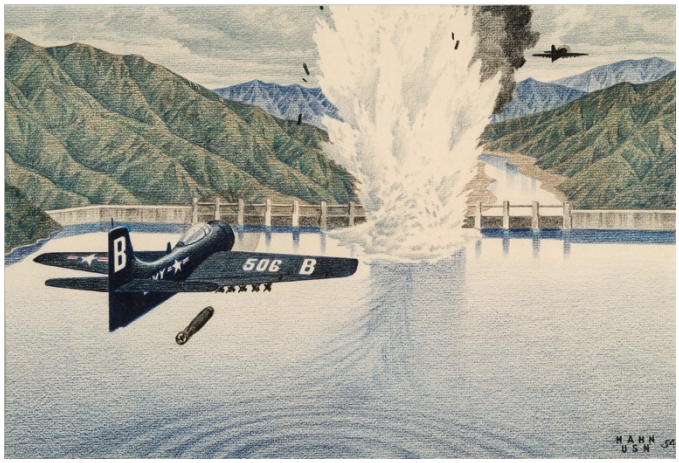
H-Gram 061: The Last Aerial Torpedo Attack

21 May 2021

Contents

Overview

This H-gram covers naval operations in the Korean War from March to July 1951, including carrier task force operations in the Formosa Strait (including the USS John A. Bole*–DD-755–incident), "Carlson's Canyon" air strikes, the torpedo strike on Hwachon Dam, and the floating mine strike on destroyer USS* Walke *(DD-723). Also covered is Part 3 of Operation Desert Storm, including the critical contribution of Navy sealift, Navy construction battalions, and Navy medicine to the successful conclusion of the operation.*



"Hitting Home," drawing, colored pencil on paper, by Herbert C. Hahn, c. 1951 (88-191-BC).

70th Anniversary of the Korean War: U.S. Naval Operations, March–July 1951

On 1 May 1951, eight Douglas AD Skyraiders off carrier Princeton *(CV-37) threaded their way two-by-two through 4,000-foot mountain passes as F4U Corsairs flew ahead to provide flak suppression. As the Skyraiders reached the Hwachon Reservoir, they leveled off on a low-altitude torpedo attack profile, targeting the sluice gates on the massive Hwachon Dam. Although almost none of the pilots had any experience with torpedoes (none had been used since the end of World War II) all eight Skyraiders got their torpedoes away. One torpedo ran erratically, one was a dud, but six ran true, demolishing one sluice gate with two direct hits and putting another out of operation with one direct hit. Hitting the sluice gates deprived the Chinese troops and North Korean technicians on the dam from controlling the level of the Pukhan River, which separated U.S. and Chinese forces (lowering the river so Chinese troops could ford it without bridges, or inundating the valley if U.S. troops tried to cross). Previous attempts to knock out the dam using B-29 Superfortresses with 12,000-pound guided bombs or capturing it with Army Rangers had failed, as had an attempt the day prior by the same Skyraiders using 2,000-pound bombs and 11.5-*

inch "Tiny Tim" rockets with 500-pound warheads. Finally, Navy ingenuity prevailed to accomplish the mission. All eight torpedo plane pilots were awarded the Distinguished Flying Cross for what was the last aerial torpedo attack in history against a surface target. The VA-195 "Tigers" subsequently changed their name to "Dambusters."

Other significant events in the period included continuous (foul weather permitting) interdiction air strikes by Task Force 77 carrier aircraft against Chinese and North Korean logistics infrastructure such as bridges and tunnels, in a constant battle between strike aircraft and repair crews, who fixed bridges almost as fast as they could be knocked out of action. One of the more famous bridges came to be known as "Carlson's Canyon," for how many times Commander "Swede" Carlson's VA-195 Skyraiders attacked it. In the end, the bridge was destroyed and the North Koreans built a bypass.

