molten lava. Kilauea is the only one active just now, but four of the others are sending up unusually dense clouds of steam, but there is not likely to be any lava from them unless Kilauea begins to ~~subside~~ subside on a large scale. However no one can safely predict what Kilauea will do. Last May it was within 40 feet of the top; last June it was One Thousand feet deep; and today it is again within 150 feet of the top. If there is anything in which the Hawaii National Park excels it is in the unexpected variety which we have to offer.

Attendance: Thirty three hundred persons were satisfied patrons of the Hawaii National Park during May 1923. The 600 men from the USS Omaha, and USS Seattle, gave us quite a boost in attendance. An unusually large number of visitors to the Park ~~xxx~~ were from the Army Camps on the Island of Oahu, (Honolulu).

Among our more distinguished visitors I will mention: Hon. J. Mayhew Wainwright, Former Assistant Secretary of War, now U.C. Mr. W. J. Sherman and party, of the Masonic Grand Lodge of California. Hon. John E Baker, Congressman from Mt Lassen District; and Mrs Baker. Hon. Wallace R. Farrington, and staff; Governor of Hawaii. Admiral Hillary P Jones, Commander in Chief of the United States Navy. General Grote Hutchinson, Commanding Field Artillery Hawaiian Department. Doctor Gregory, in charge of the Bishop Museum of Honolulu.

Governor Farrington spent several days in the Park, and was out on the trails considerable of the time.

Judge and Mrs Baker were here several days, and enjoyed every minute of it. Coming as he does from a Congressional District that contains a National Park and also a volcano he was especially interested in our Park and its features, and it was a pleasure indeed for the Superintendent to personally escort the Bakers throughout this area. The volcano was especially active for Congressman Baker, and I feel certain that he will reciprocate the attention of our volcano at the next session of Congress.

IX RECEIPTS AND REMITTANCES:

During May 1923 I remitted \$650.00 derived from rentals of leases within the Hawaii National Park.

Respectfully submitted,

Thomas Boles
Thomas Boles, Superintendent

cc Mr Albright:

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DEPARTMENT OF THE INTERIOR
NATIONAL PARK SERVICE
HAWAII NATIONAL PARK
HONOLULU, HAWAII

April 1923

Superintendent's Office,
Volcano House, Hawaii, U.S.A.,
May fifth, 1923.

To the Director,
National Park Service,
Washington, D.C.

Dear Sir:-

I submit the following report on the operation of the
Hawaii National Park during the month of April 1923:

1 GENERAL CONDITIONS:

General conditions affecting travel to the Hawaii
National Park during April differed but little from those of the
preceding month. As winter ends in the States there is less incentive
for the traveler to seek milder climates, and the westbound travel on
the Pacific steamers is consequently lighter, especially from the
ports of Seattle and San Francisco; but travel from Los Angeles over
the new line is steadily increasing.

The Los Angeles Steamship Company is now considering
building two \$4,000,000 fast steamers which will make the trip to
Hawaii in four or five days, instead of six days as at present; and
they also may make Hilo a port of call, which would mean that every
passenger would be given an opportunity of visiting the Hawaii National
Park. Under the present system all steamers stop at Honolulu, and the
trip to the Park must be made via the Inter Island steamers; this stop
affords the hotel owners at Honolulu an opportunity to induce the
visitors to remain there, and forego the trip to the Park. Honolulu is
a beautiful and interesting city and in many ways a worthy competitor
of our Park.

Concreting the highway between Hilo and the Park was
delayed considerable during April by the torrential rains. Travel is
being sent over a very rough detour for three miles, but as it protects
but a quarter of a mile of new pavement it is likely that this detour
will be used but a week or two more.

The price of raw sugar is around eight cents per pound,
and under the bonus system the planters pay fancy prices for ordinary
labor, and this of course makes labor hard to secure, or retain, on other
work. Filipinos are being imported, but until the price of sugar gets
back to around five cents, the labor market will be more or less unsettled.

April report -2-

Weather: "April showers" for twenty six days of last month totalled 27.6 inches, making our grand total 87.95 inches for 1923. On the twenty fourth we had 6.50 inches, followed the next day by 10.66 inches (nearly all of which fell within three hours), severely scouring the roads and trails in places. While it is true we have no mud, still the light ash and pumice stone floats away quite easily in rains like the above.

Earthquakes: Sixty earthquakes during April, only two of which were of any consequence; each of these two caused a slight drop in the lava in the 'Lake of Fire'.

Tidal Wave: On the thirteenth there was a tidal wave at Hilo amounting to but four feet, with none of the destruction which accompanied the waves of February. However all the fishing fleet hurried out to sea and remained off the coast for several hours.

Weather data in detail as obtained by Local Observatory:

Mean maximum for April-----	66.0°	
Mean minimum for April-----	54.1°	
Average for April-----	60.0°	
Maximum during April-----	71.0°	April 18th
Minimum during April-----	49.0°	April 16th
Greatest daily range---70° to 50°-----	20.0°	April 10th
Total rainfall during month-----	27.60	
Greatest within 24 hours-----	10.66	April 25th
Next-----	6.50	April 24th
Days with .01 or more rain-----	26.	
Days with TRACE-----	2.	
Days with NO RAIN-----	2	
Days Clear-----	5	
Partly Cloudy-----	8	
Cloudy-----	17	

Summit of Mauna Loa 13,675 ft; and of Mauna Kea 13,825 snowcapped.

II PERSONNEL: Other than the Superintendent and one ranger, but seventy eight man-days were employed during the month. The three laborers were used in maintaining the roads and trails, and at times in patrolling the rim of the crater during unusually large crowds of visitors.

Number:	Class	Work Performed:
1	Supt.	Administration and Supervision.
2	Ranger	Guide work and sign painting.
3	Laborers	Road maintenance and crater patrol.

III WORK COMPLETED:

No work completed during April 1923.
Forty additional signs erected along trails.

IV WORK IN PROGRESS:

The small force is used in maintaining our roads and trails, and in patrolling the rim of the volcano during the visits of crowds of unusual size.

April report -3-

The present road and trail to the BIRD PARK passes over private property for half a mile, and through three private gates. The ranch owner complains of the gates being left open, and in order that the Park Service may have exclusive control over roads connecting our various features, I am building a temporary road outside the ranch fence for a distance of 1500 feet, which connects with an old road leading through the Koa Grove toward the Bird Park. As this new route will protect their golf links from the tourist cars crossing the course indiscriminately on the way to and from the Tree Kolds and Koa Grove, the hotel company is sharing the expense of the new road by furnishing teams, plows and trucks.

PLANS: V Satisfactory bids have not been received for the construction of the Superintendent's Office, and I am now awaiting several quotations on the building materials, upon receipt of which I will probably start the construction of the office, under my own supervision.

VI COST OF OPERATION:

Administration:	Superintendent's salary-----	\$220.00	
	Allowance for quarters-----	52.50	
	Office rent-----	20.00	
	Telephone Service-----	6.50	
	Wireless service-----	5.25	
	Fuel for office-----	1.50	
	Office supplies-----	15.18	
	Educational supplies (lantern slides)-----	15.55	
	Travel expense-----	55.20	\$372.69
Protection:	Guide and patrol-----	80.00	80.00
Maintenance :	Labor-----	194.50	
	Supplies-----	19.10	213.60
Miscellaneous:	Auto expense: Gasoline and oil-----	17.51	
	Tires, etc.,-----	58.25	75.38
Acquisition of property:	Freight on two motorcycles-----	34.49	
	April expenditures-----		\$776.16

(\$40.00 Inc Camp included)

VII POLICIES: No new policy. Will continue to obtain favorable publicity which will bring more people to this Park, and cause the people to realize that the Hawaii National Park is indeed a national asset.

April report -4-

VII OTHER MATTERS ON INTEREST:

Volcanic activity: The lake of lava in the Fire Pit of Kilauea rose eighty feet during the month and April thirtieth finds the lake but two hundred and twenty feet below the rim. The rise has not been steady, there having been a marked subsidence on the second and on the thirteenth. During the latter part of the month there was a tendency for floating islands to form in the lake, but the end of the month finds these completely submerged and the surface of the lake almost entirely level. The area of the lake is still approximately forty acres, and as the crater walls above the lake are nearly vertical there will be but little change in the size of the lake. Steam clouds continue to form over the crater on days when the wind is light, and such clouds are brilliantly illuminated at night by the reflection from the molten lava below.

Temperature drilling: The Hawaiian Volcano Research Association has drilled two 15 foot holes within six feet of their sixty five foot well, and will connect them by pipes and erect a small temporary laboratory over them, and conduct experiments with low pressure turbines to ascertain the available energy of the steam. My personal opinion is that the ground is too porous to allow the steam to accumulate sufficient pressure to be of any value. A temperature of 205° (local boiling point) is reached at a depth of fifteen feet, and does not increase at further depths.

Motorcycles: Two motorcycles purchased for this Park by Chief Engineer Goodwin, arrived during April, and are being used to transport my road men back and forth to work. This will result in quite a saving, as I have heretofore had to use the Dodge car for this purpose when the men had six or seven miles to go. Mr. Goodwin obtained these motorcycles, with side cars, for \$25 each, and barring a few missing parts they are in new condition. The cars were brought to Honolulu on an army Transport, then shipped to Hilo and delivered to the Park, at a transportation cost of \$34.49.

Attendance: Two thousand nine hundred and seventy five persons enjoyed the Hawaii National Park during April. While we had no big excursions as during March, nevertheless the regular steamers from Honolulu brought us larger crowds than usual; and there has been a marked increase in the number of persons coming here from Fort Shafter and Schofield Barracks, on the Island of Oahu. Among those whose visit here should result in favorable publicity were Governor Benjamin Odell of New York, and family; and Florence Vidor, Moving Picture Star.

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April report -5-

IX RECEIPTS AND REMITTANCES:

On April fifteenth I remitted a \$100 personal check covering the back rent due on Lot One (1), Block Six (6), a private lease with the Park limits, which was recently purchased by Mrs. Isabel P. Jagger.

Respectfully submitted,

Thomas Boles
THOMAS BOLES, Superintendent.

cc Mr. Albright

JB-TB

DEPARTMENT OF THE INTERIOR
NATIONAL PARK SERVICE
HAWAII NATIONAL PARK
HONOLULU, HAWAII

March report

Superintendent's Office,
Volcano House, Hawaii, USA,
April 4th 1923.

To the Director,
National Park Service,
Washington, D.C.

Dear Sir:-

I submit the following report on the operation of the Hawaii National Park during the month of March 1923:

I GENERAL CONDITIONS:

General conditions affecting travel to the Hawaii National Park during March were practically the same as during the previous month. The westbound Pacific steamers are bringing lots of people to Honolulu from the mainland, and the park folders which are distributed to the passengers enroute are doing good work, as we are getting a larger percentage of the passengers to visit our island. The Los Angeles Line of steamers is furnishing a large percentage of our patrons.

The County road gang has put the highway between Hilo and the Park in fairly good surface, and this has encouraged many local people to visit the park during periods when the volcano was particularly active.

The contractor for the four miles of concrete road between Hilo and the park is making good progress with the clearing and grubbing, and has also done quite a bit of excavation. The bill for appropriating money for further extension of this highway seems to be getting favorable consideration in the Hawaiian Legislature notwithstanding the cry for economy.

Weather: Rain nearly every day, but owing to the porous nature of the soil and our numerous earthquake cracks, the water disappears rapidly, and we have no mud whatever. With our 20.86 inches of rain, and our hundreds of steam jets, you realize that we have quite a moist atmosphere at all times, but it is all needed to maintain our tropical jungles.

Earthquakes: Of our 35 earthquakes during March, but 5 were of any consequence, and these seemed to have a favorable influence on the volume of lava pouring into the crater of Halemauau.

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March report -2-

Weather data in detail as obtained by Local Observatory:

Mean maximum for March	-----	64.0°	
Mean minimum for March	-----	51.8°	
Mean for month	-----	57.9°	
Maximum during month	-----	75.0°	Mar 26th;
Minimum during month	-----	45.0°	18th;
Greatest daily range	-----	69° to 48°	21. ° 14th
		67° to 46°	21. ° 19th
Total rainfall during March	-----	20.86 inches	
Greatest within 24 hours	-----	4.00 inches	9th;
Days with .01 or more rain	-----	28	
Days with Trace	-----	3	
Days with NO RAIN	-----	0	
Days Clear	-----	None:	
Cloudy	-----	24	
Partly cloudy	-----	7	

Summits of Mauna Loa, and Mauna Kea, snowcapped during entire month; Thunder was heard on March 21st for the first time this year.

II PERSONNEL: Other than the Superintendent and the one Ranger, but 91 man-days were employed during the month. Four experienced traffic police were used on days when automobile traffic was unusually heavy. My three laborers were used during the month on the maintenance of trails and roads, and on guide and patrol duty.

Number:	Class:	Work performed:
1	Supt.	Administration and supervision.
1	Ranger.	Guide work and sign painting.
7	Laborers.	Road work, patrol, guides, traffic control.

III WORK COMPLETED :

No work completed during March.

IV WORK IN PROGRESS:

My small force is used in keeping the existing roads and trails in condition, and in patrolling the rim of the volcano on steamer days when large numbers of visitors are present.

March report -3-

V PLANS:

The small office building mentioned in my February report having received the approval of the Washington Office, I will be ready to receive bid within the next ten days. Should the bids seem unreasonable, I will employ 3 or 4 local Japanese carpenters and supervise the construction myself. Any saving below the \$1500 authorized will be used in building shelving, benches, tables, and in improving the yard.

VI COST OF OPERATION.

Administration:	Superintendent's salary-----	\$220.00	
	Allowance for quarters-----	54.25	
	Office rent Park Headquarters-----	20.00	
	Office telephone-----	5.00	
	Fuel for office-----	1.50	\$309.71
Protection:	Guides, patrol, traffic control-----		116.83
Maintenance:	Labor-----	160.00	
	Freight on tools-----	1.12	161.12
Misc:	Automobile expense-----		34.31
	March expenditures-----		\$621.97

(\$33.53 Inc Comp included)

VII POLICIES: No new policies: Will continue to obtain favorable publicity which will bring more people to this Park.

VIII OTHER MATTERS OF INTEREST:

Volcanic activity: Several times during March activity was reported on Mauna Loa Volcano, but all reports proved unfounded. Prof. Jaggard predicted the eruption of this volcano during 1923, and when anyone sees a cloud over Mauna Loa, or reflection from a cone fire, they at once assume that the summit crater is in action.

Owing to our recent heavy rains several of our smaller crater along Cockett Trail are sending up an unusual amount of steam, and the cool weather makes the steam quite conspicuous.

March report -4-

Halemaunaha, the "house of everlasting fire" of the Volcano Kilauea, was at its best during March, daily demonstrating its place as one of the wonders of the world. March 1st found the lake 425 feet below the rim of the crater, but rising steadily; but on the 5th it suddenly dropped about 50 feet and was rather quiet until the 20th when the rise became unusually rapid and spectacular. March 31st finds the lava within 300 feet of the top, forming a lake nearly forty acres in extent (equivalent to 16 city blocks). It is constantly in motion and at times has fifteen lava fountains or geysers in action at one time. I estimate that on March 31st molten lava was spouting from these fountains at a rate of nearly THREE MILLION CUBIC YARDS per week. Most of the fountains are but 25 feet high, but now and then an extra heavy blast of gas sends a spray of molten lava one hundred feet high. Each piece of lava as it ascends trails with it a thread of spun glass, and as the lava descends this thread is broken off by the draft and is wafted up out of the crater and deposited for miles around the volcano in wisps of "Pele's hair". When the wind is slight, the steam from the hundreds of jets around the crater are drawn inward by convection and forms a dense spherical cloud almost one-half mile in diameter, which is suspended 2000 or 3000 feet immediately above the volcano. At night this cloud is brilliantly illuminated by the flashing of the fountains and the glow from the lake of fire, and can be readily seen from Hilo thirty miles distant, and also from ship 50 or 60 miles out at sea. I have endeavored to photograph this phenomena, but the red cloud although spectacular to the eye, makes hardly any impression on a photographic plate. On March 11th at 10 PM I obtained an excellent picture of the swirls of lava within the crater, which also shows the porch lights of the hotel two miles away, and silhouettes of autos parked on the rim of the pit. Print inclosed.

Trail improvement: During the past month we have wedged off several of the ledges on the Mauna Loa trail so that light cars can now be driven to the edge of Bird Park three and one-half miles from the Hotel. "Bird Park" is an oasis of deep soil surrounded by rough walls of comparatively recent lava flows; and although but 100 acres in extent contains practically every variety of trees indigenous to Hawaii. The rolling surface, heavily sodded, gives the impression of a well kept English park. This place is quite a rendezvous for those botanically inclined.

On March 4th the Superintendent was presented with an elaborate birthday cake, celebrating the first anniversary of "National Park Tahara", the first baby born within the Hawaii National Park, and named in honor thereof. The accompanying photograph shows that our little friend "National" bears this honor with real dignity.

March report -5-

Temperature drillings: The test well being drilled by the Hawaiian Volcano Research Association has progressed slowly, only 18 feet additional depth being made this month. However samples of iron pyrites were obtained in one of the ~~smoke~~ cores which demonstrates that there are metallic minerals in this island.

"Steamship Haleakala" The event of the past month was the inauguration of the tri-weekly service to this island by the Steamship Haleakala. She is a vast improvement over the smaller ship which has handled the traffic for the past fourteen years, and serves to "smoothe the highway" between Honolulu and our port of Hilo. I know of no feature that means as much to the Hawaii National Park as the Haleakala. As you know, the ship is named for the Crater of Haleakala, the largest in the world, and one of the many features of the Hawaii National Park. (Main Section)

The investment of a million and a quarter dollars in this ship by the Inter Island Steam Navigation Company well expresses their confidence in the future of this Park. Although its regular service will begin in April, two excursions have been made to this island already, the first on March 25th bringing 250 visitors, most of whom were citizens of Honolulu.

I attach report of this excursion written by Burton Braley in his own inimitable style. I check him exactly about the "Hilo Monsters" who with their raucous voices detract the attention of our visitors from the many wonders of this area. When a crowd of folks from the mainland are lined up on the rim of the crater, filled with enthusiasm and cheering the fiery fountains as they burst with an unusually big blast, it is at least amusing to have some local "Gabby Gabe" chirp in with "This aint nothin to what id was back in '81."

Violations: On March 3rd I notified Alexander Lancaster junior to move out of the Park, and stay out until given permission to return either by The Secretary, The Director, or myself. I am satisfied in my own mind that he is a bootlegger and a sneak thief. In my last month's report I mentioned the birth of his son: a short time prior to this birth he came into the Park drunk and beat up and otherwise abused his wife to such an extent that she had to be cared for by the neighbors. Knowing her delicate condition at the time, I postponed his ejection until a later date, for I felt that any unfortunate event that might result with the birth of the child would be advertised as a result of his ejection, and not from the beating given by him to his wife. He and his family are now living in Hilo, but should he at any time show up in the Park he will be arrested at once.

Federal Judge De Bolt, of Honolulu, at my suggestion has appointed Stephen L. Desha Jr United States Commissioner, in addition to the present one. I feel that Judge Desha is more in sympathy with my efforts to make this area free from bootleggers and drunken drivers.

March report -6-

Attendance: 3225 persons were entertained by the Hawaii National Park during the month of March; we had large steamer crowds on the 16th, 25th, and 30th, and during the month the activity of the volcano drew hundreds of people from the surrounding country. I feel that all these folks left the park with excellent impressions.

I learn that several favorable reports concerning ^{my} park have been sent to Washington; I do not attribute this so much to the fact that the features of the park themselves are so wonderful, as I do to the fact that we enjoy a high grade class of patrons, people who when they see what the National Park Service is doing for them, do not hesitate to write in and express their appreciation. On steamer days I make it my duty to mill around with the crowds and listen to their complaints and suggestions, as well as to their expressions of approval. Among the more enthusiastic patrons of this park I mention the following:

Charles Wooley and wife, San Francisco; Owner of Sunset Magazine.
 Hon Frank O Lowden, ex Governor of Illinois, and family. (2 trips)
 Baron and Baroness de Goff of Russia.,
 Mr Julius Kaufman and wife: Owner Washington Star; Natl Geo Society.,
 Dr Herbert L Bridgman; Brooklyn Standard Union; Arctic explorer.,
 Mrs Henry P Davidson and daughter: of the American Red Cross.,
 Mr Charles Hutchinson of Chicago., (second trip this year)
 Mr Martin Ryerson of Chicago? (ditto)
 Senator Irving L Lenroot of Wisconsin, and daughter.,

These are all people whose opinion and influence carries weight, and will give the Hawaii National Park publicity which cannot be estimated in dollars and cents., Senator Lenroot has volunteered to be the representative of Hawaii in the United States Senate., I look forward to the visit this summer of the Congressional Delegation and will obtain through them an excellent representation in the next Congress.

IX RECEIPTS and REMITTANCES:

Nothing to report.,

Respectfully submitted.,

Thomas Boles
 THOMAS BOLES, Superintendent.,

cc Mr Albright:

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DEPARTMENT OF THE INTERIOR
NATIONAL PARK SERVICE
HAWAII NATIONAL PARK
HONOLULU, HAWAII

Feb Report

Superintendent's Office;
Volcano House, Hawaii.
March 7th 1923.

To the Director,
National Park Service,
Washington, D.C.

Dear Sir:-

I submit the following report on the activities in the
HAWAII NATIONAL PARK during the month of February 1923:

I GENERAL CONDITIONS:

General conditions affecting travel to the
Hawaii National Park during February 1923 were about the same as during
the previous month. The tourist season is on, and all westbound steamers
are well loaded with people from the mainland who take this opportunity
to get away from the snowdrifts and blizzards of the States, and come to
Hawaii where it is always springtime.

The excessive rains of January left the main
highway from Hilo to the Park in a miserable condition; but during Feb-
ruary the County has kept a gang of men at work on this road patching
the worst places with sand and cinders, and the end of the month finds
the highway in fairly smooth surface.

As stated in my January report, contract has
been awarded for extending the concrete pavement four additional miles
out of Hilo, which will bring the end of the pavement to within 14 miles
of the Park. A bill has just been introduced in the Legislature ap-
propriating \$200,000.00 for further extension, which when straightening
the road is considered, will bring the pavement to within 9 miles of the
Park Entrance. The legislature is trimming all appropriations, and it
may be that the above amount will be reduced.

Weather: "Winter everywhere but in Hawaii". Our average temperature for
February was 58.1 which is practically identical with last May. The tops
of Mauna Kea 13825 elevation, and Mauna Loa 15675 elevation, are heavily
snow capped, but are visible but a short time during the day, as they
are nearly always blanketed with clouds. The total rain was 13.26
inches for the month, just about half for January. We have lots of showers,
but it takes lots of moisture to raise ferns forty feet high.

Earthquakes: Only 22 quakes during February, all slight except those on
the 9th and the 23rd, both of which had a favorable effect on our volcano.

Feb report -2-

Weather data in detail, as obtained by the Local Observatory:

Mean maximum for February	65.1°	
Mean minimum for February	51.0°	
Mean for month	58.1°	
Maximum for month	71.0°	Feb 20.
Minimum for month	43.0°	Feb 4 (A record)
Greatest daily range	69 to 43	26.0° Feb 4
Total rainfall during February	13.26 inches.	
Greatest within 24 hours	2.47 inches	
Days with .01 or more rain	25	
Days with Trace	2	
Days with NO rain	1	
Days clear	2	
Partly cloudy	10	
Cloudy	16	

Snow on summits of Mauna Loa and Mauna Kea during entire month.

II PERSONNEL: Other than the Superintendent and my one Ranger, but 91 man-days were employed during February. Six experienced traffic police were employed on the 15th during the visit of the Frank Clark Tour of 803 visitors. Four laborers were used during the month on guide and patrol work, and on road and trail maintenance.

Number	Class	Work performed:
1	Supt	Administration and supervision.
1	Ranger	Guide work and sign painting.
10	Laborers	Guides, road work, patrol, traffic control.

III WORK COMPLETED:

No work completed during February. 40 new signs erected.

IV WORK IN PROGRESS:

With the present modest appropriation for this Park, I must use my small force in keep up the existing roads and trails, and in patrolling the rim of the crater on steamer days.

V PLANS. No new plans. During the visit of Superintendent Crosby I had the opportunity of discussing in detail with him the future development of the park, and I have come to the conclusion that the immediate need of the Park is an office and a residence for the Superintendent commensurate with the dignity of the Service. At the present time funds for a suitable residence are out of the question, and anyhow that is being taken care of by the per diem allowance until quarters are constructed. But I believe that I can save out enough from my 1923 fund to build me an office which will answer the needs for some time to come, and can then with slight expense be altered into a cottage for a Ranger or a Clerk. Plans, and suggestions, have been submitted to Landscape Engineer Hull, who will in turn send them on to Washington.

Feb report -3-

Several buildings in this vicinity have been dismantled recently, and I believe I can obtain material and fittings at such prices as will enable me to build a really attractive office for less than the \$1500 maximum. This has been covered in detail in letters to Mr Hall.

VI COST OF OPERATION:

Administration:	Superintendent's salary-----	\$220.00	
	Allowance for quarters-----	49.00	
	Travel expense, horse and pack mule	35.00	(January)
	Office rent Park Headquarters-----	20.00	
	Fuel for office-----	3.00	
	Office telephone-----	5.00	
	Radio to Washington-----	3.50	
	Auto maintenance and operation-----	37.93	\$373.43
Protection:	Guides, patrol, traffic control-----		\$123.00
Maintenance:	Labor on roads and trails-----	\$190.00	
	Supplies and freight on supplies-----	8.92	\$198.92
	February expenditures-----		\$695.35

(\$40 Inc Comp Included)

VII POLICIES: No new policies. Shall continue my efforts to obtain favorable publicity for the Hawaii National Park, not only through newspapers and magazines, but through our patrons.

VIII OTHER MATTERS OF INTEREST.

Volcanic Activity: Halemanua, the star feature of this Park, was comparatively inactive the early part of the month, but on February 10th the lava could be heard surging beneath the southeast cone on the floor of the crater. At noon the 16th the top blew off of the cone in the southwest portion of the crater, sending out several streams of liquid lava, which continued until the night of the 23rd, when the other cone blew up and started pouring out lava in great quantities, raising the level of the pit until at the end of the month our "lake of everlasting fire" is but 425 feet below the rim of the crater. The lake is comparatively level, free from islands, and at times has over thirty acres of molten lava in action at one time.

Temperature Drilling: Professor Jagger of the Hawaiian Volcano Research Association has been operating his well drill near the sulphur banks just west of the Hotel. This work is done under permit issued from this office, in accordance with suggestion from Washington. The Professor has certainly had lots of hard luck on this work, the progress being slow and expensive; not over three feet was made during the month.

Feb report -4-

Tidal waves: A distant earthquake on the morning of the 3rd, registering a wavy line of 6 inches ~~xxx~~ oscillations, gave warning of the tidal waves which struck Hilo at noon that day. These waves were a series of ebbs and flows, first draining the water away from the shore, and in about a half hour sending it back as a single wave over twenty feet high. The fishing fleet along the shore was crushed, and the water flooded into the stores on the main street of Hilo, and in some instances moving the buildings bodily into the street. There were 15 waves in all, the second being the largest and most destructive. The Wailuku River, a tidal stream flowing through the town was the scene of most destruction; the first wave almost drained the river, and as the second wave came back it caused the water to rush up the river with the speed of a millrace, jamming the boats and barges against the railroad drawbridge, until the entire bridge, pier and all, was overturned. The shore for miles was littered with crushed boats of all sizes. The railroad track paralleling the shoreline was twisted and shoved back at least sixty feet. Two large ships were at the dock, and one touched the bottom when the water ran out, but no damage was done to it. The other boat broke its anchor lines, and hurriedly raised steam and headed out for the deep water. Only one body has been found, but the river is still being dragged, and new fishing boats are being brought to the surface every day.

Meteor: During the early part of the month, an enormous meteor passed over the Island of Hawaii, and fell into the Pacific Ocean many miles out.

Public Camp Grounds: That the auto tourist may be encouraged to come to the Hawaii National Park I have set aside ten acres just off the main road, near the beginning of Cockett Trail, as a Public Camp Site. This is near the east rim of the Crater of Kilauea, just above Byron Ledge. The tool house constructed last spring has a tank which always contains 3000 gallons of fresh water. Remember we have no creeks or springs in our Park. The underbrush has been cleared away, and tent locations established, with rock fireplaces, and rubbish pits. Two groups of campers used the grounds during the past month.

Camp Grates: Quite a few of the visitors take their lunches over to the Volcano; so I have built three cooking grates for their convenience, about one hundred feet back from the edge of the fire pit. These grates are built over hot cracks through which comes up heated air (no gases) of about 500 degrees temperature. Other parks provide the visitor with fireplaces and grates, but the Hawaii National Park provides the fireplaces, the grates, and the fire also; free from smoke, and ashes. Nor do our visitors have to put out the fire when they have finished their cooking. A Washington Birthday Party attended by 35 persons on the evening of the 22nd, baked their potatoes, boiled their coffee, and did all their cooking on these grates.

Mauna Loa Trail: On the 28th in company with Professor Jagger I made a survey and profile of the Mauna Loa trail from the Bird Park to two miles beyond. The Professor thinks that Mauna Loa will be in action either this year or next, and although we will not have our road fund available by that time, nevertheless I would like to have the trail in excellent shape for the big rush should the volcano get in action.

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Feb report -5-

Visitors:

Hawaii National Park February attendance was 3100. The Frank C Clark Tour, with 803 persons on the 15th, together with drivers, conductors, and various persons from Milo, gave us a total for the one day of at least 1000 persons. This is our peak load, and was handled without a hitch under circumstances which were quite trying. Reaching the Park at 7 AM, taking a hurried look into the dark hot smoking pit, then hurrying to the hotel, and back to their ship; the last ones left the Park at 2 AM. It is a shame that Clark did not hold his boat in the harbor until the following morning, and giving his "sightseers" a chance to see the Island and the Park by daylight. As it was, they just got a little glimpse of lurid smoke from one corner of the pit, and then rushed away. And had they remained over they could have made the trip to Honolulu by night instead of using up the following day on the water. And had they remained here even until noon the following day, they would have witnessed the pit in full eruption. Clark does not seem to have his patrons at heart as does Raymond Whitcomb or the American Express people.

Among our more distinguished visitors during February were: Hon. Lorrin A. Thurston who did much toward the establishment of this Park; Colonel and Mrs W.W. Crosby, of the Grand Canyon, on their vacation; General and Mrs Charles F. Sumner, Commanding the Hawaiian Department; Mr and Mrs Charles Hutchinson of Chicago; friends of our Director, and my Park. Judge Sanford P. Bole, ex-President of the Republic of Hawaii, General and Mrs Connors, enroute to assume charge of the American forces China.

Water supply: The recent rains have at last filled the hotel tanks to full capacity; and they now have 750,000 gallons in storage.

Births: On the 15th a daughter was born to Alex Lancaster jr, and she is the granddaughter of our Ranger Lancaster. As young Lancaster is one of the undesirable of this vicinity I regret that I cannot say that the future of the young lady is very promising.

IX RECEIPTS AND RESISTANCES:

Nothing to report.

Respectfully submitted,

Thomas Boles
THOMAS BOLES, Superintendent.

The first folder of this Park which is being placed in the mails during January and February, is getting considerable favorable mention.

T.D.

Jan. 1923

DEPARTMENT OF THE INTERIOR
NATIONAL PARK SERVICE
HAWAII NATIONAL PARK
HONOLULU, HAWAII

Superintendent's Office,
Volcano House, Hawaii,
February 7th 1923.

To the Director,
National Park Service,
Washington, D.C.

Dear Sir:--

I submit the following report on the activities of the
HAWAII NATIONAL PARK for the month of January 1923:

I GENERAL CONDITIONS:

General conditions affecting the travel to the Hawaii National Park during the month of January 1923 were practically the same as during previous months, which is as it should be for a park which is open twelve months of the year. Our heavy rains were quite destructive to the surface of the highway from Hilo (our port) to the Park entrance, a distance of thirty miles; only twelve miles are concrete, the remainder being macadam with short stretches of oiled top. The road is comparatively narrow, giving a tendency to wear in ruts and holes, leaving a surface which is trying on the passengers as well as on the machines.

During January contract was awarded for extending the concrete pavement a distance of 4 miles, and in anticipation of this contract the road maintenance has been deferred. The new road will be 18 feet wide, of reinforced concrete on lava base, and is to cost \$52,000.00 per mile. My personal opinion is that this is a far higher type of roadway than the immediate or future traffic warrants.

Weather: Our long predicted rainy season arrived with January 1st; our total rainfall for the month being 26.23 inches. There were thirty-one rainy days in the month, but I am certain February cannot equal this record. The summits of Mauna Loa and Mauna Kea are heavily snow capped. Mauna Kea as viewed from the steamer entering Hilo Harbor, and Mauna Loa as viewed across the Crater of Kilauea from the Volcano House, are sights comparing favorably in grandeur with Mount Ranier.

Earthquakes: During January our seismographs registered over 100 shocks, 37 of which were quite sensible, and 2 strong. The quake at 2:30 AM January 14th rocked the houses for nearly 12 seconds, overturned stone walls thirty miles distant, and stampeded cattle in the neighboring ranches. This shock was felt at Honolulu 200 miles away. This quake seemed to be the forerunner of the most severe storm had here for years, the wind attaining a velocity of 50 miles per hour, accompanied by heavy rains that seemed to penetrate the walls of the houses with little difficulty. The storm lasted until the 20th.

Jan Report -2-

Weather data as obtained by local Observatory is as follows:

Mean maximum for January-----60.9°
 Mean minimum for January----- 51.6
 Mean for month----- 56.3
 Maximum for month----- 68 24th, 25th.
 Minimum for month----- 46 16th, 17th.
 Greatest daily range 64° to 49°----- 15 8th.
 Rainfall for January----- 26.23 inches.
 Greatest within 24 hours----- 5.74 in. 20th.
 Days with .01 or more rain 30: Other one showed Trace.

Hailstorm over firepit on the 20th. The hailstones were about the size of ordinary marbles, and seemed to fall nowhere except into the crater on the hot lava, causing intense hissing & large columns of steam.

II PERSONNEL:

Other than the Superintendent, and my one ranger, only 122 man-days were employed during January. Four experienced traffic police were used on the 10th and 31st, excursion days. Four other men were used during the month of guide a patrol work, and road maintenance.

Number	Class	Work performed:
1	Supt	Administration and Supervision.
1	Ranger	Guide work, sign painting.
8	Laborers	Guides, road work, patrol, traffic control.

III WORK COMPLETED:

No work was completed during January. 60 new signs were painted and placed in appropriate places.

IV WORK IN PROGRESS:

During January my small force was used on the road between the Park Entrance and Hotel, and the Volcano. By keeping these men steadily at work even during the heaviest rain, we have been able to minimize the effects of the storms. This work, together with the preparatory work during December, really finds our roads at the end of January in excellent shape. My training on railroad maintenance has taught me that the best ditching and draining work can be done during the storms, for in this way the water cannot 'get the jump' on you. On January 13th we had 2.85 inches of rain; On the 19th--4.35; On the 20th--5.74, accompanied by high winds. Such torrents strew the roadways with leaves, twigs, and other debris, as well as gravel and ashes, and I feel quite gratified to find my ~~worn~~ roads better at the end of the month than at the beginning.

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Jan Report -3-

V PLANS: Until my Park obtains larger appropriations I must utilise my present modest appropriation in maintaining the present surface of the existing roads, and devote the remaining money to my trails.

VI COST OF OPERATION:

Administration:	Superintendent's salary-----	\$220.00	
	Allowance for quarters-----	54.25	
	Travel expense (inside park)-----	12.00	
	Rent Park Headquarters Office-----	20.00	
	Office telephone-----	5.00	
	Auto maintenance-----	15.00	
	Fuel for heating office-----	3.00	\$329.25

Protection:	Guides and patrol-----	\$205.00	\$205.00
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Maintenance:	Labor on roads-----	164.00	
	Materials, paints and oils-----	10.25	\$174.25

Acquisition of Property:			
	15' x 18' frame cottage-----	100.00	
	Book case and staty storage-----	15.00	
	Set of drawers for supplies-----	5.00	\$120.00

January expenditures-----\$828.50

(\$40 Inc Comp included)

VII POLICIES: No new policies. Shall continue my efforts to convince the public in general that the Hawaii National Park is not only an asset to the Territory of Hawaii, but to the United States as well. Reading the articles by Mr Svets in recent Saturday Evening Posts gives me additional incentive to this end.

VIII OTHER MATTERS OF INTEREST:

Volcanic activity: During the early morning of January 1st there was an earthquake that caused a subsidence of the lava in the firepit of Kilauea, causing the level of the lake of fire to drop from 400 feet below the rim, to 650 feet below the rim. On the morning of the 8th lava was discovered pouring back into the crater, and this continued steadily until the 25th, at which time the flow practically ceased, but the ~~level~~ level of the lake remained about 450 feet below the rim of the crater. By the end of the month all the red hot places had cooled off, and the only sign of activity was in a hole some 15 feet in diameter in the surface of the lava immediately below the end of the auto road, out of which pours large volumes of white sulphur smoke, obscuring the bottom of the firepit most of the time. This smoke is increasing and leads me to think that liquid lava will return before many days.

This intermittent action of the volcano accents my contention that we must discourage all attempts to play up the volcano as the only

Jan Report -4-

attraction worth while in the Hawaii National Park. We must bring the public to realize that our dormant craters, our fields of lava, our banks of sulphur, or deserts of ashes, our tropical forests, our fern jungles, etc., all combine to make a visit to the Hawaii National Park one that will be long remembered and enjoyed, no matter what state the volcano happens to be in. The weekly reports of the Volcano Observatory as published in the Honolulu papers, stating the slight, or inactivity of the volcano, has kept thousands of people from visiting my park, as the Honolulu hotels readily grasp such information as justification for their statements that there is not much to see over on this islands. I am now assembling data and pictures for publication in Honolulu and Coast papers calling attention to the many other natural attractions within ~~xxxx~~ a short distance of the hotel.

The Crater Hotel which was sold at public auction to the Kilauea Volcano House Co, has been dismantled, as the new owners think the location is too wet, and the building too unsanitary, to warrant their continuing to operate it. Most of the lumber will be used in enlarging the hotel garage, and in the construction of two additional annex cottages near the Volcano House.

The Hawaii National Park purchased one small frame cottage, 15' x 18' in size; good floor, box and batten sides, galvanized roof, with gutters, all comparatively new, and well painted. Three small rooms. I will use this building as a house for my road workers, or for a public toilet; am as yet undecided which. I paid \$100 for the building as it stands. It can be taken apart and moved to a point within the Park, and re-erected for about \$60, and gives us a building which would cost \$250 if built now. The house is a little over a year old, and I think is a good buy. I also purchased a set of drawers for storing supplies and small tools in my office; Also a glass front book case 10 feet long, 5 feet high, which is just what I need for holding specimens until I have a real museum.

Visitors.

During January 2225 persons visited the Hawaii National Park, quite a decrease from December, but pretty good considering our weather. Our most distinguished visitor was Lt General Sir Percy Lake, of the British Army, who with Lady Lake spent ten days on our trails, and although they were thoroughly drenched several times, it failed to dampen their enthusiasm over our Park. General Lake directed the campaign in Mesopotamia.

On January 10th the Steamship Alexander with 200 Rotarians from California stopped at Hilo long enough to permit the visitors to spend the day in the Park. The crater was particularly active for them and they were delighted with their visit. This was a Crabtree Tour.

Jan Report -5-

On January 31st the Steamer "Absolute" with 450 tourists in charge of Raymond Whitcomb Tours, enroute around the world, visited the park, taking supper at the hotel and spending the evening at the edge of the firepit. The crater was rather quiet, but they appeared pleased nevertheless.

In case of each of the above excursions the men in charge have made it a point to thank me in person for the way their parties were handled while in my Park limits, and I have taken the opportunity to assure them that the National Park Service guarantees such treatment at any of our parks.

It is regret that I record the death of Mrs Frank Medcalf, who died at her summer cottage in the Park on January 26th. The Medcalfs had purchased the household lease formerly owned by H A Truslow, and the efforts of Mr Medcalf to ~~beautify~~ beautify the grounds surrounding his cottage were much appreciated by me.

IX. RECEIPTS AND REMITTANCES:

Nothing to report.

Respectfully submitted,

Thomas Boles

Thomas Boles, Superintendent.

cc to Mr Albright:

ADDRESS ONLY
THE DIRECTOR, NATIONAL PARK SERVICE
WASHINGTON, D. C.

DEPARTMENT OF THE INTERIOR
NATIONAL PARK SERVICE

WASHINGTON May 13, 1922.

Dear Mr. Boles:

For your information we are inclosing a copy of a letter dated May 4, 1922, signed by the Acting Secretary, in regard to the preparation and submission of the 1922 annual report. You will note that our report is limited to 160 printed pages including the index but excluding any illustrations. In allocating pages, one page is allotted to your report. This means that your report will be limited to 1,000 words printed in 8-point solid type. If tables are submitted for printing, you should allow for a proportionate reduction in number of words of text.

In the preparation of your report you are particularly referred to Circular D, a copy of which is attached. Special attention should be given to paragraph 1 of this circular "Special requirements". It is very important that the instructions regarding size of paper, spacing, etc., be followed, as these are based on the rules of the Government Printing Office, and unless followed will necessitate additional work in the Washington Office to put the report in proper form for submission to the printer.

The official park season for the purpose of the annual report is from October 1 to September 30, and travel statistics should be for this period. The figures of tourist travel to the park should be omitted, suitable blank spaces being left in report for the insertion of these which must be cabled in at the close of the day September 30. A tabulated statement of travel should be placed immediately in the mail in order that cable figures may be checked before sending to the printer.

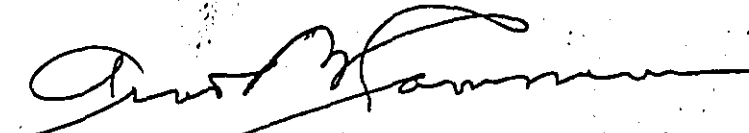
It is requested that your report for Hawaii be submitted in duplicate to reach here not later than September 14. You should also send a copy of your report direct to Field Assistant Albright at Yellowstone Park, Wyoming. This with the one copy that you will want to retain for your files will make four copies to be prepared. You should also include with your report suitable photographs for possible use as illustrations.

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With the necessity for radical reduction in the size of our report and with the limited space allotted you, you are placed on your mettle to submit a concise report which at the same time will be of general interest.

Cordially yours,



Acting Director.