In mid-April 1951, the TF-77 carriers Boxer *(CV-21) and* Philippine Sea *(CV-47) and escorts suddenly left the Sea of Japan and transited to the Formosa Strait as a show of force to deter a possible Communist Chinese invasion of Formosa, the last stronghold of the Nationalist Chinese. Carrier aircraft flew "aerial parades" along the 3–nautical mile limit of the Communist Chinese coast, drawing sporadic but ineffective ground fire. During the operation, the destroyer* Robert A. Bole *was ordered to a position 3 nautical miles off the Communist port of Swatow and found herself surrounded for over five hours by almost 50 armed motorized Chinese junks. The vessels warily watched each other to see who would shoot first, as U.S. aircraft flew attack profiles on the junks, which only added to the hair-trigger situation. There is a theory that* Robert A. Bole*'s mission was intended to provoke the Chinese into shooting and give General MacArthur the excuse he was looking for to widen the war into the Chinese sanctuary in Manchuria and to mainland China. If true (which is not proven), the Chinese refused to take the bait. However, the Chinese also abandoned plans to invade Formosa, so the show of force and resolve arguably worked. MacArthur was fired by President Truman as the* Robert A. Bole *situation was ongoing (although the order had already been signed on 9 April).*

Mines remained the biggest threat to U.S. Navy forces, and on 12 June 1951, destroyer Walke *was 60 nautical miles off the beach when she hit one of the hundreds of contact mines that had been deliberately set adrift. The explosion hit berthing compartments, killing 26 Sailors and wounding more than 35. The ship was in danger of sinking, but superb damage control saved her despite the heavy casualties. Four crewmen were awarded the Silver Star for repeatedly entering the damaged compartments to save unconscious or badly injured shipmates. This was the highest loss of U.S. Navy life in a single incident due to enemy action during the Korean War. (Heavy cruiser* Saint Paul*– CA-73– suffered 30 dead in an accidental turret explosion on 21 April 1952 while bombarding enemy targets.)*

For more on the Hwachon Dam attack and significant events in the Korean War from March to July 1951, please see attachment H-061-1.

"Freedoms of Expression in Kuwait," painting, watercolor on paper, by John Charles Roach, 1991 (92-007-T).

30th Anniversary of Desert Storm: March–June 1991

In attachment H-061-2, I continue with my personal account of Desert Storm, covering the aftermath period from March to June 1991—which focused on the attempts to establish an improved and enduring U.S. Navy command and control structure in the Central Command Theater—as well as on the growing dismay at the Navy's losing public relations battle over the service's role in Desert Shield/Storm. Even more dismaying was the fact that, despite suffering one of the greatest routs in modern military history, Iraqi leader Saddam Hussein not only refused to admit defeat, he actually claimed a great victory. As U.S. forces in the region demobilized and returned to CONUS in pell-mell fashion, Saddam was busy using his surviving forces to slaughter Shia in the south and Kurds in the north who had dared to rise up against him. These groups had done this following U.S. encouragement, only to get no support in the south, and support in the north (Operation Provide Comfort) only after thousands of Kurds were driven from their homes into the mountains. And finally, the Seventh Fleet staff and USS Blue Ridge *(LCC-19) returned to Yokosuka after their longest deployment (9.5 months) just in time to see USS* Mount Whitney *(LCC-20), which had never left the pier in Norfolk, represent the U.S. Navy at the big Desert Storm victory celebration in New York City.*

However, I also want to highlight the critical contribution of U.S. Navy sealift, U.S. Navy construction battalions, and U.S. Navy medicine to the success of Desert Storm. Although these did not fall under U.S. Naval Forces Central Command (COMUSNAVCENT) control (which is why I have no personal recollection of their actions), victory in Desert Storm would not have been possible without them.

Sealift in Desert Shield/Desert Storm

"The Heavy Stuff Arrives," painting, watercolor on paper, by John Charles Roach, 1991 (92-007-F).

With the exception of the World War II Normandy invasion (which had two years to build up and prepare), Operation Desert Shield represented the largest, fastest, and farthest (8,700–nautical mile average voyage) sealift in the history of warfare. The U.S. Navy's Military Sealift Command (MSC) moved 2.4 million tons of cargo—four times what was moved across the English channel during the D-Day invasion, and six times that of peak force build-up during the Vietnam War. MSC moved more than 95 percent of the combat equipment used to fight and win Desert Storm—over 2,000 tanks, 2,200 armored vehicles, 1,000 helicopters, and hundreds of self-propelled artillery, along with ordnance for hundreds of U.S. Air Force aircraft. In a truly herculean effort, 172 MSC ships were underway on 1 January 1991. Without the U.S. Navy's control of the sea, largely taken for granted during the war, Operation Desert Storm would not have been possible. For more on Sealift during Desert Shield and Storm, please see attachment H-061-3.

"Moving the Dolos," painting, watercolor on paper, by John Charles Roach, 1991 (92-007-A).

Seabees in Desert Shield/Storm

By the onset of the ground offensive phase of Desert Storm, 2,800 Seabees with 1,375 pieces of construction equipment had deployed to the Arabian Gulf region, the vast majority in forward areas of Saudi Arabia supporting Marine Forces Central Command (MARCENT)/I Marine Expeditionary Force (I MEF). U.S. Navy construction battalion personnel performed absolutely vital work in establishing and maintaining the massive logistics infrastructure capability that enabled the successful U.S. Marine attack into Kuwait, which in turn enabled the U.S. Army's "end-around" attack.

The first Seabees arrived in time to offload the first maritime preposition ships that arrived in Saudi Arabia on 15 August 1990. Next, two Seabee units commanded by women (a first) and medical personnel built the first and most capable field hospital in the region (Fleet Hospital 5). From then on, additional Navy mobile construction battalions (NMCBs) arrived in a non-stop 7-day/24-hour operation, upgrading roads, airfields, digging wells, building massive tent cities, ammunition and water resupply points, defensive berms and tank barriers, some of which were the largest Seabee projects since the Vietnam War.

Perhaps the Seabees' finest hours came in the last two weeks before the commencement of the ground offensive: turning a two-lane dirt track into 200 miles of eight- and six-lane highway that connected the coast just south of the Kuwait border with two massive logistics resupply points, also built by the Seabees, further inland. For operational security reasons, this work could not commence until the last possible days, and was completed in time despite the wettest conditions in Saudi Arabia in decades. Seabees worked with the Marines in building a decoy army of fake tanks and artillery pieces, clearing lanes through berms under Iraqi artillery fire, and then following closely behind as the Marines breeched the Iraqi defensive lines in order to establish the I MEF forward headquarters inside Kuwait and upgrade the main supply route into Kuwait.

MARCENT's initial plan for the assault into Kuwait called for an amphibious landing on the coast of Kuwait, through mine-infested waters and beaches, to ensure adequate logistics support for follow-on Marine attacks. However, it was the MARCENT commander's (Lieutenant General Walt Boomer) confidence in the Seabees' ability to execute the massive shift westward of roads and logistics points, and to do it just in time, that alleviated the need for an amphibious assault, no doubt saving many lives and probably ships, too. For more on the Seabee's contribution, please see attachment H-061-3.

"Hospital Ship USS *Comfort* at Sitrah," painting, watercolor on paper, by John Charles Roach, 1991 (91-049-T).

Navy Medicine in Desert Shield/Storm

Navy Medicine played a key role in the preparation and execution of Operation Desert Storm throughout the entire theater, not just afloat. The first significant medical facilities in the theater arrived on board U.S. Navy aircraft carriers, rapidly augmented by the arrival in mid-August 1990 with the "pre-packaged" 500-bed fleet hospital on the afloat pre-position ship M/V Noble Star. *Quickly set up with the aid of Navy Seabees, Fleet Hospital 5 was operational by the end of August. The two 1,000-bed hospital ships* Mercy *(T-AH-19) and Comfort(T-AH-20) arrived by early September. For most of Desert Shield, the fleet hospital and two hospital ships (augmented by even more capacity on arriving amphibious ships) constituted the great majority of medical capability across the entire theater. Two more fleet hospitals would arrive in February 1991 in anticipation of significantly increased casualties arising from the onset of offensive ground combat operations (fortunately the number of casualties was vastly less than anyone anticipated—even so, the three field hospitals treated over 32,000 patients, including military, enemy prisoners, civilian refugees, and expatriates.)*