Mr. Thomas Boles
Supt., Hawaii National Park
Volcano House
Hilo, Hawaii

Inc. 2476

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DEPARTMENT OF THE INTERIOR

WASHINGTON

May 4, 1922.

Address only
The Secretary of the Interior.

My Dear Mr. Mather:

I have to request that you will forward to this Department as soon as practicable, not later than October 1, 1922, a report of the condition of affairs and the management of the National Parks and Monuments for the fiscal year ending June 30, 1922. If deemed advisable you may make your report cover matters pertaining to the several National Parks and Monuments under your general supervision from the close of the tourist season in 1921 until the close of the present tourist season, embodying therein such recommendations for the betterment of the service as in your judgment may be deemed advisable.

The manuscript of the report should as far as possible be typewritten, free from interlineations, properly paged, and provided with a table of contents. All exhibits should be suitably marked and referred to by such marks wherever mention is made of them in the body of the report. In the interest of economy it is desired that the report be as brief as the various subjects dealt with will permit, and that all unimportant exhibits be omitted, as well as maps or photographs not connected with or showing the condition of the service.

The bill making appropriations for the Interior Department for the fiscal year ending June 30, 1923, provides, among other things, that "The annual reports of the Department and of all its bureaus and establishments, including the Reclamation Service, shall not exceed a total of 1,250 pages". The number of pages which has been allocated to the report of the National Park Service is 160 printed pages, including the index, but excluding any illustrations.

At the time of the submission of your report a letter should be addressed to the Department embodying suggestions as to the proper treatment of such matters discussed therein as should properly be included in the Secretary's report.

There is herewith inclosed a copy of departmental regulations governing printing and binding.

Respectfully,

(Sgd) E. C. Finney
Acting Secretary.

Honorable Stephen T. Mather,
Director, National Park Service.
Inclosure 11644.

NATIONAL PARK SERVICE

CIRCULAR "D".

Annual Report

In anticipation of the rendition of the Annual Report of the Director of the National Park Service for the present year, the attention of each officer having charge of any unit or branch of the field service (referred to hereafter in this circular as "superintendent") is called to the following matters affecting the annual report of the activities with which he is charged.

1. Special Requirements. Use plain paper, sheets 8 x 12 $\frac{1}{2}$ inches in size, and write on only one side of the sheet, in lines that are double or triple spaced; use single spacing only for quoted matter that includes several lines. Leave a margin of at least an inch at the top of the page, an inch at the left, and at least half an inch at the bottom. Indent paragraphs 10 spaces. The printers prefer that every page begin with a paragraph; therefore do not start a paragraph near the bottom of the page. The observance of this requirement is desirable because the printers must divide manuscript into "takes", and because each "take", which is put in type by one of many machine operators, must consist of complete paragraphs. A space of 3 inches or more at the bottom of a page may be left at the end of a paragraph if all the next paragraph cannot be written on the page. Matter that is not so written is likely to be cut up by the printers and pasted together, for the purpose indicated, in renumbered sheets of uneven length, which are not easily handled or re-

ferred to by the proof reader while he is reading the proof. Sheets should not be pasted together to form a strip that is longer than 12½ inches.

If new matter must be inserted it should be written on a separate sheet, and the sheet in which it is to be inserted should be cut apart at the proper place and each part pasted on a blank sheet of regular size. Room for wide tables can be obtained by pasting additional sheets at the side only, but this plan should not be employed for additions to the text. Copy for tables should under no conditions be crowded; the whole of a table need not appear on one sheet. Number pages consecutively in center at bottom of page. Page No. 1 of the report manuscript should be headed in the manner shown in the reports of park superintendents printed in Appendix B of the Service's Annual Report for 1919, pages 147 to 267.

The several topics treated in the report should be separately headed, in capital letters, as shown in Appendix B of the 1919 report; and may be taken up in logical order, commencing with a general statement relative to the park, monument, or activity, and concluding with such recommendations as the superintendent decides to make for the betterment of his charge. Subheadings for portions of topics if found to be necessary may be underlined and used to start the paragraphs to which they relate.

The final page of the report will be an alphabetical index of headings and subheadings, to be made up as shown on pages 107 to 110 of the annual report for 1919. This index will be typed flush to the

left-hand margin, and indented where necessary.

Use special care to see that all proper names are correctly spelled, and that every figure is clear cut. In correcting figures erase fully the figure first written before correcting, thereby avoiding uncertain results, as a 3 upon an 8 or a 5 upon a 6.

2. Travel statistics. The final figures for tourist travel to the park should be omitted entirely, suitable blank space being left in the report for insertion of later complete typewritten tabulation. On October 12 a telegraphic report should be made to the Service showing general totals from October 13 of the previous year to and including October 12 of the year for which report is made. This telegram must not be overlooked; and must be promptly confirmed by letter incorporating the tabulated statement of travel which is to be inserted in the report.

3. General. The superintendent's annual report is not to be confined to the fiscal year except in so far as it relates to fiscal matters. It is a season report and should contain all data regarding the park operations since approximately September 15 of the previous year. It should contain data respecting all matters of special interest which transpire during the year, special emphasis being laid on matters relating to the wild animals, birds, forests, and wild flowers, the work of those persons, firms or corporations which operate public utilities in the park and the work of the Service itself in encouraging the study and enjoyment of these and other natural features.

As the report is administrative in character, it is well to keep purely descriptive text, scientific classifications, and less important details at the minimum.

5. Transmittal: The report, when completed, should be forwarded in duplicate to the Service not later than the close of September 15th, unless otherwise specially directed by the Service.

STEPHEN T. MATHER.

Director.

June 5, 1920.

DOCUMENT CAPTURED AS RECEIVED

ADDRESS ONLY
THE DIRECTOR, NATIONAL PARK SERVICE
WASHINGTON, D. C.

DEPARTMENT OF THE INTERIOR
NATIONAL PARK SERVICE
WASHINGTON

November 2, 1922.

Dear Mr. Boles:

This will acknowledge receipt of your letter of October 16 with which you transmit copies of sheets of your annual report, which were mailed after you sent in your original report, and which were probably destroyed with the burning of the Steamship City of Honolulu. As you have been previously advised your original report was received too late to have it printed in the annual report. These sheets will, however, be substituted in your report which is on file in the office.

Cordially yours,

Ph. S. [Signature]
Acting Director.

Mr. Thomas Boles, Superintendent,
Hawaii National Park,
C/o Superintendent Lewis,
Yosemite, CALIFORNIA.

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Annual Report: 1922

1922

HAWAII NATIONAL PARK.

Thomas Boles, Superintendent, Volcano House, Hawaii.

GENERAL STATEMENT.

HAWAII NATIONAL PARK, located in the Hawaiian Islands, established by Congress August 1916; formally dedicated July 1921. Actual development started February 1922. General location 200 miles southeast from Honolulu. Two sections on Island of Hawaii; one section on Island of Maui. Briefly described as follows:

KILAUEA SECTION containing Kilauea Volcano with its lake of molten lava; also scores of smaller craters, many smoking; two in eruption during past season; forests of tropical woods and tree ferns. Kan Dept, 43,500 acres, added May 1922, making total area Kilauea Section 79,367 acres.

MAUNA LOA SUMMIT, 13,675 feet elevation, contains the enormous crater of ^{UA} Mokuooweo, which at intervals pours out rivers of lava sometimes into the sea; at times has threatened to destroy the City of Hilo forty miles distant. A strip yet to be ~~xxx~~ selected connecting this section with Kilauea will make total Mauna Loa area 17,380 acres.

HALEAKALA, Island of Maui, contains the Crater of Haleakala, nine miles across, 2600 feet deep, and 10,000 feet high. Total area 21,150 acres.

LOCAL DEVELOPMENT.

Review

Kilauea Volcano being the objective of practically all park visitors, development has been confined to this section. Since 1916 little work was done on the roads and trails within the park, so our modest appropriation was mainly devoted to their improvement. Also 2000 feet of road was built to the very rim of the volcano, over the flow of lava which destroyed the approach in 1916. Clearing old trails and locating new ones brings the visitor in touch with many features nearly as interesting as the volcano. Thousands of hiker maps printed through courtesy of Honolulu newspapers have been distributed. In the 118,000 acres of the Hawaii National Park there is no stream or spring; hundreds of earthquake cracks are present; 'getting lost' is a real disaster, and marking of all trails is imperative; over 200 signs have been placed along the trails, and mark all points of interest.

FORESTS:

Each file

Floral abundance offsets faunal famine; although this Park will always be noted for its volcanic attractions, many find the forests quite as interesting. Bird Park, with less than 100 acres, contains practically every variety of Hawaiian trees. A magnificent specimen of Koa (Hawaiian mahogany), with bole ten feet in diameter, is rated the largest tree in the Pacific, was preserved when a lava flow stopped within 20 feet of it.

The Volcano Road passes through a forest of ferns, many 40 feet high, with single fronds 25 feet long, arching gracefully over the road descending into the volcanic inferno.

VOLCANIC ACTIVITY.

The varied activity of Kilimaa Volcano during the past season has been astonishing. The lake of molten lava over 1000 feet across, in which floated islands of solid rock, rose slowly until May 14th it lacked but 40 feet of overflowing. Then earthquakes opening subterranean passages beneath the volcano drained away the lava. Walls of the crater, deprived of the supporting lava, collapsed as tremendous avalanches, frequently sending ~~size~~ clouds of dust two miles high (PHOTO) until there remained but a rumbling chasm 1000 feet deep and 2000 feet across. Over 600 earthquakes were registered during this subsidence.

July 17th lava unexpectedly began pouring into the pit from a fissure 700 feet below the rim, continuing for weeks until further avalanches smothered the vent. By September 2nd the lava reappeared through the talus and is slowly filling the pit, the lake now being several hundred feet across, and steadily rising.

WEATHER.

The 4000 feet elevation offsets our tropical location, making fairly equable weather. Season's lowest 49; highest 76. Nights average 54; days 70. Winter distinguished only by excessive rainfall, notwithstanding which we have no mud; the water quickly vanishing into the porous ground or flowing into earthquake cracks, coming up next day as live steam. Appreciating our climate and scenery the War Department maintains a Recreation Camp within the Park, to which 100 soldiers are sent each week from Honolulu.

Weather

KMC

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TRAVEL.

Travel is increasing from the Mainland, as well as from foreign countries. Honolulu citizens are better appreciating the health features of the Park, and increased patronage is expected next season. The Press Congress of the World visited our Park during October 1921; nearly 1000 Masonic Shriners during June; and 300 members Los Angeles Chamber of Commerce during September. Each favorable publicity will result from these visits.

*Visit
See below*

Season just ended furnished 27,750 visitors, compared to 16,071 during previous season.

HOTEL ACCOMMODATIONS.

Hotel accommodations are provided by the Kilauea Volcano House, a recently completed modern hotel of 110 rooms, delightfully located on the outer rim of the volcano. Over \$200,000.00 was spent on this hotel during the past year, including a golf course nearby. Their confidence in the future of the Park is gratifying. The Crater Hotel, 20 rooms, is just outside the Main Entrance.

*Case - 1145
See below*

VOLCANO OBSERVATORY.

Department of Agriculture and Hawaiian Volcano Research Association maintain Volcano Observatory in charge of Professor Jaggard, to whom visitors requiring technical information are directed. Drilling has developed interesting data concerning sub-surface temperatures.

*Ref. 1140
See below*

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RESOLUTIONS:

Continued development of roads and trails: The limited time of most of our visitors make this necessary that they may really appreciate the Park.

An Administration Building, with a least one large room for a Museum. The Hawaiian Volcano Research Association offers to donate their collection.

Suitable residence for the Superintendent.

Gateway at Main Entrance, with ranger cottage nearby.

Inclusion within the park boundaries the Thurston Tube, Fossil Footprints, and the Rock Pictures, all probably inadvertently omitted heretofore.

Continued publicity.

CONCLUSION.

The Territory of Hawaii is spending \$100,000 for publicity; two additional steamer lines are coming to Honolulu; additional steamer service between Honolulu and Hilo (our port); a Million Dollar Highway in sight between Hilo and the Park Gate; a climate varying from the tropical air of the sea shore, to the perpetual snow of Mauna Loa. All these guarantee a big future for the Hawaii National Park.

Stunt.

Land Reg.

Reacts

180
253
232
178
141

984 words

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Superintendent's Office,
Volcano House, Hawaii,
October 1st 1922.

To the Director,
National Park Service,
Washington, D. C.

Dear Sir:-

Referring to the Annual Report of the Hawaii National Park recently mailed to you. Will ask that you refer to third paragraph on page 1, and correct spelling of crater to MOKIAWEOWEO.

Will also ask that page 4 inclosed herewith be substituted for page 4 previously sent you. This includes mention of the the three important group of visitors to my Park during the past season.

Also final figures for the past season. The figures prior to April 1922 being obtained by careful examination of records.

I have re-written the paragraph concerning the Observatory, as my former draft read as though Professor Jaggar merely maintained a small museum. Professor Jaggar's interest in the Park, and his attention to scientific visitors, is duly appreciated by me, and I regret that his museum cannot be kept open more than one hour each day.

I sincerely trust space will permit the publication of the illustration of the dust cloud above the volcano, submitted with my report.

Yours very truly,

cc - Mr Albright:

Thomas Boles, Superintendent.

TRAVEL.

Travel is increasing from the Mainland, as well as from foreign countries. Honolulu citizens are better appreciating the health features of the Park, and increased patronage is expected next season.

Season just ended furnished 27,750 visitors, compared to 16,071 during previous year.

HOTEL ACCOMMODATIONS.

Hotel accommodations are provided by the Kilauea Volcano House, a recently completed modern hotel of 110 rooms, delightfully located on the outer rim of the volcano. Over \$200,000.00 was spent on this hotel during the past year, including a golf course nearby. Their confidence in the future of the Park is gratifying. The Crater Hotel, 20 rooms, is just outside the Main Entrance.

VOLCANO OBSERVATORY.

Near the Hotel is located the Hawaiian Volcano Observatory, with a small museum of volcanic specimens, with Professor Jaggard in charge. Scientific visitors are diverted to the Observatory for specific information. During the past season drilling operations have been conducted to ascertain sub-surface temperatures.

Revised

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Superintendent's Office,
Volcano House, Hawaii,
October 2nd 1922.

To the Director,
National Park Service,
Washington, D.C.

Dear Sir:-

I have just cabled you:

"HAWAII SEASON ATTENDANCE TWO SEVEN SEVEN FIVE EIGHT" (27,750)

By months this is as follows:

October 1921-----	2200	Treas Congress of the World:
November-----	1350	
December-----	2250	Holidays:
January 1922-----	1650	
February-----	1500	
March-----	2150	
April-----	2225	
May-----	2030	Makapuhi activity.
June-----	3225	Shriner excursions:
July-----	3100	Kilauea activity:
August-----	2852	
September-----	2620	Los Angeles Chamber of Commerce:
	27,750	Compared to 16,071 for last season.

Yours very truly,

Thomas Boles
Thomas Boles, Superintendent

copy to Mr Albright ✓

1923

Nov	7500
Nov	7176
Dec	7581
Jan	7275
Feb	3100

WIRELESS:

Phoned to Hilo:

October 1st 1922:

National Park Service,
Washington, D.C.

Hawaii season attendance two seven seven five naught people.

Boles.

(27,750)

Send PAID Charge phone 825 F.

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DEPARTMENT OF THE INTERIOR
NATIONAL PARK SERVICE
HAWAII NATIONAL PARK
HONOLULU, HAWAII

Superintendent's Office,
Volcano House, Hawaii,
October 16th 1922.

To the Director,
National Park Service,
Washington, D.C.

Dear Sir:-

I have just learned from the Postmaster that all mail posted between October 1st and 6th, was probably destroyed with the burning of the SS "City of Honolulu", and inclose herewith copies of sheets which were mailed to you a few days after I sent in my annual report., assuming that there is a possibility of their reaching you in time for inclusion in the printed report.

Letter accompanying same read:

"Referring to the Annual Report of the Hawaii National Park recently mailed you. Will ask that you refer to the third paragraph on page 1, and correct spelling of crater to MOKUAWEOWEO.

Will also ask that page 4 inclosed herewith be substituted for page 4 previously sent you. This includes mention of the three important groups of visitors to my Park during the past season.

Also final figures for the past season. The ^{figures} ~~figures~~ prior to April 1922 being obtained by careful examination of records.

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I sincerely trust space will permit the publication of the illustration of the dust cloud above the volcano, submitted with my report."

Yours very truly,

cc-Mr Albright.

Thomas Coles, Superintendent.

TRAVEL.

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DEPARTMENT OF THE INTERIOR
NATIONAL PARK SERVICE
HAWAII NATIONAL PARK
HONOLULU, HAWAII

Dec 19 1922

Superintendent's Office,
Volcano House, Hawaii,
January 5th 1923:

To the Director,
National Park Service,
Washington, D.C.

Dear Sir:--

My report on the activities of the HAWAII NATIONAL PARK during the month of December 1922, as follows:

I GENERAL CONDITIONS:

General conditions affecting travel to the Hawaii National Park during December were practically the same as during the previous month, with the exception that the highway between our port of Hilo and the Park Entrance was in a worse condition, which discouraged a great many local people from spending their week ends in the Hawaii National Park. On December 15th the Steamship LACONIA with 450 round-the-world tourists stopped at Hilo long enough to permit the entire party to visit the volcano and eat supper at the Volcano House. A considerable number of people from Hilo and Honolulu spent the holidays at the Park, 250 attending the Christmas eve dinner.

Weather: Our "rainy season" has not arrived, attested by the fact that we had but 2.34 inches of rain during the month, most of which fell during the night; and notwithstanding our usual drizzle it was a most delightful month, and did not seem like Christmas although the summits of both Mauna Loa and Mauna Kea were snowcapped. Data as furnished by Weather Observatory is as follows:

Mean maximum for December	57.7°		
Mean minimum for December	51.4°		
Mean for month	59.7°	(June 61.7)	
Maximum for month	73.0	Dec 9, 16;	
Minimum for month	46.0	Dec 13;	
Greatest daily range, 73° to 47°	26.0	Dec 9.	
Total December rainfall	2.34 inches.		
Greatest within 24 hours	0.94	Dec 3;	
Days with .01 or more rain	22		
Days with Trace	3;	Days without	4 (Only once in 1922)

Dec report :

Snow was visible on the summits of Mauna Loa, and Mauna Kea, during the entire month.

Earthquakes; 33 in all; 3 quite sensible, others slight.

Would call your attention to the fact that the mean temperature for December is but TWO DEGREES lower than the mean temperature for June, a feature which even California cannot approach.

II PERSONNEL:

Outside of the Superintendent and Ranger Lancaster, but 76 man-days were used during December. Four experienced traffic police were used on December 15th to assist in handling the heavy auto traffic caused by the visit of the Laconia Tour.

Number.	Class.	Work performed:
1	Supt.	Administration and supervision.
1	Ranger.	Guide work.
8	Laborers.	Guides, trail work, road work, traffic control.

III WORK COMPLETED.

The trail around the rim of Halemauau Crater was re-located, and a new row of lava slabs, all whitewashed, placed from the end of the auto road to the far side of the pit, where the best view of the fire is obtainable. The Crater Trail from the Hotel to the fire-pit was also fully repaired, and missing cairns replaced. Cockett's trail, and the trail along the rim of Kilauea Iki, were also improved. 20 new guide signs placed during December, at appropriate places.

IV WORK IN PROGRESS.

The heavy auto traffic on the road from the Hotel to the fire-pit developed quite a few holes in the surface; these have all been repaired and well packed with a ram, the road roller not being available. Considerable ditching is being done along the roads to protect against the winter rains.

V PLANS.

Until my park gets a good sized appropriation I must necessarily confine my road work to the highway between the ~~Hotel~~ and the Crater's rim, and devote the remaining funds to the development of our trails. Too many of our patrons are "one-day" visitors, and I want to have enough good trails nearby so that the tourist will be ~~tempted~~ tempted to skip a steamer and remain over at least three days. Those who have done this so far, are quite enthusiastic over their visit.

Doc rept -3-

VI COST OF OPERATION:

Administration:	Superintendent's salary	-----	\$220.00	
	Allowance for quarters	-----	49.00	
	Travel expense	-----	12.00	
	Office rent Headquarters	-----	20.00	
	Telephone rent	-----	5.00	
	Wireless messages	-----	4.50	967.22
	Auto maintenance	-----	52.12	\$862.42
Protection:	Guides and patrol	-----	126.67	489.09
Improvement:	Trails and roads; Labor	-----	84.00	
	December expenditures	-----	\$573.09	

(\$84.67 Inc Comp Included)

VII. POLICIES:

I shall use every effort to bring the visiting public to realize that the Volcano itself is but one of the many features of the HAWAII NATIONAL PARK; the tropical jungles and the volcanic areas are in themselves sufficient to warrant a trip from the coast, regardless of the activity or inactivity of the fire-pit. I cannot believe that a NATIONAL park would ever have been established here with nothing as a basis but our famous, but fickle, volcano.

VIII. OTHER MATTERS OF INTEREST.

Volcanic activity: The lake of lava in the crater of Halemauuma continues to rise steadily, coming up through three large fountains, coving the surface with a new layer of liquid lava every few hours. The fume and smoke are slight, and an excellent view is obtained from most any point on the rim of the crater. At night the steam cloud hanging over the pit is brilliantly illuminated during the periods of lava flows, and at other times flares momentarily from the flashes of the fountains. The sulphur fumes are slight, and many visitors remain at the edge of the pit fascinated by the spectacle. The only unpleasant features are the little whirlwinds which start down in the pit, climb up the walls, and then circle around the rim; they are only 6 inches in diameter and 20 feet high, but their viscous snapping caused the people to keep back from the crater. I have seen these ~~whirls~~ whirls pull a hat from a visitor, sail ~~around~~ it out over the crater a few moments, and then carry it high in the air and drop it carefully on the floor of the outer crater, sometimes within 200 feet of its owner. None of the tourists will toss their hats into the pit deliberately, but now and then a hat gets loose and furnishes quite a thrill for everyone. As yet I haven't seen a single hat drop into the lake of fire.

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Dec rept 4

Crater Hotel: The closing of the Crater Hotel may deter a few local visitors from remaining over, but I am of the opinion that the Volcano House will establish a weekly rate during the summer which will prove attractive to the person of moderate means. The Volcano House Company has purchased the Crater Hotel from the Bank for \$5000.00 and will probably dismantle the buildings. This I think is a fitting solution, as I was afraid that a certain group of Japanese might obtain title to it.

Visitors: During December 2561 persons had the pleasure of visiting the Hawaii National Park; the largest group being 450 tourists in the Laeonia Tour of December 15th. The crater was particularly active at that time; and all were well pleased. Dr Babcock, American Express representative in charge, expressed himself to me as particularly well pleased with his treatment in the Park. And as he said, "was just what one expects from the National Park Service". The 80 cars containing this party were handled throughout the park and up to within a few yards of the edge of the crater, with no mishaps or difficulty whatever.

XI. RECEIPTS AND REMITTANCES:

Nothing to report.

Respectfully submitted,

Thomas Bolser
THOMAS BOLSER, SUPERINTENDENT.

P.S. The earthquakes commencing with midnight of the New Year have caused the lake of lava to subside 100 feet up to Jan 5th. The shocks have ceased, and the lava will probably begin to flow again within a short time.

T.B.

Dec. weather data

Max. 21) 2106 (67.7° = mean

186
240
217
230

Min 21) 1593 (51.4° mean

155
40
31
120

67.7
51.4
2) 1191
595

Mean

2106
1593
62) 3699 (59.7°
310
599
558
410

61.7
59
+2

Snow w/ thin ice

Max - 70° - 9-16-
Min - 46° - 13th
S.S. Avg. 76° - 73-47 - 72
Jul Rain 7.34
Sun 24 - 94 - 32
Days - 01 in, sun 42
Frost - 5
Dry 4

Onke 33.
3 sensib

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December 1914

Ymcke	Check	To	For	Am't
58	89	J. Boles	Sal	220.00
59	90	A. Lancaster	"	58.67
60	91	J. Matzger	Wages	157.00
	92	Jno Wallace	"	
	93	J. C. Brooks	"	
	94	Jno Cavalha	"	
61	95	John Kaili	"	
62	96	Edna Kahmena juv	"	61.00
63	97	Police Joe Bettencourt	"	
64	98	W. Matzger	"	
65	99	J. Boles	Exp	20.00
66	100	W. E. Hume	Cont	9.30
67	101	H. J. Co	Delm	39.77
68	102	Von Hamm	Aut	10.55
69	103	Matzger	"	1.80
70	104	James	Bdy	73.09

Dec -3 - 1st 30.00

$$\begin{array}{r} 39.77 \\ 10.55 \\ \hline 50.32 \end{array}$$

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DEPARTMENT OF THE INTERIOR
NATIONAL PARK SERVICE
HAWAII NATIONAL PARK
HONOLULU, HAWAII

Nov 1922

Superintendent's Office,
Volcano House, Hawaii,
December 7 1922.

To the Director,
National Park Service,
Washington, D.C.

Dear Sir:-

My report upon the Hawaii National Park for the month of
November 1922 is as follows:

I GENERAL CONDITIONS:

General travel conditions practically the same as for the
previous month; no special excursions came to the Park during November.

Weather: Data obtained by Local Weather Observatory:

Mean maximum for November-----67.0°
Mean minimum for November-----53.8°
Average for month-----60.4°
Maximum during month-----77.0 Nov 24
Minimum during month-----48.0 Nov 22
Greatest daily range 71-43-----23 Nov 22
Total rainfall during November-----6.74 inches
Greatest daily rainfall-----.95 inches Nov 25
Snow visible on Mauna Kea beginning Nov 6th,
ditto Mauna Loa beginning Nov 10th.
Days with .01 or more precipitation--25
Days with Trace-----5
Days Clear--None; Days Partly cloudy--14; Cloudy--16
Prevailing wind during the month, Light northeast.
Earthquakes 23 in all. Heavy on Nov 21, and 22.

II PERSONNEL: Outside of myself, and Ranger Lancaster, 93 man-days used.
Number: Class. Work performed:
1 Supt. Enroute to, attending, and enroute from Yosemite Conference:
1 Ranger. Guide work and sign painting; trail repair.
4 Laborers: Road repair, trail repair, guide and patrol work.

III WORK COMPLETED:
Nothing to report.

IV WORK IN PROGRESS:
Road repair; trail repair; clearing Postal Rift tunnel.

V PLANS: No new plans.

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Nov report -2-

VI COST OF OPERATION:

Administration:	Superintendent's salary-----	220.00	
	(No allowance for quarters)		
	* Travel expense-----	398.20	(Yosemite Trip)
	Office rent-----	20.00	
	Office telephone-----	5.00	
	Wireless messages-----	9.90	
	** Auto maintenance-----	55.48	\$708.58
Protection:	Guides and patrol-----		142.67
Maintenance:	Labor on roads and trails-----	111.90	
	Freight of road supplies-----	2.55	114.45
	November expenditures-----		\$965.70

(34.67 Inc Comp included)

VII POLICIES: Nothing to report.

VIII OTHER MATTERS OF INTEREST:

Total attendance for November 2126.

During November, the Lasky Moving Picture Company spent four days in the Park, taking scenes in the vicinity of the Crater. This location was selected by Mrs Ivers of Los Angeles, who visited the park in the summer, and later on wrote the play "The White Flower": Miss Bettle Compton played the leading part. A great many local characters from Hilo and vicinity were used in the productions. Ranger Lancaster was used. The only accident was when one of the hula girls sprained her ankle, but I am told that this is not serious, as the ankle is used very little in hula dancing.

The lava in the volcano was 650 feet below the rim at the beginning of November, and rose about 100 feet during the month. The avalanching of the walls has ceased.

IX RECEIPTS AND REMITTANCES: Nothing to report.

Respectfully submitted:

Thomas Boles
 THOMAS BOLES, Superintendent.

cc to Mr Albright:

- * \$250.50 Trans Requests:
- ** Mostly October bills; Nov actual was \$3.50

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Wm. Rye

DEPARTMENT OF THE INTERIOR
NATIONAL PARK SERVICE
HAWAII NATIONAL PARK
HONOLULU, HAWAII

Superintendent's Office,
October 30th 1922.

Fred Waltjen:--

I am leaving today for California, and will not be back here until about November 26th.

During this time I do not want any heavy road work done; and Henry Kini will leave our service the same week that Brooks returns to work.

Keep track of the time worked by yourself, Brooks, Wallace, and Kini. Stating each day just what work they were on. Also state ~~whether~~ it rained that day or not.

Finish the trail into Kilauea Iki; and when this is done, see if suitable trail can be located down to Kilauea Iki from near the Thurston Lava Tube.

Build the rock wall along the road at the place I pointed out to you last week. Use a line to get it in good shape.

Repair the trail leading up to the Lava Tube, and fill up the holes where the trail comes away from the tube.

Plant nasturtiums, and fuscias, at the points I pointed out to you. Use only ~~substitutes~~

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Superintendent's Office,
Volcano House, Hawaii,
March 9th 1923.

Mr. A. B. Cameroner, Acting Director,
National Park Service,
Washington, D.C.

Dear Sir:-

In checking through my November vouchers today I found the draft of my November monthly report, and I have copied same today and inclose it herewith that my monthly reports may be complete. Of course there is not much to it for news, but I procure the weather statistics, and the November expenditures are essential to your records.

You will recall I was away from the Park during the entire month of November, hence the comparatively high travel charges, \$120 of which was my expense allowance, and the \$250.00 to cover the amounts of the Transportation requests which will be paid through the Washington office. Of the auto maintenance charge for \$55.48, there was only \$3.50 actually incurred for November; the other was October bills which were not presented in time for me to include in my October report which I made up in San Francisco.

This short report will serve to counterbalance the lengthy one for February which I sent you by the previous steamer.

Yours very truly,

cc to Mr Albright:

Thomas Boles, Superintendent.

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Department of the Interior.
National Park Service.
Hawaii National Park.

(Written at San Francisco)
Superintendent's Office,
Volcano House, Hawaii,
November 8th 1922.

To the Director,
National Park Service,
Washington, D.C.

Dear Sir:-

My report for the Hawaii National Park for the month of
October 1922 is as follows:

I GENERAL CONDITIONS:

Conditions affecting travel to the Hawaii National Park during
October were practically the same as during September. The loss of the
Steamship City of Honolulu by fire early in October appeared at first to be
quite a loss to our travel facilities, but the Los Angeles Steamship Line
obtained ~~another~~ another ship within ten days, and the original sailing date
is being maintained. The highway between Hilo and the Park has two
very bad miles, and has been the subject of much complaint by the tourists.
The County of Hawaii will have no road funds available until next January,
but I sincerely trust a temporary surface can be provided before the regular
winter tourist travel begins.

Weather: The Rainy Season in Hawaii is supposed to begin October 15th, but
as a matter of fact we had considerable less rain during October than during
September. As I left the Park on October 30th, the data following covers but
the first 29 days of the month. Data furnished by local Weather Observatory.

Mean temperature for October-----62.4
Total rainfall----- 3.87 inches
Snowstorm on Mauna Loa October 22 and 23rd;
Snowcap melted away by October 27th.
26 registered earthquakes during October:
4 earthquakes very sharp, rattling the buildings
at Hilo over thirty miles away.

II PERSONNEL:

The County Road Roller, with driver, was used by me for 11 days
during October, the Park Service paying a rental of \$5 per day for the machine.
Miss Barrette, lady guide, left the service October 8th.
Laborer Frank Brooks worked but 11 days, having been drawn on the Federal jury
at Honolulu; I realize that exemption may be claimed, but I do not want any of
my men to avoid jury service. Outside of myself and Ranger Lancaster, only
99 man-days were paid for during October.

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October report sheet 2:

Number:	Class:	Work performed:
1	Supt.	Administration and supervision:
1	Ranger	Guide work, sign painting:
5	Laborers	Guides, placing signs, road workers.

III WORK COMPLETED:

Forty new signs were prepared and placed during October, mostly 1x6 pine, although some were 24"x36". All planed and painted both sides, National Park Service standard lettering and colors. The favorable impression given by the signs is very gratifying.

IV WORK IN PROGRESS:

The only road work during October was on the main road leading to the crater; this had developed quite a few holes, and immediate attention and repair was required to hold the balance of the surface. Road is now in very good condition. Not as much trail work was done as in previous months; lava slabs were set in as steps on the steeper portion of the trail leading out of Byron ledge toward the Volcano House.

V PLANS:

The new trail through the new lava tube on the Crater floor will be built during November, instead of October as outlined in previous letter.

Now that avalanching of the crater walls has ceased, the cairns around same will be given permanent alignment, leading to safe places where the best views of the lava fountains may be obtained.

As the Superintendent will be absent all of November, a minimum amount of work has been laid out for the men remaining in the Park.

VI COST OF OPERATION:

Administration:	Superintendent's salary	-----	\$220.00	
	Allowance for quarters	-----	42.00	
	Travel expense	-----	32.90	
	Office rent	-----	20.00	
	Telephone rent	-----	5.00	
	Office supplies	-----	1.50	
	Auto maintenance	-----	10.45	\$351.85
Protection:	Guides and patrol	-----	168.00	168.00
Road maintenance:	Labor	-----	134.00	
	Rental of road machinery	-----	56.00	
	Fuel for roller	-----	11.99	200.99

October expenditures: \$700.84 ✓

(\$40.00 Inc Comp included)

VII POLICIES:

No new policies are contemplated; I shall continue my efforts to win friends for the Service, and patrons for the Park.

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October report 1913:

VIII OTHER MATTERS OF INTEREST:

The drilling in the Observatory Grounds, under direction of Professor Jagger, continues; they are now 50 feet down, having drilled 25 feet during the month of October. The temperature changes are slight. They are still having lots of unexpected delays with their work, but the results obtained so far are evidently of sufficient interest to warrant their continuing the tests.

During October the painting of the Volcano House was completed, and the only work now remaining is the bedding of the soil for flower beds; The old soil has been entirely removed, and new soil to a depth of 30 inches has been hauled in from the fern forest north of the hotel.

Volcanic activity: Since the re-appearance of liquid lava in the Crater of Halemauau on September 2nd, the lake of lava has risen steadily, and is now but 650 feet below the rim of the crater. The lake is over 800 feet across, and is widening as the level rises. The fountains are continuous, and very energetic, at times sending up ropes of lava 70 feet in the air. The lake was particularly active during the visit of the delegates to the Pan-Pacific Union. The four pit craters along Cockett's Trail continue to send up steam ~~columns~~ clouds.

Visitors: Attendance during October was 2500; this figure is estimated, and will be compensated by my November report.

On October 27th a party of people from Los Angeles, via the private yacht "Casiana" visited the Park. This party was in charge of Mr J. J. Potter, Vice President of the Pan American Petroleum & Transport Co, formerly Confidential Secretary, Franklin E. Lane; Mr Potter was quite familiar with the creation of the Hawaii National Park, and was well pleased with the Park itself.

Mr. Wm McMurrey, and family, General Passenger Agent of the Union Pacific Railroad, and a good friend of the Park Service, was also an enthusiastic visitor during October.

Mr. E. O. McCormick, Vice President of the Southern Pacific, also a good friend of the Service, appeared well impressed with our Park in general, and the volcano in particular.

Mr. E. Walton Heegstra, of Chicago, also spent a day with us, taking profuse notes and pictures for use in his future lectures which are to be given before audiences in Illinois and Indiana.

Delegates of the Pan Pacific Union to the extent of 50, were well pleased with their trip; while at the Sulphur Banks they were told by Professor Jagger of the possibilities of steam power from the volcano.

IX RECEIPTS AND RESITANCES:

Nothing to report.

Respectfully submitted,

THOMAS BOLES, Superintendent.

Copy to Mr Albright.

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DEPARTMENT OF THE INTERIOR
NATIONAL PARK SERVICE
HAWAII NATIONAL PARK
HONOLULU, HAWAII

Superintendent's Office,
Volcano House, Hawaii,
October 5 th 1922.

To the Director,
National Park Service,
Washington, D.C.

Dear Sir:--

My report on the Hawaii National Park for the month of
September 1922 is as follows:

I GENERAL CONDITIONS.

Of the 'all the year round' National Parks I expect the
Hawaii National Park is most uniform in attendance, our seasons varying
just enough to avoid monotony; and we have quite an advantage over the
other parks by being able to furnish any season at any time, from the
sultry sunshine of the South Seas, to the perpetual snow of Mauna Loa.

Weather: September was almost identical with August, the 6.14 inches
of rain fell mostly at night; in fact the light rains and mists are
really favorable for hiking and outdoor sports, as we have no streams
or springs in the entire park area.

Data furnished by local Weather Observatory:

Mean maximum for September	-----	69.0°	
Mean minimum for September	-----	56.0°	
Mean	-----	62.9°	
Maximum during month	-----	74.0°	11&21
Minimum during month	-----	52.0°	26th
Greatest daily range	-----	19.0°	21st
Total rainfall during month	-----	6.14 inches	
Greatest within 24 hours	-----	1.56	9th
Days with .01 or more rainfall	-----	27	(other 3 Trace)
Days with no rain	-----	None	
Cloudy days	-----	6	Partly cloudy--23 Clear--1
Snow still found in sheltered places on Mauna Loa.			
Earthquakes: 14 local; 1 distant: All slight.			

page 2: Septem Report:

II PERSONNEL:

The County Road Gang, with its machinery, which had been used for the past three weeks by the Hotel Company in building their driveways, was employed by me a few days the latter part of the month on the Waldron Lodge Road.

Number:	Class:	Work performed:
1	Superintendent:	Administration and supervision.
1	Ranger:	Guide work, sign painting.
22	Laborers:	Guides, trail builders, road workers.

III WORK COMPLETED:

Fifty new trail signs were painted and placed during September, using 1x6 pine, planed and painted all sides; National Park Service standard lettering and colors.

IV. WORK IN PROGRESS.

The principal work during September was on the Waldron Lodge Road, along the northeast rim of Kilanua. This was the old road to the crater, but has been abandoned for several years, but since we have put it in fair shape is becoming quite popular. All sharp curves have been lengthened and widened, with parapets of lava on the outside. Soft places have been filled with cinders and well packed by rolling with a 7 ton roller. This work was necessary for safety, and to put the road in shape for the coming wet winter. The Road Gang has been dismissed, but the roller will be held a few days longer to get the surface thoroughly packed before sprinkling with oil. I have 2000 gallons of crude oil, the application of which will make the surface shed water quickly, and will also retard the growth of grass and weeds.

V FLAKES.

During December 1919 when the lava from Halemauau was flowing over the rim, a large lava tube was formed extending from the old Postal Rift Cavern toward Uukukuna Bluff a distance of nearly 2000 feet. This is quite similar to Thurston Tube, except that in places the rooms are 70 feet wide. In addition to the main tube there are several smaller ones branching off, and returning to the main tube after one or two hundred feet diversion; dependent from the roof and walls are stalactites by the hundred thousand, dull grey in color, quite brittle, and mostly of the size and length of a pencil. In the main tube are thousand of conical stalactites formed by the hot gases fusing the roof; gun metal in color, and firmly fixed. In four or five places the roof has fallen, partially blocking the tube, and I will use my three laborers for a week in moving the rocks so that convenient passageway may be obtained through the entire tube. I regard this as one of the most interesting features of the Park, showing as it does, contrary to popular impression, that a cavern and stalactites may be created within a few weeks. The convenience of this tunnel to the crater and to the Hotel insures its popularity. Warnings have already been posted at each end of the tube against removing souvenirs from the walls and roof, as this tube must not suffer like the Thurston Tube which was stripped of every stalactite within a few months after its discovery.

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page 3 Septem. Report.

VI COST OF OPERATION.

Administration:	Superintendent's salary-----	\$220.00	
	Per diem for quarters-----	52.50	
	Travel expenses-----	3.50	
	Office rent-----	20.00	
	Office supplies-----	7.09	
	Office furniture (shelves)-----	6.50	
	Telephone rent-----	5.00	
	Radio service-----	3.80	
	Auto maintenance-----	35.51	\$353.90
Protection:	Guides and patrol-----		198.00
Maintenance:	Roads and trails-----		431.55
	158	September expenditures-----	\$983.45

(\$40. Inc. Comp. included)

VII. POLICIES.

During the past month I have read considerable literature on the National Parks, and my policy will always be to obtain for the Hawaii National Park the standing and popularity now enjoyed by the Yellowstone and Yosemite.

It may be of interest to mention that Thomas Boles, my father, as Congressman from Arkansas, voted for the establishment of Yellowstone National Park in 1872.

VIII. OTHER MATTERS OF INTEREST.

The drilling in the Observatory Grounds, ^{under} the direction of Professor Jaggard continues slowly. At the end of the month a depth of 25 feet was reached, with a temperature of 88° F, whereas at 20 feet the temperature was 102° F. A rotary type drill is being used, by which a three inch core is obtained of the strata passed through. Many fissures in the rock cause considerable loss of flushing water and of the cutting pellets. It was the original intention of the Association to drill 21 holes, but they are now only on their third test hole. The Secretary of the Association tells us that the actual cost per foot is about \$57, instead of \$3 as estimated.

On September 19th Miss Barrette, our lady guide, while conducting a party of 12 hikers over an old trail near Upekaluna Bluff, stepped on a loose stone and was thrown several feet down the bank, bruising her arm and face, but not severe enough to prevent her continuing her work. As park visitors will be few during the coming two months, she leaves the service early in October.

page 4 Septem. report.

Miss Barrette's workin during her short connection with the Park Service was quite satisfactory to the visiting public as well as to myself; and I feel that she was instrumental in getting a great many of the visitors out on our trails who might otherwise have been contented to sit by the hotel fireplaces.

Improvement of the Kilauea Volcano House continues. Curbings and driveways have been finished; the garage has been moved 300 feet further east, and the cottages moved east of the Hotel, facing the semicircular solarium. The moving of the cottages and the 'graveyard cedars' along the main road, gives the hotel a clear view of the crater. Low walls along the road, ending with two massive post of rough lava surmounted with 18" white electric globes, gives the hotel an excellent appearance to the visitor approaching from Hilo. The rapid growth of the flowers in front of the hotel is marvelous, but you must remember that they are but a few feet above live steam, and are really growing in a natural hot-bed. Cosmos planted a few weeks ago are now eight feet high.

Volcanic Activity: At noon September 2nd lava reappeared in the talus about 700 feet immediately below the auto park. A cone 12 feet high was soon built up out of which poured dense fumes and streams of lava, flowing down on to the floor of the old lake formed during July, and raising the level at a rate of 3 to 5 feet each day. A few days later a fountain developed in the north portion of the lake, very noisy with its constant explosions, sending up ropes of lava at times 50 feet in the air. The surface of the lake would flow over with a new layer of lava every few hours, this hardly solidifying before a new flow would cover it. The lake is now 700 feet across, rising from the slope of the talus toward the fountain in easy terraces, down which slowly moving streams of lava are constantly crawling. The fountains seems to be getting stronger, but Professor Jagger is not very encouraging in predicting its future.