During Desert Shield/Storm, 5,800 Navy corpsmen deployed with their Marine units, and Hospital Corpsman Third Class Anthony Martin was awarded a Silver Star for heroism in tending wounded Marines during an Iraqi mortar barrage. In addition, 6,100 Navy medical personnel, mostly active duty, were deployed to the theater, while an additional 10,400 Navy medical reservists were mobilized to backfill gaps left in hospitals and clinics in the United States when active-duty personnel were quickly sent forward, thus maintaining the high level of care for military personnel and dependents still in the States.

An unsung hero of Desert Shield/Storm was Navy Medical Research Unit (NAMRU) No. 3 in Cairo, which carried on years of research and work on infectious diseases endemic to the region. The Navy forward laboratory, set up on short notice in Jubayl, coupled with Navy preventive medicine teams, and armed with a vast store of knowledge of diseases and ailments in the region, supported all services and ensured that Desert Shield/Storm suffered the fewest casualties per capita due to disease in any such major operation. Fortunately, Navy medicine's capability to detect, monitor, and treat the effects of biological warfare was not tested, but the Navy Medical Corps made extensive preparations to be ready in the eventuality biological weapons were actually used.

For more on the contributions of Navy medicine to Desert Shield/Storm, see attachment H-061-3. As always, you are welcome to disseminate H-grams further. Back issues enhanced with photographs can be found here [https://www.history.navy.mil/about-us/leadership/director/directors-corner/h-grams.html]

Torpedo attack on the Hwachon Reservoir dam by AD Skyraiders of Attack Squadron 195 (VA-195) from USS *Princeton* (CV-37), 1 May 1951. This successful strike, and earlier bomb attacks by Navy and U.S. Air Force planes, were made to deny the enemy the tactical use of controlled flooding on the Pukhan and Han rivers. Torpedoes were used after bombs failed to achieve the desired results. They destroyed one flood gate and partially destroyed another. This was the only Korean War use of aerial torpedoes. The Hwachon Reservoir was later recaptured by UN forces (80-G-428678).

H-Gram 061-1: Korea—U.S. Navy Operations, March–July 1951

H-Gram 061, Attachment 1
Samuel J. Cox, Director NHHC
May 2021

(For previous articles on the U.S. Navy in the Korean War please see H-Grams 050, 054, 055, 056, and 058.)

By March of 1951, the basic pattern for combat operations had been established that would endure for the remainder of the war. The Chinese New Year's Offensive had reached its culminating point, and on 14 March, the U.S. Eighth Army recaptured the South Korean capital of Seoul, the fourth time the city (now a devastated ruin) changed hands during the war. The battle line stretched across the Korean Peninsula near the 38th parallel, roughly where the border had been when North Korean forces first invaded the South in June 1950, although it would seesaw considerably in the first half of 1951. North of the

line were primarily Chinese forces, which had first intervened in the war in the late fall of 1950, as well as some reconstituted North Korean divisions. United Nations forces, under the overall command of General of the Army Douglas MacArthur, held the line to the south. U.S. forces made up the great preponderance of United Nations forces, along with about 10 other nations and the forces of the Republic of (South) Korea.

At sea, the larger effort was in the Sea of Japan and was primarily a U.S. Navy affair with some United Nations ships in support. A smaller force operated in the Yellow Sea and was mostly United Nations ships with significant U.S. Navy support. The fast carrier striking force (TF-77), under the command of Rear Admiral Ralph A. Ofstie, included carriers *Valley Forge* (CV-45), *Philippine Sea* (CV-47), and *Princeton* (CV-37). TF-77 aircraft generally attacked the Chinese/North Korean logistics network in northeastern North Korea, with railroads and roads, especially bridges and tunnels, as the primary targets. The carrier aircraft would shift to close air support during periods when the Chinese were on the offensive. U.S. 5th Air Force bombers from Japan attacked targets in northwestern North Korea, escorted by USAF jet fighters based in South Korea to protect against the ever-growing threat from Russian-piloted "North Korean" MiG-15s based in Chinese Manchuria. USAF fighter-bomber aircraft based in South Korea generally attacked targets closer to the battle line as they lacked the range to reach targets in northeastern North Korea. As a result, U.S. Navy carrier aircraft had northeastern North Korea to themselves. However, although U.S. Navy aircraft were rarely challenged by enemy aircraft, Chinese and North Korean antiaircraft artillery defenses were constantly improving.