Rocks near the top of the talus in the southwest portion of the crater continue to redden from the hot gases below, and I am hopeful that this area will soon provide another source of liquid lava to pour into the pit at the bottom of the crater. Cracks over 100 feet outside the rim of the crater, which were ~~not~~ cold at the beginning of September, are now hot enough to cock by; the tourists getting quite a "kick" by drinking coffee prepared over volcanic heat.

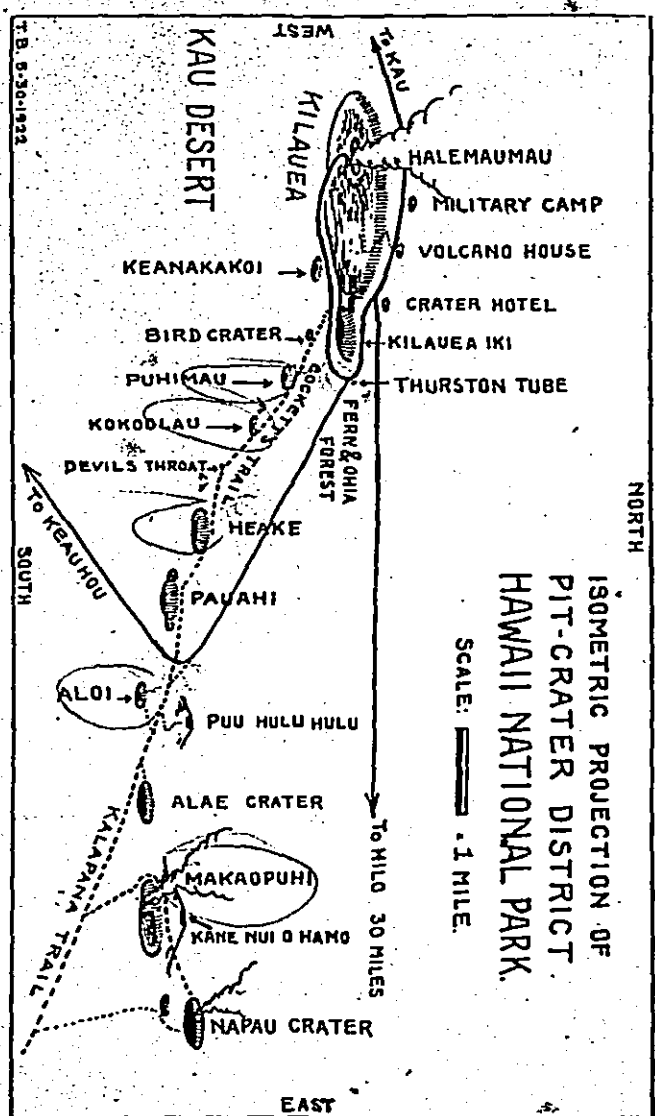
Four pit craters along Cockett's Trail are steaming as usual.

Visitors: Our attendance during September was 2620, which includes 300 members of the Los Angeles Chamber of Commerce who arrived on the 18th direct from Los Angeles on the SS "City of Los Angeles, formerly the "Grosser Kurfurst", and later the "Aeolus" in transport service. This is the largest steamer on the Pacific, and with the "City of Honolulu" furnished the much needed additional accomodation between Honolulu and the Mainland. This group seemed very enthusiastic over our volcano and over our ferns. I expect considerable favorable publicity from this visit.

IX RECEIPTS AND REMITTANCES: Nothing to report.

Respectfully submitted,

Thomas Boles - Supt.



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DEPARTMENT OF THE INTERIOR
NATIONAL PARK SERVICE
HAWAII NATIONAL PARK
HONOLULU, HAWAII

Superintendent's Office;
Volcano House, Hawaii;
September 7th 1922.

To the Director,
National Park Service,
Washington, D.C.

Dear Sir:-

My report on the Hawaii National Park for the month of August 1922, is as follows:

I GENERAL CONDITIONS:

The climatic conditions, as well as the travel conditions, affecting the Hawaii National Park are such that the variations are very slight between Summer and Winter, except that during the Summer and Fall months we have a larger proportion of visitors from local territory, people who find in our 4000 altitude a refreshing change from the enervating atmosphere of the coast.

Weather: The month of August was far more pleasant than July, notwithstanding we had more rainfall, but our average temperature was a little cooler. The humidity here is always above 90 (100 indicating a condition of the air when fully saturated), and nearly every day we have a light drizzle, a fog, or a low lying cloud, but when you consider that we have no springs nor streams in the Park you realize that our damp air really makes hiking easier than were the air dry.

Data furnished by the local Weather Observatory is:

Mean maximum for August	69.4°	
Mean minimum for August	55.7	
Mean	62.6	
Maximum during month	74.0	12th and 19th:
Minimum during month	51.0	23rd:
Greatest daily range:	20 degrees:	12th and 23rd:
Total rainfall during month	4.45 inches:	
Greatest daily rain	1.15	2nd:
Days with .01 or more rain	28	(others Trace)
Clear days	2	Partly cloudy--17 Cloudy--12
Days with NO RAIN	None.	

Visible snow has vanished from Manna Kea, but is still found in sheltered places above the 12,000 level of Manna Loa.

20 local earthquakes, 1 distant: All slight.

Sheet 2 Aug Report.

II PERSONNEL:

Owing to the large number of women and children remaining in the Park during the month of August, and the fact that I wanted to get them out on the trails, I have added a lady-guide to my force, in the person of Miss Barrette of Honolulu, who has spent several weeks here in the Park, and is a hiker and an artist of ability. Her duty is to organize hiking parties from the lady and children guests of the two hotels, and to help convince the visitors that Kilauea is just one of our many features. Until full authority is given for her appointment as Temporary Ranger, I am showing Miss Barrette on my roll as laborer at \$3 per day for days actually employed. I have received a great many favorable comments from visitors upon the work being done by Miss Barrette.

Number:	Class:	Work performed:
1	Supt.	Administration, reconnaissance, estimates:
1	Ranger:	Guide work, sign painting:
3	Laborers:	Guide and patrol; trail making:

III WORK COMPLETED:

The new trail from Waldron Ledge, across Byron Ledge, to the floor of Kilauea Iki is complete, and is well patronized, and I feel safe in stating that more persons have made the trip to the bottom of this 770' crater during the past month than during the previous year.

Sixty new signs were erected during August, varying in size from 6"x12" up to 30"x48". National Park Service standard colors and lettering, green letters on white field, edged with green border.

IV WORK IN PROGRESS:

Additional trails are being located and built, with guide posts, and all points of interest properly marked. In all cases I look up authorities to get the proper Hawaiian names and spelling.

V PLANS. Trail work will be pushed until special road appropriation is available, with emergency repairs to my present roads to keep them from getting in bad repair.

VI COST OF OPERATION:

Administration:	Superintendent's salary-----	\$220.00	
	Per diem for Quarters-----	54.25	
	Travel expenses-----	2.00	
	Office rent-----	20.00	
	Fuel for office-----	3.00	
	Telephone expense-----	5.60	
	Wireless message-----	4.60	
	Auto maintenance-----	35.61	\$346.06
Protection:	Guide and patrol-----		126.66
Improvement:	Trail work-----		80.54
	August expense-----		\$553.26

(\$36.66 Inc Comp included)

Sheet 3 Aug Report:

VII POLICIES: Nothing new to report:

VIII OTHER MATTERS OF INTEREST:

The drilling by the Hawaii Volcano Research Association has been confined to the ground covered by their sub lease from the Volcano Hotel Company, just next to the Observatory; should they resume drilling on the floor of the crater I will then have them sign application for permit, and issue same to them.

Work continues rapidly on the Volcano Hotel, and the grounds around same, to the beautification of which we are indebted to W H Gifford, of Honolulu, a retired capitalist whose hobby is landscape gardening. At the formal opening of the new wing of the Hotel there was present 250 guests, who were served with a luau, a feast of Hawaiian foods prepared native style, and served without knives or forks. The way this crowd was handled, as well as the Shriner crowds in June, assures the Park service that we have a first class hotel within our Park, and when they have completed their plans, which involves a total expenditure of nearly \$200,000, we will be on a parity with other National Parks in hotel accomodation as well as in scenery.

The total number of August visitors was 2852, which although not so high as July, still it is much better when figured on a man-day basis, as we had a great many long-time guests, mainly from Honolulu.

Among our visitors was Dr Allen of the Geophysical Laboratory of the Carnegie Institute of Washington who has been here nearly the entire month conducting investigations of the gases and sulphides of the volcano, making his headquarters in Professor Jaggar's laboratory. Dr Allen was formerly a professor at the Missouri School of Mines, where the writer attended, and we found many things in common to talk over.

Law Violations: Early in August I arrested Frank Labriga for bringing liquor into the park; and later in the month arrested Alex Lancaster jr for being drunk and firing a pistol. Both men were turned over to U S Commissioner, and final disposition of their cases has not yet been made.

IX RECEIPTS AND REMITTANCES: Nothing to report:

In conclusion I wish to convey to you the many expressions of appreciation made by our patrons about the hotel improvement, and our trail and sign work in the Park, many of these encomiums coming from people who have visited the Park for years. Mr J W Waldron of Honolulu, who spent two weeks here with his family, stated to me: "I have been visiting this place for twenty years but have seen more points of interest during the past two weeks than during the previous years; your trails and signs have indeed made it a pleasure to walk." This is encouraging, and makes me feel that we are fulfilling Secretary Lane's pledge to "Make our National Parks the Playgrounds of our People".

Respectfully submitted,

Thomas Boles, S
upt.

Weather data: Aug 1972

Mean Max: 69.4

Min: 55.7

Mean: 67.6

Max: 74

12 x 19

Min: 51

23rd

Greatest range 20°

12 x 73

Rain: 4.45

Snow: 1.15 m. yr

Days with .01 - 28

nd. T.

Clear: 2 P.C. 17

cl. 12

no. local. eq. 1 dist.

Data by Mr. Finch.

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August 1944 - vouchers:

132
721
60

Thomas Belis		770.00	}	=	418.66 415.33
Alex Lancaster		66.66			
Ired Waltjen - roll		<u>132.00</u>			
Ant Waltjen	auto sps	6.35			
Thomas Belis	exp	56.75			12-month
H. Dent	mils	3.00			
J. Kuwanga	drayage	5.54			
Kil. Volcano House	rent	70.00			
Mutual Tel	wireless	4.60			
Am Tel. Co	phone	5.60			
Standard Oil	oil	3.00			
Mr. Harmon Young	auto	20.76			134.60
					544.33
					<u>553.26</u>

(#4675 inc camp included)
36.66

Volcano House	19.00
Cable Hotel	70.00
Camp	45.00
the waiter	30.00
	<u>285.00</u>

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DEPARTMENT OF THE INTERIOR
NATIONAL PARK SERVICE
HAWAII NATIONAL PARK
HONOLULU, HAWAII

Superintendent's Office:
Volcano House, Hawaii,
August 7th 1922.

To the Director,
National Park Service,
Washington, D. C.

Dear Sir:--

The following is my report on the Hawaii National Park
for the month of July 1922:

I GENERAL CONDITIONS:

The general conditions affecting traffic to the Hawaii National Park continue the same as during June, except that during July we had no extra steamers calling at our port of Hilo, but did have a large number of local island visitors during the ten days beginning July 17th. Picnic parties are becoming more numerous in the Bird Park and in the ohia grove near Kilauea Iki. Also three camping parties enjoyed this location during July, one headed by Mr Hitchcock of Honolulu who spent two weeks sketching and painting views of the volcano.

Weather: Our cool weather continues, with the "daily drizzle", which by the way gave us quite a bit of water for our tanks during the month. Data obtained from the local station of the Weather Bureau is:

Mean maximum for July	71.0	
Mean minimum	55.5	
Average for month	55.3	
Maximum for July	78.0	July 27th
Minimum for July	53.0	8, 13, 14:
Greatest daily range	21.0°	22, 27:
Total rainfall during July	3.69	
Greatest within 24 hours	1.00	27th:
Days with .01 or more rain	25	
Days with Trace	6	
Days with no rain	None:	

Snow may still be seen in patches near the summit of Mauna Kea, and was found by the writer in cracks near the summit of Mauna Loa on July 29th.

Earthquakes: Only 27 earthquakes were registered during July; one on the 24th being quite noticeable at Hilo 30 miles distant.

July report -2-

II PERSONNEL: No changes during July:

Number:	Class:	Work performed:
1	Superintendent:	Administration, reconnaissance, estimates:
1	Ranger:	Guide and patrol; sign painting:
2	Laborers:	Guide and patrol; trail making:

III. WORK COMPLETED:

Nothing to report:

IV. WORK IN PROGRESS:

No work performed on the roads during July. My three men have been used in constructing a new trail down from Weldrons Ledge across Byrons Ledge to the floor of Kilauea Iki. Safety chains have been placed at the steeper portions, and at the rim of Kilauea Iki, and seem to be greatly appreciated, judging by the increased number of persons making the trip down to the floor of this 770 ft deep extinct crater. Many new signs have been prepared and placed in position.

V. PLANS. Until special road appropriation is obtained, I shall continue to locate and construct new trails throughout the Park. My next one will be from the floor of Kilauea Iki to the Thurston Lava Tube.

VI COST OF OPERATION:

Administration: Superintendent's salary	-----	\$220.00
Per diem for quarters	-----	54.25
Communication: wireless	-----	11.37
phone	-----	5.00
Travel expenses:	-----	51.65
Office rent	-----	20.00
Auto maintenance	-----	10.21
Misc incidental	-----	1.65

405.23

Protection: Salaries-----\$129.35

Maintenance: (trails)

Salaries	-----	80.00
Supplies	-----	2.80

82.80

July expense-----\$397.38

(37.35 Inc Compensation included)

597.36

VIII OTHER MATTERS OF INTEREST:

The tourist prospect at the beginning of July looked bad, on account of the inactivity of Kilauea. On July 7th Ranger Lancaster noticed a glow in the talus in the southwest side of Halonamman, where ever of the collapse of the crater, dense clouds of steam and sulphur fumes had been rising. This glow continues to enlarge and will no doubt be the location of our next lava flow.

July report -3-

Kilauea:

At 2 AM July 17th a brilliant glow was seen over the crater, and at daylight I drove over in company with Hotel Manager Phillips, and Professor Jaggard, and found the lava pouring out in a cascade from the side of the crater at a point 700 feet below the east rim of the pit, and rapidly forming a lake of lava at the bottom of the crater. This continued for over a week, and then the pulsations of the lava began to loosen the walls of the crater just above the fountain, which fell as avalanches, smothering the fountain; then in a day or so later the lava would again come to the top. At the end of the month only a glowing pot remained, which now and then coughs up a spray of lava sparks. If the lava is still running, it is under the crust, and cannot be seen from the rim of the crater. Now that it has been shown that our volcano is not really dead, I am hoping that it will be but a short time that the lava will again find its way through the rocks, and our "lake of fire" will again be a reality.

Mauna Loa: On July 26th the writer accompanied by Charles Judd, Territorial Forester, and a guide, proceeded on mule back to the rest house at the 10,000 level of Mauna Loa, and then spent the next day walking to the crater of Mokuawaweo and back to the rest house, 24 miles; and then returning to the Volcano House the following day. The purpose of this trip was to obtain first hand information about the Mauna Loa Section of our Park, and see what were the possibilities for building a road up to the Rest House, and a trail from thence to the summit. I am preparing a special report on this matter, which will be submitted within a few days.

Visitors: During the month of July 3100 persons visited the Kilauea Section of the Hawaii National Park, coming very close to our record of 3325 for June when we had two shiploads of Shriners with us. Two-thirds of this number visited the Park after July 17th, on which date Kilauea resumed activity. The Matawanis alone brought over 250, all of whom returned enthusiastic over the volcano.

Our most distinguished visitor was Governor Farrington, who arrived 10 AM July 30th, and left the following morning. I returned from Mauna Loa at 1 PM and after changing clothes I took charge of the Governor and his Secretary, and spent four hours driving and walking around the Park. He was loud in his praise of the National Park Service, and was especially enthusiastic over our new foot trails. The Governor is an "outdoor man" and this makes his approval the more appreciated, and in reading his speeches made after visiting the Park I note that he regards the Hawaii National Park as the Islands' best asset.

IX RECEIPTS AND REMITTANCES: Nothing to report.

Respectfully submitted,

Thomas Boles
Thomas Boles, Superintendent,
Hawaii National Park.

cc-Mr Albright

Form No. 1909-Met. 1.

U. S. Department of Agriculture, Weather Bureau.

COOPERATIVE OBSERVERS' METEOROLOGICAL RECORD.

Month of July, 1928; Station, Yel Ols; County, _____; State, _____; Latitude, _____; Longitude, _____; Hour of Observation, 8; Time used on this form, _____

MONTHLY SUMMARY

TEMPERATURE.

Mean maximum, 71
 Mean minimum, 55
 Mean, 63
 Maximum, 78; date, 27
 Minimum, 53; date, 8.13.14.
 Greatest daily range, 21 - 22 - 27

PRECIPITATION.

Total, 3.69 inches.
 Greatest in 24 hours, 1.00; date, 27

SNOW.

Total snowfall, _____ inches; on ground 15th, _____ inches;
 at end of month, _____ inches.

NUMBER OF DAYS—

With .01 inch or more precipitation, 30 75
 Clear, 1; partly cloudy, 30; cloudy, _____

DATES OF—

Killing frost, _____
 Thunderstorms, _____
 Hail, _____
 Sleet, _____
 Auroras, _____

REMARKS:

Show to MK
Q. 459 P. MK - 27
My-

DATE.	TEMPERATURE.				PRECIPITATION.					PREVAILING WIND DIRECTION.	CHARACTER OF DAY, SUNRISE TO SUNSET.	MISCELLANEOUS PHENOMENA.
	MAX. NUM.	MIN. NUM.	RANGE.	*SET MAX.	TIME OF BEGINNING.	TIME ENDING.	AMOUNT.	SNOWFALL IN INCHES.	DEPTH OF SNOW ON GROUND AT TIME OF OBSERVATION.			
	1	2	3	4	5	6	7	8	9			
1	73	56	17				.09					PC
2	74	55	19				.01					
3	71	55	16				T					
4	73	55	18				.24					
5	68	56	12				T					
6	70	54	16				T					
7	69	54	15				.02					
8	69	53	16				.30					
9	69	55	14				T					
10	68	55	13				.05					
11	71	57	14				.19					
12	71	57	14				.01					Clear
13	74	53	21				.03					PC
14	73	52	20				.74					
15	71	54	17				.02					
16	75	58	17				.01					
17	71	57	14				.07					
18	70	56	14				T					
19	67	54	13				.03					
20	71	55	16				.01					
21	72	54	18				T					
22	76	55	21				.08					
23	72	56	16				.14					
24	69	55	14				.01					
25	74	55	19				.01					
26	70	56	14				.04					
27	78	57	21				1.00					
28	71	58	13				.02					
29	75	55	20				.06					
30	71	58	13				.35					
31	67	57	10				.06					
SUM	2213	1718					3.69					
MEAN	71	55										

*Reading of maximum thermometer immediately after setting.
 †Including rain, hail, sleet, and melted snow.
 ‡Thunderstorms, halos, auroras, etc.

(IN TRIPLICATE.)

See cover for instructions.

Post-Office Address, _____

_____, Cooperative Observer.

DOCUMENT CAPTURED AS RECEIVED

10-117

DEPARTMENT OF THE INTERIOR,

HAWAII NATIONAL PARK.

Monthly report of guests at Volcano House ~~Hotel,~~
~~Camp~~

Month of July 1922, 192

Number of guests registered during month 7000.

Average length of stay per guest (days) 1 day 2 hrs

DOCUMENT CAPTURED AS RECEIVED

10-117

DEPARTMENT OF THE INTERIOR,

HAWAII NATIONAL PARK.

Monthly report of guests at Crater. Hotel,
Camp,

Month of July 1922, 192

Number of guests registered during month 716

Average length of stay per guest (days) 7 weeks

MAINTAIN RECORD

DOCUMENT CAPTURED AS RECEIVED

10-117

DEPARTMENT OF THE INTERIOR,

HAWAII NATIONAL PARK.

Monthly report of guests at Kilauea Military Hotel,
Camp,

Month of July 1922, 192

Number of guests registered during month 625

Average length of stay per guest (days) 8 1/2 days

DOCUMENT CAPTURED AS RECEIVED

U. S. Bureau of Agricultural Economics
COOPERATIVE OBSERVERS' METEOROLOGICAL
Station of _____, _____
State of _____
W. H. Blackberger

DATE	TIME	WIND DIRECTION	WIND VELOCITY	TEMPERATURE	RELATIVE HUMIDITY	CLOUDS	PRECIPITATION	CHARACTER OF WEATHER	SURFACE WIND DIRECTION	SURFACE WIND VELOCITY	SURFACE TEMPERATURE	SURFACE RELATIVE HUMIDITY	SURFACE CLOUDS	SURFACE PRECIPITATION	SURFACE CHARACTER OF WEATHER
1															
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(IN REVERSE)
See cover for instructions.
Foot-Office 4444

No. 1009-Met'l.

U. S. Department of Agriculture, Weather Bureau

COOPERATIVE OBSERVERS' METEOROLOGICAL RECORD:

Month of March, 1922; Station, Volcano, Maui County, Hawaii
 State, Hawaii, Latitude, 19°25'54", Longitude, 155°15'29" Hour of Observation, 7 a.m.
 Time used on this form, NS-7

MONTHLY SUMMARY.

TEMPERATURE.

Mean maximum, _____
 Mean minimum, _____
 Mean, _____
 Maximum, _____; date, _____
 Minimum, _____; date, _____
 Greatest daily range, _____

PRECIPITATION.

Total, _____ inches.
 Greatest in 24 hours, _____; date, _____

SNOW.

Total snowfall, _____ inches; on ground 15th, _____ inches;
 at end of month, _____ inches.

NUMBER OF DAYS—

With .01 inch or more precipitation, _____
 Clear, _____; partly cloudy, _____; cloudy, _____

DATES OF—

Killing frost, _____
 Thunderstorms, _____
 Hail, _____
 Sleet, _____
 Auroras, _____

REMARKS:

Earthquakes: Mar 12-2:30 pm.
 4:55 p.m. 27-3.24 am.
 Mauna Kea & Mauna Loa
 snow capped during
 entire month.

DATE.	TEMPERATURE.				PRECIPITATION.				PREVAIL- ING WIND DIRECTION.	CHARACTER OF DAY, SUNRISE TO SUNSET.	‡ MISCELLANEOUS PHENOMENA.	
	MAXI- MUM.	MINI- MUM.	RANGE.	* SET MAX.	TIME OF BEGINNING.	TIME ENDING.	‡ AMOUNT.	SNOWFALL, IN INCHES.				DEPTH OF SNOW ON GROUND AT TIME OF OBSERVATION.
	1	2	3	4	5	6	7	8	9	10	11	
1	61	50	11				.05			NE	Cldy.	
2	62	49	13				.09			NE	Cldy.	Lt. Fog
3	62	52	10				.12			NE	Cldy.	3 p.m. on Slope M.L.
4	71	51	20				1.08			SW	Clear	3. Snow M.L. & M.K.
5	57	51	6				1.64			NW	Cldy.	3
6	63	51	12				2.15			NE	Cldy.	Snow Mauna Loa
7	61	52	9				.79			NE	Cldy.	Snow Mauna Loa
8	58	51	7				.87			NE	Cldy.	Snow M.L. Below 10,000 ft. Snow M.K.
9	58	52	6				6.95			NE	Cldy.	Lt. Fog
10	58	53	5				3.55			NE	Cldy.	
11	61	53	8				1.60			NE	Cldy.	
12	63	52	11				.05			NE	P.C.	Misty
13	65	52	13				.08			NE	P.C.	Snow M.L. & M.K.
14	65	52	13				.70			NE	P.C.	3 p.m.
15	60	54	6				1.30			NE	Cldy.	
16	64	53	11				3.70			NE	Cldy.	3 Evening
17	64	52	12				.18			SW	P.C.	3 Afternoon
18	68	51	17				.65			Calm	P.C.	Heavy Snow M.K. Showers P.M.
19	68	52	16				.20			SW	P.C.	Snow M.K. & M.L.
20	65	52	13				.11			Calm	P.C.	Snow Receding
21	66	47	19				.20			E	P.C.	
22	64	49	15				1.11			SW	Cldy.	
23	63	52	11				.30			NE	Cldy.	
24	65	48	17				.02			NE	Cldy.	
25	66	50	16				.01			NE	P.C.	
26	67	46	21				.03			NE	Clear	
27	68	52	16				.10			NE	Clear	
28	70	51	19				.02			NE	Clear	
29	64	53	11				.09			NE	Cldy.	
30	67	55	12				.23			NE	P.C.	Snow M.L. & M.K.
31	66	55	11				.09			NE	Cldy.	Lt. Fog.
SUM.							28.13			NE		

* Reading of maximum thermometer immediately after setting.
 † Including rain, hail, sleet, and melted snow.
 ‡ Thunderstorms, halos, auroras, etc.

Hawaiian Volcano Observatory Cooperative Observer.

(IN TRIPLICATE.)

See cover for instructions.

8-253

Post-Office Address, Volcano, Hawaii

DOCUMENT CAPTURED AS RECEIVED

DEPARTMENT OF THE INTERIOR
NATIONAL PARK SERVICE
HAWAII NATIONAL PARK
HONOLULU, HAWAII

July 6th 1922:

To the Director,
National Park Service,
Washington, D. C.

Dear Sir:--

The following is my report on Hawaii National Park
for the month of June 1922.

I GENERAL CONDITIONS:

The general conditions affecting traffic to the Hawaii National Park during June are the same as for the previous month, except that during the latter part of the month we had two extra steamers loaded with Shriners and their friends. Automobiles from Hilo are becoming more numerous in the Park owing to the fact that the road from Hilo is getting in excellent shape, and picnic parties from surrounding country are frequent, the Bird Park and the grove just south of Kilauea Iki being most favored.

Weather: Our cool weather continues, with the customary daily drizzles which amounts to very little in actual water in our tanks. Data as obtained from the Observatory near Park Headquarters is:

Mean maximum-----	69.9	
Mean minimum-----	53.4	
Mean for month-----	61.7	
Maximum during June-----	77	June 24th:
Minimum during June-----	51	6-7-18-24-26
Greatest daily range-----	77-51	June 24th:
Total precipitation-----	1.27 inches	
Greatest within 24 hours-----	.29	24th
Days with .01 or more rain-----	15	
Days with Trace-----	14	
Days with no rain-----	1	

Snow may still be seen in the ravines near the summit of Mauna Kea, and was also found in ravines on Mauna Loa June 27th.

Earthquakes: Definite figures unobtainable ^{at} now; but there were about 60 earthquakes during June, only ten of which were sensible. Whether they were the cause, or the effect, of the avalanches in Halemauau I cannot say

June Report -2-

II PERSONNEL: No changes in personnel during June, except that on June 21st and 28th I employed 5 traffic police to handle heavy auto traffic during the visit of the Shriners. June payroll ~~xxxx~~ shows:

Number:	Class:	Work performed:
1	Suprintendent:	Administration, reconnaissance, estimates:
1	Ranger:	Guide and patrol work; sign painting:
2	Laborers:	Guide and trail work:
5	Laborers:	Traffic control: 2 days
3	Laborers:	Mauna Loa investigations: 3 days.

III WORK COMPLETED:

The garage authorized in the original allotment was built during June at a cost of \$160. This has been built semi-portable type, and is erected near Cocketts Trail, and for the present will be occupied by my cantonneer and as a tool shed during the construction of trails and roads in that vicinity. The Volcano Research Association is furnishing a 2000 gallon tank for the privilege of using some of the water for their drilling force. Am mailing you photo of this building.

IV: WORK IN PROGRESS:

I have used my three regular men in brushing out the existing trails, and in making the steeper portions thereof safe. You realize that our earthquakes have loosened up the rocks considerably, and all such loose rocks in or above our trails are being dislodged and rolled down and I have also purchased ropes and chains as an extra safety precaution for the hikers. We have also gathered and burned the loose and dead fern ~~xxxx~~leaves near the roadways, so ~~as~~ as to eliminate any possibility of fire getting a start from matches dropped during the dry season. A great many guide signs have been placed, and we have 40 more painted which will be placed during the first week of July. A great many citizens of the Territory, especially teachers, intend spending a month or so in the Park, and as they are great hikers I wish to have all points of interest, distance signs, and trails, well marked; for to get lost in a country full of earthquake cracks and with no water, is a serious matter.

V: PLANS.

As these trails are perfected, I will extend them to additional points of interest, and will not start any road work until special funds are provided. I have purchased 2000 gallons of crude oil which will be used on the Waldron Ledge Road, which although reasonably firm is becoming somewhat dusty. This will not only hold down the dust, but will greatly retard the growth of weeds and grass.

June Report -3-

POLICIES:

VI: No new policies were inaugurated during June.

VII: COST OF OPERATIONS:

Administration:

Superintendents salary-----	\$220.00	
Supt's expenses and per diem-----	64.70	
Office supplies and furniture-----	25.38	
Telegraph and telephone-----	11.84	
Automobile and supplies-----	154.76	
#Travel (incl March transp requests)--	308.94	
Freight on supplies-----	15.12	\$800.74

Protection: Salaries-----	145.00	145.00
---------------------------	--------	--------

Maintenance: Wages-----	102.50	
Supplies (\$160 crude oil)-----	279.84	
Tools-----	36.05	418.39

Misc: Garage-----	160.00	160.00
-------------------	--------	--------

Total: \$1524.13

\$281.44 is for transportation furnished upon requests issued during March, and is included here in order to make the 1922 report complete.

VIII: OTHER MATTERS OF INTEREST:

The visit of the Shriners was the principal event during June: The first group of 750 arriving on the 21st, and the second group of 450 arriving on the 28th. The first group arrived in 160 automobiles, the second in about 70 cars. All cars were sent toward the crater via the Waldrons Ledge Road, and returned via the Crater Hotel; in this way the narrow portion of our road had only on-way traffic. All this travel was between the hours of 1 and 5pm, and notwithstanding our several sharp curves, the crowd was handled perfectly. Great credit for this is due to the strict enforcement of the traffic rules by the special men loaned me by the County. My three regular men were detailed as guides around the crater during these days.

Nearly two-thirds of these visitors walked entirely around the crater, a distance of nearly two miles at present, and had the novelty of scorching cards and letters in the hot cracks on the west side of the pit, and were given lots of thrills by breaking through the old lava crusts on their way around. "Madame Pele" staged several avalanches for their benefit, and all the Shriners left the Park enthusiastic over the volcano

Accidents: On June 2nd a young soldier returning to camp after visiting the crater, climbed up over the talus just west of Uwekahuma Bluff, but

June Report -4-

upon reaching the top, the edge which had probably been loosened by the recent earthquakes, gave way, and he rolled down along with the rocks. His left arm was broken near the socket, and he suffered a slight fracture at the base of his skull. Was immediately taken to the Hilo Hospital and recently discharged as cured. Whether he suffers any mental effects remains to be seen. I have expressed my appreciation to the Commanding Officer over the way this rescue was handled, and I feel that should any serious accident occur with the Park that I will have a trained body of men at my instant disposal to meet the emergency.

Natural phenomena: The sides of Halemauau continue to fall at intervals, but as the pit does not seem to be filling up it is quite possible that there is still subsidence at the bottom. I estimate the depth as between 900 and 1000 feet. As yet the rim of the crater is too dangerous to get close enough to permit vertical triangulation.

Mauna Loa: On June 25th two soldiers returned from the summit of Mauna Loa and reported live lava in the crater of Mokuowee. This was a matter of intense interest to all, but in order to make sure of it before giving it to the public, I sent three men to the top for special report, Dr Jaggar kindly furnishing field glasses and kodak equipment. These young men returned the afternoon of the 28th, and reported large amounts of steam and fumes arising in the crater, in some instances coming up through reddish colored rock, and this was undoubtedly mistaken by the soldiers as living lava. Now that Kilauea is dormant I am especially anxious to locate another "star feature" for our Park, and for a while Mauna Loa looked like a good bet.

Visitors: During June we had 3225 visitors to our Park.


The Shriner parties furnished 1200 of this number. These Shriners are a live bunch, and all went away satisfied and enthusiastic over what they saw, and I believe the Hawaii National Park will get lots of favorable publicity upon their return to the States.

June will probably be our Banner Month for some time, but I look for a big attendance during August when we are promised two shiploads of people from Los Angeles.

IX: RECEIPTS AND REMITTANCES:

Nothing to report.

Respectfully submitted,


Thomas Boles, Superintendent,
Hawaii National Park.

cc-Mr Albright.

DEPARTMENT OF THE INTERIOR
NATIONAL PARK SERVICE
HAWAII NATIONAL PARK
HONOLULU, HAWAII

Office of the Superintendent,
Volcano House, Hawaii.
June 5th 1922.

Dear Sir:-

The following is my report on the operation of Hawaii National Park during the month of May 1922

I. GENERAL CONDITIONS:

Tourist travel to the Hawaii National Park during May was handled by the bi-weekly trips of the inter-island boats, and three ~~times~~ of the big liners of the Messon Company. No special steamers arrived during the month. The somewhat light travel during the early part of the month was more than offset by the rush of local visitors during the last three days of May while the craters of Maunopuhi and Kilauea were in action.

The concrete highway extending out from Hilo is complete and in use for a distance of 12 miles, and bonds have been sold which will allow the extension of this highway up to the 19th Milepost, or to within 5 miles of the Park Entrance. During the past month the old and macadam portion of this highway has been overhauled, and all the rough places eliminated, but this is only temporary work with a view of making the Shriners' trip enjoyable when they visit our Park June 22nd.

Weather: Weather conditions are better, and although we maintain our "daily drizzle" we have not had any heavy rains. The drizzles keep everything moist, but fail to be of much benefit to our water tanks, and as you know, we depend entirely upon the rainfall for our water supply. Official data as obtained by the Observatory located within ~~a few~~ hundred feet of Park Headquarters, is as follows:

May 1922: Total cloudy days	-----13
Total partly cloudy days	-----18
Total clear	-----None
Mean maximum temperature	----- 64° F
Mean minimum temperature	----- 52° F
Mean for month	----- 58° F
Greatest daily range	----- 20° May 13th.
Maximum temperature during month	----- 71° May 29th
Minimum temperature during month	----- 49; May 7-15-16
Total rainfall during month	-----5.45 inches
Greatest in 24 hours	----- .62 inches May 25:
Number of days showing .01 or more rain	-----29
Other 2 days showed "traces"	
Prevailing wind during month:	Moderate northeast.

May was really a cooler month than was April; our altitude of 4000 feet puts us well above the sea level tropics; blankets required every night.

May Report -2-

Earthquakes: Beginning with May 13th the date on which the lava in Halemauau began to subside, the Hawaii National Park was subjected to a series of seismic spasms, and by the end of the month over 600 shocks had been recorded. Most of these were slight, probably over 100 were sensible, and about 50 rather strong. Nearly all of them came from below Kilauea, but some of the strongest originated from Mauna Loa. Although not destructive to property, the ground is fissured with numerous cracks, varying in width from a mere slit to some 12 inches wide, and of unknown depth and length. Within the crater of Kilauea, especially in the vicinity of Halemauau, the lava is full of deep fissures of various width and length; hot air and gases arise from most of the cracks in the floor of Kilauea, especially from those nearer the fire pit.

Snowfall: The snow has disappeared from the summit of Mauna Loa; and the only snow visible on Mauna Loa are little patches in ravines which I am told retain the snow all during the summer above the 13000 level.

PERSONNEL:

- 1 Superintendent: Administration and general reconnaissance:
- 1 Ranger: Patrol and guide work; sign painting:
- 2 Laborers: Trail repair; patrol and guide work during last half:
- 12 Road workers: County force working under contract: repairing Crater road, and building road to rim of Halemauau.
Equipment: 1 roller, 2 trucks, 1 oiler, and small tools.

III WORK COMPLETED: The main road leading to the volcano has been repaired by County Forces working under contract, for a total distance of 14,000 lin feet beginning at the junction near the Park Entrance. 8000 ft of this work was performed during May, completing their contract.

This same gang has been used under my direction in building a road across the lava of Kilauea to a parking space, the north side of which is within 150 feet of the south rim of the fire pit. This side of the crater seems firm, and I do not think we will lose any of the road, or be endangered by further widening of the crater. This road is 1600 feet long, with parking space to accommodate 50 cars, and can be enlarged if traffic warrants the additional expense. This road is of broken lava, with sand surface, neither rolled or oiled; the county was dubious about allowing their roller to work on this road on account of the possibility of the lava crust breaking, but I have "sounded" all the road and have sledged down the weak places, and have tested the entire road and parking space with a loaded truck giving a total weight of seven tons, insuring the safety of auto traffic.

View points along the rim of Kilauea and Mauna Iki have been cleared off, and rustic fences erected. These seem to be appreciated.

IV: WORK IN PROGRESS: Contract has been awarded for the construction of a portable garage, 14' x 14'; This will be located where Cockett's Trail leaves the Crater Road, and will be occupied by my cantoneer, and used as a tool house during the building of a road over Cockett's Trail. This building will be constructed in panels and can be taken down with a wrench later on, and re-erected where needed. At present I am provided with a stall through the courtesy of the People's Garage, across from my residence.

DOCUMENT CAPTURED AS RECEIVED

May Report -2-

During the past month comparatively little was done on our trails; on account of the dangerous conditions existing around the volcano since May 13th, I have deemed it advisable to use my slight force as guides and guards around the crater in order that the visitors might have a view of the pit without intruding upon the dangerous areas. "DANGER" signs were immediately placed at all threatening points, such signs being renewed whenever the originals fell into the pit with the collapse of the crater walls.

V PLANS:

The County Road Gang is working on the county road extending through the Park, and I intend to use the entire gang a couple of days the early part of June in widening and oiling and rerolling some of the sharper curves on the Crater Road. I have purchased 1000 gallons of crude oil for this purpose.

During the month of June I will reopen Waldron's Ledge Trail, from a point where Cockett's Trail begins, northward along the ledge dividing Kilauea from Kilauea Iki, to a point on the Rim Road about one mile south of the Volcano Hotel; this in connection with Cockett's Trail will make an attractive Hiker Route. Later I will build a spur from this trail, down on to the floor of Kilauea Iki.

VII: POLICIES: My policy in handling the Hawaii National Park is to impress upon the people of these Islands that we have the "Most Wonderful National Park", and that I shall count upon them at all times to aid in its development. The convenience and safety of visitors is paramount. It has been very gratifying to me to hear and read the large number of favorable comments on the way things are being handled here by the National Park Service.

During the month of June a bootlegger operated inside the Park, hiding his wares among fern clusters, and then getting word to his customers as to just where they should search. Upon a wired request to Honolulu a plain clothes man from the Prohibition Office was sent here, and a plan has been evolved whereby further annoyance of this nature will be avoided. I know of nothing which so endangers our Park than does the bootlegger and his wares, and I assure you that this matter will be handled to a satisfactory conclusion.

VII. COST: The Hawaii National Park expense for May is as follows:

Administration:	Salary and per diem-----	\$230.25	
	Furniture and supplies-----	159.93	
	Auto maintenance-----	27.91	
	Quarters-----	54.25	\$472.44
Protection:	Rangers and Guards-----	106.66	106.66
Maintenance:	Labor Park Employees-----	80.00	
	Contract road work-----	2121.95	2201.95
	Total:		\$2781.05

May Report -4-

My office furniture for the past two months has been of the "soap box" type, as the prices quoted me by local dealers seemed rather high, and I thought it worth while to wait until May 26th when the Receiver was to auction off the office furniture of a recently defunct Hilo bank. For \$145.25, at competitive bidding, I obtained a complete set of office furniture of Art Metal construction, which on account of the excessive moisture up here is the only type suitable. This furniture has been in use but a short time and is in perfect condition, and is commensurate with the dignity of the National Park Service, and I doubt if same could be duplicated and delivered for less than \$350

VIII: OTHER MATTERS OF INTEREST:

The Volcano Research Association is drilling a 6" hole near the sulphur bank west of the Volcano Hotel. At a depth of 20 feet a fault was encountered which necessitated their moving north a few feet and starting another hole. They are now down 20 feet and have encountered low pressure steam with a temperature of 205° which is slightly above the local boiling point. They are now in material containing considerable amounts of sulphides of iron and of copper which Dr Jagger says is of great interest to the Association.

The extension of the Volcano Hotel progresses rapidly; they have completed the roof, and have most of the siding in place. They are making every effort to catch all the rainwater possible before the dry season begins. They now have a tank storage of over 500,000 gallons, and are beginning the erection of a new single tank with a capacity of 400,000. Of course the subsidence of Halemauuma is a great disappointment to them, but most of their directors are confident that the fire will soon return, and that the future of their hotel is still good. The beautifying of the grounds continues under the direction of experienced men; the golf course is complete and is fairly well patronized, especially by the visitors from Honolulu. The fee has been fixed at \$1 per day; sun to sun if you wish.

Notwithstanding our "daily drizzle" the health conditions of this place are remarkable. The bracing effect of the air is at once apparent to even the casual visitor. My sympathy goes out to the citizen of Honolulu who spends his good money to visit California when he has the salubrious climate and impressive scenery of the Hawaii National Park right at his doorstep.

Natural phenomena:

On May 1st the lake of lava, with its floating crags, was 60 feet below the rim, but rose slowly at a rate of 2 ft per day, until on May 13th it was only 40 feet from the top. On this date the earthquakes began opening up subterranean vents causing the lava to drain away from the pit; the subsidence at times being as much as one foot per hour, then it would check up for a while only to be started again by another earthquake. This rapid sinking continued until by May 25th a depth of 600 feet was reached; at 2PM of May 26th, the walls of the pit, lacking the support of the liquid lava and loosened by the hundreds of earthquakes, began to collapse into the pit. This is a spectacle which comes but once in a lifetime. I stood on the north rim and watched a section 35 feet thick, 350 feet long, and 100 feet deep, open up like a book and fall bodily into the incandescent lava below; the back of this wedge as well as the newly exposed wall of the

May Report -5-

crater, was red hot, with numerous streams of lava spurting out like blood. This sight, with its rumbling splash and slowly rising cloud of red dust, will remain indelibly impressed upon my memory. Within the next few days the lake of fire disappeared, either draining away through tunnels, or buried by the thundering avalanches, and by the end of the month, Halemauuan instead of being a depression 40 feet deep and 1200 feet across, was but a smoking rumbling chasm 1000 feet deep and nearly 2000 feet across.