Since one of the primary logistics routes was the coastal road along the Sea of Japan, U.S. surface ships frequently bombarded bridges, roads, and tunnels, with battleship *Missouri* (BB-63) and heavy cruisers being the most effective, along with the occasional insertions of British commando forces, armed shore parties, and South Korean guerillas to attack logistics infrastructure. The surface ships (and the aircraft) also laid siege to the North Korean ports along the Sea of Japan, primarily Wonsan and Songjin (120 nautical miles northeast of Wonsan). (Because the war in Korea was a United Nations action and not a declared war, the term "blockade" could not be used as a blockade is an act of war. Apparently the term "siege" was legally acceptable to the UN.) Enemy shore batteries would frequently challenge U.S. ships, generally with minor results at best. Sea mines supplied by the Soviet Union remained the primary threat, and the North Koreans deliberately set many of them adrift (over 300 would wash up on Japanese beaches).

In the Yellow Sea, the UN naval force (Task Force 95) was centered around the British carrier HMS *Theseus* and the U.S. light carrier *Bataan* (CVL-29). *Bataan* had a Marine F4U Corsair squadron embarked (VMF-312 relieved VMF-212 in March) and a Marine helicopter squadron. Several British or Commonwealth light cruisers and a multinational force of destroyers operated in the Yellow Sea, ensuring North Korean ports remained closed. Because of the extreme tidal variations on the Yellow Sea coast and the geography ashore, naval gunfire support was less useful in disrupting enemy logistics than on the Sea of Japan shore. During periods when Chinese offensive activity threatened Seoul or the port of Inchon, the U.S. would augment the Yellow Sea force with a heavy cruiser, usually *Toledo* (CA-133), armed with longer-range 8-inch guns.

The logistics interdiction campaign executed in northeastern North Korea by Task Force 77 aircraft was particularly challenging. For one, Chinese forces could subsist on much less food and supply than UN forces, so it took fewer trucks and trains to support an equivalent number of Chinese troops. The Chinese also had the manpower and were adept at carrying heavy loads in backpacks. Numerous pack animals,

including camels, aided Chinese troops in transporting supplies. The Chinese (and North Koreans) had learned very quickly to remain camouflaged and concealed during the day and to only conduct major troop and supply movements at night in order to significantly reduce the probability and effectiveness of air strikes. The road network in North Korea was relatively primitive, which also meant it was relatively simple to repair or bypass. Although it was easier for aircraft to disrupt railroads than roads, the Chinese were skilled at rapidly repairing tracks. In addition, bridges and tunnels were very difficult targets to knock out, especially as they became more heavily defended as the war went on. There were also 395 major bridges in TF-77's area. Extensive intelligence collection and analysis went into narrowing the bridge target set to about 48 key bridges that would have the greatest disruptive impact on enemy logistics if they were taken out. The Chinese did the same analysis and defended them accordingly.

Carlson's Canyon

An example of the seesaw battle between strike aircraft and repair crews was the railroad bridge over a deep ravine south of Kilchu, near Songjin, North Korea. The extreme height of the bridge made it difficult to repair, and it had tunnels at both ends, which made it difficult to bypass, thus making it a lucrative target. Although there were twin tunnels at each end, the bridge itself was single track. AD Skyraiders of the VA-195 "Tigers," led by Lieutenant Commander Harold Gustav "Swede" Carlson off *Princeton*, first attacked the bridge as a target of opportunity on 2 March 1951. Carlson returned to the bridge on 3 March with more planes, heavier ordnance, and a better plan, and with eight AD Skyraiders dropped one bridge span and damaged three others. In another strike on 7 March, Carlson and his squadron knocked down a second span. TF-77 Commander Rear Admiral Ralph Ofstie was impressed by Carlson's persistence and nicknamed the area "Carlson's Canyon," which is how it has come down in history. (Author James Michener fictionalized it as *The Bridges at Toko-Ri* in a best-selling book and 1954 Hollywood movie starring William Holden, Mickey Rooney, and Grace Kelly—also one of the more realistic Navy movies made.)

Despite the Carlson's Canyon moniker, the Chinese and North Koreans also displayed extraordinary persistence and ingenuity in reconstructing the bridges, despite constant harassment strikes by night-flying AD Skyraiders of the VC-35 detachment, also off *Princeton,* as well as some Skyraiders from VA-195 thatflew at night as well. The officer in charge of the VC-35 detachment, Lieutenant Frank Metzner, was credited with devising a tactic to skip bomb a 2,000-pound bomb with a delayed-action fuse into the mouth of train tunnels (which were usually only about 17 feet wide). The tactic required four F4U Corsairs to lead the run, suppressing any antiaircraft fire, followed by a single AD Skyraider with three 2,000-pound bombs coming low, slow, and straight at a shallow enough angle for the bombs to skip along the tracks and for at least one to enter the tunnel. The Skyraider would then need to climb steeply to avoid smacking into the cliff face. Rear Admiral Ofstie was skeptical at first, but agreed to give it a try. The tactic worked, and was used on occasion, but was still incredibly dangerous.

Meanwhile, the repairs on the Kilchu bridge were progressing rapidly. On 15 March, Carlson's squadron attacked again; this time in addition to bombs, they used napalm pods to set fire to the wooden construction scaffolding (somewhat of an engineering marvel itself) and the temporary wooden beams across the spans. Post-strike photoreconnaissance showed the new construction destroyed, the scaffolding incinerated, and another of the original spans dropped. Then U.S. Air Force B-29 bombers seeded the area with delayed-action fused bombs to detonate at irregular intervals to discourage further repair efforts. And still the North Koreans wouldn't quit.

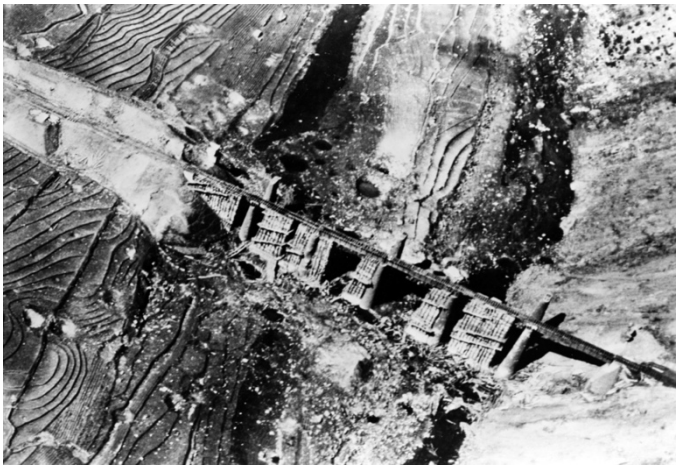
By the end of March, repairs on the Kilchu bridge were almost complete, except for laying track. This triggered a massive strike on the bridge by VA-195 and the rest of Air Group 19. This time, the only things left were the bridge pilings. Rear Admiral Ofstie decided that was enough effort on the Carlson's Kilchu bridge; there were many other targets that needed to be struck. The North Koreans decided they'd had enough too, and proceeded to build a four-mile bypass that included eight smaller, lower, and less conspicuous bridges that were harder to hit. The Kilchu bridge was a good example of the courage, determination, and ingenuity of U.S. Navy carrier pilots, as well as the general futility of the mission, especially when the Chinese could stockpile all the supplies they needed in the sanctuary of Manchuria just across the Yalu River.