The crater of Halemauuan, bereft of its lake of lava, its floating islands, and hissing fountains, and shrouded only in clouds of steam and fitful wisps of sulphur fumes, is today one of the impressive sights of the world, and fills the visitor with feelings of wonder, awe, and reverence.

"Makopuhi" On the evening of May 28th word was received that the Crater of Makopuhi, seven miles east-south-east of Kilauea, was in eruption. Rumor after rumor went forth, each more fantastic than its predecessor, until the people living along the Puna Coast believed that it was but a question of a few hours, or days at most, until their country would be swept by a devastating lava flow similar to the Aiki Flow in 1919. From the press articles of May 29 and 30th you can well imagine their state of excitement. Early next morning I drove my car just beyond Kilauea Iki, and walked over Cockett's Trail examining each crater as I passed to ascertain if any of them were displaying signs of activity, but they had only their usual amount of steam and fumes. Reaching Makopuhi at 10 AM I found the liquid lava spurting from openings in the west wall, and cascading down over the talus for a distance of 500 feet, forming a pool about 500 feet across. Eleven streams had been in action, but during my stay at the crater, 10AM to 3PM only three were in action. Each of these was about ten feet wide and running flowing at a rate of say 6 feet per second. Bluish clouds of sulphur fumes arose from where the streams left the wall, coming out with puffs of gas which at times would send up lava spatters to a height of sixty feet. I attempted to climb down to the "mezzanine" shelf on the east side of the crater, but found the walls so severely shattered by the earthquakes that I returned to the top after having descended a distance of say 100 feet. The earthquakes in this vicinity must have been terrific, as the ground for a mile around the crater is broken open with endless cracks of unknown depth. Most of these fissures are about 3 inches wide, but many in solid rock are 12 inches across. These earthquakes also loosened the rim of the crater, hurling the rocks through the trees growing on the inner slopes of the pit, and stripping them of foliage and bark. The lava streams ceased to flow during the night of May 29th, but the trails continue to throng with eager hikers intent of seeing the remains. I inclose photograph taken from the mezzanine by a Japanese photographer after the flow had stopped; this give an excellent idea of the streams as they were during the early morning of May 29th, but the explosive spatters from the vents, and the several columns of smoke, are lacking.

This crater had been inactive since 1840, and the inner slopes were fairly well covered with scrub timber even down to the bottom of the pit, but the lava streams made quick disposition of same, and the immense amount of flame given off at first was amply excuse for the distant spectators to believe that a real eruption was in progress.

May Report -6-

"Napau" On the night of May 29th a glare was seen to the northeast of Wakaopuhi, and Dr Jagger immediately started his investigation. I did not join this party, and from the reports as to the hardships encountered in reaching the Crater of Napau through three miles of fern vines, I am probably better off physically and mentally. I spent this day at Halemaumau directing the renewal of DANGER signs. The Crater of Napau is one-half across and 150 feet deep. The bottom is comparatively flat, and grown up with moss and bushes. A line of fissures from a recent earthquake extending in a northeasterly direction, passes through the "west" and "north" points of the crater's rim. Lava and gas coming up through these fissures soon built up cones of considerable height (one 100 ft), both inside and outside the crater. Those on the outside continued to pour out streams of lava for some time forming lava cascades over the north rim of the crater. No photographs are obtainable, but guided by Dr Jagger's minute description I made a sketch which the Doctor says gives a very good idea of the local conditions, without the unessential details. In view of Mr Thurston's friendship for our Park I sent my sketches to his paper ("Advertiser") with my compliments.

During the month of May the Hawaii National Park was visited by 2630 persons, the increase over April be accounted for by the big rush of local people on the last three days of the month. Dr Friedlander, Volcanologist from Naples, remained in the Park from May 10th to the end of the month, and has been busy sightseeing and investigating every minute.

IX: RECEIPTS AND REMITTANCES: Nothing to Report.

This report is somewhat lengthy, but May has been a big month for the Hawaii National Park in the way of attendance and publicity. Some disappointment is expressed over the loss of our Lake of Fire, but I am confident that all tourists will be amply repaid for their visit. Madame Pele will surely return, she always does. Unlike Mount Mazama, Kilauea will arise from her ruins, like the fabled phoenix, more glorious than ever. Katmia had "one big day" in June 1912, since which she has become only an field for perennial post-mortems by the National Geographic Society, and Kilauea though dormant, stands forth as the World's Wonderful Volcano.

Respectfully submitted,

Thomas Boles, Superintendent,
Hawaii National Park,
Volcano House, Hawaii.

To the
Honorable Stephen T. Mather,
Director National Park Service,
Washington, D. C.

"Katmia with her Ten Thousand Smokes, has
nothing on Kilauea with her One Thousand Shakes"

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DEPARTMENT OF THE INTERIOR
NATIONAL PARK SERVICE
HAWAII NATIONAL PARK
HONOLULU, HAWAII

Superintendent's Office
Volcano House, Hawaii
May 5th 1922.

Mr. Horace M. Albright,
Field Assistant, National Park Service,
Yellowstone, Wyoming.

Dear Mr Albright:-

While in Washington I received a great many verbal instructions concerning reports, etc., and believe I am to submit to you copies of my monthly report; and assuming such to be the case I inclose the report herewith. If I am in error, I would be glad for you to read my report anyhow, and make such criticism as you think necessary for its improvement.

Am compiling data for making my estimate of the expenditures for 1922-23, and understand that such report is to be made direct to you the latter part of May.

Have not visited the Mauna Loa, or Haleakala sections of the Park, but am spending all my time getting acquainted with the Kilauea section. Intend to make a trip up Mauna Loa the latter part of this month, but do not expect to spend any money except in Kilauea until next year.

With personal regards, I am,

Yours very truly,

Thomas Boles, Supt.,
Hawaii National Park.
Volcano House-Hawaii.

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DEPARTMENT OF THE INTERIOR
NATIONAL PARK SERVICE
HAWAII NATIONAL PARK
HONOLULU, HAWAII

Superintendent's Office:
Volcano House, Hawaii.
May 3rd, 1922.

Dear Sir:-

The following is my report on the operation of Hawaii National Park during the month of April 1922.

I. GENERAL CONDITIONS:

The tourist travel to the Hawaii National Park is intermittent, depending almost entirely upon the steamer traffic between Honolulu and Hilo. The Inter-Island Company makes two round trips each week; and the Matson Line's largest boats spend a day and night at Hilo every two weeks. In addition to the above regular service, the Steamship Hawkeye State, with 160 tourists aboard in charge of Raymond & Whitecomb, stopped over at Hilo on April 3rd and 4th; and a United States Destroyer called on the 25th. Three auto lines, operating heavy cars, handle the visitors from Hilo to the Park and return, over the 30 mile highway. All boats reach Hilo at 8 AM and the tourists take a six hour ride along the east coast of the Island over the Railroad, and then drive to the Park, reaching here about 5 PM. The volcano is first visited after supper, and again by daylight next morning; other nearby points of interest are then visited, and the return trip is made just after dinner, reaching Hilo in time for the 4PM departure of the boats.

The highway between Hilo and the Park Limit is 29 miles long, 11 of which is first class reinforced concrete pavement; the balance is macadam with oiled surface, with a few short stretches of asphalt through particularly wet portions. Pending the setting of the last two miles of concrete the auto traffic was detoured over narrow one-way roads through adjacent canefields, which added somewhat to the discomfort and saturation of the passengers.

WEATHER:

Although we had only two heavy rains during April, we had a drizzle, or fog, or low cloud, nearly every day.

Total cloudy days during April-----	12	
Partly cloudy-----	13	
Clear-----	5	
Mean maximum temperature-----	66.5	F
Mean minimum temperature-----	53.0	F
Mean for April 1922-----	60.0	F
Maximum temperature-----	73.0	April 26th:
Minimum temperature-----	49.0	22nd, 23rd, 24th:
Greatest daily range-----	73° to 52°	April 26th:

April Report: -2-

Total rainfall for month-----9.38 inches
 Greatest in 24 hours-----2.40 " April 7th
 Number of days .01 or more rain----23
 (Other two days showed Trace)
 Prevailing wind during April; Light northeast:

The above data is as recorded at the Observatory located within 1000 ft of the Park Headquarters; the conditions in the Kau Desert portion of this Park are quite different, and would probably show only half as much rain, and a general average temperature 5° higher. Although the Hawaii National Park is in the tropics, our altitude of 4000 feet above sea level gives us comparatively cool weather.

Earthquakes: On April 25th we had an earthquake shock at 4:07 AM, and another at 11:38 AM Both slight, but noticeable.

Snowfall: The snow on the summit of Mauna Loa has nearly disappeared, but Mauna Kea about 32 miles north of us and of about the same altitude remains covered down to the 6000 ft contour. As the difference in latitude and altitude is slight, it is probable that the internal heat of Mauna Loa hastens the melting of the snow on that mountain.

II: PERSONNEL:

1. Superintendent: Administration, and general reconnaissance of Park.
1. Ranger: Patrol work; trail repair; sign painting;
2. Laborers: Road drainage and repair: (Waldron Lodge Road)
- 15: Road workers: County forces; working under contract on Crater Road
 [1 heavy roller, 2 trucks, 1 oiler]

III: WORK COMPLETED:

Nothing to report:

IV. WORK IN PROGRESS:

The Road Gang of the County of Hawaii, working under contract for the Hawaii National Park, up to April 30th had performed the following work on the road between the Crater Hotel and Halemauuan Crater:

Road repaired-----8000 lin ft
 Road rolled-----8000
 Sand distributed-----6000
 Oil applied-----6000
 Road rerolled-----6000

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April Report -3-

By two laborers were used during the entire month at repairing and draining the road over Waldron's Ledge, on the northeast rim of the Crater of Kilauea. As soon as the rains cease I will divert all the auto traffic between the Volcano Hotel and Halemaumau over this road on account of the impressive view it furnishes of the crater of Kilauea from the top of the 600 foot cliff. Three view-points have been selected, and cleared of brush and levelled off and provided with railing. The one at Pali Aloha is finished and has been given considerable favorable comment.

V. PLANS AND PROPOSED WORK:

The Crater Trail, extending from the Volcano Hotel to Halemaumau across the black lava of Kilauea a distance of three miles, is in fair state of repair, and well marked across the lava; however I find it advisable to re-locate about 600 feet of this trail at the lower edge of the bluff in order to dispense with a particularly rough portion which is subject to much scouring.

A large percentage of our visitors are elderly persons, and it is quite a hardship for them to walk over the half-mile of rough lava between the present end of the Crater Road and the edge of Halemaumau, especially at night; I have therefore made surveys and find that I can build a road over the lava which will enable cars to park within 100 yards of the crater; this road would of course be regarded as temporary, and will be built quite narrow, and with but fair surface and alignment, but with ample turning and parking space at the upper end. I am very anxious to have this complete by the latter part of June, as the visit of the Shriners is expected to be a big event for the Hawaiian Islands, both here and at Honolulu, and I want the Park to be ready for them.

VI: POLICIES:

The letter from Secretary Lane to Director Mather dated May 13th 1918 will govern the policies of the Hawaii National Park. During the four days I spent in Honolulu, during which I met hundreds of people, it was a great pleasure for me to learn how much real interest and pride these people over here have in our Park, and how willing and anxious they are to assist in the development. I have made note of all their suggestions, especially as to the location of what they regard as points of interest, but will give great weight to the opinions of Mr Thurston and Mr Jaggard.

VII: COST:

The total expenditures during the month of April in connection with the operation and maintenance of the Park are as follows:

Administration-----	\$345.18	
Protection-----	80.00	
Maintenance-----	1393.85	\$1819.03

VIII: OTHER MATTERS OF INTEREST:

The Hawaiian Volcano Research Association has completed an earthquake-proof-fireproof building just north of the Observatory, which is to be used as a Record Storage, and for a small museum.

April Report -4-

Hotel Improvement: The Kilauea Volcano Hotel Co has made considerable improvement and additions to the Volcano House, and is now starting the construction of a 38 room addition to the east end of the hotel. This will give the Hotel 101 rooms, 10 of which have private bath. This includes the three cottages. A landscape engineer from Honolulu has been directing the improvement of the grounds just in front of the Hotel. The Hotel Company is also making an excellent golf course just outside of the Park Limits, near the tree moulds. The Instructor of the Honolulu Club outlined the course, and some ~~25000~~ Seven Hundred Dollars will be spent in the improvement of tees and greens. This course will be free to guests of the Hotel, and to others there will be a small fee, just sufficient to cover the expense of a keeper of the grounds, probably 50 cts per game. The Hotel Company is making a strong effort to divert Honolulu people to the Park for their summers, instead of to the Coast; and several citizens of Honolulu who spent time here during April are enthusiastic over the bracing air and our cool nights.

Park features: The Pit of Halemauau is of course the feature of this Park, but the seven craters, four of which are steaming, along Cockett's Trail, are to me nearly as impressive.

When I arrived at the Park April 2nd the lake of lava was 175 feet below the rim, and it has slowly risen until it is now but 60 feet down. It is rising at the rate of 1.3 feet per day, and we are all hoping that by the time the 2000 Shriners arrive it will be right at the top, or possibly overflowing. The striking feature of the pit just now is the floating crag which towers 115 feet above the surface of the lake. The spectacle of an island of solid rock floating impresses all.

During the month of April the Park was visited by 2223 persons, among whom were the following persons of note:

Governor Farrington of the Territory of Hawaii;
 Professor Hannes, of Harvard University;
 Princess Rhoda Aiteresko, of Roumania.,
 Miss Mary Miles Minter, movie star.
 Charles Faddock, Champion sprinter of the world.

IX ~~OTHER MATTERS~~ RECEIPTS AND REMITTANCES: Nothing to report.

Respectfully submitted,

To
 Hon. Stephen Mather, Director,
 National Park Service,
 Washington, D. C.

Thomas Boles, Superintendent;
 Hawaii National Park,
 Volcano House, Hawaii.

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C. J. ...

April 8, 1922.

The Director,
National Park Service,
Washington, D. C.

Dear Sir:

Report is herewith submitted on conditions obtaining and progress of work being carried on in the Kilauea Section of the Hawaii National Park during the month of March, 1922.

I. GENERAL CONDITIONS:

During March there were four clear, ten partly cloudy, and seventeen cloudy days. The average temperature being as follows:

Mean Maximum	63.87
" Minimum	51.53
Mean for the Month	57.70

The rainfall for the month was 28.13 inches; the greatest rainfall for 24 hours being 7 inches, March 9th, with the exception of three days when the wind came from the Southwest and two calm days when the prevailing wind was from the Northeast.

The above data pertains to the Park Section in the vicinity of the Volcano House, which is at an elevation of 4,000 feet and at the mauka end of the Park area. Three or four miles to the South, the conditions are entirely different; very little rainfall and the climate is much warmer.

Earthquakes:

On March 12th, at 2:33 P.M. and 4:55 P.M. and on March 27th, at 3:24 A.M., earthquakes occurred, which were strong enough to shake the buildings.

Snow on the Mountains:

During the month, considerable snow fell on Mauna Loa and Mauna Kea; both mountains being covered with snow reaching down to the 10,000 foot level.

2.

II. PERSONNEL:

<u>No.</u>	<u>Class</u>	<u>Kind of Work Performed</u>
1	Superintendent (Acting)	General Park Administration (practically during the whole month).
1	Ranger (Permanent)	Patrol duty; repairing trails; painting signs.
2	Laborers	Road and trail repairs, (March 15 to 31).

III. . WORK COMPLETED:

Nothing to report.

IV. WORK IN PROGRESS:

Repairs to the Crater road were begun on March 6th and continued throughout the month, except when the rains were such as to prevent work being done. On March 31st, the filling of chuck holes, resurfacing, and rolling of the road had almost reached to the Twin Craters. The rains prevented any oiling being done.

Work was started on the Volcano House road to the pit trail; also on the road from the Volcano House around past Waldron's Lodge and Kilauea iki. This is a section of the original wagon road from the Volcano House to Halemaumau.

Miscellaneous:

The Kilauea Volcano Hotel Company has continued to improve their buildings and grounds. A new garage shed has been added to the old one, giving space for about 25 cars. In front of the hotel, an elaborate plan for parking the ground is being carried out.

The Hawaiian Volcano Research Association is erecting a new building to be used for storage and a museum.

V. PLANS AND PROPOSED WORK:

Plans for immediate improvements have been left with the new Superintendent.

VI. POLICIES:

The policy of cooperation was encouraged and every opportunity was taken to tell the people who are serving the public that the welfare of the visitors must be considered before everything else.

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VII. COST OF OPERATION:

Total expenditures in connection with the maintenance and operation during the month were as follows:

Administration.....	421.09
Protection.....	80.00
Maintenance.....	84.43
	<hr/>
	585.52

VIII. OTHER MATTERS OF INTEREST:

Nothing to report.

IX. RECEIPTS AND REMITTANCES:

Nothing to report.

Yours very truly,

A. O. BURKLAND,
Acting Superintendent,
Hawaii National Park.

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10-23
(June 1941)

UNITED STATES
DEPARTMENT OF THE INTERIOR
NATIONAL PARK SERVICE

..... NATIONAL PARK

FILE NO.

IMPORTANT

This file constitutes a part of the official records of the National Park Service and should not be separated or papers withdrawn without express authority of the official in charge. All Files should be returned promptly to the File Room. Officials and employees will be held responsible for failure to observe these rules, which are necessary to protect the integrity of the official records.

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10-23

DEPARTMENT OF THE INTERIOR
NATIONAL PARK SERVICE
HAWAII NATIONAL PARK

FILE NO.

MONTHLY REPORTS

FISCAL YEAR 1927

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10-23

DEPARTMENT OF THE INTERIOR
NATIONAL PARK SERVICE
HAWAII NATIONAL PARK

FILE NO.

MONTHLY REPORTS

FISCAL YEAR 1927

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UNITED STATES
DEPARTMENT OF THE INTERIOR
NATIONAL PARK SERVICE
HAWAII NATIONAL PARK
VOLCANO HOUSE, HAWAII

OFFICE OF THE SUPERINTENDENT
Evans.

July 9, 1927

Mr. Stephen T. Mather, Director,
National Park Service,
Department of the Interior,
Washington, D. C.

Dear Sir:-

The following report on the operation and activities of the Hawaii National Park during the month of June 1927, is submitted for your information and approval:

+ one spec. more
OOO GENERAL:

The final week of the island schools added a new reason for the retardation of travel to the park. It picked up immediately after the 10th., and reached the high tide for the month when the new liner "City of Honolulu" brought about 200 visitors on the 14th.

121 - 127 PARK INSPECTIONS:

On two trips to The Footprints and Mauna Iki as guide to special parties the superintendent was distressed to note a marked deterioration in the footprints. Made by the ill-fated soldiers of King Keoua in two separate layers of cement-like ash which fell in the explosive eruption of 1790, they have resisted the elements successfully, but are yielding to the tramp of modern feet. As they combine with the red-hot spots on Mauna Iki to make a worth while half day's excursion from Volcano House they deserve protection even though it be necessary to extend the park boundary by the addition of one or two square miles and to erect three small glass shelters.

Recommendation to follow:

125 - The monthly inspection on the 30th., of the Chain Craters Road by Bureau of Public Roads Engineer E. S. Wheeler resulted in the decision that the guard-wall at the Devil's Throat be augmented by a platform to project 10 feet over the pit so that visitors might safely see into this abyss.

Recommendation to follow:

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127a - On the 29th., an inspection was made with Albert Judd and George Collins, trustees of the Bishop Estate, of the park line between the Volcano House and the Military Camp, where applications are being pressed for purchase of home sites. As the park boundary follows an earthquake crack at the foot of the cliff as many as 10 private houses may be built within a few feet of the line and overlooking many square miles of the park.

This seems undesirable. Also it will soon result in the clearing off of a dense native forest including the Fern Forest, which even now proves a great attraction to hotel guests who may have only an hour to devote to a short excursion.

Recommendation for park extension to follow:

127b - Mr. Frank C. Atherton and Mr. A. G. Budge, directors of the Kilauea Volcano House Company, after inspecting the new hotel site at Kailua in Kona, visited the Kilauea Summer Camp on the 26th.

220 IMPROVEMENTS:

In order to expedite the work of effacing the old Lima garage from the main road and of completing the new garage on the park residence road nine additional laborers were employed for one and two days, respectively, running the number of man-days for the month to 122. The Crater Road was repaired and a new trail was built from the Summer Camp down through the pali to the lava floor, of 3 foot width, 16 per cent grade and length of 1800 feet.

230 RANGER COTTAGE:

Theo. H. Davies & Co., Ltd., sent a force of carpenters to begin the construction of the ranger cottage on the 20th. The cottage and water-tank were so far finished on the 30th., as to easily comply with the terms of the contract, allowing 12 working days. Summer ranger Robert I. Baldwin awaits the drying of the paint and the catchment of water in the tank to take possession with his family.

240 APPROACH ROAD:

With the elimination of the detour through the Olua Summer Lots Settlement on June 4th., the worst feature of the reconstruction of the Hilo - Volcano Road was definitely passed. During the month 6324 feet of concrete surfacing was laid, as much as 294 feet being put down on the 20th., 21st., and several other days. One thousand feet sections of finished road were opened to travel on the 4th., 11th., 18., and 25th.

June Report - 3

317 CHAIN - OF - CRATERS ROAD:

B.F.R. Engineer E. J. McCracken's report for the month of June is abstracted as follows:

"Although handicapped by the shortage of men construction work progressed satisfactorily, reaching to Station #30 which is at the Under Cone beyond the Devil's Throat. A small sub-contractor outfit did some work at Station 266 near the junction of the Kalapana Trail.

The gravel pit bunker was constructed and in two weeks as soon as the rough grading can be put in shape the surfacing with gravel will start.

The estimate for the month:

# 1	Clearing and grubbing	--	8.8% of \$3,500	\$ 307.98
# 3	Excavation	--	4132 cu.yds. at 2.25	9,297.00
# 8	Overhaul	--	196 sta.yds. at .25	49.00
# 45	Guard-rail	---	20.4 cu.yds. at .17	346.60
				<u>\$ 10,000.78</u>
			Less 10% retained	<u>1,000.08</u>
			Probable amount of voucher	\$ 9,000.70 "

323 TERRITORIAL AIR-PORT:

The preparation of an air-port in the park was given emphasis by the landing in Honolulu at 6:29 A.M. June 29th., of Lieutenants Maitland and Hegenberger, U. S. Army. They flew from Oakland, Calif., distant 2,098 miles, in 25 hours 38 minutes.

322 KILAUEA MILITARY CAMP:

On 10th., construction was begun on new bath-house for officers to cost \$190.

On 25th., Maj. Aleshire, Dept. Inspector, made his yearly inspection; and 5 soldiers set out for Mauna Loa, returning on 29th.

341 HILO CHAMBER OF COMMERCE:

Acting upon a communication from Colonel R. M. Schofield, chairman of the Fair Commission of Hawaii, Judge Harry Irwin, president of the Hilo Chamber of Commerce, appointed the superintendent chairman of a committee to handle Hawaii County's exhibit at the Territorial Fair in Honolulu August 27 to September 5. The exhibit is to feature the Kilauea Volcano district as the Big Island's masterpiece and the Park Service and Observatory will collaborate.

The seed of this enterprise was sown at the Pan-Pacific Conference and a model of the volcano by Ansel Hall is wanted, the Chamber appropriating \$125. Such a model as a permanent exhibit in Honolulu is recommended. It should reach Honolulu not later than August 24th.

410 RANGER SERVICE:

On the 15th., Robert I. Baldwin, instructor of Physics and Social Economics in the Hilo High School, entered upon duty as temporary ranger for the vacation period.

420 MUSEUM SERVICE:

On the 25th., Professor Paul Kirkpatrick of Hawaii University, reported for duty under the Volcano Research Association as curator of Uwekahuna Observatory. He was to become a park ranger-naturalist on July 1st., and instruct visitors during the summer months with lectures, moving pictures, nature hikes, etc.

480 NATURAL PHENOMENA:

The night of the 14th., with the "City of Honolulu" crowd at the hotel, was made memorable by a complete eclipse of the moon in a cloudless sky.

About 1:30 A.M. on the 6th., several people in the vicinity of the volcano were awakened by a noise seemingly produced by a concussion. A very feeble tremor which was recorded on the seismograph at 1:29 could not account for it, nor could investigation reveal a powder blast at that hour on one of the roads under construction. A meteor was guessed by some to be the cause.

The last week in June activity at Halemauauu was limited to occasional avalanching and the slight widening of cracks along the east and north edges. In view of subsequent events the Volcano Letter of June 29th., is appended.

Post Script: Preceded by a slight tremor at 12:32 lava quietly reappeared in the pit about 1 A.M. July 7. Four major fountains illuminated the pit and the sky above it. The night watchman at the hotel discovered the glow and quickly spread the alarm. Before 2 o'clock one or two hundred people were on the scene.

510 TRAVEL:

Until the closing of the island schools on the 10th., travel to the park almost disappeared. The Summer Camp received its first guest on the 10th., Mr. M. J. Scully, of Hilo. The Volcano House was revived by the coming of the new Los Angeles steamship "The City of Honolulu" on the 14th., which registered the banner crowd of the month - 229. Some 40 members of the Los Angeles Chamber of Commerce came as the 10th., annual tour of the Chamber to Hawaii under the leadership of Charles P. Bayer, field secretary. Hilo celebrated the arrival of the new liner by special entertainments for the passengers. At the Volcano House the evening's entertainment was opened by an address of welcome by the superintendent and Mr. L. W. de Vis Horton lectured on the volcanic history of the park.

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June Report - 5

Tactical maneuvers at Fort Schofield held down to a minimum the arrivals of soldiers at the Kilauea Military Recreation Camp.

The tally for June is not a fair measure of the use of the park for it takes no count of the twenty-odd hotel guests come to stay for periods of two to four weeks nor of the semi-permanent occupants of the private homes within the park.

On the 20th., Mr. F. T. Boaty of Redondo Beach, Calif., entered the park as the first really genuine auto tourist. He sampled all the camp grounds.

Registered visitors came from 22 states and 10 foreign countries.

Volcano House Guests	814
Summer Camp Guests	17
Arrivals at Kilauea Military Camp	82
Autoists, part of day, estimated	1045
To Haleakala Section, estimated	30
Total for June	1986
Total for this "park year" to date	19,013

520 WEATHER CONDITIONS:

Clear breezy weather, reminiscent of California's best, characterized the month, with occasional light rains and mists as welcome variations.

Maximum temperature -- on 11th.	89
Minimum " -- " 10th.	46
Number of days without precipitation	11
Rainiest day 3rd.	1.00 inch
Rainfall for month of June	3.77 "
Total rainfall since January 1, 1927	45.94 "
Rainfall for same period last year	16.04 "
Rainfall at Hilo since January 1, 1927	69.00 "

540 VISITORS:

- Ralph J. Chandler, Los Angeles. Manager L.A.S.S.Co., on 14th.
- Commander Silvio Scaroni, Italian aviator, on 12th.
- D. L. Crawford, President Hawaii University, 11th., - 20th.

640 GOATS:

A goat drive was made on the 10th., by 25 cowboys and six observers, under the direction of Territorial Forester Charles S. Judd. Starting in the vicinity of the Ainahou Ranch the drive terminated at Apua Point on the coast, covering lands east of the park. About 900 animals were gathered for slaughter. The cowboys reported that 5000 or more escaped into the kipukas extending westward into the park. It was agreed that the next drive, perhaps in December, should encompass this herd.

Very respectfully yours,

R. J. Evans
Superintendent.

cc to Mr. Albright, Asst. Director, (Field)
Yellowstone Park, Wyoming.

Please send publications and news notes about volcanic matters
Address: HAWAIIAN VOLCANO OBSERVATORY, VOLCANO HOUSE, P. O., HAWAII

THE VOLCANO LETTER

A Weekly news leaflet of the Hawaiian Volcano Research Association

Sent free to libraries and to members. Dues of Association \$5 per annum. Members receive in addition the Illustrated Monthly Bulletin of the Hawaiian Volcano Observatory. Anyone may join the Association and thereby support Pacific volcano research. The society has also patrons—individuals, firms and institutions.

No. 131

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June 30, 1927

KILAUEA REPORT No. 807

WEEK ENDING JUNE 29, 1927

Section of Volcanology, U. S. Geological Survey:
R. M. Wilson, Temporarily in Charge

The working of the walls of Halemaumau pit has continued this week, though not so actively as last week. Several small slides have occurred, and one large slide was seen at the southwest at 3 p. m. on June 26. Red dirt lies thickly on the north debris slope and at the foot of the northern and western walls. Steaming is very moderate at all the vents.

A circuit of the pit was made on June 25. At this time it was noted that the cracks back of the north and northeast rims seem to have the greater movement. One of the larger northeast cracks is very hot, but not steaming. The freshness of some of the smaller cracks give the ground a very unstable appearance. The top of a prominent pinnacle which overhung the northeast rim has slid off. This must have occurred on June 21, when there were some large avalanches on that side.

There have been only nine very feeble local earthquakes recorded during the week ending June 29. Of these, four were on June 24, and on the 23rd, 27th, and 28th there were none. Tilt has accumulated moderately NNE, apparently continuing its normal annual course.

CYCLICAL VOLCANIC ACTIVITY

Among the questions now most frequently asked by visitors at Kilauea are: "Is the volcano dead?" and "When will the next eruption be?" The Volcano of Kilauea is not dead. The second question is not so easily disposed of, as the principles involved in trying to answer it are most complicated and intricate. To be able to predict earthquakes and volcanic eruptions has long been the aim of seismology and volcanology (see "Predicting Earthquakes," by T. A. Jaggard, in Scribner's Magazine, October, 1924). The lines of reasoning that have seemed most often to hit the mark are, first, to learn through local history the habits of the area in question, and second, to observe and correlate current symptoms and phenomena. The earth's forces slowly accumulate stresses that are deep beneath the surface, of which the indications are difficult to observe. Periodicity is a good hand-hold for prediction, particularly in dealing with volcanic eruptions.

The "Second Report of the Hawaiian Volcano Observatory," by Harry O. Wood, published in 1917 by the Massachusetts Institute of Technology, sets forth in considerable detail the "Cyclical Variations in Eruption at Kilauea." Here the habits and history of activity of the volcano have been systematically studied. A great number of natural phenomena have definite periods; cycles of similar action repeated again and again. Most familiar to us are day and night, summer and winter, high and low tides. Volcanic activity is probably the result of a combination of causes, many of which are of periodic nature. Tides are caused in the waters of the ocean by the gravitational attraction of the sun and moon. In the earth's stiff crust stresses are set up to resist these deforming attractions, in spite of which a slight tide also exists in the solid earth. These earth stresses and tides doubtless affect volcanic action, and have seasons of greater intensity just as the ocean has spring tides. If

the action of a volcano depended upon only one such simple periodic cause, it would perhaps erupt with perfect regularity. But there are probably many causes, some orderly and periodic and some irregular, few of them well understood, and it is the combined result of them all that is reflected in volcanic action. Cycles of gas pressure accumulation and release, of chemical reaction, and of geyser-like action in slow subterranean flow of viscous magma; slow changes due to isostatic adjustment; accidental effects as choking of vents, or draining off of lava through newly formed earthquake cracks; these are some other suggested causes. Periodic effects combined, in general, yield a periodic resultant with a cycle long in time, as only occasionally will the individual effects work together in harmony. Thus if observations are studied over a considerable length of time, and periodicity is discovered, periods of equal time may be projected into the future as a basis for forecasting.

Tidal effects, semi-monthly and semi-annual in period, are to be expected, and appear to have been recognized in observation. Thus Mr. Wood suggests that early summer and winter are times favorable to eruption, while early spring and fall induce quiet. An effect having a seven-year period seems to exist, perhaps being correlated with latitude variations (see Volcano Letter No. 129, June 16, 1927). The combined resultant of these and other periodic effects has been estimated to have a cycle 130 years long; a result derived by independent investigators, and apparently justified by observation.

The history of Kilauea reveals other quiet periods like the present one. Old residents here remember the relatively dormant period between 1894 and 1907, when people were asking then, just as they are now, "Is the volcano dead?" Could they have then foreseen the high lava activity of 1920, and the explosions of 1924, the question would have seemed ridiculous. The present quiet phase is but part of the cycle of the volcano; history repeating itself. As time goes on, a longer recorded history will be available for the study of periodicity; the symptoms of accumulative and accidental effects will become better understood; causes will be recognized, and forecasting will rest on a firmer foundation. R.M.W.

ALEUTIAN STATION NOTES

From Alaska, Dr. Jaggard reports favorable weather and convenient transportation. The cooperation of other Government Departments, and of individuals, is making a success of his reconnaissance (see Volcano Letter No. 128, June 9, 1927). His trip is covering the Aleutian Islands and the Alaskan Peninsula as thoroughly as may be in the time at his disposal, both by land and water. The Coast Guard cutter takes him to Attu and to the Pribilof Islands, arrangements have been made to go to the far west Aleutian Islands. He will go around Pavlof Bay by power boat, and expects to explore Pavlof Volcano. He has been into Bristol Bay and back to False Pass. It is expected that a second seismograph will be installed at Unalaska. R.M.W.

52,000 words of volcanic information if you save and bind the Volcano Letter
Hawaiian Time is 10h. 30m. slower than Greenwich

Lava returned at 1 A.M. July 7, 1927

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UNITED STATES
DEPARTMENT OF THE INTERIOR
NATIONAL PARK SERVICE
HAWAII NATIONAL PARK
VOLCANO HOUSE, HAWAII

OFFICE OF THE SUPERINTENDENT

June 8, 1927

Mr. Stephen T. Mather, Director,
National Park Service,
Department of the Interior,
Washington, D. C.

Dear Sir:-

The following report on the operation and activities of the Hawaii National Park during the month of May 1927, is submitted for Your information and approval:

000 GENERAL:

The month of May was strikingly similar to April in respect to the weather, volume of Hawaiian steamer travel, condition of approach roads and undisturbed dormancy of the two volcanoes.

121 - 125 PARK INSPECTIONS:

The superintendent made weekly trips over the new Chain - Craters road where work was in progress. On the 14th., he investigated and approved the proposed site south-east of Puu Huluhulu for a second road camp. Construction of a barracks and water-tank was begun at once so as to collect water for future use. It is a section of light rainfall.

Several trips were made into the area south of the road to locate a source of gravel for the top dressing, of which 10,000 cubic yards will be needed. The proper material was found $\frac{1}{2}$ miles southwest of the second crater on the edge of the wash selected as an aviation field. Though it would require no screening it existed in a thin blanket of a few inches thickness and could be hauled to the road only over a specially built road of $\frac{1}{2}$ miles length. It was hoped that the contractor would be willing to build this service road which could later at little expense be made to serve the aviation field. But in the end he evoked a clause in his contract permitting him to obtain the necessary gravel from the vicinity of the Crater Road, about $\frac{1}{2}$ mile south-east of Halemaunaa where the gravel layer is 3 feet thick. It will require screening.

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On the inspection trip with Bureau of Public Roads Senior Engineer E. S. Wheeler on the 25th., it was decided to recommend that the type ton guard rail as carried in the contract be retained for the edges of the craters instead of the staggered boulder type as suggested by Mr. Hull in January. Wheeler had not been advised of the suggested change through his bureau, sizable boulders were scarce, separate quarrying outside the road prism would be necessary to produce them, and the contractor estimated a price of \$ 1.95 per linear foot against \$1.80 for the cement rubble wall.

220 IMPROVEMENTS:

Three additional laborers were enrolled on the 2nd., increasing the man-days of labor to 133½ for the month. The major operations were: building 555 feet of 16 foot roadway to serve the residence section for the park personnel; the wrecking of the old Mana garage which stood as an eyesore on the main road; the erection out of the salvaged material of a new garage on the new road, 52 feet long and 18 feet wide, containing stalls for four cars, a closed room at each end and a water tank.

These operations are a part of Mr. Hull's plan of development.

230 RANGER COTTAGE:

Bids were opened on the 31st., for the ranger cottage and water-tank, for which appropriations of \$1,500 and \$250 were made for the 1928 fiscal year. As the cottage is sorely needed to accommodate a summer ranger it is gratifying to note that one bid is low enough to permit construction. A four room and bath cottage will be complete as painting, plumbing and electric wiring are included in the bids.

Thos. H. Davies & Co., Ltd.	\$ 1,490.35	cottage;	\$186.67	tank
B. S. Fujimoto	1,544.02	"	207.63	"
Gooc Fong, for American Factors	1,690.00	"	251.00	"

240 APPROACH ROAD:

The Hawaiian Contracting Company, with all equipment functioning, extended the 6 inch by 16 feet concrete paving a distance of 5000 feet during May, which added to the 3,150 feet done in April, equals 8,150 feet in all. The first section of completed paving was thrown open to traffic on May 10 th., a stretch of 2,000 feet eastward from the park line. A second section of 1,800 feet was opened on the 14th.. Traffic was obliged to detour for 1½ miles through the Olan Summer Lots Settlement and until much work was done on it this unimproved road was almost impassable.

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317 CHAIN-OF-CRATERS ROAD:

Charles H. Will, contractor, maintaining an average force of 85 men and adding 3 air compressors and 2 jack-hammers to his equipment, made satisfactory progress with the construction, which is inspected once a week by the park superintendent and daily by Bureau of Public Roads Engineer E. J. McCracken, who reports in part as follows:

"On May 31st., rough grading was about completed to station 65, or about 1 1/2 miles from the start, with other work extending continuously to station 95.

Total estimate for work to date:		
Clearing and grubbing	29.2% of \$3,500	\$ 1,022.02
Excavation	8208 cu.yds. at \$2.25	18,468.00
Borrow	144 " " " 2.10	302.40
Overhaul	1636 Sta." " .25	409.00
Amount earned for April and May		\$ 20,201.42

Following the receipt of a radio that Mr. Will's contract bond had been approved a check in his favor was drawn on the 26th., for \$8,351.39, the first payment on his contract and covering work done in April.

321 HAWAIIAN VOLCANO OBSERVATORY:

Mr. R. M. Wilson of the U. S. Geological Survey, who is temporarily in charge during the absence of Dr. Jagger in Alaska, devoted the greater part of the month to rerunning the levels in the vicinity of the crater which were run in 1912 and again in 1920, for the purpose of determining the degree of vertical earth movements in the last 7 years.

322 KILAUEA MILITARY CAMP:

Captain Block, who has been notified that he is to be retained as commandant for another year, began the following improvements: on the 17th., a new garage for officer's cars, to cost \$200; on the 20th., a two family cottage for non commissioned officers, \$600; on the 28th., a new bath house for officers, \$190.

In the Navy Recreation Camp section Capt. H. W. Gamble, U.S.N.C., Post Quartermaster at Pearl Harbor arrived on the 19th., to hurry the completion of the two family cottage for officers. It is a better type structure and is to be insured against fire and earthquake for \$1,500.

330 KILAUEA VOLCANO HOUSE:

The little used fireplace was removed from the dining-room for installation in the assembly room of the Summer Camp; and two old water-tanks in the rear, of 10,000 and 80,000 gallons respectively, were replaced with new ones.

May Report - 4

331 KILAUEA SUMMER CAMP:

Early in the month the decision was made to operate this new camp not on a house-keeping plan but as a hotel on the American plan at \$3.00 per day.

Mrs. M. J. Woolsey arrived on the 16th., to take charge as manager.

To be ready for guests on June 1 a fireplace was installed in the assembly room, a porch was added to the top of the main entrance stairway, toilets were relocated and two more added, an inside toilet was placed in the central building, a second one beneath it with rooms for a cook and a boy, and the buildings were all stained and the trimmings painted.

It is planned to build four shower-baths, two beneath each of the large tanks.

These improvements originally suggested by Mr. Hall, have loomed up as necessities.

340 TERRITORIAL LEGISLATION:

The Legislature adjourned on the 3rd., without providing for the Kalapana Road for which \$175,000 had been asked for the purpose of joining our Chain Craters Road. Dr. Jagger's 7% road up the side of the Alike Flow in Kona to the source of so many lava flows on the south slope of Mauna Loa, estimated to cost \$40,000, was also lost. It is stated that the County of Oahu, which pays about $\frac{1}{2}$ of the taxes, caused the defeat of these two Loan Fund projects on Hawaii by demanding a larger share of improvements for itself.

However, \$60,000 was appropriated for the reconstruction of the west approach road from the Half Way House towards the Park line. The type of road will be 4 inch asphalt macadam 10 feet wide with 3 foot shoulders. It is thought that enough county funds will be secured in addition to the \$60,000 to enable the construction of the entire 4 miles, and by January 1, 1929.

510 TRAVEL:

May started off like a record-breaker with 986 visitors the very first week. The Round the World S. S. Resolute brought 385 on the 2nd., the S. S. City of Los Angeles 115 on the 3rd., the S. S. Maui 33 on the 6th., and 110 soldiers came to the Military Recreation Camp on the 4th., for a rest period of ten days.

On the 12th., 90 delegates of the Young Ladies Institute and Young Mens Institute, mostly from Los Angeles on a pilgrimage in honor of the centennial of the coming to the islands of the first Catholic missionary, Father Bachelot, came on the specially chartered S.S. Haleakala.

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May Report - 5

These were the high lights for the month as the detours on the Hilo-Volcano road continued to discourage island travel and the beginning of spring tactical maneuvers at Schofield Barracks practically stopped the coming of soldiers after the second week. Nineteen states and 6 foreign countries were represented by the visitors during May:-

Volcano House guests	1,016
Arrivals at Kilauea Military Camp	247
Autoists, part of day, estimated	1,035
To Haleakala Section	<u>25</u>
Total for May	2,325
Total for 8 months beginning October 1, 1926, (October, November & December estimated only)	17,025.

520 WEATHER CONDITIONS:

May was a repetition of April in frequency of light showers.

Maximum temperature	20th.,	85
Minimum temperature	1st., 6th., 11th., 12th., 27th.,	51
Number of days without precipitation		4
Rainiest day	7th.,	0.69 inches
Rainfall for month of May		6.37 "
Total rainfall since January 1, 1927		42.17 "
Rainfall for same period last year		12.44 "
Rainfall at Hilo since January 1, 1927		52.38 "

540 VISITORS:

- Fred Ritter, friend of Mr. Mather, of Los Angeles, on 3rd.
- Col. P. M. Smoot, Adjutant General of Territory, on 10th.,
(to establish air-port in park.)
- Col. and Mrs. A. G. Lott, Dept. Chief of Staff, on 16th.,
- Congressman and Mrs. C. F. Lea, of California, on 20th.,
- Dr. David Snedden, of Columbia University, on 25th.,
- Mr. and Mrs. George P. Castle, of Honolulu, on 20th.,

650. SIGNS:

The first of the new type 8 bull's-eye reflector road-signs were set up on the highway one on either side of the sharp curve in front of the Volcano House, on the 27th. The remaining ten new signs will be set up shortly, most of them on the Crater Road.