On 3 March 1951, at the request of the U.S. Eighth Army, the U.S. Navy conducted an amphibious demonstration off the island of Cho-do near the North Korean Yellow Sea port of Chinnampo to divert Chinese attention. Three assault transports and two attack cargo ships of Transportation Squadron 1 (TRANSRON 1) and an escort of destroyers made the requested demonstration. The U.S. Army was pleased by the result and subsequently requested more such amphibious feints. U.S. Navy commanders were more dubious, believing that enemy command and control was so sluggish that the operation was over before the enemy even reacted, succeeding only in putting the ships at unnecessary risk of mines.

On 8 March 1951, the "siege of Songjin" commenced. Although U.S. ships had bombarded targets in and around Songjin previously, this date marked the commencement of a continuous U.S. Navy presence off the port. Light cruiser *Manchester* (CL-83) and destroyers *Frank E. Evans* (DD-754), *Charles S. Sperry* (DD-697), and Dutch destroyer HMNS *Evertsen* marked the occasion with an extensive shore bombardment.

For five consecutive days between 14 and 19 March 1951, battleship *Missouri* bombarded targets along the coastal road and was credited with destroying eight railroad bridges and seven highway bridges. Whether by gunfire or bombs, bridges are actually tough targets to take out. On average, knocking out a bridge took about 60 rounds from 16-inch guns. This would be *Missouri*'s last hurrah of her first combat deployment since World War II as she commenced a return stateside on 19 March.

Generally, the Chinese and North Koreans were good about avoiding massing troops within range of naval gunfire, but a seven-ship naval bombardment on 15 March near Wonsan reportedly inflicted between 6,000 and 7,000 enemy casualties. The same day, a bombardment by destroyer Wallace L. Lind (DD-703) inflicted 2,000 casualties at nearby Singi. These actions significantly disrupted North Korean attempts to reconstitute their forces after their devastating defeats in the fall of 1950 following the Inchon landing. (Along the main battle line, Chinese troops primarily operated in the west and center opposite the U.S. Army in the west and the U.S. Marines in the center. At the eastern end of the line, North Korean troops faced off against South Korean troops. Ironically, the Marines were the farthest from the water, and since the evacuation of Hungnam in December 1950, had been used as ground infantry, somewhat to the consternation of Navy and Marine leaders in Washington. On the other hand, with no apparent UN appetite to conduct any actual amphibious assaults into North Korea, the U.S. Navy steadily drew down the amphibious shipping capability in the theater.)



"Carlson's Canyon" bridge attacks, March-April 1951. Photograph taken on 30 March 1951, showing the previously damaged bridge repaired with wooden cribbing. It lacks only rails to be ready for service again. The bridge was originally knocked out by Navy carrier planes on 3 March, was repaired and again put out of service by air strikes on 15 March, and would be revisited and totally destroyed on 2 April. This railway bridge-tunnel complex was located south of Kilchu, in northeastern Korea (80-G-687595).

The Blind Pilot

On 21 March 1951, two VF-191 F9F Panther jets off *Princeton* were searching for trucks to strafe when the jet flown by Ensign Floryan "Frank" Soberski took a hit from ground fire, partially shattering the canopy and hitting Soberski in the face with shards of plexiglass, blinding him. All Soberski could see was a dim gray light as his wingman, Lieutenant (junior grade) Pat Murphy, coached him out from over enemy territory. With a water temperature of 33 degrees, and rough seas, ditching in the Sea of Japan was likely to be fatal. So, basically flying as a welded wing, with critical commands from the landing signal officer (LSO), Murphy did what seemed impossible and coached Soberski down to a safe recovery on the carrier. Soberski would later regain his sight. This incident is fictionally depicted in the 1954 movie *Men of the Fighting Lady,* with Van Johnson in the role equivalent to Murphy. Filmed aboard *Oriskany* (CVA-34) and combined with extensive color footage of actual combat, the movie is one of the more realistic Hollywood depictions. (Note, *Essex*-class carriers—CV—and *Midway*-class carriers—CVB—were reclassified as attack carriers—CVA—on 1 October 1952.)