May Report - 6

900 MISCELLANEOUS:

Soldiers Herman E. Stelling, E. Utgenant and Swinson made the climb to the summit of Mamma Lea on the 18 - 20, a strenuous trip that is not made very often.

Very respectfully yours,

R. T. Evans

R. T. Evans,
Superintendent.

cc to Mr. Albright,
Assistant Director (Field)
Yellowstone National Park
Yellowstone Park, Wyoming.

UNITED STATES
DEPARTMENT OF THE INTERIOR
NATIONAL PARK SERVICE
HAWAII NATIONAL PARK
VOLCANO HOUSE, HAWAII

OFFICE OF THE SUPERINTENDENT

May 7, 1927

Mr. Stephen T. Mather, Director,
National Park Service,
Department of the Interior,
Washington, D. C.

Dear Sir:-

The following report on the operation and activities of the Hawaii National Park during the month of April, 1927, is submitted for your information and approval:

OOO GENERAL:

The month of April was dominated by the Pan-Pacific Conference on Education, Rehabilitation, Reclamation and Recreation which was held in Honolulu during the week of April 11 - 16, following a week of preparation and followed by a week of tours, inspections, social events, etc. Secretary of the Interior, Hon. Hubert Work was general chairman of the Conference and the four sections were presided over by -

Dr. John J. Tigert, U. S. Commissioner of Education,
Sur. General Hugh Cuming, Public Health Service,
Dr. Elwood Mead, Commissioner of Reclamation,
Hon. Stephen T. Mather, Director National Park Service.

Following adjournment of the conference on Saturday April 16 which was celebrated by a colorful street parade by the Order of Kamehameha, a Hawaiian lusa in Asili Park, many fashionable dinner parties, a water pageant, carnival and dancing on the docks, Secretary Work, accompanied by Governor Wallace R. Farrington and 85 conference delegates boarded the S. S. Calawai and departed from Honolulu at midnight for the island of Maui.

Arrived at Kahului Easter morning the Secretary's party was met by the Maui Chamber of Commerce, driven in autos to the scenic attractions of the island, dined in different private homes and in the evening tendered a banquet in the Grand Hotel at Wailuku, where the Secretary and Governor were called upon by President of the Chamber, James Gibb to make speeches. The voyage was resumed on the S. S. Calawai at 10 P.M. for the island of Hawaii.

April Report - 2

Director Mather wished to have a look at the slopes of Haleakala through which a road has been surveyed to the summit and led a horseback party from Olinda to the corner of the Haleakala section of the park where the road will enter. The hill Puu Kianiau at elevation 6,049 was circled, making a ride of 8 miles, mostly in a disagreeable rain. When the party was about to set out from Olinda for the ascent it was met by a descending party of 13 who had spent the previous night on the summit in order to witness the sun rise there on Easter morning.

The party inspecting the road survey were:

Hon. Stephen T. Mather, Director National Park Service,
Ansel F. Hall, Chief Naturalist, National Park Service,
R. T. Evans, Superintendent Hawaii National Park,
E. S. Wheeler, District Engineer, Bureau of Public Roads,
C. T. Bailey, Land Commissioner for the Territory,
Chauncey J. Hamlin, Amer. Association of Museums,
Dr. Chester D. Brown, of Danbury, Connecticut,
Worth O. Aiken, the Park's representative on Maui.

As the S. S. Calawail approached the harbor of Hilo on Monday morning it was greeted with sunshine and the promise of a beautiful day. It was escorted to the dock by a launch bearing Hawaiian serenaders and received with leis by the Hilo Chamber of Commerce who were to be hosts for the day. Most of the Secretary's party boarded a train for the ride along the scenic Hamakua Coast, and upon their return to Hilo were served with luncheon at the Hilo Hotel. They were later driven in autos to the Hawaii National Park where they were welcomed to the Volcano House. Mr. Mather, wishing more time in the park, was driven there in the forenoon.

The usual trips to the Sulphur Banks and Tree Molds were made in the late afternoon, and after supper at the hotel the Secretary's party was addressed by Dr. T. A. Jagger on "Opportunities for Scientific Research in the National Parks" and entertained by Mrs. Deamer's troupe of Hawaiian singers and dancers.

Tuesday morning the 19th., the new Uwekahuna Observatory was dedicated, those taking the leading roles in the ceremony being Secretary Work, Governor Farrington, Director Mather and Dr. Jagger. Later the Secretary exploded a charge of powder initiating work on the triangle portal of the new Chain-of-Craters Road. Continuing from there to the Halemaunuu Pit he drove into it a golf ball, thereby leading a procession that is destined to become a long one of golfing enthusiasts who will make the World's Grandest Hole in One.

April Report - 3

After a trip through the Lava Tubes, luncheon at the hotel and a tour through Architect Giffard's private garden, the Secretary's party returned to Hilo and once more boarded the S. S. Calawail, this time to return to Honolulu. Throughout the islands the Pan-Pacific Conference stirred the deepest interest in all classes of people, and the only regret was the fact that the visiting government officials and other American and foreign delegates were unable to prolong their stay.

121, 122 PARK INSPECTIONS:

The superintendent, obliged to leave Volcano House on the 3rd., in order to meet Director Mather in Honolulu on the 5th., to assist Ansel F. Hall in the preparation of the National Park exhibits, and to attend the director throughout the Pan-Pacific Conference, was glad of the opportunity to inspect in company with the above mentioned officials and others the routing of the approach road into the Haleakala Section on the island of Maui and certain features in the Kilauea Section, upon his return to headquarters on the 18th.

The Director recognized at once the deplorable condition of the $2\frac{1}{2}$ miles of oil-treated Crater Road and requested an estimate for the reconstruction of this section. With the assistance of B. P. R. Engineer E. J. McCracken the estimate was made and forwarded on the 30th. The sum of \$10,000 is needed.

On the 20th., and 21st., the superintendent drove Chief Naturalist Ansel F. Hall, President of American Association of Museums Chauncey J. Hamlin, and Mrs. Hamlin, around the island so that they might inspect the lava flows of Kau and Kona, the historical sites and coffee groves of Kona, the prairie lands of Kohala and the cane fields of the Hamakua Coast.

220 IMPROVEMENTS:

The $56\frac{1}{2}$ man-days of labor during the month were devoted to finishing the Sulphur Banks road 1st., to 13th., the maintenance of roads, and the making of a road into the Cottage Camp 25th., to 29th. This road was planned by Chief Landscape Engineer Dan R. Hull and was the Service's share in the preparation of the Camp for auto tourists and other summer guests.

240 APPROACH ROAD:

Actual laying of concrete on the seven-mile stretch of the Volcano-Hilo Road was not begun until the 13th., on account of the delay in shipment of six large compartment trucks which were to haul the crushed-rock, sand and cement to the mixer from the quarry at Sixteen Mile. However, beginning at the park line a distance of 3150 feet was covered during the month. It is estimated that the first 3 miles will be laid in 3 months and the remaining 4 miles at the rate of $1\frac{1}{2}$ miles per month. As the concrete must be allowed to set for 20 days travel for the summer to the park will be largely over detours.

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317 CHAIN-OF-CRATERS ROAD:

Status of work on Project #2 is given in the following extract from the report of Bureau of Public Roads Engineer E. J. McCracken:

"Contractor Charles H. Will, stating actual excavation on April 11th., with a small force of men, gradually increased his force to 80 along 6000 feet of line, using 1 compressor, 2 jackhammer, 5 trucks, 1 Yuba tractor, 1 Fordson tractor and 5 dump-cars. The estimate for April quantities is -

Clearing and grubbing -----	17.53% of \$3,500	\$ 613.57
Excavation, unclassified --	3791 cu.yds. at 2.15 . .	8,150.65
Overhaul -----	544 st.yds. at .25 . .	136.00
Amount earned for April - - - - -		\$ 8,900.22

320 AROUND THE ISLAND ROAD:

During the month word came through Bureau of Public Roads Channels that the Service was allotting \$120,000 of 1928 funds for the construction of the western half of Project No. 3. This section is west of the hard-surface road and is particularly difficult to maintain in anything like satisfactory shape.

350 DONATIONS:

The Uwekahuna Observatory was presented by Dr. T. A. Jagger on behalf of the Hawaiian Volcano Research Association to the Geological Survey and National Park Service jointly and was accepted by Secretary of the Interior Hubert Work, on the 19th. This structure with its equipment is designed for the instruction and entertainment of visitors to the park and entails upon the Service in the not distant future the assignment of a high grade ranger-naturalist.

480 NATURAL PHENOMENA:

The departure on the 21st., of Dr. T. A. Jagger and Mrs. Jagger for an absence of 5 months in Alaska and on the mainland, was hailed by many islanders as a sign for the reappearance of lava in the firepit, Halemauau. In spite of many telephone inquiries the firepit failed to awaken. Though 66 earthquakes were recorded during the month, presumably caused by movements in the lava below the surface of the ground, only one (2:33 P.M. on the 30th.) was perceptible. Applying the Rossi - Forel scale of earthquake intensities it was a No. 2. That of March 20th., was No. 3 and the Santa Barbara quake of 1925 was No. 6.

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April Report - 5

510 TRAVEL:

Travel to the park decreased in April for several reasons. Firstly, April with May constitute the slack period between the winter and summer seasons; secondly, the rough detours to avoid the gangs at work on the Hilo-Volcano highway discourage all island travel; thirdly, the artillery and rifle practice at Ft. Schofield continues to prevent the Military Recreation Camp from receiving its customary quota of 300 men per month. Visitors came from 32 states and 13 foreign countries.

Volcano House guests	745
Arrivals at Kilauea Military Camp	190
Autoists, part of day, estimated	905
To Haleakala Section	64
Total	1,904

Best single day - 18th., - S.S. Calawaii . . . 193 arrivals
Next best day - 5th., - S.S. Los Angeles .. 182 "

520 WEATHER CONDITIONS:

Frequent light showers characterized the month. Snow vanished from the mountains, Mauna Loa and Mauna Kea, during the first week but made short reappearance on the 10th., and 17th., Thunder storms occurred on the 27th.

Rainiest day - - - the 9th., - - - - -	2.10 inches
Total rainfall for month - - - - -	6.70 "
Number of days without precipitation - - - - -	7
Maximum temperature - - - 21st., - - - - -	83 degrees
Minimum " - - - 11th., - - - - -	51 "

540 VISITORS:

- Secretary of the Interior Hubert Work, on 18th.
- Governor Wallace R. Farrington, on 18th.
- Eighty-four distinguished delegates to Pan-Pacific Conference, on 18th.
- Post-Office Inspectors F. E. Smith and F. W. Vaille, on 7th.
- Congressman Anthony J. Griffin, of New York, and wife on 9th.
- Lieut. Louis Fuller, U. S. M. C. in week of 1st., as commanding officer of Navy Recreation Camp, to relieve Lieut. Fitzgerald who was ordered to duty in China.

Very respectfully yours,

R. T. Evans
R. T. Evans,
Superintendent.

cc to Mr. Albright,
Assistant Director (Field)
Yellowstone National Park
Yellowstone Park, Wyoming.

DOCUMENT CAPTURED AS RECEIVED

DEPARTMENT OF THE INTERIOR
NATIONAL PARK SERVICE
HAWAII NATIONAL PARK
HONOLULU, HAWAII

Office of the Superintendent,
Volcano House, Hawaii, U. S. A.
April 4, 1927.

Mr. Stephen T. Mather, Director,
National Park Service,
Department of the Interior,
Washington, D. C.

Dear Sir:-

The following report on the operation and activities of the Hawaii National Park during the month of March, 1927, is submitted for your information and approval:

000 GENERAL:

Almost continuous rains throughout the Islands confined to Honolulu many prospective visitors to the Park from the mainland; and Islanders were further restrained from visiting the Park by the continued rough condition of the seven miles of county road leading to the Park from Hilo, now being prepared for concrete surfacing.

120 PARK INSPECTIONS:

121 The Superintendent, accompanied by Dr. Jaggard, on the 29th penetrated the Kau Desert as far as the Cone-and-Pit Craters in an auto, and then hiked across the three miles of pahoehoe southward to the Keana Bihopa Kipuka, a broad oasis of grass lands terminating in the Hilina Pali. This bluff, overlooking the coast line at a height of 2000 feet and a distance of two miles, constitutes a fine objective for an auto trail, but neither the shortest route as followed down nor a circuitous route to the westward through the Ahiu Kipuka and sand wash as followed in the return promised anything better than a foot trail.

125 ARMY AIR SERVICE:

On the 7th Lieut O'Connell, A.A.S., inspected and selected a landing field in the wide sand wash about two miles south of Halemaunau Pit, which will be only one mile distant from the new Chain-of-Craters road at the Puhimau Crater. Col. H.W. Van Valkenburg, A.A.S., and Mr. Lorrin Thruston, approved this location on the 12th.

127 OTHER AGENCIES:

The Lewis Hawaiian Tours Co. of Honolulu, promoting a new commercial flying business, want a permit to prepare a landing field along the highway between the hotel and the Kilauea Military Camp. This field is rough, small, and contrariwise to the wind; and besides has the disapproval of Mr. Dan R. Hull, Landscape Engineer.

170 SURVEYS:

A topographic map was made by the Superintendent of the area south of the Hilo road and east of the Crater road, on a scale of 50 feet to one inch and one foot contour interval. Within this area 1000 feet x 700 feet, as sketched by Landscape Engineer Hull, must soon be constructed one and possibly two service roads, a garage, laborers' quarters, and ranger's cottage.

220 IMPROVEMENTS:

The three laborers, assisted by a ranger at times, were kept at work building a good 16-foot road into the Sulphur Banks where formerly had been a poor auto trail of many mud holes. Rock for the average two-foot fill, as well as the gravel and sand for topping, had to be hauled one mile. The 180 feet done during the month is one-third of the total length, but the remaining two-thirds will be much lighter work.

All autos are driven into the Sulphur Banks.

240 APPROACH ROAD:

Preparations have been completed for surfacing the Hilo highway with concrete. It will begin at the Park line and will require twenty-five weeks to cover the seven miles. The 16-foot width of concrete will be laid between two iron rails, which are tracks for wheels supporting one high roof 50 feet long which will shelter the concrete-mixer and workmen. Nine low roofs each 50 feet long will be used to cover the newly-laid concrete for 24 hours. As these move over the fresh concrete a covering of dirt is applied. Twenty days are necessary for the concrete to harden properly before it will be ready for use.

317 STATUS OF CHAIN-OF-CRATERS ROAD:

The Bureau of Public Roads Engineer E. J. McCracken received word on the 19th that the Department had approved the contract with Mr. Charles Will, and on the 22d the Superintendent selected a site about 200 yards from the starting point of the new road for the construction camp, for which materials were to be hauled in at once.

350 DONATIONS:

Mr. W. H. Saunders, constructing architect of the Royal Hawaiian Hotel, offered to design and present to the Park a finely-made sun dial for mounting at Uwekahuna Observatory.

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Through the efforts of Mr. de Vis Norton, who spent the period 8th to 23d in the Park, the Society of Hui o Pele Hawaii donated the sum of \$500 for the erection of shelters and benches in chosen spots along some of the trails.

480 NATURAL PHENOMENA:

The equinox did not usher into the fire-pit or adjacent vents living lava as was expected, but seemed to account for lesser events. An earthquake shock occurred at 4:52 a.m. of March 20 that was severe enough to throw the pen from the drum of the seismograph. As it displayed equal intensity in Hilo, Honolulu, and other points throughout the Islands it was assumed to have centered along the basic Island rift.

During the night of 22d-23d heavy rain and electrical storms were general in the Islands. Honolulu received a deluge accompanied by hail.

Harmonical tremors agitated the seismograph repeatedly on the 29th, but the lava thus announced failed to appear.

510 TRAVEL:

Visitors entered the Park from 34 States and 8 foreign countries.

Volcano House guests - - - - -	1227
Arrivals at Kilauea Military Camp - -	177
Autoists, part of day, estimated - -	758
To Haleakala section + + - - - - -	27
Total - - - - -	2189

The Hilo Tribune-Herald of March 25 published an editorial pointing out that whereas the old Peoples Garage carried 14 round-the-Island tourists from January 1 to March 15 in 1926, the new Hawaii Transportation Co. in the same period in 1927 carried 136 tourists around the Island, and paid out in salaries for the same 2½ months an average of \$7,000 per month.

520 WEATHER CONDITIONS:

The month witnessed a heavy rainfall. Snow appeared on Mauna Loa and Mauna Kea as far down as 10,000 feet elevation on the 5th, and remained throughout the month.

Rainiest day - the 5th - - - - -	3.20 inches
Total rainfall for month + - - - -	18.00 "
Number of days without trace of precipitation - - - - -	2
Maximum temperature - 31st - - - - -	73
Minimum temperature - 21st - - - - -	48

March Report - 4

540 VISITORS:

Among the visitors in addition to those already mentioned were:

Gov. L. B. Hanna, of North Dakota, and wife, on 12th.

Asst. Secretary of the Navy E.P. Warner, and party who flew from Honolulu on the 23d, and returned on the 24th.

Capt. C.L. Garner of the Coast and Geodetic Survey, wife and daughter, on 26th to 29th.

Very respectfully yours,

R. T. Evans

R. T. EVANS
Superintendent.

cc to Mr. Albright,
Assistant Director (Field)
Yellowstone National Park,
Yellowstone Park, Wyoming.

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DEPARTMENT OF THE INTERIOR
NATIONAL PARK SERVICE
HAWAII NATIONAL PARK
HONOLULU, HAWAII

Office of the Superintendent,
Volcano House, Hawaii, U. S. A.
March 10, 1927

Mr. Stephen T. Mather, Director,
National Park Service,
Department of the Interior,
Washington, D. C.

Dear Sir:-

The following report on the operation and activities of the Hawaii National Park during the month of February 1927 is submitted for your information and approval:

000 GENERAL:

Unprecedented fine weather for the month drew to the Park a maximum number of visitors from the mainland and other distant lands. Islanders entered in reduced numbers, however, on account of the very rough condition of the seven miles of county road leading to the Park from Hilo, now in the throes of reconstruction.

120 PARK INSPECTIONS:

121 The Superintendent and Mr. Dan R. Hull, Chief Landscape Engineer, visited the Haleakala Section of the Park on the island of Maui for the first time on February 7th. and 8th. In company of Worth O. Aiken, two guides and three tourists the night of the 7th. was spent in the rest-house on the summit. After a banquet in Wailuku tendered by the Maui Chamber of Commerce the evening of the 8th. they proceeded to Honolulu where the next three days were taken up in conferences with important friends of the National Park and Directors of the Kilauea Volcano House Company, Ltd. The superintendent returned to his headquarters on the 12th. and Mr. Hull left Honolulu for Los Angeles on the same date.

The Haleakala Section has been in the hands of the Maui Chamber of Commerce and though that organization is willing it is best that the Service not accept a transfer at present. There is no allotment with which to undertake it. The rest-house, upon which \$22,000 has already been spent, is adequate for the protection and comfort of visitors over night. Forty beds are equipped with mattresses, pillows and blankets, and sheets and pillow-cases are furnished to each ascending party by the hotels of Wailuku and Kahului. A telephone connects the rest-house with those towns.

The trail to the top will serve but, ^{those} within the crater are very steep and badly washed. They are little used owing to lack of shelter in Kaupo Gap where one needs to spend the night.

122 Chief Landscape Engineer Dan R. Hull, who terminated his stay of two weeks on the 6th., developed a comprehensive plan for the future growth of facilities in the Kilauea Section. It contemplates considerable moving of buildings by the hotel company and the Park Service. Mr. J. M. Downsett, president of the hotel company, was a resident of the Park for a week to consult with Hull, but deferred decisions to Mr. Stanley C. Kennedy, secretary of the company, who was expected to arrive early in March from an extended tour of National Parks on the mainland.

124 On the 14th., the Superintendent and Ranger Waltjen were driven by Dr. Jaggard, volcanologist in charge of the Volcano Observatory, over lava flows of the Kau desert as far as Maunaki with a view towards scouting out routes for auto trails whereby with a little filling at earthquake cracks and washes, some cutting with picks at lava humps, and occasional markers for guidance a way may be made for autos to the vicinity of such interesting exhibits as the Cone and Pit Craters, 1920 Chasm, Maunaki, etc. These auto-trails have a strong appeal for persons entering the Park in their own cars.

210 and 220 IMPROVEMENTS:

Maintenance of roads and trails occupied the small force of laborers during the month. It was found necessary on account of the berries falling from the splendid soapberry tree overhead and rendering unfit for use the water in the tank to move the shelter and water-tank in Bird Park from its fine location in a grove to an open spot, some sixty feet distant.

Fred A. Waltjen, assisting Bureau of Public Roads Engineer E. J. McCracken since last August, returned to the Park in the capacity of ranger and foreman. With this accession the total man days charged to the Park for the month was 167.

240 IMPROVEMENT OF APPROACHES:

With gangs of men clearing wider right of way and blasting to grade through cuts, scattered along the whole seven miles of new road the approach to the Park from Hilo is in its roughest state. A steamroller is just arrived and will level the roadway in a degree. Actual laying of concrete surface is expected to begin at the upper end-of-the park line- in April.

320 COOPERATING NON-GOVERNMENTAL AGENCIES:

The Hawaiian Volcano Research Association, directed by Dr. T. A. Jaggard, began the construction of the museum-exhibit building on the 21st. The lack of sufficient space near the observatory led to the selection of Uwekahuna Bluff as a site for this building. There it will command a comprehensive view of the Kilauea Crater, the Kau Desert, Mauna Loa, be directly over the Halemaumau Pit, establish a new station for seismograph records, and being two miles west of the hotel will add a desired new point of interest to which visitors may walk or drive. (See newspaper clipping attached)

460 NATURAL PHENOMENA:

The volcanoes seemed to sink into profounder slumber during the month. The seismograph recorded slighter and less frequent microseisms as the days passed. Avalanches from the walls of Halemaumau Pit occurred frequently, steam continued to issue in the usual jets, and the sulphur patches maintained their sizes.

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510 TRAVEL:

Creditable registration of visitors was due to the arrival of three steamship parties and to a dance given at the hotel on the 19th., to which about 100 came in spite of the bad approach road. The steamship parties were: the S. S. City of Los Angeles on 8th., 165 people; the World Tour S. S. California on 11th., 624; the S. S. Matsonia on 25th., 105.

Thirty-one states and four foreign countries were represented in the following segregation:

Volcano House guests - - - - -	1,436
Arrivals at Kilauea Military Camp - - - - -	139
Autoists, part of day - estimated - - - - -	715
Total - - - - -	2,290

520 WEATHER CONDITIONS:

Beautiful Saturdays and Sundays continued their series unbroken throughout the second month, and the larger crowds were greeted with splendid weather. No snow appeared on the mountains, but ice and frost were reported at nearby points on the 13th.

Rainiest day - the 23rd. - - - - -	0.53 inches
Total rainfall for month - - - - -	2.10 "
Number of days without trace of precipitation	11 days
Maximum temperature - 22nd. - - - - -	75 degrees
Minimum " - 13th. - - - - -	42 "

540 VISITORS:

John Oliver La Gorce, Associate Editor of the National Geographic Magazine, and Mrs. La Gorce, visited the Kilauea Section on the 8th., and later the Haleakala Section.

Very respectfully yours,

R. T. Evans
R. T. Evans,
Superintendent.

cc to Mr. Albright,
Assistant Director (Field)
Yellowstone National Park,
Yellowstone Park, Wyoming.

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March 7, 1927
Daily Edition No. 15
Hilo, Tribune-Herald

WORK IS STARTED ON NEW BUILDING IN VOLCANO AREA

Hawaiian Research Association to Have New Home Soon in National Park

Exhibits, Lectures and Other Features to Take Place in Structure When Ready

By MRS. E. J. McCRACKEN,
Tribune-Herald Correspondent

VOLCANO, House, March 7—Actual work is now under way in Hawaii National Park on the construction of a museum and exhibit building by the Hawaiian Volcano Research Association. A force of men has been engaged for the past week by contractor Fujimoto of Hilo on this work.

In the summer of 1926 there was presented to the members of the Hawaiian Volcano Research Association a project for the establishment of an exhibit room and lecture system along lines as originally planned in 1915. The board of directors of the Research Association felt that it would be fair for the people in Hawaii to make this response to the liberality of the committee of Congress that visited the islands in 1925 and greatly increased the appropriation for volcano research work at Hilo. Consequently, business firms and private donors immediately gave liberal contributions so that building operations are now provided for.

Decision Is Made

In the summer of 1926 the matter of a Park exhibit was taken up with the National Park Service, which for several years past has heartily approved this project and during the recent visit of D. R. Hull, Park Architect and Landscape Engineer, final decisions were made on the plans with the hearty concurrence of R. T. Evans, Superintendent of Hawaii National Park.

The plans of the building were originally drawn by Dr. T. A. Jaggar of the Hawaiian Volcano Observatory with the assistance of Professor John Mason Young of the University of Hawaii and Pacific Engineering company. During Hull's recent visit, he kindly sketched an exterior plan that changed the appearance from the bungalow type of architecture to that of the block-house effect, with stone work at the corners of the building, keeping with the old Hawaiian type of stone wall construction.

Building Is Described

The exhibit building, size 42 feet by 20 feet, will be a "T" shape blocky structure, having rough stone corners, with a flat roof, the plans of which with its adjacent laboratory, call for an estimate cost of \$4500. This will overlook a built-up terrace containing stone seats and enclosed by a low wall of rough stones. It has been decided to place this building on the high western bluff that overlooks Kilauea Crater.

There will be an alcove at one side which will contain an exhibit seismograph, made by Akashi of Tokio, and modified from designs of the late Professor Omori of Tokio Imperial University and his successor Dr. Imamura.

The object of the building is to provide a place which will eventually be under the supervision of the Park Service, where tourists may learn all about volcano happenings, see maps, charts, photographs, transparencies, lantern slides, moving pictures, and properly exhibited specimens, but it is not proposed that specimens be the principal feature. The main feature will be its personnel, the lecturers and explanations. It is aimed to make this place the center of volcano natural history for the nature guides and rangers of Hawaii National Park, with such assistance as the Hawaiian Observatory can give.

Questions Answered

Here questions will be answered concerning volcano science. The building on Uwekahuna Bluff will be rather a scientific studio than a museum in the usual sense, where entertainment will be furnished through geological lectures, given with the

magnificent view of the whole crater and Kau desert spread out before the spectators.

When Dr. Jaggar was in New York in June 1926, he had a conference with the distinguished volcanologist, Mr. F. A. Perret, who has twice visited Hawaii, the first time in 1911 when he came to the islands as Dr. Jaggar's associate to start the work at Halemau mau pit, that has now developed into the Hawaiian Volcano Observatory.

The main object of this conference was to induce Mr. Perret to accept the position of Curator of the proposed scientific exhibit and lecture building in Hawaii National Park. Unfortunately, in September, 1926, Mr. Perret was taken seriously ill at his New York home, and so was obliged to postpone his acceptance of the Hawaiian position. However, it is still hoped upon his recovery he may be able to accept the position. It is quite probable that the Curator of exhibits may become naturalist for the Park Service.

Visiting Hours Planned

When the new exhibit building is opened, the 11 o'clock official hour which has hitherto been kept at the observatory to receive visitors will be transferred to the new building where everything appropriate to their scientific entertainment will be furnished. When the new Curator arrives he will keep office hours at the lecture hall at other times during the day. The old observatory building will no longer be opened to the public, but will be kept strictly for offices, laboratory and workshop.

Eventually it is hoped that this first effort of the Hawaiian Volcano Research Association will lead to an endowment whereby the Park Service will secure a fine building with a good auditorium for its volcanological museum.

Nothing more has been planned for

the present than to meet the need which has been evident for years in the incessant visits of travelers to the observatory. The observatory staff will carry the work of the Uwekahuna showroom at first, and if possible, it is hoped that the exhibits will be opened in mid-April by the Secretary of the Interior.

DEPARTMENT OF THE INTERIOR
NATIONAL PARK SERVICE
HAWAII NATIONAL PARK
HONOLULU, HAWAII

Office of the Superintendent,
Volcano House, Hawaii, U. S. A.
February 4, 1927.

Hon. Stephen T. Mather,
Director National Park Service,
Washington, D. C.

Dear Sir:-

I have the honor to submit the following report for the
Hawaii National Park for the month of January 1927:

000 GENERAL:

During the month the Kilauea and Mauna Loa volcanoes remained dormant, though during the week 13-19 expectations of an impending reappearance of lava in the pit of Halemaumau were aroused by three distinct phases of activity as noted at the Observatory. Quoting the VOLCANO LETTER of the 19th. - - - -

"There is a movement registering earthquakes on the seismographs; there is a marked increase of avalanches in the pit; and there are yellow sulphurous patches on the debris slopes which are increasing in area. The combination means disturbance both chemical and physical, and lava eruption may follow."

However, these activities diminished and the pit resumed its customary comparative calm, emitting only its several columns of steam. The eyes of all islanders are turned toward the volcanoes. The reappearance of lava mean a rush to the Park.

120 PARK INSPECTIONS:

121 Superintendent Richard T. Evans assumed charge of the Park on January 1st., and inspected the Kilauea section in company with Acting Superintendent A. O. Burdland.

122 Chief Landscape Engineer Dan R. Hall arrived on the 22nd., for a thorough inspection of layouts, etc., and to formulate a comprehensive plan of future development. On the 31st., in company with Mr. & Mrs. R. T. Evans and Hotel Manager Channing Lovejoy, he set out on a two day tour of the island to acquaint himself with conditions surrounding the Park.

125 District Engineer E. S. Wheeler, Bureau of Public Roads, came to the Park on the 29th. for inspection of surveys of Projects 902- (Chain-of-Craters Road) and 903 (Around-the-Island Road) and the seven miles of Federal Aid road now being constructed between Hilo and the Park line.

127 Mr. Frank C. Atherton and six other directors of the Kilauea Volcano Hotel Co., Ltd., passed through the Park on January 15th. to inspect a site in Kona between Kealahou and Kailua, on the highway above Keauhou at an elevation of about 1300 feet, where they propose to erect a modern hotel of twenty-five rooms to accommodate around-the-island tourists. On the 16th. they inspected their new unfinished camp of twelve cottages and one central building with a view to its best adaptation to probable patronage.

Mr. Arthur H. Armitage, one of the directors, returned on the 29th. to go over improvements in detail with Mr. Hull.

130 FINANCE AND ACCOUNTS:

During the month rentals were received from the Kilauea Volcano Hotel Co., Ltd., for the calendar year 1927 in the amount of \$1,000 and from Mrs. Maude O. Beers, for period from January 1 to June 30, 1927 in the amount of \$25.00.

220 IMPROVEMENTS:

Labor was kept occupied with maintenance of roads and trails against washing by rains; but on 22nd. and 24th. it set poles and laid wires between the Park Office and new cottages of superintendent and ranger so as to furnish electric lighting to the two latter. The plant at the hotel supplies the current.

240 IMPROVEMENT OF APPROACHES:

The County yielded to appeals and on the 27th. set a small crew of men at filling with gravel the chuck holes in the road leading to Hilo. Contractors working from the other end of the seven miles made much progress with the new road construction.

320 COOPERATING GOVERNMENTAL AGENCIES:

Satisfactory relations are maintained with the Kilauea Military Camp, in charge of Captain E. R. Block, 13th. Field Artillery.

In the Naval Section Lieut. J. K. Martenstein, Marine Corps, returned to Pearl Harbor and was succeeded by Lieut. Judson H. Fitz Gerald, Marine Corps, on 22nd.

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January Report - 3

Col. R. M. Mitchell, Department of Education and Recreation, inspected the camp on the 1st. and 29th.

Lieut. Parker, commanding U.S.S. Pelican visited the camp and Park on the 12th.

330 COOPERATING NON-GOVERNMENTAL AGENCIES:

Mr. James Henderson, President of Hawaii Transportation Co., Ltd. of Hilo, has agreed to furnish police as traffic officers whenever auto traffic into the Park requires it. On the 7th., 108 autos brought 386 passengers from the Around-the-World S. S. Belgeland, and five Hilo police officers handled them on the Park roads in a very creditable manner.

510 TRAVEL:

During the month visitors came from forty states and thirteen foreign countries. They are placed in three groups, as follows:

Volcano House Guests	-----	920
Arrivals Kilauea Military Camp	---	212
Autoists - part of day - estimated	---	793
Total	-----	1925

Due to invariably clear Saturdays and Sundays many golfers came from nearby towns to play on the hotel golf course.

520 WEATHER CONDITIONS:

January was a really hospitable month though only four days showed a mere trace of rain.

Rainest day - the 25th.	-----	1.95 inches
Next rainest day - the 3rd.	-----	1.55 "
Total rainfall for month	-----	9.00 "
Maximum temperature	- 12 th. -----	83 degrees
Minimum	" - 14th. -----	47 "

The morning of the 22nd. revealed a light fall of snow on Mauna Loa while the summit of Mauna Kea was resplendent in white.

540 VISITORS:

Noted visitors during the month other than those mentioned in 121 - 127 Park Inspections, were:

- Victor K. Houston, delegate-elect to Congress on 10th.
- Mr. Huckel, of Fred Harvey System, on 11th.
- Ward G. Foster, the real "Ask Mr. Foster", on 15th.
- Mrs. Dan R. Hull and son, on 22nd.

900 MISCELLANEOUS:

Lieut. W. H. Bainbridge, Coast & Geodetic Survey, walked in one day - January 5th., the thirty-five miles from his camp on the summit of Mauna Loa to announce that gravity observations were complete and to send a pack train to bring down the instruments.

Very respectfully yours,

R. T. Evans.

R. T. Evans,
Superintendent.

cc to Mr. Albright,
Assistant Director (Field)
Yellowstone National Park
Wyoming, U.S.A.

DEPARTMENT OF THE INTERIOR

NATIONAL PARK SERVICE

HAWAII NATIONAL PARK

HONOLULU, HAWAII

Office of the Superintendent,
Volcano House, Hawaii, U.S.A.
January 8, 1927.

To the Director,
National Park Service,
Washington, D. C.

Dear Sir:-

I have the honor to submit the following report for the Hawaii National Park for the month of December 1926.

121 Park Inspection. Acting Superintendent A. O. Burkland made inspections of Park areas and activities during periods between November 27 - December 2 and December 11 - 16.

160 Status of Alienated Lands. The privately owned Austin tract which has been blocking the commencement of the construction of the Chain-of-Craters Road passed into Territorial ownership by the land exchange process during the month; and its final transfer from the Territory of Hawaii to the Federal Government is a matter of routine only, requiring a few weeks only.

230 New Construction. The Kilauea Volcano House Co., Ltd., during period November 9 - 20 constructed near the Public Camp, five miles south of the Volcano House by road, twelve three-room cottages, a central assembly house and thirteen water-tanks; but stopped the work in an incomplete state upon advices from Washington to permit Chief Landscape Engineer Dan R. Hull to make a study of the development.

240 Approach Roads. Contractors were three-quarters through with grading the first mile next to the concrete highway from Hilo. It is estimate that one year will be required in grading and surfacing the seven miles of unimproved road between Hilo and the Park Boundary -- a long time to endure very rough traveling as it is not proposed by the County to expend any money at all towards maintenance of those seven miles during the construction.

320 Activities of Other Agencies. On December 13 and 14 a goat drive was prosecuted under the leadership of Acting Superintendent A. O. Burkland and Mr. Charles S. Judd, Superintendent of Forestry for Hawaii, beginning at Halfway House west of the Park and directed eastward and at the Ainalou Ranch east of the Park and directed southward, the two thrusts joining at Keauhou on the south coast. Four thousand goats were gathered. The Territorial Government spend about one thousand dollars on the drive.

Dr. Jaggar, of the U. S. Geological Survey, continued the drilling of holes, one thousand feet apart and ten to thirty feet deep in the Crater of Kilauea for the purpose of temperature comparisons. The Research Association contributes to this enterprise.

December Report -- 2

Mr. R. M. Wilson, U. S. G. S., went over the triangulation executed in 1920 around the Crater to determine if any horizontal displacement had occurred. One station east of the Crater was found to have moved five feet towards the Crater.

Lieut. L. G. Simmons, of the U. S. Coast and Geodetic Survey cooperating with the Geological Survey, carried a precise level line to the summit of Mauna Loa, for the first time determining its accurate elevation.

On the 20th Lieutenants E. J. Brown and W. H. Bainbridge, U. and G. S., ascended Mauna Loa to make observations with a one-half second pendulum for the determination of the intensity of gravity. Upon the completion of their observations they will establish a tide gauge at Hilo as an accurate datum for elevations on Hawaii.

Gravity observations were made at the Observatory prior to their ascent of Mauna Loa.

Highway Engineer E. J. McCracken, Bureau of Public Roads, completed survey of Around-the-Island-Road across the Park and commenced office work on quantities and design for this road.

400 Natural Phenomena. Perceptible earthquakes occurred on the 2nd. 1:29 A.M. and the 25th. 9:26 P.M.

510 Travel. About 800 visitors were recorded during the month, a slight decrease attributable to real wintry weather. Of this number 300 came to the Military Camp, 60 were in the tour of the U. S. City of Los Angeles on the 14th., and 170 neighbors from nearby towns attended the big Christmas Eve Party at the Volcano House.

620 General Weather Conditions. The month had twenty-three days of rain. The other eight days "showed a trace." The 14th. was the rainiest with 2.8 inches. The month's record was 16.5 inches. Temperatures ranged from a minimum of 46 to a maximum of 86.

Acting Superintendent A. O. Burdick surrendered the Park to the new Superintendent on January 1, 1927.

Very respectfully yours,

R. T. Evans

R. T. Evans, Superintendent.

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10-23

DEPARTMENT OF THE INTERIOR
NATIONAL PARK SERVICE
HAWAII NATIONAL PARK

FILE NO.

MONTHLY REPORTS

FISCAL YEAR 1928

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10-23

DEPARTMENT OF THE INTERIOR
NATIONAL PARK SERVICE
HAWAII NATIONAL PARK

FILE NO.

MONTHLY REPORTS

FISCAL YEAR 1928

DOCUMENT CAPTURED AS RECEIVED

UNITED STATES
DEPARTMENT OF THE INTERIOR
NATIONAL PARK SERVICE
HAWAII NATIONAL PARK
VOLCANO HOUSE, HAWAII

OFFICE OF THE SUPERINTENDENT

July 5, 1928

Mr. Stephen T. Mather, Director,
National Park Service,
Department of the Interior,
Washington, D. C.

Dear Sir:-

The following report on the operation and activities of the Hawaii National Park during the month of June 1928, is submitted for your information and approval:

000 GENERAL:

Travel to the park during June - 6,798 against 1,988 for the same month last year - was due not so much to tourist travel as to island residents. The many summer homes in the forest adjacent to the park on the east have become occupied and the occupants spend a great deal of time in the park especially as the blackberry crop is widespread and bountiful.

100 ADMINISTRATIVE:

Changes in personnel were made as follows:

Robert I. Baldwin, high school teacher of Hilo who served last summer and passed the ranger examination, was reemployed for the summer season on June 11th.

Alexander P. Lancaster, ranger and old volcano guide with 47 years experience, was suspended on the 21st for intoxication and recommended for dismissal. His spree, notorious for many years, were coming too close together, only eight days separating the last two.

James K. Higashida, temporary clerk since February 1926, passed the civil service examination and was recommended for permanent appointment on July 1st.

Fred A. Waltjen, who for several years has been in charge of road and trail maintenance, construction of buildings, repair of machinery - in fact the utility man for all jobs - is threatened with the loss of a temporary appointment as ranger on account of being too short to qualify for examination. It is hoped that an appointment may be gotten for him as Permanent Skilled Tradesman, or Skilled Laborer, or Construction Foreman. The park must have a man of his type.

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June Report 2

170 MAP OF HEADQUARTERS:

The superintendent made a good start on the mapping of the headquarters area. Two maps, scale of 100 feet to the inch and 2 foot contour interval, will be required, one to cover the hotel property while the other will show the park buildings and utility site. As soon as finished they will be traced and blue-printed, and copies will be forwarded to the Washington and San Francisco offices.

220 IMPROVEMENTS:

Two-thirds of the 147½ man-days of labor went towards the construction of the equipment shed authorized for 1929.

Road maintenance reached a high degree of efficiency by the use on the Crater and Chain of Craters roads for a period of six days of a tractor and scarifier-grader, rented from Chas. H. Will, contractor for the Around-the-Island Road. Mr. E. J. McCracken, engineer of the Bureau of Public Roads, found time from his own duties to supervise the use of the road machinery and the resulting smoothness of road surface was at once apparent. Lightrains followed the operation so that the maximum good was achieved.

240 KAU APPROACH ROAD:

The county project, 3½ miles west of the park, was completed by contractor Otto Madstrom on June 30th to the extent of laying the 10-foot asphalt macadam to the park line. Trimming the shoulders is all that remains to be done. This closes the last gap in a continuous improved highway of 70 miles from Hilo across the park to Waichim.

320 AROUND THE ISLAND ROAD:

Work on this project was finished on June 2nd, contractor Chas. H. Will requiring only 156 of the 200 days allotted.

Oiling of this 4½ miles project will be done under separate contract. Bids were advertised on June 13th and will be opened in Honolulu on July 5th.

#5	Excavation, unclassified	141 cu.yds. at	2.64	372.24
#7	Borrow	159 " "	2.25	357.75
#13	Surfacing, crushed rock	529.27 " "	6.95	3,678.43
#14	Filler material	344.15 " "	2.60	894.79
#18	Days rolling	6½ days	14.00	91.00
#21	Crushed rock	571.48 cu.yds. "	6.35	2,358.90
				<u>7,753.01</u>
			Less 10% retained	775.31
	Voucher #200; Check #181,370 - - - - -			\$ 6,977.80

This is the 7th regular voucher and disposes of the project except for the 10% retained. The 8th voucher will be FINAL.

Total payments. 7 vouchers - - - - - \$ 82,434.74

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420 MUSEUM SERVICE:

Ranger Douglas presented 16 lectures to 879 people during June at the Uwekahuna Observatory. The power plant that generates light suffered some slight breakdown early in the month and was completely overhauled with the assistance of two mechanics from the Volcano Observatory.

510 TRAVEL:

A slight increase in distant tourist travel was felt due to the approach of the vacation season. Outstanding arrivals were: the steamships Matsonia and City of Honolulu together on the 15th with 275 visitors, many of whom were delegates enroute to the mainland from the convention in Honolulu of the Pacific Ad Clubs Association; the ships of the U. S. battle fleet anchored in Hilo harbor sent to the park on the 1st and 2nd 370 officers and sailors.

Hotel guests from 27 states and 5 foreign countries	1,150
Guests at Kilauea Summer Camp	27
Arrivals at Kilauea Military Camp	381
Autoists, including 370 U.S. sailors, part of day	5,200
To Haleakala Section (estimated)	50
	<hr/>
	6,798
Total travel for 9 months since October 1, 1927	58,191
Same period from October 1, 1926 to June 30, 1927	19,013

520 WEATHER CONDITIONS:

June was notable for clear springlike days for the light rainfall occurred mostly at night. This was true of the month's only downpour - 4.7 inches on the 30th.

Maximum temperature	8th, 16th, 17th	84
Minimum "	8th, 9th, 10th, 13th, 20th	52
Number of days without precipitation		3
Rainiest day	30th	4.7 inches
Rainfall for month of June		7.55 "
" " " " " at Hilo		7.02 "
" " 1926 58.93 inches; for 1927		128.62 "

Very respectfully yours,
R. F. Evans
R. F. Evans, Superintendent.

CC to Mr. H. M. Albright, Asst. Director (Field),
National Park Service
" " Mr. F. A. Kittredge, Chief Engineer,
National Park Service.

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UNITED STATES
DEPARTMENT OF THE INTERIOR
NATIONAL PARK SERVICE
HAWAII NATIONAL PARK
VOLCANO HOUSE, HAWAII

OFFICE OF THE SUPERINTENDENT

June 5, 1928

Mr. Stephen T. Mather, Director,
National Park Service,
Department of the Interior,
Washington, D. C.

Dear Sir:-

The following report on the operation and activities of the Hawaii National Park during the month of May 1928, is submitted for your information and approval:

000 GENERAL:

The beautiful weather of May, rarely interrupted in daylight hours by the light showers that taken together accounted for the 5.24 inches of rain, was not responsible for the 7,546 increase of park visitors over last month. It was the presence of units of the U. S. Pacific fleet in Hilo harbor on five different occasions of two days each and the visit to the park during shore leave of 5,109 officers and sailors that stimulated travel to the record figure of 12,068.

220 IMPROVEMENTS:

A considerable part of the 132 man-days of labor for the month went towards the construction of the second laborer's cottage, and towards clearing the ^{woods} roads, building the approach road and leveling sufficient ground to accommodate the equipment shed which is next on the program.

240 KAU APPROACH ROAD:

The report of the county engineer for May stated that the project west of the park was completed for 12,400 feet and that 5,250 feet remained to be done.

310 KILAUEA SUMMER CAMP:

This camp, a $\frac{3}{4}$ mile from the auto camp grounds and consisting of twelve cottages encircling a central lodge, was prepared to open on June first for its second season. The same plan as last year's will be followed, that is American plan at \$3 a day, and Mr. Gandy, manager of the Volcano House, will exercise active supervision with Mrs. Gloria Baddady of Hilo in immediate charge as hostess.

May Report - 2

320 AROUND THE ISLAND ROAD:

B.P.R. Engineer E. J. McCracken's report for the month of May (through the 20th) is abstracted as follows:

"With all conditions favorable during May the work was advanced to 91% completion, leaving to be done some excavation at the lower end, the crushing and placing of 600 cubic yards of surfacing material upon the road bed and in stock piles, the rolling of shoulders and final trimming. The project will be finished by June 2nd.

No attempt will be made to roll the surfacing as this would only add to the difficulty of scurfying later during the oiling process. Nothing definite is known as to oiling this project."

# 3	Excavation, unclassified	1450 cu.yds.	at 2.64	3,828.00
# 7	Borrow	216 "	" 2.25	486.00
# 8	Overhaul	21 "	" 0.25	5.25
# 13	Crushed rock	2,068.13 "	" 6.95	14,373.60
# 14	Filler material	473.25 "	" 2.60	1,230.45
# 18	Rolling	5 1/2 days	" 14.00	80.50
# 21	Crushed rock, supplemental	178.23 cu.yds.	" 6.35	<u>1,131.76</u>
				21,130.96
				<u>2,123.10</u>
				\$ 19,017.86

Less 10% retained
Voucher #182; Check #181,351

A final inspection was made on the 31st by B.P.R. Senior Engineer E. S. Wheeler, McCracken and the superintendent and formal acceptance agreed upon as the remaining shaping up would be finished on the 2nd. The crushed rock surfacing looks fine but needs the treatment of oil as it will never compact under the negligible rainfall.

330 GRAZING PERMITS:

After much pressure, patiently and steadily applied, Mr. A. H. Brown finally completed on the 7th a real woven-wire stockproof fence around Bird Park. His cattle do little damage to the neighboring 1800 acres of park lands to which his grazing permit entitles him.

An application by the Kapapala Ranch to graze cattle on 266 acres of park lands west of a stock fence that one formed the boundary between Brown's Keshou ranch and the Kapapala ranch was forwarded to Washington with the superintendent's endorsement principally for the reason that the cattle will prevent the brush and grass from running wild and creating a dangerous fire menace.

420 MUSEUM SERVICE:

Nineteen lectures to 892 people were given by Ringer Douglas at Uukuhuna Observatory. Only a few officers of the fleet were included in the audiences; the sailors had not time enough to attend.

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May Report - 3

510 TRAVEL:

The largest tourist group came on the 3rd from the around-the-world S. S. Resolute. A dance at the Volcano House on the 12th drew 275 island residents.

On the 16th and 17th, 19th and 20th, 22nd and 23rd, 26th and 27th, 29th and 30th units of the U. S. Pacific fleet engaged in maneuvers in Hawaiian waters anchored in Hilo harbor and 5,109 officers and men spent of their shore leave in a visit to the park. The Hilo Chamber of Commerce controlled all details of transportation, entertainment, etc in Hilo and fixed the reasonable rate of \$4 for the 35 mile trip to the firepit and return. The county sheriff assigned four traffic officers to assist the superintendent on the ten visiting days.

The crater of Kilauea sparkled with the white uniforms as the sailors scattered over the lava floor to examine the steam vents and different lava flows and to search for the fast vanishing olivines, the green "Hawaiian diamonds" that have been hurled from volcanic craters.

The button and certificate of membership in Hui O Pele Hawaii appealed to many as an excellent souvenir of their visit to Hawaii National Park for 628 new members were enrolled at the desk in Flanary's refreshment booth near the rim of Halemaumau. As 175 other visitors were enrolled at Volcano House, the park office and the military camp a total of 1,003 was reached for May. Ivory state was represented as well as Germany, Canada, Czechoslovakia, Malaya, Bavaria and India.

Hotel guests from 27 states and 11 foreign countries	1,450
Arrivals at Kilauea Military Camp	786
Autoists, including 4,259 U.S. sailors, part of day	9,732
To Halemau Section (estimated)	104
	<u>12,068</u>

520 WEATHER CONDITIONS:

The light rainfall seldom occurred when there were visitors in the park so that the month proved delightful. A high wind on the 24th and 25th thoroughly dusted Kilauea crater driving heavy, eddying clouds into the Kau Desert.

Maximum temperature	on 8th and 21st	84
Minimum	" on 17th	48
Number of days without precipitation		4
Rainiest day	8th	1.12 inches
Rainfall for month of May		5.24 "
" " " " " at Hilo		8.64 "
" " 1926 -	53.93 inches; for 1927	128.62 "

540 VISITORS:

Robert W. Shingle, speaker of Territorial House of Delegates, and party on 4th.
Richard Bartholmes, movie actor, and bride on 4th.

May Report - 4

540 VISITORS: (Cont'd)

Senator and Mrs. A. H. Broad of Piedmont, Calif., on 16th.
 G. A. Berger of New York, cameraman of Castle Films, on 19th,
 to take pictures for the Los Angeles Steamship Co's advertisement campaign.
 Tai Ning Loo, noted photographer of Honolulu, and bride on 26th
 to 30th. He took many pictures of sailors in the park.

840 GOATS AND MONGOOSE:

On the 22nd and 23rd some forty horsemen directed by Territorial Forester Charles S. Judd combined to roundup the goats that infest the kipukas in the southern part of the park and adjoining forests to the east. Special efforts were made to depopulate Kipuka Keana Bihopa, a favorite feeding ground. The drive ended on the Puna coast five miles east of the park line where 1,752 goats were exterminated.

The occasional appearance of beautiful Mongolian pheasants, Japanese pheasants and quail that delight the park visitor has led Ranger Douglas to greater efforts towards trapping the mongoose, the weasel-like animal that preys on the eggs and chicks of ground nesting birds. To date 32 mongoose and 11 rats have been caught. Nine mongooses were taken in one day in Bird Park.

900 SEARCH FOR LOST DOLE FLYER:

The triumphs and tragedies of the Dole flight from San Francisco to Hawaii last summer were revived by the arrival at Hilo of Denham Scott who came to locate the wreck of his brother's plane the Golden Eagle which may possibly have gotten as far as the island of Hawaii. Some people think that a plane crashed into Mauna Kea or Mauna Loa while hidden in a fog bank. Denham Scott was accompanied by Peter O'Grady, a representative of the Los Angeles Examiner.

Martin Jensen, who won the second prize in the Dole flight, came in his plane Aloha to assist the searchers. They made application that a landing field be cleared near the firepit. Captain Block of the Kilauea Military Camp would do the clearing and the army would be inclined to contribute six planes to assist in the search on the basis of this landing field and convenient quarters in the military camp close by. The application was denied by the superintendent for the reasons that the Washington office denied a similar application a year ago, one presented by Governor Farrington, and that the presence of crowds of sailors and tourists on the roads close to the field carried a big element of danger from the planes.

The searchers have investigated and dismissed one clue already. They now are camped in the halfway resthouse on Mauna Loa.

Very respectfully yours,



R. T. Evans, Superintendent.

cc to Mr. H. M. Albright, Asst. Director (Field), H.P.S.
 " " Mr. F. A. Kittredge, Chief Engineer, H.P.S.

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UNITED STATES
DEPARTMENT OF THE INTERIOR
NATIONAL PARK SERVICE
HAWAII NATIONAL PARK
VOLCANO HOUSE, HAWAII

OFFICE OF THE SUPERINTENDENT

May 4, 1928

Mr. Stephen T. Mather, Director,
National Park Service,
Department of the Interior,
Washington, D. C.

Dear Sir:-

The following report on the operation and activities of the Hawaii National Park during the month of April 1928, is submitted for your information and approval:

000 GENERAL:

April began with a day of showers and closed with another one but in between the lasting impression was of beautiful clear days, for the rainfall was only 5.91 inches. Travel to the park numbered 4,623 or 2 1/3 times that of the same month last year.

121 INSPECTION OF HALEAKALA SECTION:

The superintendent in company with Worth O. Aiken and W. A. Baldwin of Maui and Harold Coffin of the Hawaii Tourist Bureau inspected the Haleakala Section of the park on the 23rd and 24th. The summit rest-house managed by the Maui Chamber of Commerce was found satisfactory in all details except for much rubbish outside and many unsightly names painted on rocks. The superintendent will employ two men occasionally to thwart these nuisances.

A thrilling half day horseback ride of 11 miles into the crater could be offered to visitors if the Halemau Trail that ascends through the pali on the way out were rebuilt on a 16% grade. It is now about 30% badly washed out and forbidding. \$2,000 instead of \$1,000 for this work in July has been requested. At least one other stretch in the crater should be reconstructed as well as much of the approach trail from Olinda to the rest-house and an additional \$1,000 has been asked for this work.

Territorial engineer Allan Bardick was found engaged on the survey of the approach road below the park line the construction of which is expected to be authorized by the legislature when it convenes next February. His line departs two or three miles southward from Olinda and traverses the Kula district where the rainfall is much less and where ravines are crossed in only eight places.

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220 IMPROVEMENTS:

The 66 1/2 man days of labor were devoted to the usual maintenance of roads and trails and to the construction of a two-room laborer's cottage and a 3000 gallon redwood water-tank.

240 KAU APPROACH ROAD:

The county's project west of the park advanced to about 45% completion. Of the 3 1/2 miles about 1 1/2 has been covered with the ten foot asphalt macadam, or about 7,700 feet.

310 HOTEL IMPROVEMENTS:

Improvements at the Volcano House during April included the restoration of the sulphur-steam bath-house and the construction of a redwood box flume to convey the sulphur steam from the Sulphur Banks. Guests now have a choice of sulphur steam or just ordinary volcanic steam with their baths.

317 CHAIN OF CHAIRS ROAD:

This new road was finished on March 24th by contractor Chas. H. Will; was kept absolutely closed for three weeks during which period it received several beneficial rains; was finally inspected by Senior Highway Engineer E. S. Wheeler on April 14th; and was opened to travel on the 15th. Though a beautiful day in the park rains between the park and Hilo and some garbled publicity kept the attendance down to about one-third the number expected. A ranger registered cars and attached to each a souvenir ribbon. Cars, bearing 646 people, numbered 135: Chevrolet 27, Buick 23, Ford 21, Studebaker 10, Dodge 9, Star 7, Chrysler 7, Nash 7, Packard 7, Essex 6, Cadillac 4, Brasline 3, Willys-Knight 2, King 1, and Winton 1.

Final work:

\$18 Days rolling	4 days at \$12.00	\$ 48.00
Accumulation of 10% retained		<u>14,789.23</u>
FINAL VOUCHER, Mailed on 3rd. - - - - -		\$ 14,837.23

320 AROUND THE ISLAND ROAD:

B.P.R. Engineer E. J. McCracken's report for the month of April (through the 20th) is abstracted as follows:
"Progress indicates 67 1/2% completion with 61% of the contract time consumed. Excavation is about 90% done leaving about 1,200 cubic yards. April work concentrated on crushed rock material. 50% done. A force ranging from 75 to 100 men has been employed throughout the month. The weather was favorable only three days of rain serious enough to halt the work."

April Report - 3

520 AROUND THE ISLAND ROAD: (Continued)

Excavation, unclassified	2801 cu. yds. at 2.64	\$ 7,594.64
Borrow	52 cu. yds. at 2.25	117.00
Overhaul, station yards	1415 st.yds. at .25	353.75
Crushed rock	2025.33 cu. yds. at 6.95	14,076.05
Provide roller		1,600.00
Days rolling	15 1/2 days at 14.00	217.00
Crushed rock, stock piles	450.23 cu. yds. at 6.35	2,859.96
Work Order #1		<u>50.00</u>
		26,667.40
	Less 10% retained	<u>2,666.74</u>
	Voucher #159; Check #181,306	\$ 24,000.66

News that the crushed rock surface is to be oiled has been received with widespread satisfaction.

350 DONATIONS AND ACCESSIONS:

The first \$500 donation by Hui O Polo was exhausted by the construction of the third shelter - a roofed-over double bench of lava masonry placed on the Halemauau Trail at a point about 500 feet below the junction of the Sandalwood trail - and by the procurement of the souvenir ribbons which were distributed to motorists who drove over the Chain of Craters Road the opening day. New members for April numbered 147, representing 29 states and 6 foreign countries. California, Hawaii and New York were away out in front with 34, 29 and 21 respectively.

420 MUSEUM SERVICE:

Ranger Douglas delivered 13 lectures to 477 people. Sunday lectures were discontinued on the 15th as the new Chain of Craters Road promised to prove a bigger attraction to the local people.

510 TRAVEL:

April sustained its reputation as a poor travel month. There were no high spots. The 83 City of Honolulu brought the largest crowd of tourists, 68, on the 17th.

Hotel guests from 29 states and 6 foreign countries	653
Arrivals at Kilauea Military Camp	104
Autoists, part of day	3,635
To Haleakala Section (estimated)	<u>40</u>
	4,522

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April Report - 4

520 WEATHER CONDITIONS:

Maximum temperature	on 8th, 10th, 27th	86
Minimum "	On 21st, 22nd	50
Number of days without precipitation		7
Rainiest day	14th	.76 inches
Rainfall for month of April		5.91 "
" " " " " "	at Hilo	4.90 "
" " 1926	58.93 inches; for 1927	128.62 "

540 VISITORS:

- Mr. Howard Meintz of Pittsburg on 4th.
- Mr. J. F. Voorhes, meteorologist of Honolulu 13th to 17th.
- Mr. H. R. Tinkham, lighthouse inspector of Honolulu on 13th.
- Mr. O. S. Judd, territorial forester of Honolulu, on 21st.
- Lieut Donald G. Willis, U.S.M.C. to assume command of the Navy Recreation Camp, relieving Capt. Anderson, on 4th.
- Gov. W. A. Farrington & party on 22nd.
- Colleen Moore, movie actress, of Los Angeles, with parents Mr. & Mrs. Morrison, on 28th.

Very respectfully yours,

R. T. Evans
 R. T. Evans,
 Superintendent.

cc to Mr. H. M. Albright,
Asst. Director (Field), H.P.S.

cc to Mr. F. A. Kittredge,
Chief Engineer, H.P.S.

Please send publications and news notes about volcanic matters
Address: HAWAIIAN VOLCANO OBSERVATORY, VOLCANO HOUSE, P. O., HAWAII

THE VOLCANO LETTER

A Weekly news leaflet of the Hawaiian Volcano Research Association

Sent free to libraries and to members. Dues of Association \$5 per annum. Members receive in addition the Illustrated Monthly Bulletin of the Hawaiian Volcano Observatory. Anyone may join the Association and thereby support Pacific volcano research. The society has also patrons—individuals, firms and institutions.

No. 173

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April 19, 1928

KILAUEA REPORT No. 847
WEEK ENDING APRIL 18, 1928
Section of Volcanology, U. S. Geological Survey:
R. M. Wilson, Temporarily in Charge

The volcano continues inactive and without phases to indicate the possibility of reappearance of live lava in the near future. Visits to Halemaumau were made on the mornings of April 13, 16, and 18. On the 13th the pit was quiet and dry, and there was very little steam. Stones were heard rolling occasionally on the north wall, and there were one or two small dusty slides atop the west end of the northeast sill. The most noticeable fumarole was at the center of the southwest talus. On the 16th the wind was too strong to hear sounds within the pit. There were indications of ground cracking in the vicinity of the south station. On the 18th no changes were noted, except a quantity of dark-colored bowlders scattered down the south talus. The two 1927 cones were steaming. The yellow stain at the base of the east talus seemed deeper, but the south and southeast sulphur spots have not yet reappeared.

During the week ending April 18 the Observatory seismographs registered 11 local earthquakes. All were very feeble with the exception of one which occurred at 1:43 a. m. on April 16. This one was slight, but was felt by many people in the vicinity of the volcano. Its origin is shown to be five miles from the Observatory, the direction suggested being SE.

Slight ENE. tilt has accumulated during the week.

THE CHAIN CRATERS ROAD

The Hawaii National Park on April 15 opened its new road along the chain of craters southeast and east of Kilauea. Work on this road was commenced in April, 1927, and its cost as now given to the public is \$158,083. It starts from the Volcano House-Halemaumau road at a point one-half mile east of the Summer Camp, and follows in general the route of the old ~~Cocktail~~ Trail, crosses the old Keauhou Road, and continues on through the general region traversed by the Kalapana Trail, ending at the southwest side of Makaopuhi Crater. Its length is 6.95 miles. It is throughout a first-class, modern, gravel surfaced, automobile highway.

The craters from which the road takes its name are in a sweeping curve along the Puna Rift line, and give evidence of both ancient and recent volcanic activity along that crack in the mountain structure. Out-pourings from this same rift line where it curves still farther east and northeast beyond Makaopuhi, have built the ridge of Puna, marked by its line of cones. The Puna ridge probably continues even beyond the easternmost point of the island, though it there disappears into the sea. The road may some day be continued down into Puna to make another most interesting route between Hilo and the volcano.

Starting at the point of departure from the older Volcano House-Halemaumau road, the new road passes at 0.5 mile, 1.0 mile, and 1.6 miles the three craters Lua Manu, Puhimau, and Kokoolau. At 2.3 miles is the Devil's Throat, and at 2.4 miles the cinder cone. Two more craters, Heake and Pauahi, are next passed, the first at

2.7 miles, and the highway follows the rim of the second between 3.4 and 3.6 miles from the beginning of the road. At 3.8 miles the old Keauhou road is crossed, and then comes Aloi Crater at 4.6, where is the steaming area and the road's nearest approach to Puu Huluhulu. Between 5.5 and 5.7 miles the road follows the edge of Alealea Crater. At 6.0 miles is the entrance south to the very interesting 1923 miniature lava flow. The end of the road is reached at Makaopuhi Crater, 6.95 miles.

Justice cannot be done in describing these points of interest in so small a space; a brief review must suffice. The craters are members of the same family which includes the Crater of Kilauea, Kilauea Iki, and Keanakakoi. They are the stand-pipes where in times past the lava rose and fell as it was forced into or allowed to drain from the great crack called the Puna Rift. The benches and mezzanine floors in some of the craters represent lava lake levels that were maintained long enough for the lava beneath parts of them to harden. Those parts of a cooling lake where lava still remained soft enough to drain away when the release of pressure came, would then collapse, leaving these benches high and dry.

The Devil's Throat is like the Pit Craters in the Kau Desert. These deep well-like holes are the cavings-in of the roofs of lava tubes or chambers, weakened by heat or earthquake cracks; the falling debris perhaps being removed by the flow or heat of lava beneath to make room for more and still more caving-in till finally the very top surface falls in. Near the Devil's Throat is an interesting cinder cone, of which the inner construction has been exposed by the cutting for the road. The road throughout its length exposes by its cuttings interesting shallow sections showing the thickness and composition of the region's surface layers.

The steaming area at Aloi Crater gives evidence of rock beneath the surface still hot enough to turn back as steam the ground water that comes in contact with it. In the steaming area is an interesting ridge of hard, dense, bluish rock very different from the usual vesicular and frothy types of lava.

Of special interest are the miniature lava flows of 1922 and 1923. The little flows in Makaopuhi Crater of May 28, 1922, and on the brink of Napau Crater which oozed out the next day, are the clues that indicated how the lava was draining from Halemaumau during its great collapse of that month. Halemaumau refilled its lava reservoir during the next 15 months, but again movement along the Puna Rift occurred, as evidenced by earthquakes, opening the way for the lava to drain again from the pit during August, 1923. In this case the clue was the small flow of August 25, 1923, just south of the new road, at the 6.0 miles point. Here can be seen how lava issued from a long crack in the ground, spattering up into the trees and flowing down through the forest for a few hundred feet, making interesting tree moulds. Halemaumau partly recovered from this second collapse, then in April of 1924 came the earthquakes and subsidence in Puna, at the lower part of the rift line, followed by the great explosive collapse of Halemaumau in May. This time no lava appeared along the rift, but evidence seemed ample without it that once more the same crack was responsible for the wasting of Kilauea's fire.

Thus the Puna Rift is easily seen to be an important part of the volcano. The new road now makes it more accessible for study, so increasing the knowledge of the volcano as well as making available to the public a region of great interest and scenic beauty.

R.M.W.

52,000 words of volcanic information if you save and bind the Volcano Letter
Hawaiian Time is 10h. 30m. slower than Greenwich

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UNITED STATES
DEPARTMENT OF THE INTERIOR
NATIONAL PARK SERVICE
HAWAII NATIONAL PARK
VOLCANO HOUSE, HAWAII

OFFICE OF THE SUPERINTENDENT

April 6, 1928

Mr. Stephen T. Mather, Director,
National Park Service,
Department of the Interior,
Washington, D. C.

Dear Sir:-

The following report on the operation and activities of the Hawaii National Park during the month of March 1928, is submitted for your information and approval:

000 GENERAL:

The bright dry weather of February continued into March up to the 25th and afforded delightful conditions for visitors whose numbers fell just slightly below those of February, long considered the best travel month in the Hawaiian Islands.

220 IMPROVEMENTS:

The 112 man days of labor in March accomplished the usual maintenance of roads, erected two toilets at the end of the Chain of Craters Road and one at the Auto Camp, built approach trails from the road to the Devil's Throat and to Kalaopuhi, and drove the park residence road 500 feet farther into the woods in preparation for the building of two cottages for laborers and an equipment shed in the location designated by the chief landscape engineer's plan.

240 KAU APPROACH ROAD:

Contractor Otto Madeiros laid 2000 feet of asphalt during March on his $3\frac{1}{4}$ mile project through the aa flows immediately west of the park.

310 KAILUA HOTEL:

During the month the Inter-Island Steam Navigation Company let to R. E. Woolley, of Honolulu and builder of the Royal Hawaiian, the contract for a new twenty-room hotel on the beach at Kailua, Kona, which will furnish first class accommodations to tourists who make the trip around the island. The amount involved is said to be \$125,000 and the building will be ready by July.

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March Report - 2

317 CHAIN OF CATERERS ROAD:

B.P.R. Engineer E. J. McCracken's report for the month of March (through the 20th) is abstracted as follows:

"This project is now completed with the exception of four days of rolling which will utilize fully the 200 days allotted to the contractor. The rolling will be done as soon as rains moisten the roadbed.

# 4 Borrow	75cu.yds at 2.10	Correction	Rs	187.50
# 10 Finishing	6.95 miles at \$250.00			1,737.50
# 18 Rolling	21 days at \$12.00			252.00
# 20 Gravel, screened	207.99 Cu.yds at \$4.00			831.96
# 21 Gravel, supplemental	315.86 cu.yds at \$5.00			<u>1,579.30</u>
			\$	4,243.26
	Less 10% retained			<u>424.33</u>
	Voucher #137; Check #181,263		\$	3,818.93

Although the work done by the contractor exceeds the amount of money originally set up for this work by approximately \$1,500 the amount set up for the engineering will show a surplus of about \$2,500. This adjustment should be easily arranged by the General Accounting Office which will make the payment on the final estimate. The final voucher will be for \$48.00."

Though work was completed on the 24th the road will not be accepted from the contractor until finally inspected by Senior Engineer E. S. Wheeler, B.P.R., who is expected to reach Honolulu from California on April 6th. Shortly thereafter the road will be quietly opened to travel.

320 AROUND THE ISLAND ROAD:

"Project #909 report shows 40% completion with the amount of excavation about 75% completed. The rock crushing plant has been set up and about 400 cubic yards of rock has been placed on the grade adjacent to the contractor's camp and crusher. There remains about one mile of excavation to be done where the yardage is light.

The roller will be placed on #909 immediately and the subgrade will be rolled into shape, not only accommodating the motor traffic over the road but compacting the subgrade prior to trenching for surfacing.

Excavation, unclassified	3079 cu.yds. at \$2.64	\$ 7,864.56
Borrow	51 " " " 2.25	69.75
Overhaul	1334 " " " .25	333.50
Crushed rock	409.94 " " " 6.95	<u>2,849.08</u>
		\$ 11,116.89
	Less 10% retained	<u>1,111.69</u>
	Voucher #138; Check #181,264	\$ 10,005.20 "

March Report - 3

420 MUSEUM SERVICE:

The operation of the Uwekahuna Observatory is proving an exacting task for one man, Ranger Douglas. In March he delivered 22 illustrated lectures to 1001 people, one lecture to 44 being special; and found it necessary to make new labels with enameled supports for all the museum specimens, to assemble, label and hang six decorative panels, three of photographs and three of scientific charts, to seal with putty the glass exhibit cases so as to make them dustproof, to enamel several odd pieces of furniture, to repair chairs, to repair the gasoline engine, etc. The Observatory and lectures constitute a popular feature of the park that every tourist appreciates.

470 MONGOOSE:

In order to give protection to the pheasants, quail and other ground-nesting birds at this critical spring season Ranger Douglas inaugurated a trapping campaign for the weasel-like mongoose which is far too numerous.

480 NATURAL PHENOMENA:

For volcano report and other collateral information of interest see attached Volcano Letter of March 21st.

510 TRAVEL:

The diminution of local travel to the park was due to the postponement of visits till the Chain of Craters Road should be opened. Tourist travel continued good with the following dates leading: the 19th when the S.S. Empress of Australia brought 306 around-the-world tourists; the 20th when the S.S. City of Honolulu brought 120; the 6th when the S.S. City of Los Angeles brought 119; the 24th when the S.S. Haleakala brought 123 Shriners from Honolulu to Hilo to assist in the initiation of 19 novices and later more than 100 came to the park; the 7th when the S.S. Haleakala brought 54 Elks from Sacramento and other California cities. These latter were less than a half of the original pilgrimage, the others having been dissuaded in Honolulu from coming over. This attitude on the part of Honolulu people, born of commercial rivalry, becomes very bold sometimes.

Hotel guests from 39 states and 5 foreign countries	1,445
Arrivals at Kilauea Military Camp	348
Autoists, part of day	3,250
To Haleakala Section (estimated)	50
	<u>5,093</u>

520 WEATHER CONDITIONS:

The clear dry weather of February continued almost throughout March, giving rise to considerable concern over low water in supply tanks for the entire island. A light rain fell on the 8th at night but it was not until the 25th that the first real rain occurred.

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March Report - 4

530 WEATHER CONDITIONS: (Continued)

Maximum temperature	on 4th	87
Minimum "	on 26th	47
Number of days without precipitation		12
Rainiest day	the 29th	0.79 inches
Rainfall for month of March		2.03 "
" " " " " at Hilo		4.54 "
" " 1926 58.93 inches; for 1927		128.62 "

540 VISITORS:

Mrs. Irene M. Walbridge of Vermont and Mrs. Walter L. Duval of Rhode Island national executives of the American Legion Auxiliary on 3rd.
Mr. Wilbert F. Gilman of New Hampshire, officer of Appalachian Mountain Club; 14th to 16th. He later climbed Mauna Kea and Haleakala.
Mr. Gilbert S. Underwood, Los Angeles architect, on 20th.
Mr. Geo. T. Armitage, Hawaii Tourist Bureau, on 28th.

Very respectfully yours,

R. E. Evans
R. E. Evans,
Superintendent.

cc to Mr. H. M. Albright,
Asst. Director (Field), N.Z.S.

cc to Mr. V. A. Kittredge,
Chief Engineer, N.Z.S.

Please send publications and news notes about volcanic matters
Address: HAWAIIAN VOLCANO OBSERVATORY, VOLCANO HOUSE, P. O., HAWAII

THE VOLCANO LETTER

A Weekly news leaflet of the Hawaiian Volcano Research Association

Sent free to libraries and to members. Dues of Association \$5 per annum. Members receive in addition the illustrated Monthly Bulletin of the Hawaiian Volcano Observatory. Anyone may join the Association and thereby support Pacific volcano research. The society has also patrons—individuals, firms and institutions.

No. 169

RELEASED WITHOUT COPYRIGHT RESTRICTION No. 168

KILAUEA REPORT No. 843

WEEK ENDING MARCH 21, 1928

Section of Volcanology, U. S. Geological Survey:
R. M. Wilson, Temporarily in Charge

Two visits to Halemaumau this week disclose no important changes. Exceedingly dry weather has been prevalent, and there has been a minimum of slides in the pit. At 4:15 p. m. March 18 a few stones were heard falling, and the south cone was steaming freely. Considerable debris had fallen on the east floor from slides of the preceding week. The southeast sulphur spot was entirely obliterated, and the east sulphur spot was dimmed. Large new scars showed on the face of the northeast wall, and there were streaks made by slides north-northeast. The rim has receded very noticeably at the 14-ton boulder. During 15 minutes just before 10 a. m. today not a sound was heard, and steaming was very slight at all vents. The whole pit interior appeared very dry, dusty, and peaceful.

During the week ending March 21 there were 20 very feeble local earthquakes and one telesism recorded on the instruments of the Observatory.

The record of the telesism showed fairly definite phases, the preliminary being at 6:40:26 p. m. on March 15, the secondary coming at 6:47:59 p. m., and the long wave beginning at 6:56:03 p. m. The beginning of the preliminary wave was of the gradually emergent type, so that the distance indicated by these times of arrival, 3,685 miles, is probably slightly too small. This earthquake was also well recorded on the seismograph in Hilo. At this station the preliminary wave showed a more definite beginning, and the somewhat greater indicated distance of 3,720 miles is probably more nearly correct.

The accumulation of tilt during the week has been slight toward the SW.

WORK OF THE RESEARCH ASSOCIATION 1927

In the course of 1927, the Hawaiian Volcano Research Association has accomplished through the Hawaiian Volcano Observatory the following:

- (1) Construction and opening of the Uwekahuna Observatory and Museum, now serving the public through the National Park Service.
- (2) Establishment, manning, and maintenance of the useful instrument shop.
- (3) Manufacture and output of three seismographs, two now in operation at Kodiak and Hilo, and one shipped to the U. S. Coast and Geodetic Survey for use at Sitka, Alaska.
- (4) Continuation of boring experiments on the floor of Kilauea Crater, so that in all 34 holes for measurement of temperature have been drilled.
- (5) Continuation of seismometric recording at Hilo and at Kealahou in West Hawaii, and establishment of

a new station, equipped with a three-component instrument of Japanese manufacture, at the Uwekahuna Observatory on the high bluff west of Kilauea Crater.

(6) Continuation of publication of the Monthly Bulletin of the Observatory and of the Volcano Letter.

(7) Building and testing a wheeled boat.

The Uwekahuna Observatory is a success, and travelers find in the motion pictures, the exhibits, the explanations, and the splendid view a compensation for what is missing when the lava pit is inactive.

For the winter of 1927-28 the drilling apparatus is laid up, and the work connected with temperature measurements on the holes and points located and on the cracks adjacent to the 132 surveyed stations of the Kilauea floor.

The seismological registration done by the stations under the Research Association is incessantly improving as to quality of instruments and time service, and it will not be long before all stations have instruments of the same quality as those at the Observatory.

Under the Research Association, F. Y. Boyle has worked continuously from March 1 to December 31 as machinist in the shop equipped here by the Association. He has constructed seismographs, repaired instruments, set up the electric plant for projection apparatus at the Uwekahuna Observatory, installed all the machinery in the shop itself, kept the drilling apparatus in order, and assisted by F. F. Fischer and S. Oda, has built the wheeled boat. Professor Paul Kirkpatrick was employed by the Association from July 1 to August 14 to act as lecturer, in cooperation with the National Park Service, at the Uwekahuna Observatory, and to carry on seismological research. He devised special projection for the motion pictures at the Territorial Fair, and had charge of the Observatory's exhibit at the Fair. Captain R. V. Woods and J. B. Albert continued to do good work as seismograph operators in Kealahou and Hilo, respectively. The station at Hilo, under A. D. Williams, was temporarily discontinued on May 15 until such time as a better instrument is available.

The Hawaiian Volcano Research Association has added to the plant complete tool equipment of a power machine shop, including gasoline engine, automatic hack-saw, large and small machine drills, a machine grinder, a circular-saw table, and a forge. A large lathe was obtained and added to our shop. New parts for this lathe were obtained through the Government in October, and this tool, supplementing the small Barnes lathe and the still smaller jeweler's lathe already on hand in the Observatory, equips the establishment with turning tools sufficient for all present need.

T.A.J.

STATION NOTES

On March 15 Dr. T. A. Jaggar left this station, beginning his trip to Washington, D. C. In Washington on April 5 he will deliver a lecture before the National Geographic Society, and will then start for Alaska as leader of the National Geographic Pavlov Volcano Expedition.

Mr. F. Y. Boyle terminated his services as machinist for the Observatory on March 15. In his place Mr. Tai On Au has been engaged to continue the construction of other units of the Hawaiian type seismograph and to carry on the miscellaneous machine work of the station. Mr. Au is a resident of Hilo, and comes to the Observatory after three years training in the machine shop of the Smith-Hugh Vocational Training School.

R.M.W.

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U. S. Department of the Interior
National Park Service
Hawaii National Park

No. 6
MEMORANDUM FOR THE PRESS
IMMEDIATE RELEASE

TOURIST WEATHER:

Hawaii National Park in the bright sunlight of March proved especially attractive to 5093 visitors of whom 1793 came from distant shores. The largest groups were 306 around-the-world tourists by the S.S. Empress of Australia on the 19th; 120 by the S.S. City of Honolulu on the 20th; 119 by the S.S. City of Los Angeles on the 6th; 123 Shriners from Honolulu by the S.S. Haleakala most of whom came to the park after the ceremonies and parade in Hilo on the 24th; 54 Elks from Sacramento and neighboring California cities by the S.S. Haleakala on the 6th. April promises to present the ohia forest in the Kilauea Section in gorgeous red for the rain on the 25th that broke the dry spell of five weeks was just the circumstance to bring out in profusion the flaming lehua blossoms.

LECTURES AND MUSEUM DISPLAYS.

Uwekahuna Observatory was the scene of much activity on the part of the ranger in charge. He presented 22 illustrated lectures to 1001 guests, 17 of them at the regular 3:30 hour on steamer days, and Sundays, 4 at midday on the 19th to the 306 around-the-world tourists from the S.S. Empress of Australia, and one special on the 30th for a delegation of girls from the Kaneohe High School in Honolulu. His efforts were otherwise directed towards improving the museum features by assembling, labeling and hanging six decorative panels, three of photographs and three of scientific charts; drafting and preparing for the volcanic specimens labels

-2-

with neat enameled holders for reader perusal; sealing with putty the glass exhibit cases so as to make them dust-proof; and enameling the furniture in conformity with the general color scheme.

ROAD DEVELOPMENT.

The opening to travel of the new Chain of Craters Road was postponed until some time in the middle of April. This additional time was utilized in rolling the surface after the rains had moistened it and in the construction by park forces of approach trails from the road to the Devil's Throat and Makaopuhi Crater, the latter across a wide steam crack.

The territorial belt road extending west from the Volcano House became noticeably better by several newly constructed sections. Contractor Charles H. Will reported as 40% completed his stretch of $4\frac{1}{2}$ miles within the park and Otto Madoiros laid down 2000 feet of asphalt surfacing on his project of $3\frac{1}{2}$ miles immediately adjoining the park to the west. The completion of these projects by early summer will insure a smooth road from Hilo to Waiohima, a distance of 70 miles.

HOLE IN ONE CLUB ATTRACTING WIDE ATTENTION.

The World's Grandest Hole in One Club acquired new recognition for in addition to the certification of 290 new members moving pictures were made of parties at the 19th Tee by Mr. Len Hammond who came to the park expressly to film this feature for the Grantland Rice Sportlights which are distributed by Pathé through the leading theatres.

-3-

HUI O PELE GROWS.

Hui O Pele Hawaii reached 6000 members by acquiring 343 new ones during the month. Thirty-three states and 10 foreign countries were represented and Illinois was second with 35 to California's 62. Plans are expected shortly from the Park Landscape Engineer for a shelter to be erected at the end of the new Chain of Craters Road that shall contain a fireplace and be large enough to accommodate a party of ten people over night. This is an important location for during the coming summer it is proposed to build from here a trail to the cone crater north of Makaopuhi and beyond to the 1840 Lava Trees, 2 miles, and another to Napau Crater in the extreme eastern corner of the park, 3 miles. This region is a dense forest of ohias and ferns and well nigh impenetrable without trails as is well known to those who tried to reach Napau when it was in eruption in May, 1922.

Volcano House, Hawaii
April 3, 1928

R. T. Evans,
Superintendent.

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UNITED STATES
DEPARTMENT OF THE INTERIOR
NATIONAL PARK SERVICE
HAWAII NATIONAL PARK
VOLCANO HOUSE, HAWAII

OFFICE OF THE SUPERINTENDENT

March 5, 1928

Mr. Stephen T. Mather, Director,
National Park Service,
Department of the Interior,
Washington, D. C.

Dear Sir:-

The following report on the operation and activities of the Hawaii National Park during the month of February 1928, is submitted for your information and approval:

000 GENERAL:

February substantiated its reputation as the best tourist month for the islands by witnessing the coming of 1701 real tourists. To these might be added the 240 officers, their families and soldiers who came to the Military Camp for the usual 10 day recreation periods. The weather was well nigh perfect. Islanders, who made up the remainder of the 5746 visitors, found the weather at the seacoast equally delightful and contentment there accounted for the lesser number to come to the park than in the preceding month.

160 THE SHIPMAN ADDITION:

When the island newspapers carried a description of the proposed addition to the park as introduced into Congress recently the owners of the land, Mr. W. H. Shipman and son, Herbert Shipman, at once made strenuous protest. Until then the matter was wholly unknown to them. Besides, the addition would encroach upon a long cherished residence site.

The superintendent accompanied them over the ground on the 22nd and an agreement was reached whereby the shifting of the northwest corner 60 feet to the southward would be satisfactory. The north line - 1646.6 feet long - would be changed slightly in direction but the acreage would remain the same and the plot would become a parallelogram.

This change still leaves the addition well covering the Thurston Lava Tunnel, its primary object, but cuts off about 100 feet of the trail from the exit. This is a trivial matter as there is plenty of space for a relocation of the trail.

This adjustment loses little for the park in land but gains much in the goodwill of a neighbor. It may be well to again mention here that it is the intention of all persons who own land contiguous to the park to build residences close to the line and use the park roads as entrances. There are many private tracts that overlook the Kilauea Section of the park.

February Report - 2

220 IMPROVEMENTS:

The 70 man days of labor in February were devoted to the usual maintenance of roads, etc., but more especially to the removal of the rather unsightly laborer's cottage from its location at the main park entrance to a site in the Park Residence Section, and its re-building.

240 KAU APPROACH ROAD:

The contract was let for the reconstruction of the road through the aa lava west of the park to join the 8-foot asphalt macadam county road that extends on westward 20 miles to Pahala.

Length of construction -- 3.25 miles or 17,656 feet.
 Type - 10 foot asphalt macadam plus 3 foot shoulders.
 Contractor - lowest of 4 bidders - Otto Madeiros of Hilo.
 Contract price - - - - - \$ 45,485.78

Territorial Loan Funds, directed by County Engineer E. L. Wung, work was commenced towards the end of February at the west end of the project and August 1, 1928 is the date set for the completion.

310 HOTEL IMPROVEMENTS:

Manager James H. Gandy acquired a good moving picture projector for the entertainment of guests of the Volcano House. It was used several times during the month in conjunction with short lectures by the Park Superintendent. The two reels already secured are of scenes on the island of Kauai and of a journey to Kilauea Volcano when it contained the lake of bubbling, whirling liquid fire.

Construction was begun on the 28th of a room adjoining the hotel office to which the post-office will be moved from its present location in the old building in the rear. This change which has long been sought for the better convenience of patrons of the post-office will be effected about the 10th of March.

317 CHAIN OF CARRIERS ROAD:

B.P.R. Engineer E. J. McCracken's report for the month of February (through the 20th) is abstracted as follows:

"Continuous rains in the particular section traversed by the last mile of this road added to the thorough soaking it received in December and January almost prevented work of any description. However, the final guard wall was finished at Makuopuhi Crater, the subgrade of the loop at the end of the road was entirely laid, and gravel was distributed. Clear weather began about the 20th so that redoubled efforts will assure the completion of the project by March 15th."

The Grand Opening has been set for Saturday afternoon, March 24th, and the program will be directed by the Malahoe Chapter No. 2 of the Order of Kamehameha, who will make of it an Hawaiian pageant of appropriate theme. A dance and luau will be given at the Volcano House in the evening.

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February Report - 3

317 CHAIN OF CRATERS ROAD: (continued)

# 3	Excavation, unclassified	145 cu.yds.	at 2.25	326.25
# 4	Borrow	433 "	" 2.10	909.30
# 8	Overhaul	103 "	" .25	25.75
#18	Rolling	5 days	" 12.00	60.00
#20	Gravel, screened	487.6 cu.yds.	" 4.00	1,950.48
#21	" supplemental	94.6 "	" 5.00	473.00
#45	Guard rail	16.5 "	" 17.00	280.54
				4,025.02
	Less 10% retained			402.50
	Voucher #117 check #181,235			\$ 3,623.24

Allotment advice #133, March 17, 1927 covering contract	146,582.86
Payment to contractor to date	129,204.15
Retained as 10%	14,364.90
Apparent balance	\$ 2,933.81

320 AROUND THE ISLAND ROAD:

"This project, favored by lighter rains and generally fair weather, advanced to the point of 57% as to excavation. The contractor has started to get out some surfacing material at the quarry and will probably commence the placing of the crushed-rock surfacing in the month of March."
B. J. McCracken.

# 3	Excavation, unclassified	5566 cu. Yds.	at 2.64	14,694.24
# 8	Overhaul	3924 "	" .25	981.00
				15,675.24
	Less 10% retained			1,567.52
	Voucher #118; check #181,236			\$ 14,107.72

323 TERRITORIAL AIRPORT:

The formal opening with ceremonies conducted by Col. Perry M. Smoot, chairman of the Territorial Aeronautical Commission, Maj. Clarence K. Young, Chief of the Aeronautical Division Department of Commerce, and other officers who flew from Honolulu in seven planes, of the Hilo airport revived the interest in a landing field in the national park. The superintendent accompanied a party of flyers over the selected location the following day. Service planes are apt to fly at any time between Kilauea Point and Hilo and an emergency field in the park which lies midway would perhaps prevent disaster. The only possible field is in the park but it would require some leveling and the removal of boulders to render it safe.

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February Report - 4

350 DONATIONS AND ACCESSIONS:

Though only Hui O Pele Hawaii contributes donations to the improvement of the park the following list of distributions for the month of February is sufficiently remarkable to be noted:

Certificates of membership in Hui O Pele Hawaii	--	429
Coins for the World's Grandest Hole-in-One Club	--	359
National Parks Portfolios	- - - - -	44
Topographic maps of the Kilauea Section	- - -	37

420 MUSEUM SERVICE:

The illustrated lectures at Uwekahuna Observatory for February numbered 25 and the attendance was 1224 - an average of 49 at each lecture. On the 8th 457 tourists from the Around-the-World S.S. Caledonia passed through the museum but their schedule did not permit them to stay for lectures, much to their disappointment.

Ranger Douglas completed 3 decorative panels of photographs and 2 of scientific charts for hanging in the museum.

480 NATURAL PHENOMENA:

On the 20th at 8 A.M. a large dust cloud rose at the north corner of the pit and hung in the air for 20 minutes. Other avalanche clouds followed, and a climax of sliding sent up such a cauliflower that the column of dust rose several thousand feet and was visible from Hilo, starting rumors of an eruption. The pit floor was covered with red dust on its north side, and the big cloud stained the outside Kilauea floor also.

490 SILVERSWORD:

Ten silversword sprouts, sent from the crater of Haleakala by Otto Degener, botanist at the University of Hawaii, were planted by the superintendent on the 9th on the rim of Kilauea Crater. Silversword seeds also were planted at the same time and on following days. Propagation of this fine Hawaiian plant is hoped in order to prevent its threatened extinction.

510 TRAVEL:

Principal arrivals of tourists were: the S.S. Aleutian direct from Seattle on the 3rd with 114 delegates from the northwestern states to the Convention in Honolulu of the Western Division of the United States Chambers of Commerce; the S.S. City of Los Angeles on the 6th with 161, including some delegates from southern California; the S.S. Caledonia from New York on the 8th with 457 around-the-world tourists; the S.S. City of Honolulu on the 21st with 170; the S.S. Matsonia on the 24th with 108.

Hotel guests from 41 states and 8 foreign countries	1,701
Arrivals at Kilauea Military Camp	240
Autoists, part of day	3,755
To Haleakala Section (estimated)	100
Total - - - - -	5,746

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February Report - 5

520 WEATHER CONDITIONS:

February, as last year, was almost continuous sunshine, the light rainfall of 2.74 inches occurring generally at night. A storm over the mountains left a mantle of snow on the 19th that reached down the slopes of Mauna Kea as far as the 8000 foot level and crowned Mauna Loa as far as the Red Hill, 10,000 feet.

Maximum temperature on 20th and 27th	82
Minimum " " 13th and 26th	45
Number of days without precipitation	7
Rainiest day 13th	0.76 inches
Rainfall for month of February	2.74 "
" " " " " at Hilo	5.72 "
" " 1926 58.93 inches; for 1927	128.62 "

540 VISITORS:

- Paul Shoup, Railroad engineer of San Francisco, & wife on 10th
- Lafayette Hanchette, banker of Salt Lake, & wife on 11th
- Maj. C. M. Young, of Department of Commerce, Washington, D. C.,
- Col. F. M. Smoot, Aeronautical Commission, and other officers on 12th
- A. Garman Smith, president of Pacific Ad Clubs Association on 18th, in interest of convention this June.
- Mrs. George P. Putnam, wife of New York publisher, on 22nd
- O. S. Judd and Territorial Foresters on 24th
- Mrs. James Oliver Curwood, of Owasso, Mich., wife of noted author, on 25th
- Mr. & Mrs. Clarence Aspinwall, of Washington, D. C. on 25th

900 MAUNA LOA VISITORS:

The summit of Mauna Loa was reached by one tourist, Mr. Conrad Lambert of Tulsa, Oklahoma, on the 9th, and by 22 soldiers and marines on other dates.

Very respectfully yours,

R. T. Evans
R. T. Evans,
Superintendent.

cc to Mr. H. M. Albright,
Asst. Director (Field) N.P.S.

cc to Mr. F. A. Kittredge,
Chief Engineer, N.P.S.

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UNITED STATES
DEPARTMENT OF THE INTERIOR
NATIONAL PARK SERVICE
HAWAII NATIONAL PARK
VOLCANO HOUSE, HAWAII

OFFICE OF THE SUPERINTENDENT

February 6, 1928

Mr. Stephen T. Mather, Director,
National Park Service,
Department of the Interior,
Washington, D. C.

Dear Sir:-

The following report on the operation and activities of the Hawaii National Park during the month of January 1928, is submitted for your information and approval:

000 GENERAL:

The increase in visitors over the month of December of 1927, making 5,985 in January, is ascribed to the revival of tourist travel. Local travel was average for the first eleven days but the cold winds and rains of the latter two-thirds of the month kept islanders down near the sea coast where much milder and better weather prevailed.

220 REPAIRS TO RED HILL REST HOUSES:

Having fallen heir to the 3-room rest-house and water-tank at Red Hill which the Hawaiian Volcano Research Association had built at the halfway point of the trail to Mauna Loa it was recognized as necessary that the Service effect some repairs in order to save the property from being blown to pieces and burned as fuel by campers. It is vital to the ascent of Mauna Loa either by foot or saddle animal as travellers must rest here on the way up and back, the summit being 5 hours beyond and 3618 feet high. Two trips were made by rangers with five loaded pack-mules on the 12th., and 30th. The roof of the rest-house was recovered with tar paper; a wire screen was placed over the water-tank, a stable for horses and a toilet were built, and six mattresses were packed up to supplant the three dilapidated ones.

The first trip was made by seven including the superintendent, Dr. Josephine Morelock of Honolulu, Miss Elizabeth Still of Kirkville, Mo., and Glen Russ of Pahala. Clear weather prevailed on the mountain but it was cold enough at night to make ice. Twenty-nine persons made the ascent in January. It is planned to erect a Hui O Polo shelter at the 7000 foot level and to set mileposts along the trail which shall bear the additional figures of elevation and distances in hours and minutes.

January Report 2

317 CHAZI CRATERS ROAD:

B.P.R. Engineer E. J. McCracken's report for the month of January (through the 20th.) is abstracted as follows:

"In spite of much rainy weather since December 20th., progress on this project has brought the work up to the final operations, which alone remain to be done, as - some borrow and overhaul to complete last half-mile of roadbed, gravel to surface this last half-mile, the remaining 25% of the stock-pile gravel to be hauled and distributed at intervals along the last two miles, the completion of the last guard-wall at Makapuhi Crater which was just started, shaping up road from start to finish, dragging, rolling and dressing up shoulders and ditches. Project should be done by March 1st."

The estimate for the month:

#1	Clearing and grubbing	5% of \$3500	\$	175.00
#3	Excavation, unclassified	2662 cu.yds. at 2.25		5,989.50
#4	Borrow	826 " " " 2.10		1,714.60
#8	Overhaul	608 " " " 0.25		152.00
#18	Days rolling	5 days " 12.00		60.00
#20	Gravel, screened	605.9 cu.yds. " 4.00		2,423.60
#21	Gravel, supplemental	372.67 " " " 5.00		1,863.35
#45	Guard Rail	20.57 " " " 17.00		349.69
				<u>12,917.74</u>
	Less 10% retained			<u>1,291.77</u>
	Voucher #96 and check #181,205		\$	11,625.97

320 AROUND ISLAND ROAD:

"Rough grading is completed over a stretch of this road through the Ae flows between stations 295 and 325, and has just been started between station 160 (start) and 210 (below quarry site) by four gangs of laborers. Construction of the rock crusher is approaching completion. Detours have been provided by conditioning the old Peter Lee Road which runs along parallel to the new alignment."

The estimate for the month:

#3	Excavation, unclassified	1050 cu.yds. at 2.64	\$	2,772.00
	Less 10% retained			<u>277.20</u>
	Voucher #97 and check #181,206		\$	2,494.80

420 MUSEUM SERVICES:

Ranger Douglas gave 26 illustrated lectures to 1076 people at Uwekahuna Observatory during January, 24 to the regular tourists' parties at 4 P.M. on steamer days and at 2 and 3 P.M. on Sundays, and 2 specials to 155 officers and men from the Japanese oil tanker Hayatomo on the 12th., and 13th.

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January Report 3

The prolonged "kona" storm of December kept the lecture room flooded and threatened to blow in the large plate glass windows so Dr. Jaggur made some structural improvements to the building. He maintains an interest in the building as well a working Japanese exhibition seismograph, but the current maintenance and care of the premises with the attendant expense are being assumed by Ranger Douglas and the park, respectively.

400 NATURAL PHENOMENA:

Halemauau apparently burst into eruption at a half hour past midnight of the 10th., but the spectators who gathered on the rim inside of 30 minutes beheld only a fiery lava lake at the bottom of the pit that merely glowed without fountaining nor motion. It turned to a blackened crust by daylight. The best explanation of the outbreak is that a particularly big avalanche from the west wall crashed in the floor of the pit and squeezed up liquid lava from a pool that had been left by the last eruption.

(See Volcano Letter of January 11th., attached).

510 TRAVEL:

Revival of tourist travel from the habitual December slump began early with the coming of 337 around-the-world-travellers with the U. S. Belgenland on the 6th. The U. S. City of Honolulu brought the second largest crowd on the 24th., 109. The Japanese Association of Hilo brought 155 Japanese sailors to the park on the 12th., and 13th.

Hotel guests from 37 states and 6 foreign countries	1,074
Arrivals at Kilauea Military Camp	163
Autoists, part of day	4,703
To Halemauau Section (estimated)	45
Total	8,985

520 WEATHER CONDITIONS:

January was unmistakably winter. The heavy rains of December gave way to clear weather on the 30th., that extended into January through the 11th., during which period many nights touched frosty temperatures that blackened the ferns. Cold winds and rains prevailed from the 12th., on.

Maximum temperature on 6th.	83
Minimum " 27th.	47
Number of days without precipitation	6
Rainiest day 13th.	2.00 inches
Rainfall for month of January	6.99 "
" " " " " at Hilo	0.52 "
" " 1926 ... 53.0% inches; for 1927	128.62 "

January Report 4

840 VISITORS:

Mr. Vernon Goodwin and wife of Yellowstone National Park on 6th.
Rev. H. F. Downs and wife of Washington, D. C. on 25th.
Col. G. L. Harrison and wife of Cincinnati, Ohio on 27th.

900 HOLE IN ONE CLUB:

To meet a popular demand for the World's Grandest Hole in One Club the Service threw up a tee 10 x 6 x 1 on the rim of Halemauau and marked it with two signs. The Hawaii Transportation Co., Ltd., through its chauffeurs, supplies new golf balls and clubs. For 50 cents per ball anyone may drive off into the pit, achieve the feat of making a hole in one, and receive a card certifying to the same. This was started on the 25th, and by the end of the month 89 cards were issued. On April 19, 1927 Goddess Pele's temper was tested in regard to this business by Secretary of the Interior, Hubert Work, Director of National Parks Stephen T. Mather, Governor Wallace R. Farrington and some twenty members of the delegation from the Pan-Pacific Conference in Honolulu, and the two subsequent eruptions are accepted as signs of her approval. Its amazing how wild the tourists are for this stunt.

Very respectfully yours,

R. E. Evans
R. E. Evans,
Superintendent.

cc to Mr. E. M. Albright,
Asst., Director (Field), H.P.S.

" " Mr. F. A. Kittredge,
Chief Engineer, H.P.S.

Please send publications and news notes about volcanic matters
Address: HAWAIIAN VOLCANO OBSERVATORY, VOLCANO HOUSE, P. O., HAWAII

THE VOLCANO LETTER

A Weekly news leaflet of the Hawaiian Volcano Research Association

Sent free to libraries and to members. Dues of Association \$5 per annum. Members receive in addition the Illustrated Monthly Bulletin of the Hawaiian Volcano Observatory. Anyone may join the Association and thereby support Pacific volcano research. The society has also patrons—Individuals, firms and institutions.

No. 159

RELEASED WITHOUT COPYRIGHT RESTRICTION

January 12, 1928

KILAUEA REPORT No. 833

WEEK ENDING JANUARY 11, 1928

Section of Volcanology, U. S. Geological Survey
T. A. Jaggar, Volcanologist in Charge

This week has ended with a small gush of lava in the bottom of Halemaumau, but it is very doubtful whether this is anything more than a squeezing-up by pressure of remnant liquid lava from the July eruption of 1927.

The week has been fine, ending with strong northeast wind. At the end of last week there was almost continuous uneasy sliding of small rocks from the west, northwest, and north walls of Halemaumau. This is usually started by a big rock falling from high up the wall. The July floor has been greatly overlapped with debris, especially under the northwest talus cone, the top of which has been incessantly added to so as to bury the niche formerly seen there.

A traverse of the south and west edges of the pit the afternoon of January 7 showed that the flag at the west-northwest rim was in a precarious position, and new cracks were giving up hot steam for 50 feet back of this flag. So fresh were the cracks that fern and grass sods watered by the recent rains were torn asunder, and some of the fissures were more than three feet wide. Numerous small slides were falling under this place.

On January 9 new measurements along the crack back of the east rim showed progressive widening of the principal crack northward to a maximum of five inches increase of width over the measurements of December 29. Leveling across Kilauea Crater floor from the south gravel ridge to the vicinity of the pit revealed a lowering in eight months of the Halemaumau rim region of 0.4 foot. Six notable slides occurred just after noon.

On January 10 avalanches increased all day at the northwest, and from 4:30 to 5 p. m. big slides indicated that the WNW wall was undermined and in process of falling. A large wet scar in the high wall lay over wet new-fallen fragments below. There was some sliding on all sides of the pit, as though the bottom plug were lowering under the debris slopes.

At 12:26 a. m. January 11 there was a prolonged avalanche roar heard, and then a moderate rosy glow appeared over Halemaumau. When the pit was reached about 1 a. m. there were three glowing areas of fresh incandescent lava on the floor, a long curved western band, a small central pudding, and a smaller fiery pot at the site of the north floor cone of July, 1927.

It was evident that new lava had spouted up, but in addition a light-colored landslide area covered the whole northwest floor. The rosy glow above the pit as seen from a distance had entirely disappeared in 20 minutes; the new lava was no longer bright, but consisted of a filigree of cooling flows with a suggestion of blue flame at the northern cone. There was little observed motion, no hissing or fountaining anywhere, but sliding continued from all sides, particularly northwest. The high, dark, avalanche scar in the WNW wall was now extended up to the top, and steam was seen on the face of the wall next to the north.

A circuit of the pit during the forenoon showed that the main new flow was not visibly incandescent by daylight, and consisted of black "sharkskin" lava in a crescent around the south side of the northwest pool of 1927. It lay just outside of the sunken crust of that circular pool, which had been surrounded by a raised bank separated by cracks from the subsided inner shell. The new lava had come up these cracks in three places, the flows merging outside of the bank to make the crescent, which was about 500 feet long. At its northeast end, near the center of the pit, was a small, ragged, lava patch, which had flowed from another crack eastward.

All of this appeared to have been occasioned by the landslide of the northwest debris slope. The tumble of rocks had ridden over and weighted down the whole of the crusted pool, breaking up the crust, as shown about the edges, and apparently squeezing up live lava from below, which emerged at the border cracks. Apparently this "lava floor," seemingly dead since last July, was really a stagnant lava puddle, still liquid below. It had been about 70 feet deep.

The northwest floor area was all covered with lobate heaps of red bowlders, the lobes convexed to the southeast. The northwest talus was completely stripped, revealing a rock slope lying at a flat angle. An immense avalanche from the edge of the pit had carried away the WNW flag, made a new notch in the pit edge just where the opening cracks had predicted collapse, and the crash had precipitated the landslide at the bottom.

The fire pot at the north cone had merely sent out a little trickle of black lava, stimulated by the same landslide pressure on the crust as at the other places. During the day the slides seemed to subside.

All this history pointed to a collapse rather than a rising, as shown by the slides and inward tilt of the past week. The load of tumbled rock revealed and squeezed up a little remnant lava. There was no harmonic tremor and no hissing was heard, both of these being characters of gas-charged lava when it is vigorously tumescing and ready to make fountains.

There were 58 local earthquakes recorded during the week. All were very feeble with the exception of one, at 1:07 p. m. January 4, which was a moderate shock felt in Hilo, South Kau, and other places, as well as locally. The distance to its origin from the Observatory is indicated as 21 miles. A number of the very feeble local tremors occurred coincidentally with avalanches in the pit. For many avalanches the time was not noted. It is probable that if more avalanche times had been noted, there would have been a greater number of the recorded tremors matched with coincident avalanches. During the night of January 10-11 a very heavy avalanche occurred, probably at 12:26 a. m., if the tremor recorded on the seismographs at that time can be regarded as the resultant disturbance. This tremor was more strongly recorded on the Uwekahuna seismograph than at the Observatory, which is to be expected; the distances of the two stations from the pit being 0.9 and 2.2 miles, respectively. The tremor as recorded at the Observatory was almost strong enough to be graded above the very feeble class, being nearly large enough to be perceptible. It was preceded by four more feeble preliminary tremors, the first of which was recorded at 12:19 a. m.

Microseisms were slightly stronger than usual during the middle part of the weekly period. Tilt accumulated moderately toward the WSW during the week.

U. S. Department of the Interior
National Park Service
Hawaii National Park.

No. 4.

MEMORANDUM FOR THE PRESS
IMMEDIATE RELEASE

JANUARY TRAVEL.

Though January in the volcano district possessed wintry characteristics of cold winds and rains there were 903 more visitors to the park than in the preceding month, or a total of 5,985. Tourist travel from distant lands was doubled, the largest contingents coming on the S. S. Belgenland, 337, the first around the world tour of the year, on the 6th., and on the S. S. City of Honolulu, 109, on the 24th.

A ONE NIGHT SPECTACLE.

Halemaumau treated the residents of the volcano district and guests of the Volcano House, among whom were passengers of the S. S. City of Los Angeles, to some excitement during the night of the 10th. A half hour after midnight a bright red glow burst over the pit. Early spectators on the rim beheld fiery lava on the floor of the pit in place of the blackened lava left by the eruption of last July. There was little power in the display and by daylight it had entirely ceased. The best explanation of the outbreak is that a particularly big avalanche from the west wall crushed in the floor of the pit and squeezed up liquid lava from a pool that had been left by the last eruption.

NEW ROADS FOR NEW AUTOS.

Steady progress was made during the month on the two big road projects. Excavation was completed on the Chain of Craters Road, the month's work starting at the 1923 earthquake crack from which lava spurted for two days in August of that year and terminating at Makaopuhi Crater, the biggest and most

spectacular of all the pit craters and the scene of a two days' eruption in May 1922. Surfacing this stretch and final shaping of the entire seven miles will be completed in February so that the road will be ready for a Grand Opening in which the park authorities and the Hilo Chamber of Commerce will cooperate about the first of March.

On the Around-the-Island Road grading was nearing completion of a half mile unit in the Aa flow between stations 295 and 325, and traffic is promised use of this stretch in another week. New grading was started at the east end of the project. The rock crusher will soon be ready to deliver the fine material for the surfacing.

MAUNA LOA TRAIL.

Towards reducing the strenuousness of the climb to the summit of Mauna Loa park rangers made two trips to the midway resthouse during the month to make repairs and build a stable for horses. It is necessary that hikers spend two nights in the resthouse for the summit of the mountain is still a 5 hours' climb beyond.

The first trip was made on the 12th., by a party of seven including the superintendent, Dr. Josephine Morelock of Honolulu, Miss Elizabeth Still of Kirksville, Mo., and Glen Russ of Pahala. Clear weather prevailed on the mountain but it was cold enough at night to make ice. Twenty-nine persons made the ascent in January. It is planned to erect a Hui O Pele shelter at the 7000 foot level and to set mileposts along the trail which shall bear the additional figures of elevation and distances in hours and minutes.

Page 3

WORLD'S GRANDEST HOLE IN ONE.

On Wednesday the 25th., a tee was in readiness and a supply of golf balls, clubs and cards, furnished by the Hawaii Transportation Company for a nominal sum, awaited the efforts of candidates to drive a golf-ball into the firepit of Halemaumau and become certified members of the World's Grandest Hole-in-One Club. Within a week 89 aspirants had achieved membership. The one essential condition is that the feat must be performed before witnesses. The shower of golf balls that is destined to fall into Madam Pele's abode will not offend the Goddess as events have proved since last April when Secretary of the Interior Hubert Work, Director of National Parks Stephen T. Mather, Governor Wallace R. Farrington and some twenty members of the delegation from the Pan-Pacific Conference in Honolulu "set the ball a'rolling" by way of finding out what She thought of the innovation.

PROGRAM FOR HUI O PELE HAWAII.

The size of this co-operating society passed the 5000 mark during the month by the acquisition of 222 new members whose addresses were Australia, Canada, England, Germany, India, Japan and 32 States. A person qualifies when he has stood upon the rim of Kilauea Crater and life membership costs him \$1.00 for which he receives a handsome certificate and button or brooch. Membership fees are used for improvements in Hawaii National Park. Already lava masonry shelters have been erected at the Thurston Lava Tube and Pauahi Crater, and it is planned to build two more of a larger type, one at Makaopuhi Crater at the terminus of the new Chain of Craters Road and one at the 7000 foot level on the trail to Mauna Loa.

Volcano House, Hawaii.
February 3, 1928

R. T. Evans,
Superintendent.

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UNITED STATES
DEPARTMENT OF THE INTERIOR
NATIONAL PARK SERVICE
HAWAII NATIONAL PARK
VOLCANO HOUSE, HAWAII

OFFICE OF THE SUPERINTENDENT

January 6, 1928.

Mr. Stephen T. Mather, Director,
National Park Service,
Department of the Interior,
Washington, D. C.

Dear Sir:-

The following report on the operation and activities of the Hawaii National Park during the month of December 1927, is submitted for your information and approval.

000 GENERAL:

Notwithstanding December's reputation as a poor travel month and a rainfall of 43.15 inches that bore heavily on Sundays 5,082 visitors entered Hawaii National Park during the month. This good showing was due largely to the visitation of 1,550 officers, midshipmen and sailors of the Japanese Training Squadron commanded by Vice Admiral Oami Nagano, who came on the 2nd., 3rd., 4th., and 5th., fortunately before the rains began. Visits were exchanged between the Japanese commanders and the superintendent, and the fleet was feted royally by the Japanese residents of Hilo during its stay in the harbor.

180 BULLETIN BOARDS OR SHIELDS:

In order to bring the park regulations to public attention, to render more prominent the park office and what it has to sell and distribute, and to excite the interest of visitors in facts concerning the park, - it was decided to post bulletin boards in advantageous places. In working out the details the scheme was hit upon to make the boards decorative and attractive. So ---

The rangers were kept busy on rainy days in making 12 new bulletin shields to be placed in the hotel, military camp, observatory and in every park shelter. They are of 1 inch redwood, 24 inches wide by 27 inches long, and are fashioned to resemble the shield of Hawaii. At the top the crown piece is occupied by the letters "HAWAII" carved in relief and in the curve of the base is similarly carved "NPS" for National Park Service.

A case is superimposed upon the face of the shield consisting of sides of 3/4 inch molding and a glass cover, removable so as to permit frequent changes in the information displayed, which will be arranged in three columns and will consist of:

December Report 2

1. Headings: Secretary Work, Director Mather and Park Superintendent.
2. Park Regulations, briefed.
3. List of books and maps for sale or for free distribution in Superintendent's office.
4. Record of visitors to the several National Parks in 1926 and 1927.
5. Facsimile of Hui O Pele certificate.
6. Excerpts from the weekly "Volcano Letter".
7. Chronology of Volcanic Activity of Last 10 years.
8. Dates of completion of roads to Volcano House.
9. List of birds to be seen in the Kilauea Section.
10. Information on various subjects pertaining to the park.

The first four subjects above will appear on each shield but the remaining six will be variously distributed among the twelve.

Picture is of shield placed in window of Uwekahuna Observatory.

220 RAILING AT DEVILS THROAT:

All the crater^s along the Chain Craters Road, now approaching completion, have lava masonry walls at their rims, from 40 to 60 feet in length, at which visitors may safely stand for views. At the Devil's Throat, an abrupt well-like pit 50 feet across and 250 feet deep, a section of the wall, 12 feet in length, was built at the very edge and reinforced with steel rails carried 15 feet back and embedded in concrete; so that one might see the bottom and satisfy an irresistible curiosity in safety.

To further eliminate the element of danger park laborers constructed a log railing around the remaining periphery of the pit.

221 FIRST COCONUTS ON PARK COAST-LINE:

Fruition of an old plan was accomplished on the 16th., when 70 sprouted coconuts and 40 lauhala seedlings were planted on the sand beach behind Keo'i Island, as the first step towards developing the seven miles of coast that forms the south boundary of the park. The planting was the simplest part of the operation. On account of wild goats and burros it was necessary to fence in an area and the stock-proof wire, posts and other materials had to be packed on mules from Ainalou Ranch, six miles distant and 2700 feet up the mountain. The enclosure in which the planting was done is 160 x 160 feet. The Territorial Forestry Department and Mr. Herbert Shipman of Keauu supplied the coconuts and lauhala.

Picture at coconut enclosure showing barrenness of coast line.

310 HOTEL IMPROVEMENTS:

Improvements to the Volcano House hotel were completed by Mr. Gandy, manager, as follows: repainting building and cottages outside and in; new linoleum on floor of dining-room; redecorating several rooms with new draperies and colored furniture; installation of telephones in all rooms; smoothing out of slow-down bump in driveway and repair of gateway lights.

A luncheon and Christmas tree were given to 32 children of the Puumailo Home, Hilo, on the 22nd., by Mrs. Gandy, and a Christmas Eve dance was enjoyed by 160.

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December Report 3

Among the 547 guests who registered during December from 22 states and 6 foreign countries were Mrs. H. Allan Hay, Miss D. Allan Hay, writer, and Miss Elinor M. Geckie, artist, of Natal, Union of South Africa, who remained the entire month.

317 CHAIN GRADERS ROAD:

B.P.R. Engineer E. J. McCracken's report for the month of December (through the 20th.) is abstracted as follows:

Excavation has been carried on as far as station 345, well into the last mile, and has been finished as far as station 321. Surfacing has been extended to station 297 but was discontinued on account of heavy rains which interfered also with all classes of work.

The estimate for the month:

# 1	Clearing and grubbing	9% of 3,500.00	315.00
# 3	Excavation	3653 cu.yds. at 2.25	8,219.25
# 4	Borrow	618 " " " 2.10	1,297.80
# 6	Overhaul	313 " " " .25	78.25
#18	Days rolling	6 days at 12.00	72.00
#20	Screened gravel	1424.52 cu.yds. at 4.00	5,698.08
			<u>15,680.38</u>
	Loss 10% retained		1,568.04
	Voucher and check		\$ 14,112.34

320 AROUND ISLAND ROAD:

The small force of 20 men which inaugurated work on this project on November 9 kept busy when not dispersed by heavy rains on excavation between stations 295 and 326, where is located the heaviest cut and fill on the entire contract.

The estimate for the month:

# 3	Excavation, unclassified	2452 cu.yds. at 2.64	6,478.88
	Loss 10% retained		647.88
	Voucher and check		\$ 5,830.70

420 MUSEUM SERVICE:

Range George D. Douglas assumed charge of the entertainment feature of Uwekahuna Observatory on December 1st., and presented 27 of the 31 illustrated lectures. His report is abstracted as follows:

Uwekahuna Observatory proved popular throughout the month, for 1,542 persons attended 31 illustrated lectures, of which several were special. Dr. Jaggur, volcanologist, delivered three in the forenoon of Sunday, Dec. 4, to officers of the Japanese fleet as an appreciation of courtesies extended to him while in Japan. Other special lectures were given to 33 public school children of Hilo on the 7th., 32 children of the Puuwaile Home, Hilo, on the 22nd., and to 130 boys scouts at the Military Camp on the 30th.

The Japanese exhibition seismograph was installed on the 9th.

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December Report 4

480 NATURAL PHENOMENA:

A swarm of earthquakes agitated the seismograph at the Observatory on the 3rd., and other indications were almost an exact duplicate of the conditions preceding the July eruption. Instead of a new eruption, however, an avalanche phase soon developed that persisted throughout the month in varying degrees of intensity.

Volcano Letter No. 156 describing wheeled boat attached.

510 TRAVEL:

Careful daily estimates and actual registration at the east entrance on the 4th., are summarized as follows:

Hotel guests from 22 states and 6 foreign countries	547
Arrivals at Kilauea Military Camp	282
Autoists,,part of day	4,200
To Haleakala Section	<u>45</u>
Total	5,082

Largest attendance, on 4th., 1,082.

520 WEATHER CONDITIONS:

December was given almost wholly to a prolonged "Kona" storm with a prevailing south-west wind and a precipitation equal to one-half that of the preceding eleven months. Mauna Loa and Mauna Kea acquired mantles of snow on the 7th., which were maintained throughout the month. Rains during the 24th., 26th., and 27th., were torrential; Christmas Day received 7.8 inches.

Maximum temperature on 6th.	62
Minimum " " 5th., 30th.	55
Number of days without precipitation	2
Rainiest day 25th.,	7.80 inches
Rainfall for month of December	43.15 "
Total rainfall for 1927 calendar year	128.62 "
Rainfall 1926 calendar year	58.93 "
Rainfall at Hilo for 1927 calendar year	162.18 "

Very respectfully yours,

R. F. Evans
R. F. Evans,
Superintendent.

- cc to Mr. H. H. Albright,
Asst. Director (Field) U.S.G.S.,
Yosemite National Park, California.
- " " Mr. F. A. Kittredge,
Chief Engineer, U.S.G.S.,
409 Underwood Building,
San Francisco, California.

U. S. Department of the Interior
National Park Service
Hawaii National Park

No. 3.

MEMORANDUM FOR THE PRESS
IMMEDIATE RELEASE

DECEMBER TRAVEL.

Considered generally a poor travel month, December, nevertheless, accounted for 5,082 visitors to Hawaii National Park. A good start was made by the visitation on the 2nd., 3rd., 4th., and 5th., of 1,550 officers, midshipman and sailors of the Japanese training squadron commanded by Vice-Admiral Osami Nagano, all of whom were entertained and conducted to the park by members of the Japanese Association of Hilo.

A "KONA" STORM.

In striking contrast to the delightful days of the three preceding months the weather was mostly one prolonged "Kona" storm with strong southwest winds and heavy rains. Sundays were particularly wet. Christmas Day witnessed a precipitation of 7.8 inches and the 4 days from the 24th., to 27th., received half of the month's rainfall of 43.15 inches. A 4-inch rain on the 7th., laid a mantle of snow on Mauna Loa and Mauna Kea which grew heavier as the month progressed.

UWELAHUNA OBSERVATORY.

Uwelahuna Observatory proved popular throughout the month, for 1,542 persons attended 31 illustrated lectures, of which several were special. Dr. Jagger, volcanologist, delivered three in the forenoon of Sunday, Dec. 4, to officers of the Japanese fleet as an appreciation of courtesies extended to him while in Japan. Other special lectures were given to 33 public school children of Hilo on the 7th., 32 children of the Puumaile Home, Hilo, on the 22nd., and to 130 boy scouts at the Military Camp on the 30th.

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PROTECTION AT DEVIL'S THROAT.

All the crater along the Chain Craters Road, now approaching completion, have lava masonry walls at their rims, from 40 to 60 feet in length, at which visitors may safely stand for views. At the Devil's Throat, an abrupt well-like pit 50 feet across and 250 feet deep, a section of the wall, 12 feet in length, was built at the very edge and reinforced with steel rails carried 15 feet back and embedded in concrete; so that one might see the bottom and satisfy an irresistible curiosity in safety.

To further eliminate the element of danger park laborers constructed a log railing around the remaining periphery of the pit.

Page 3

NEW BULLETIN SHIELDS.

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Page 4

VOLCANO HOUSE ACTIVITIES.

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Among the 547 guests who registered during December from 22 states and 6 foreign countries were Mrs. H. Allan Hay, Miss D. Allan Hay, writer, and Miss Elinor M. Geckie, artist, of Natal, Union of South Africa, who remained the entire month.

A SPLENDID SOUVENIR.

Certificates of membership in Hui O Pele Hawaii were issued during the month to 107 new members whose residences were given as follows: California 36, Hawaii 23, Japan 9, New York 6, Illinois 5, New Jersey 4, Maryland 3, Minnesota 3, South Africa 3, Indiana 2, Massachusetts 2, Pennsylvania 2, Washington 2, Wisconsin 2, Alabama 1, China 1, Iowa 1, Michigan 1, South Dakota 1.

Volcano House, Hawaii.
January 3, 1927

R. T. Evans,
Superintendent.

Please send publications and news notes about volcanic matters
Address: HAWAIIAN VOLCANO OBSERVATORY, VOLCANO HOUSE, P. O., HAWAII

THE VOLCANO LETTER

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No. 156

RELEASED WITHOUT COPYRIGHT RESTRICTION

December 22, 1927

KILAUEA REPORT No. 830

WEEK ENDING DECEMBER 21, 1927

Section of Volcanology, U. S. Geological Survey:

T. A. Jaggar, Volcanologist in Charge

At Halemaumau pit December 12 at 2 p. m. there was nothing new in evidence, no slides were heard and the slopes appeared undisturbed after excessive recent rain.

During the week there were 37 local earthquakes recorded on the Observatory seismographs. All of these were very feeble with the exception of one which occurred at 3:37 p. m. on the 15th. This one was feeble, but was felt locally; the origin of the shock was apparently within two miles of the Observatory. Two earthquakes were felt in Hilo on the 15th, one at 2:07 a. m., the second and stronger one being at 6:01 p. m. Distances indicate that these shocks originated on the northeast rift of Mauna Loa.

Tilt has accumulated during the week moderately toward the NE.

A WHEELED BOAT FOR VOLCANO EXPLORATION

Aleutian Island explorations in 1907 led the writer to wish for a wheeled boat that would beach itself. The father to the wish was the experience in a schooner of nearly landing at Vsevidof Volcano, finding no anchorage, and being forced to go to sea. In 1927 he tried a low-gear small motor car with balloon tires on tundra and beach of the Alaskan Peninsula. Traveling was practicable, but inlets, rivers, and rocky stretches were obstacles. Again the beach boat became desirable, a boat motor-car that would launch itself, and resume land travel along favorable beaches. The beaches in many volcano lands are nearly continuous, and the shore line is a natural highway. Where storms and fogs are frequent, life at a shore camp, with gasoline power, electric lights, electric or gasoline heating, and tent extension of the vehicle, is more flexible than in a boat cabin restricted to safe anchorages, which are few and far between.

Numerous patents have been obtained for amphibious boats, and the Mobile-boat of Powell in Chicago is to be tried out next summer in Alaska. This is a Ford truck chassis with steel boat body and twin screws. At the observatory shop at Kilauea, we have converted the Alaskan motor car of 1927 into a car-skiff for experiments in traveling along the shores of Hawaii and camping on the beaches. The principles of the new beach boat differ from that of Powell: a 16-foot flat-bottomed skiff by Kneass of San Francisco has a Ruckstell-Ford car chassis of 1926 mounted on oak timbers inside, and a Smith "Formatruck" chain drive rear axle has been adapted to support a stern extension of the skiff on double springs, using the Ford wheels. The Ford front axle and steering-gear are adapted to the bow of the boat. We thus get a substantial lorry with a skiff body.

For the water drive, the counter-shaft holding the front chain sprocket of the driving mechanism carries two light steel paddle wheels 24 inches in diameter expected to be about one-third immersed. These paddles are removed and carried inboard during land traverses. The balloon-tired land wheels will be largely submerged when the boat is in the water, the rear ones continuing to revolve. The

land wheels necessarily cut down the speed in water, but act somewhat as low ballast, and the disc surfaces oppose lateral leeway. The disc front wheels act as rudders in the water with the same steering wheel as on land. By jacking up the boat in shallow water, removal of 10 bolts aft and five forward, sets free all the running gear, which may be left on the beach or stored inboard for a long water run at higher speed than otherwise.

Tests of the boat-car on land have been satisfactory, and the water test will be made in a few days. There remain the various adaptations to sounding, camping, cooking, protection against the weather, winch, stake, and cable contrivances for hauling the car over steep or rough land, and tests of caterpillar chain treads, mud hooks and the like for driving through soft ground. All of this work, under the Hawaiian Volcano Research Association, is in sequence upon a long series of experiments in driving over desert and lava whereby cross-country cars have been used for many years at the Observatory. Much of this work was necessitated by the requirements of drilling for temperature measurements. Heavy drill rigs of three different types have been hauled, and 34 bore-holes have been made, mostly on the lava floor of Kilauea Crater.

It is planned to do practical work in exploring the Kona coast with the beach-boat. There is great volcanic interest in sounding and dredging at Hoopuloa and Alika where the recent Mauna Loa flows entered the sea, and it is reported that the U. S. Coast and Geodetic Survey is about to begin operation with the U. S. S. "Guide" mapping in detail the west Hawaii harbors. The best of these is Kealakekua, where in 1876 there was submarine eruption, and pumice was reported to float up hot. Dredging would be of interest here. Echo and wire sounding admit of important experimental work in volcanology, with a view bottom such as the Alika flow, what is the character and density of the underwater rock, and how can it be diagnosed by sounding apparatus as different from the seabottom round about? If by noise, or feel, or sampling such a flow can be outlined, an important scientific advance can be made. For where are there other such submarine lava flows? They may be found off the Puna and Kau coasts. There have been many occasions when the sudden drainage of lava from Halemaumau pit led to suspicion of submarine quiet flow. Here is where it behooves volcanology to join hands with oceanography.

The first Kona expedition will be directed to exploring and collecting the Hualalai and Mauna Loa lavas of North Kona where the many flows have entered the sea. For this country now the Geological Survey has admirable topographic maps, and there are numerous beaches here and there to serve as landing places for making camps. The 1859 flow built out much new land and its lower fields have never been explored geologically. T.A.J.

The "Palestine Earthquake" described last week occurred July 11, 1927, at 1:10 p. m. Greenwich time (3:10 p. m. Palestine).

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UNITED STATES
DEPARTMENT OF THE INTERIOR
NATIONAL PARK SERVICE
HAWAII NATIONAL PARK
VOLCANO HOUSE, HAWAII

OFFICE OF THE SUPERINTENDENT

December 7, 1927

Mr. Stephen T. Mather, Director,
National Park Service,
Department of the Interior,
Washington, D. C.

Dear Sir:-

The following report on the operation and activities of the Hawaii National Park during the month of November 1927, is submitted for your information and approval:

000 GENERAL:

The delightful fall weather that prevailed throughout November conspired with the newly completed concrete highway from Hilo to attract 6,632 visitors, an increase of 767 over the preceding month.

220 IMPROVEMENTS:

The 95 man-days were directed principally towards making the auto-trail to Bird Park passable to all types of autos. This meant filling with rock and gravel on both sides of the many sharp lava outcrops and reducing the sharpest curves. The first four-tenths of this 2.4 mile auto-trail is the road to the Tree Molds and this section was relocated so as to encroach as little as possible on the Kilauea golf course. The road now stays outside the fence until near No. 7 green where it enters the new gate (rebuilt, with 100 yards of fence, by Mr. Gandy, hotel manager) and runs directly to the Tree Molds, thus crossing only one fairway.

230 HUI O PELE HAWAII:

Due to the very favorable impression made by the Hui O Pele shelter at the Thurston Lava Tube and the new hotel manager's encouragement new accessions to the membership reached 133 during the month, distributed widely as follows: California 71, Hawaii 23, Illinois 6, Pennsylvania 6, New Jersey 5, New York 4, Colorado 3, District of Columbia 3, Indiana 2, Oregon 2, Washington 2, Connecticut 1, Maine 1, Massachusetts 1, North Carolina 1, Ohio 1, Vermont 1, and Virginia 1.

With designs for covered benches received from the Landscape Architect work on two or three benches will be undertaken shortly. It is planned to secure additional funds from Hui with which to have Mr. Hall make a volcano model; moving picture films and lantern slides of park scenes for distribution to such effective lecturers as Col. White and others.

November Report - 2

350 NEW LINE "MALOLO":

On the 23rd, Hilo celebrated the arrival of the new Watson liner Malolo, "Flying Fish." This palatial steamship is considered the finest yet built in an American shipyard and is for the tourist trade between San Francisco and Hawaii. It has capacity for 880 passengers, all first class; is equipped with beds instead of berths, 100 private baths, telephones at each bed, gymnasium, swimming pool and other luxuries; is 528 feet long, 83 feet wide, displaces 22,000 tons and has a speed of 25 knots which reduces the actual travel time to Honolulu from New York to 8 days, from Chicago to 7 days and from San Francisco to 4½ days.

310 NEW MANAGER VOLCANO HOUSE:

On the 16th., Mr. James K. Gandy superceded Mr. Channing J. Lovejoy as manager of the Volcano House. He has had 20 years experience as steward on Pacific Ocean liners and for the last two years has been chief steward of the Inter-Island S. S. Haleakala which brings visitors to the island of Hawaii from Honolulu twice a week.

317 CHAIN CRATERS ROAD:

B.P.R. Engineer E. J. McCracken's report for the month of November (through the 20th.) is abstracted as follows:

With 100 men at work excavation has been completed to Sta. 300 and ground has been broken farther to Sta. 313; gravel spread to Sta. 229; walls erected at Devils' Throat and Kuaahi Crater. Of the project 78% is now done in 71% of the time allowed; leaving 1½ miles of the 6.91 to be done.

The estimate for the Month:

#1	Clearing and grubbing	-----	7% of 3,500.00	---	\$	245.00
#3	Excavation	-----	3937 cu.yds at 2.25	---		8,858.25
#4	Borrow	-----	744 " " 2.10	---		1,499.40
#8	Overhaul	-----	126 " " .25	---		31.50
#18	Days rolling	-----	7 days " 12.00	---		84.00
#20	Screened gravel	-----	1247 cu.yds " 4.00	---		4,989.52
#45	Guard rail	-----	32.87 " " 17.00	---		558.79
	Work Order #2 - Reinforced slab at Devils' Throat	-----		---		235.00
					\$	16,501.46
	Less 10% retained	-----		---		1,650.14
	Voucher and check	-----		---	\$	14,851.32

320 AROUND ISLAND ROAD:

With the Secretary's approval of his low bid of \$87,090.00 on October 31st. Mr. Chas. A. Hill began work on the 9th., at the two cuts on either side of Station 300 with about 20 men just released from the Volcano-Hilo Highway job. A construction camp is being erected on the site of the old prison camp.

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November Report - 3

420 MUSEUM SERVICE:

To give the island people a chance to become acquainted with the exhibits on display in the new Uwekahuna Observatory the building was opened Sunday afternoons and illustrated lectures with moving pictures of recent volcanic activity were given at 2 and 3 o'clock. Formerly these were given for the benefit of tourists on steamer days only. Since Professor Kirkpatrick resigned in August the Observatory has been in charge of Mr. Hodges, Dr. Jaggar's clerk, but Park Ranger Douglas has been preparing to take it over on the first of December.

510 TRAVEL:

Careful daily estimates and actual registration at the east entrance on the 20th., placed the number of visitors during the month at 6,832, segregated as follows:

Hotel guests from 19 states and 3 foreign countries	- -	777
Arrivals at Kilauea Military Camp	- - - - -	78
Autoists, part of day	- - - - -	5,927
To Halekale Section	- - - - -	50
		<u>6,832</u>

Of this total visitors from distant shores numbered 1,077 and the most notable dates were:

- Nov. 15, S. S. City of Los Angeles, with Eleventh Pilgrimage of the Los Angeles Chamber of Commerce to Hawaii - - 95
- Nov. 23, S. S. Malolo, from San Francisco - - - - - 154
- Nov. 29, S. S. City of Honolulu, from Los Angeles with Federation of State Societies of Long Beach, Calif. 89

Besides the delightful Sundays and holidays when throngs came to picnic in the Auto-camp Grounds, Kou Grove and Bird Park outstanding dates were the 20th., a Turkey Tournament that attracted 97 golfing enthusiasts, and the 24th., a Thanksgiving Dance at the Volcano House which was attended by more than 200.

520 WEATHER CONDITIONS:

November was equally delightful as September and October.

Maximum temperature on 7th.	- - - - -	86
Minimum " " 1st.	- - - - -	51
Number of days without precipitation	- - - - -	7
Rainiest day - - - - - 26th.	- - - - -	-0.68 inches
Rainfall for month of November	- - - - -	4.46 "
Total rainfall since January 1, 1927	- - - - -	85.67 "
Rainfall for same period last year	- - - - -	42.43 "
Rainfall at Hilo since January 1, 1927	- - - - -	130.32 "

November Report - 4

540 VISITORS:

Roy O. Crowder, general passenger agent Los Angeles Steamship Co., and wife, on 15th.
S. P. Trood, advertising manager Los Angeles Steamship co., on 15th.
Harold Dillingham of Honolulu, on 15th.
W. P. Roth, president Matson Nav., Co., on 23rd.
E. D. Tenney, chairman board of directors, Matson Nav., Co., on 23rd.
W. H. Sellander, passenger manager, Matson Nav., Co., on 23rd.
Wendell Andrews, magazine writer, of Hackensack, N. J. - 23rd.,
to 27th.
Mrs. Jack London, 26th., to date.

Very respectfully yours,

R. T. Evans
R. T. EVANS,
Superintendent.

cc to Mr. H. M. Albright,
Asst. Director (Field)
Yosemite National Park, California.

" Mr. F. A. Kittredge, Chief Engineer, N.P.S.
409 Underwood Building,
San Francisco, California.

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UNITED STATES
DEPARTMENT OF THE INTERIOR
NATIONAL PARK SERVICE
HAWAII NATIONAL PARK
VOLCANO HOUSE, HAWAII

OFFICE OF THE SUPERINTENDENT

November 3, 1927.

Mr. Stephen T. Mather, Director,
National Park Service,
Department of the Interior,
Washington, D. C.

Dear Sir:-

The following report on the operation and activities of the Hawaii National Park during the month of October 1927, is submitted for your information and approval:

000 GENERAL:

The increase in the number of visitors to the park was not due to the fine weather of October but to the completion of the concreting of the Volcano - Hilo Road which was formally thrown open to travel on the 22nd.

220 IMPROVEMENTS:

The 60 man-days of labor were supervised by the rangers towards accomplishing:

1. Maintenance in good condition of Crater Road and other roads;
2. Clearing grass and weeds from ditches on important section of roads;
3. Erection of one double toilet at Hui O Pele Shelter No. 1 and two single toilets at Hui O Pele Shelter No. 2;
4. Rebuilding lower part of Halemaunou Trail and repairing washed-out sections;
5. Cutting out and widening the Plaza Trail, Kilauea Iki Trail, and trail to the Footprints and Kauna Iki.

230 HUI O PELE SHELTER:

The second lava-masonry shelter, for which funds were donated by Hui O Pele, was erected early in the month north of the Chain Craters Road between the old Keaunohu Road and the east rim of Maunali Crater.

October Report - 2

240 APPROACH ROAD:

The last section of new concrete on the Volcano-Hilo Road was opened to travel at 2:00 P.M. October 22nd., with ceremonies in charge of the Rotary Club of Hilo. Beneath an arch of woven native plants erected across the highway at 23 $\frac{1}{2}$ Mile short speeches were made by Acting Governor Brown, B.P.R. Engineer E. S. Wheeler and County Supervisor Sam Spencer, the latter finally pulling aside the curtain of flags to start the procession of autos towards the park.

The splendid concrete and asphalt highway between Hilo and Volcano House now is a delightful drive of 30 miles, or one hour. At the gay Rotary Club supper at the Volcano House that evening many past events in the islands were discoursed upon, among which was the completion of the first road from Hilo to Volcano House in 1894. The first Volcano House was built in 1861.

313 SCHEDULES OF RATES:

Approval was obtained on the 17th., for the increase in rates sought by the Kilauea Volcano House Company, Ltd., to become effective on January 1, 1926. The increase was based on the facts that only two months of the year, July and August, yield a profit over operating expenses; that throughout the other ten months a complete complement of employees must be retained in order to serve the occasional World Tours and the two-or-three-times-a-month excursions from Los Angeles, each remaining for one day only; that certain improvements would be made to the hotel, such as room telephone service, transoms for all bed-rooms, new draperies, etc.

The increases are:

Daily rate	per person,	A.P.	from	\$7.50	to	\$ 9.00
Weekly	"	"	"	6.00	"	7.00
Fortnightly rate	"	"	"	5.00	"	6.00
Monthly	"	"	"	4.50	"	5.00
Children from six to twelve years of age					$\frac{3}{4}$ rate	
" under six years of age					$\frac{1}{2}$ "	
Special Summer Rates below \$5.00 to be abolished (Recommended)						

317 CHAIN CRATERS ROAD:

B.P.R. Engineer E. J. McCracken's report for the month of October (through the 25th.) is abstracted as follows:

The cut near stations 238 and 239 in the steam area at Aloi Crater besides containing much yardage uncovered a thick core of hard blue-stone which combined to engage a large gang of laborers throughout the month. Other gangs carried lighter excavation to station 290 opposite Alealea Crater. One of the three walls at lookout points on Paahii Crater was completed and a second one started opposite station 181. No gravel was added.

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October Report - 3

317 CHAIN CRATERS ROAD: (continued)

The estimate for the month:

#1 Clearing and grubbing	10% of \$3,500.	\$ 350.00
#3 Excavation	4334 cu.yds. at 2.25 . . .	9,751.50
#4 Borrow	625 " " " 2.10 . . .	1,312.50
#18 Days rolling	7 days at 12.00 . . .	84.00
#45 Guard-rail	15.28 cu.yds. at 17.00 . .	259.76
		<u>\$ 11,757.76</u>
Less 10% retained		1,175.76
Voucher and check		<u>\$ 10,581.98</u>

320 AROUND ISLAND ROAD:

Bids for the construction of the 4.24 miles section west of the Military Camp were opened in Honolulu on the 6th., and of the three bids submitted Chas. H. Will's \$87,090 was the lowest. Recommendation that the award be given to him were forwarded to Washington.

410 RANGER SERVICE:

The Civil Service examination for Park Ranger in the island resulted in the certification as eligibles of Robert I. Baldwin of Hilo and George D. Douglas of Honolulu, Mr. Baldwin, who served as temporary ranger during the summer season, was under contract to teach in the Hilo High School, but Mr. Douglas accepted a probational appointment and reported for service on October 1st.

He brings with him a wide knowledge of out-of-doors gained in the woods of Wisconsin, military training as sergeant during the World War and experience in commercial art. It is planned to put him in charge of the Uwekahuna Observatory as soon as the details can be worked out of a complete transfer from the Hawaiian Volcano Research Association.

480 NATURAL PHENOMENA:

The volcanoes remained inactive. In Halemauaua, avalanching occurred throughout the month, sometimes on a large scale.

Dr. Jagger returned on the 20th., after an absence since April 22nd. On the 24th., he issued warning of a tidal wave which sent all boats to deep water for three hours from 11:00 A.M. to 2:00 P.M., but the wave did not materialize as the earthquake which agitated the seismograph for one hour did not occur in the ocean 2000 miles distant but on land in the neighborhood of Anchorage, Alaska.

October Report - 4

490 GREENSWORD SEEDS:

Mr. Otto Degener, botanist in the University of Hawaii who spent the summer on field trips on the island of Maui, sent a can of seeds of the greensword which is a rare Hawaiian plant that grows in the crater of Haleakala with instructions to scatter them along the pali between Byron Ledge and the Military Camp. This was done in an effort to propagate this beautiful native plant. The silversword which is as rare and more beautiful was the object of this enterprise, but it failed to yield any seeds.

510 TRAVEL:

The completion of the Volcano - Hilo Road accounted for the big increase in travel. To get the real number of visitors instead of estimating them as heretofore Ranger Douglas registered incoming autos and occupants on Saturday 22nd., Sunday 23rd., and Sunday 30th., with the following results:

22nd.,	145 cars	403 people
23rd.,	254 "	1,211 "
30th.,	394 "	2,627 "

For the month:

Hotel guests registered from 16 states and 5 foreign countries.

Volcano House guests 651

Arrivals at Kilisea Military Camp 222

Autoists, part of day, estimated 5,117

To Haleakala Section -75 46

Total for October: 6,065

520 WEATHER CONDITIONS:

October proved to be the most delightful month of the year as it usually does on the mainland, though it was very warm in Honolulu.

Maximum temperature	on 17th.,	88
Minimum "	on 27th.,	61
Number of days without precipitation		8
Rainiest day	9th.,	.88 inches
Rainfall for month of October		4.49 "
Total rainfall since January 1, 1927		81.01 "
Rainfall for same period last year		40.72 "
Rainfall at Hilo since January 1, 1927		117.70 "

October Report - 5

540 VISITORS:

Congressman Frederick W. Dallinger of Mass., and wife on 5th.
Sierra Club of California, 23 strong under leadership of
Clayton L. Drow, on 6th.
Acting Governor Raymond C. Brown and many prominent Rotarians
on 22nd.
Former Governor Walter F. Frear and former Attorney General
Arthur G. Smith with wives and about 20 other Honoluluans for whole month.
E. J. Wheeler, Senior Engineer, H.P.R. to inspect Chain Craters
Road 22nd., to 27th.
Sixty-nine young ladies and chaperones of Hilo to attend
Halloween Dance at Kilauea Military Camp, on 31st.

ADDENDA - 100 MONTHLY BULLETIN:

The opening to travel of the last section of the concreted
highway on the 22nd., and the consequent increase in travel to the park,
together with other events of importance, conspired to the determination
of October as the proper time to inaugurate a Hawaii National Park Monthly
Bulletin in response to many demands from newspapers for new notes. The
addition of Ranger Douglas to the park personnel furnished the help
needed for the enterprise, also.

Mimeographing of the 50 copies is done by a class of students
in the Hilo Senior High School at a cost of materials which the high
school provides. Later, if funds are found available, a mimeographing
machine may be acquired by the park.

These bulletin coming from the other parks convey much useful
and interesting information and it has long been the aspiration of
Hawaii National Park to reciprocate.

Very respectfully yours,

R. T. Evans

R. T. Evans,
Superintendent.

cc to Mr. H. M. Albright, Asst. Director (Field), U.S.G.,
Yellowstone Park, Wyoming.

" " Mr. F. A. Kittredge, Chief Engineer, U.S.G.,
San Francisco, California.

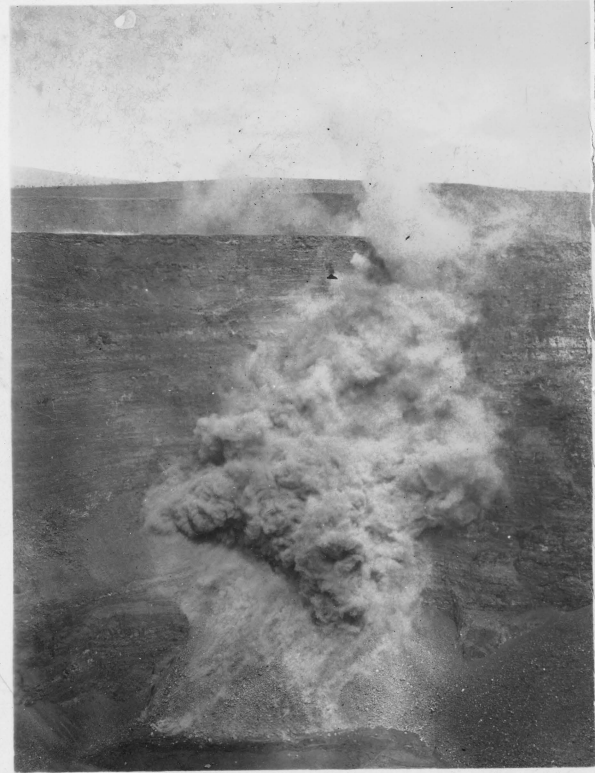
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Hui O Pele Shelter No. 1. at
Thurston Lava Tube. Oct. 19., 1927.



Ceremonies at opening last section concrete
Hilo-Volcano Road.- Left to right: E. S. Wheeler,
Gov. R. C. Brown, S. M. Spencer.



Avalanche in Halemaumau
Oct. 5, 1927. 11:00 A.M.

Photos by R. T. Evans.

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UNITED STATES
DEPARTMENT OF THE INTERIOR
NATIONAL PARK SERVICE
HAWAII NATIONAL PARK
VOLCANO HOUSE, HAWAII

OFFICE OF THE SUPERINTENDENT

October 8, 1927

Mr. Stephen T. Mather, Director,
National Park Service,
Department of the Interior,
Washington, D. C.

Dear Sir:-

The following report on the operation and activities of the Hawaii National Park during the month of September 1927, is submitted for your information and approval:

000 GENERAL:

The number of visitors to the park decreased to the usual monthly average with the opening of the island schools on the 1st., in spite of the delightful fall weather and reduction in the unconcreted gap of the Volcano - Hilo road.

230 HUI O PELE SHELTER:

Only 57 man-days were devoted to maintenance of roads, the remaining 55 man-days being directed towards the construction of the first shelter for which funds had been appropriated by Hui O Pele. It was built of lava-masonry according to the design furnished by the Landscape Division near the entrance to the Thurston Lava Tube among thick tree-ferns.

240 APPROACH ROAD:

An effort was made to finish the laying of concrete on the Volcano-Hilo Road but when the month ended there still remained a 400-foot gap between the new concrete and the asphalt of last year's work. With the end so plainly in sight the one mile detour remaining along the freshly laid concrete seemed an interesting diversion rather than an ordeal. Cars may run comfortably from Volcano House to Hilo, a distance of 30 miles, in 1 1/2 hours.

September Report - 2

317 CHAIN CRATERS ROAD:

B.P.R. Engineer E. J. McCracken's report for the month of September is abstracted as follows:

"During September work was extended to the steam area near Aloi Crater, station 242, the roadbed excavation being completed as far as the old Keauhau Road. Gravel was spread to station 165, or about 3 1/8 miles from the start and maintenance piles were distributed that far, also. This report, through the 25th., only, show 58% of the work completed and 52% of the allotted time consumed.

The estimate for the month:

#1 Clearing and grubbing	- - - - - 19% of 3500	- - - - -	668.00
#3 Excavation	- - - - - 5,496 cu.yds. at 2.25	- -	12,366.00
#4 Borrow	- - - - - 72 " " " 2.10	- -	151.20
#8 Overhaul	- - - - - 49 sta. " " .25	- -	12.25
#18 Days rolling	- - - - - 10 days at 12.00	-	120.00
#20 Screened gravel	- - - - - 1,113.65 cu.yds. at 4.00	-	4,454.60
#21 Maintenance gravel	- - - - - 601 cu.yds. at 5.00	- -	3,004.95
			\$ 20,774.00
	Less 10% retained		2,077.40
	Voucher and Check		\$ 18,696.60

320 AROUND ISLAND ROAD:

About September 6 Senior Engineer E. J. Wheeler, B.P.R., advertised for bids for the construction of the 4.24 miles of Section B highway running westward from the Military Camp. As was expected protests arose on all sides against the crushed gravel, water-bound macadam type of construction. It was pointed out that this type had been tried and discarded as unsatisfactory on the islands years ago. Furthermore, it was emphasized that the east approach road to the park is now concrete, the west approach road will soon be new 10-foot asphalt macadam, and the park section of this belt road should be equal to these standards. From a maintenance standpoint the chosen crushed gravel type will present a problem.

331 KILAUEA SUMMER CAMP:

The summer camp which was managed by Mrs. M. L. Woolsey closed on the 30th. With 17 guests in June, 155 in July, 68 in August and 24 in September, all of the highest type, the need for such a camp of the moderate rate of \$3.00 per day was established. When some improvements have been made and a way is found to advertise the camp without making inroads into the clientele of the Volcano House it will attain capacity patronage and financial success. Such is promised for next summer.

September Report - 3

480 NATURAL PHENOMENA:

Activity of volcanic origin during September was limited to one perceptible earthquake at 4:11 P.M. on the 27th., and to increased avalanching in Halemaumau. The crack at the southeast tourist station was observed to be widening on the 2nd. On the 19th., at 1:30 P.M. the salient here comprising a considerable strip of the rim fell with a roar resembling an explosion. On the 9th., an avalanche of similarly large proportions broke from the south wall near the Kau rift tunnels. Dr. Barrett secured a good moving picture of it which he later presented to the Uwekahuna Observatory for exhibition.

Mr. R. M. Wilson, U. S. Geological Survey, completed preliminary computations of the rechecking of the triangulation covering Kilauea Crater and demonstrated that since 1920 practically all the points have moved towards Halemaumau pit for distances varying between 2 and 5 feet. The computation corroborated certain visible evidence of widening cracks and increased avalanching that a collapse centering in the pit was in progress.

510 TRAVEL:

With vacation-time over and without volcanic activity travel slumped to the usual average, regardless of the delightful fall weather that prevailed. The high tide occurred on the 6th., when the "City of Honolulu" brought 60 visitors and the "Matsonia" brought the semi-annual tour of Islam Temple Shriners of San Francisco with their families numbering 168.

Hotel guests registered from 20 states and 8 foreign countries.	
Volcano House Guests	686
Summer Camp Guests	24
Arrivals at Kilauea Military Camp	238
Autoists, part of day, estimated	1,175
To Haleakala Section	100 53
Total for September	2,228
Total for this "Park Year" to date	37,551.

520 WEATHER CONDITIONS:

The first four days of September were clear and cool and bore the unmistakable tang of autumn. Similar fine weather prevailed from the 9th., to 17th., and towards the end of the month. The 18th., and 19th., were sultry on account of a rare kona, or south wind.

Maximum temperature	on 14th., 17th., 20th.	85
Minimum "	on 30th.	52
Number of days without precipitation		7
Rainiest day	7th. (6h., was 2.40)	9.20 inches
Total rainfall since January 1, 1927		76.52 "
Rainfall for month of September		15.97 "
Rainfall for same period last year		36.53 "
Rainfall at Hilo since January 1, 1927		109.84 "

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September Report - 4

540 VISITORS:

Dr. S. A. Barrett, with photographer Ira Edwards and artist C. Peter, gathering material for volcano nature group for Milwaukee Museum, 7th., to 24th.

A. O. Burkland, inspecting Leigh B. Lints' topographic map of area north of park - completing the Geological Survey's mapping of the island of Hawaii - on 18th.

C. T. Bailey, Territorial Land Commissioner, with party, appraising Kapapala ranch lands for re-leasing, on 21st., to 25th.

Stanley C. Kennedy, Secretary-Treasurer Inter-Island Steam Navigation Co., Ltd., to inspect summer camp, on 24th.

E. S. Wheeler, Senior Engineer, B.P.R. to inspect Chain Craters Road on 28th.

Very respectfully yours,

R. T. Evans

R. T. Evans,
Superintendent.

cc to Mr. Albright,
Assistant Director (Field)
Yellowstone National Park,
Yellowstone Park, Wyoming.

DOCUMENT CAPTURED AS RECEIVED

UNITED STATES
DEPARTMENT OF THE INTERIOR
NATIONAL PARK SERVICE
HAWAII NATIONAL PARK
VOLCANO HOUSE, HAWAII

OFFICE OF THE SUPERINTENDENT

September 7, 1927.

Mr. Stephen T. Mather, Director,
National Park Service,
Department of the Interior,
Washington, D. C.

Dear Sir:-

The following report on the operation and activities of the Hawaii National Park during the month of August 1927, is submitted for your information and approval:

000 GENERAL:

Summer vacationists and late arrivals to witness the eruption that broke out on July 7th., held up August to second rank in the number of park visitors for the year.

220 IMPROVEMENTS:

Labor of 122 man-days was used to maintain the Crater Road, patch with asphalt the holes in the Around Island highway and weed out the Russian thistles that threatened to over-run Bird Park - the latter operation partially designed as encouragement to the ranchman who was haltingly repairing the fence and making it stock-proof.

240 APPROACH ROAD:

With smoother detours and lengthened finished surface the highway towards Hilo is steadily losing its terrors. The end of the month saw a total stretch of 20,600 feet of concrete roadway opened to travel. Of the remaining 12,400 feet 5000 feet is detour along newly laid concrete and will be opened in 1500 foot stretches on Saturdays.

317 CHAIN CRATERS ROAD:

B.P.R. Engineer E. J. McCracken's report for the month of August is abstracted as follows:

"With an average daily force of 100 men contractor Charles H. Will has carried the roadbed grading to Station 180 opposite Pauahi Crater, has spread the gravel top layer to Station 106 or a distance of two miles from the beginning, and has completed the third guard-wall, that at Kokoolau Crater.

August Report - 2

The estimate for the month:

#1	Clearing and grubbing	6% of 3500.	210.00
#3	Excavation	5,178 cu.yds at 2.25	11550.50
#4	Borrow	204 cu.yds at 2.10	428.40
#8	Overhaul	877 sta.yds at .25	219.25
#18	Days rolling	6 days at 12.00	72.00
#20	Screened gravel	1,989.33 cu.yds at 4.00	7957.32
#45	Guard-rail	10.87 cu.yds at 17.00	184.79
			<u>\$ 20722.26</u>
	Less 10% retained		<u>2072.23</u>
	Voucher and check		\$ 18650.03

323 DOLE AIR DERBY:

Arthur C. Goebel, with Lieut. W. C. Davis as navigator, won the first prize of \$25,000 by landing his plane at Wheeler Field on Oahu at 12:24 P.M. August 17th., after a flight of 26 hours and 17 minutes. Martin Jensen, Hawaii's chosen aviator, with Paul Schuler as navigator, came in second at 2:20 P.M. to win the \$10,000 prize, having been in the air 28 hours and 16 minutes from the takeoff at Oakland, California.

Two contesting planes, the "Miss Doran" with Mildred Doran, Aggy Pedlar and Lieut. Vilas Kuepe aboard and the "Golden Eagle" carrying John W. Frost and Gordon Scott, and a searching plane "The Dallas Spirit" with Capt. Wm. P. Erwin and J. Eichwaldt - failed to turn up or to leave any sign.

The "Miss Doran" and "Golden Eagle" were thought to have been lost somewhere in the Hawaiian Islands. Many wild rumors were put into circulation. Among them were reports of flares on Mauna Kea and Mauna Loa. To investigate these four army planes flew over the mountains on the 23rd. The superintendent crossed the lower park area at the edge of the pali overlooking the slopes to the south coast on the 21st., and Capt. Block, commanding the Kilauea Military Camp, ascended the slopes of Mauna Loa to the rest-house at Red Hill on the 25th.. Neither trip produced any results.

331 SUMNER CAMP TELEPHONE:

To alleviate the objectionable isolation of the new Sumner Camp the Kilauea Volcano House Co., Ltd. authorized the Hawaii Telephone System to run a standard two-copper wire telephone line to the camp from the main line near the Volcano House. The work was commenced on the 8th., and completed on the 13th.

341 HILO CHAMBER OF COMMERCE:

As this organization had appointed the superintendent chairman of a committee to make a Kilauea Volcano exhibit at the Territorial Fair in Honolulu and had appropriated money for the purpose materials were gathered and arranged to occupy creditably about one-fourth of the Fine Arts Building. Professor Paul Kirkpatrick, who as ranger-naturalist had charge of Uwekahuna Observatory from July 1, to August 14, set up the exhibit and exercised personal charge from the formal opening at 11 A.M. August 29 to the closing at midnight September 5.

Co-operation of the Hawaii National Park Service, United States Geological Survey and Hawaiian Volcano Research Association resulted in assembling the following material:

1. 18 enlarged photographs illustrating recreation features.
2. 12 " " of current road development.
3. 13 " " in panel of hotel and summer-camp, contributed by Kilauea Volcano House Co., Ltd.
4. 5 " " of trees and plants, contributed by Territorial Forester C. S. Judd.
5. 14 " " in panel of Kilauea Military Camp, contributed by Capt. E. R. Block, commander.
6. Models of proposed shelters and benches, contributed by Hui O Pele.
7. Footprint of 1790, in glass case, contributed by Bishop Museum.
8. Projector, showing continuously movie of 1926 eruption.
9. Seismograph, installed and actually working.
10. Large show-case of lava specimens.
11. Maps and charts.
12. 36 enlarged photographs of volcano scenes.
13. 10 framed pictures of Around Island of Hawaii scenes.
14. One painting of Volcano in Action.
15. Two vases of cut flowers and plants from Volcano House, renewed every 3rd. day by Inter Island Steamship Co.
16. Booklets, pamphlets, circulars, etc.

Mr. E. H. Bryan, Jr., chose to set up the Bishop Museum exhibit contiguous and its principal feature was the section of sequoia labeled "Presented by the National Park Service from Sequoia National Park."

The superintendent was able to be in Honolulu from August 26 to September 2 for part time attendance at the exhibit by collecting for that period many official matters pertaining to park lands, personnel, public relations, etc.

410 RANGER SERVICE:

On the 14th., Professor Paul Kirkpatrick resigned as ranger-naturalist in charge of Uwekahuna Observatory where he showed moving-pictures, lantern-slides, charts, etc, and lectured to 1921 visitors in July and 579 in August; and on the 31st., Ranger Robert I. Baldwin resigned to take up his duties in the Hilo Senior High School.

480 NATURAL PHENOMENA:

Halemauau has returned to its dormant state that was temporarily transformed by the eruption of July 7th., except that four or five small red spots continued to glow feebly at night in cracks in the newly crusted lava lake. Avalanching has been frequent and cracks back from the rim have widened noticeably.

On the 3rd. at 9:46 A.M. an earthquake of No. 3 intensity occurred which was strongly felt all over the island. It seemed to center at Pahala, 30 miles to the southwest, and subsequent lesser quakes in the next four days led people there to expect an eruption of Mauna Loa similar to that of April 1926. It did not materialize.

On the 17th., and 20th., swarms of feeble tremors were recorded on the seismograph in the Observatory but they lacked significance.

510 TRAVEL:

Vacationists patronized both the hotel and summer-camp, averaging 70 daily at the former throughout the month. The 9th., was the banner day when the "City of Honolulu" brought about 450 tourists only a part of whom could be accommodated over night at the hotel. Sailors to the number of 300 visited the park on the 14th., and 15th., from a U. S. submarine squadron and on the 21st., and 22nd., from a Japanese training ship.

Hotel guests came from 34 states and 7 foreign countries.	
Volcano House guests	932
Summer Camp guests	68
Arrivals at Kilauea Military Camp	254
Autoists, part of day, estimated	3876
To Haleakala Section	154
	<hr/>
Total for August	4983
Total for this "Park Year" to date	35,323

520 WEATHER CONDITIONS:

Throughout the month a half of nearly every day enjoyed brilliant sunshine and the heavy winds of the preceding month were absent; except that the 11th., was stormy for the entire 24 hours and the wind was violent enough to blow down the office flag-pole about noon.

Maximum temperature	on 18th.	83
Minimum "	16th., and 21st.	54
Number of days without precipitation		9
Rainiest day	11th.	2.51 inch
Rainfall for month of August		7.60 "
Total rainfall since January 1, 1927		60.55 "
Rainfall for same period last year		31.61 "
Rainfall at Hilo since January 1, 1927		95.62 "

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540 VISITORS:

Congressman A. M. Wyant of Pittsburg and R. J. Welsh of San Francisco, with families, on 3rd.

Dr. W. H. Sherger, of Univ. Michigan, with party, on 8th.

W. C. Crawford, of Territorial Aeronautical Commission, on 10th.

Delegate Victor Houston, on 13th.

L. T. Hooley and Troop 35 Boy Scouts of Honolulu, 36 in party, to camp at camp-ground on 18th., and 19th.,

E. S. Wheeler, Senior Engr., B.P.R., to inspect Chain Craters Road, on 24th.

Congressman Carl R. Chindblom, on 27th.

610 POLICE PROTECTION:

On the 13th., a Japanese taxi driver of Panuilo, Hamakua District, was arrested for driving in the park while intoxicated, and was escorted by ranger Baldwin to Olas where the county police took him into custody. He was later turned over to Hilo authorities and fined \$50.00.

On the 24th., upon complaint of Mrs. Woolsey, manager of the Summer Camp, Pvt. Guy Baber, 11th. Am. Tr., was arrested for alleged theft of \$8.05. As no one witnessed the theft of the money from the office-desk in the summer camp and the chain of circumstantial evidence was faulty the suspect was released after severe grilling by Captain Block of the Kilauea Military Camp and by the superintendent.

Very respectfully yours,

P. J. Evans

Superintendent.

cc to Mr. H. M. Albright,
Asst. Director, (Field),
Yellowstone National Park,
Yellowstone Park, Wyoming.

New type of sign now replacing groups of smaller signs, and the sign painter - Alex the Guide.

Temporary shelter from wind and rain erected near rim of Halemaumau in July 1927.

UNITED STATES
DEPARTMENT OF THE INTERIOR
NATIONAL PARK SERVICE
HAWAII NATIONAL PARK
VOLCANO HOUSE, HAWAII

OFFICE OF THE SUPERINTENDENT

August 6, 1927

Mr. Stephen T. Mather, Director,
National Park Service,
Department of the Interior,
Washington, D. C.

Dear Sir:-

The following report on the operation and activities of the Hawaii National Park during the month of July 1927, is submitted for your information and approval:

000. GENERAL:

In as much as July is a vacation month when distant travellers seek National Parks and Hawaii National Park beckons to the islanders as their best locality where the climate is not tropical but temperate like that of the "mainland" - - increased travel was expected; but the return to life of Kilauea Volcano early on the 7th., proved to be a magnet that attracted all travel. From the 7th., till the 20th., the lava was a real spectacle, and it continued to satisfy new arrivals throughout the month for always at night as many as four cracks deep in the pit of Halemaumau glowed with fiery red lava.

121 - 125 PARK INSPECTIONS:

Not to let the volcano with its visitors day and night monopolize all attention many trips by Ranger Baldwin and the superintendent were made to Bird Park. The unsatisfactory situation there yielded little more to sustained diplomatic efforts than reiterated promises. The fence surrounding Bird Park constructed of light telephone wire has never been stock-proof, has yielded readily to the pressure of a cow and has been left entirely on the ground for long stretches. Cattle are always found there and recently hogs also. This condition is enough to abrogate the permit to range stock over 1800 acres of adjoining park lands, but it is recognized that the Park is powerless to protect those 1800 acres from stock and that the effort must be continued till successful to have the fence around Bird Park repaired so that it will exclude stock.

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125 a --- Governor Wallace R. Farrington inspected the Summer Camp on the 2nd., finding it much improved but still lacking several comforts such as chairs in the dining-room instead of benches, rocking-chairs in the cottages, a telephone, an auto, etc. The telephone is a necessity on account of the isolation of the camp and Mr. Kennedy of the hotel company gave the assurance when he visited the camp on the 17th., that the telephone would soon be installed.

125 b --- Senior Highway Engineer E. S. Wheeler was in the park from the 16th., to the 24th., going over with Project Engineer McCracken details of the Chain Craters Road and helping him prepare specifications for proposals for bids on the Around Island project.

220 IMPROVEMENTS:

Labor of 119½ man days for the month was devoted mostly to the maintenance of the Crater Road for this road had no sooner been smoothed out the volcanic eruption brought heavy travel and rains which together reduced it again to a mass of chuck-holes. Steady attention gradually overcame the wear-and-tear so that there were times when the condition of the road was good enough to merit complimentary remarks.

230 HALLMAUMAU SHELTER:

Not considering it safe to let cars approach the rim nearer than the parking place ¼ mile back it was recognized that some shelter should be provided at the rim where relief might be had from the wind and rain which were more violent at night when the finer fire display attracted the bigger crowds. A plan was hurriedly drawn, bids invited and a structure put up capable of sheltering 50 people. It cost \$163.84.

240 APPROACH ROAD:

About the same amount of concrete surfacing was laid during the month as in June, bringing the total to 19,000 feet or 60% of the project. Sections of finished roadway were thrown open to traffic as follows: 1,000 feet on 2nd., 2,500 on 8th., 1,200 on 23rd., and 1,600 on 30th. The rush of cars to and from the volcano during the night of the 7th., caused an endless jam on the one-mile rocky detour beside the freshly laid concrete three to four miles east of the Park Entrance and led to the decision to open a double stretch on the 8th., and place the narrow detour under the control of experienced traffic officers of Olna. No further jams occurred on the succeeding ten busy nights.

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317 CHAIN CRATERS ROAD:

B.P.R. Engineer E. J. McCracken's report for the month of July is abstracted as follows:

"Steady progress has been made with an average force of 100 men. Rough excavation has been carried to Station 160 and grading has been completed as far as Station 140. (Station 230 in report for June should have been 130) Surfacing, begun on 28th., has been extended to Station 27 and some rolling has been done. Two walls have been completed and masons are at work on the third, at Kokoelau Crater.

The estimate for the month:

#1 Clearing and grubbing	6% of 3,500	\$ 210.00
#3 Excavation	3518 cu.yds. at 2.25	7915.50
#17 Providing roller plus 1 days rolling at 12.00		1812.00
#20 Gravel screened	284.3 cu.yds. at 4.00	1137.36
#45 Guard-rail	37.6 cu.yds. at 17.00	292.87
		<u>\$ 11,067.43</u>
	Less 10% retained	<u>1,106.74</u>
Voucher and check		\$ 9,960.69

323 TERRITORIAL AIR-FORT:

This subject was kept alive by the first Civilian Non-stop Flight from the mainland to the islands, Ernest Smith and Emory Bronte landing on Molokai in the morning of the 15th., about 24 hours out from Oakland.

On the 2nd., the superintendent took J. L. Preston of Washington and R. R. Tinkham of Honolulu, Lighthouse Service, Dept. of Commerce, to the proposed Airport $\frac{1}{2}$ miles southeast of Halemaunau. The Lighthouse Service seems interested in this airport as well as the War Department. Island newspapers of July 30th., carried articles to the effect that the Governor was preparing a request upon Secretary Work for 140 acres for this airport. The superintendent is inclined to endorse the request as the location selected is out of sight from all travelled roads in the part.

480 NATURAL PHENOMENA:

Unannounced by harmonic tremors or other warnings lava quietly reappeared in the firepit of Halemaunau at 1 A.M. July 7. The night watchman at the hotel discovered the glow and quickly spread the alarm. Before 2 o'clock two hundred or more people were on the scene. Under a starlit sky and with very little wind the eruption was comfortably viewed from the rim as a beautiful and fascinating spectacle.

The lava had melted its way through the floor of the pit which it now occupied as a molten lake. Along the NE and SW diameter of the pit, nearly in the line of the 1920 rift, four fiery fountains spouted spatter to a height of 125 feet to the accompaniment of a muffled roar likened to that of busy factory machinery. In three days about 100 feet of lava had been added to the lake bringing its surface to within 1200 feet of the rim. Subsequently a subsidence of 10 feet occurred.

July Report - 4

Except for the incessant wind and occasional driving rains that swept the crowds as they stood or squatted day and night on the perilous edge of the great pit to gaze at the fiery fountains and the changing patterns of orange-red currents in the lake not a terrifying feature attended the eruption. The thing seemed chained to the bottom, 1200 feet below. The outline of the lake suggested the older pit before the explosions of May 1924 started three years of avalanching that pushed back the walls till the pit was quadrupled in size.

The vigor of the fountains diminished rapidly. The night of the 8th., less than 48 hours from the beginning, saw the three northern fountains reduced to boiling pots. The south one, some 50 feet higher than the others and well within the south talus slope, continued its activity for exactly two weeks, surrounding itself with a mounting spatter cone and furnishing the source of a river or delta of brilliant orange colored fire that flowed into the blackened lake and kept its surface constantly changing. From the 21st., throughout the month no activity could be seen in the daytime, but at night four or more cracks in the blackened lake continued to glow. These faint signs of life repaid the visitor for a night trip to the crater.

510 TRAVEL:

July early indicated a probability of outstripping June in travel to the park. A dance at the hotel on the 2nd., brought the number of visitors for that day to 140, and on Sunday the 3rd., the rangers estimated the entrants at 500, most of whom were islanders in their own autos.

However, the return of the lava to Halemaumau on the 7th., raised the increment to the nth degree. About 1800 people rushed in to fill all available accommodations. The scheduled boats from Honolulu brought more than could be provided for at the hotel on the 9th., 11th., and 13th. The new Summer Camp was likewise filled on those dates and enjoyed very good patronage throughout the month. The Military Camp and neighboring private cottages shared in the popularity.

Had the lava display not definitely diminished on the 9th., and become quite quiescent by the 20th., the travel figures would have reached 20,000.

Hotel guests came from 39 states and 7 foreign countries.	
Volcano House Guests	2,298
Summer Camp Guests	155
Arrivals at Kilauea Military Camp	533
Autoists, part of day, estimated	8,256
To Haleakala Section, estimated	85
	<hr/>
Total for July	11,327
Total for this "Park Year" to date	30,340

July Report - 5

520 WEATHER CONDITIONS:

Clear pleasant days and quiet star-lit nights preceded the volcanic eruption early in the morning of the 7th. With that occurrence the weather straightway became disagreeable with high winds and violent rains, the winds persisting throughout the month while the rains soon abated to the usual intermittent mists.

Maximum temperature	on 1st., and 14th.	84
Minimum	" 8th.	51
Number of days without precipitation		11
Rainiest day	9th.	2.00 inch
Rainfall for month of July		7.01 "
Total rainfall since January 1, 1927		52.95 "
Rainfall for same period last year		18.15 "
Rainfall at Hilo since January 1, 1927		80.42 "

540 VISITORS:

In addition to those already mentioned notable visitors were:

Major General Edward Mamm Lewis, commanding Department of Hawaii, and Mrs. Lewis, 2nd., - 10th.

Hon. R. W. Shingle and party of relatives 13th., - 17th.

Mr. Shingle visited the park office. He is relinquishing to the park a strip of land over the Lava Tubes on condition that adjoining land to the south which it is proposed to develop as a house-lot section may be made accessible by the use of the park roads. It is the aspiration of many islanders to have homes just outside the park.

Clem Yore, writer, of St. Louis, and party on 20th.

Hon. F. M. Davenport, of New York, and party on 27th.

Mr. and Mrs. Lander A. Redman, of San Francisco on 27th.

Mr. Selah Chamberlain, and family, of San Francisco on 12th.

Admiral R. H. Jackson, commanding Battleship Fleet, and party on 27th.

Rev. John T. Paris, of Ardmore, Penna., on

A. O. Burkland, U. S. Geological Survey, on 30th.

Very respectfully yours,

R. T. Evans

R. T. Evans,
Superintendent.

cc to Mr. Albright,
Assistant Director (Field),
Yellowstone National Park,
Yellowstone Park, Wyoming.

Photo by J. K. Higashida, 3 A.M. July 7, 1927, showing
four fountains and glowing lava lake.



View north-west, showing surviving fountain in spatter
cone and crusted lava lake.