Actually, there was a very similar previous incident (that I missed in prior H-grams). On 17 September 1950, Ensign Edward D. Jackson Jr., flying a VF-112 F9F-2 Panther off *Philippine Sea,* was leading a strafing mission on a congregation of small river boats near the North Korean capital of Pyongyang. Jackson hit steel cables strung across the river as an aerial booby trap, which smashed into his canopy, blinding him with shards of plexiglass and his own blood. Despite Jackson lapsing in and out of consciousness, Jackson's wingman, Ensign Dayl E. Crow, was able to talk him out over the Yellow Sea and, with the critical assistance of LSO Lieutenant (junior grade) "Les" Bruestle, coach him to a successful recovery on *Philippine Sea*. With 36 stiches and an emergency blood transfusion, Jackson survived and regained his sight.

On 27 March 1951, carrier *B*oxer (CV-21) relieved Valley Forge (CV-45), and *Valley Forge* commenced her return to the West Coast from her second of a record four Korean War deployments. The same day the destroyer-minesweeper Carmick (DMS-33) and patrol frigate Glendale (PF-36) suffered a minor collision in the fog off Songjin. *Glendale* is noteworthy as one of 28 *Tacoma*-class frigates transferred to the Soviet Union toward the end of World War II as part of Lend-Lease program Project Hula at Cold Bay, Alaska, and she served in the Soviet Navy as *EK-6* from 1945 to 1949. After repairs from the collision, she was transferred to the Royal Thai Navy, which was participating in the UN force, renamed HTMS *Tachin* (PF-1), and served until 2000 before becoming a museum ship.

On 28 March, Vice Admiral Harold E. Martin relieved Vice Admiral Arthur D. Struble as Commander, U.S. Seventh Fleet, reporting to Vice Admiral C. Turner Joy, Commander, Naval Forces Far East (COMNAVFE). Struble had been in command since the beginning of the war and had been dual-hatted as Commander, Joint Task Force 7, responsible for executing the Inchon and Wonsan amphibious landings and the evacuation

from Hungnam. Vice Admiral Martin had earned a Silver Star in command of light carrier San Jacinto (CVL-30) during World War II and also later was Commander of Task Force 49, an organization intended to assist the Soviet invasion of Japan (which didn't happen).

On 1 April 1951, F9F Panther jet fighters were employed as fighter-bombers for the first time, when VF-191 jets off *Princeton* bombed enemy targets. Up to that point the Panthers had provided fighter top cover and sometimes flak suppression (with guns and rockets) while AD Skyraiders and F4U Corsairs flew bombing missions. With virtually no enemy air opposition during this period, Panthers were armed with 100- or 250-pound bombs and used as fighter-bombers. The hydraulic catapults on the carriers were not powerful enough to launch a Panther in light- or no-wind conditions carrying a heavier bomb load.

On 3 April 1951, Rear Admiral Allan E. Smith reassumed command of the UN Blockading and Escort Force (TF-95) from British Vice Admiral Sir William G. Andrewes, Royal Navy. (Apparently "Blockading" Force was an OK use of the term as long as it laid "siege" to a port and didn't "blockade" it. Go figure.)

On 7 April 1951, Special Task Force 74, under the command of Rear Admiral Roscoe Hillenkoeter (future first Director of the Central Intelligence Agency), put a 250-man raiding party of the 41st Independent Commando, Royal Marines, ashore near Songjin to destroy coastal railroad tracks. The insertion was covered by heavy cruiser *Saint Paul* (CA-73) and destroyers *Wallace L. Lind* and *Massey* (DD-778), with the force lifted by dock landing ship *Fort Marion* (LSD-22) and fast transport *Begor* (APD-127). The operation suffered from some coordination problems (the minesweeping operation gave away the element of surprise) and insufficient intelligence on beach conditions (rocks that would have destroyed landing vehicles had the seas not been smooth). Fortunately, there was no opposition on the ground to the landing and the force destroyed about 100 feet of rusty track. However, *Boxer's* Air Group suffered its first loss when Lieutenant (junior grade) H. T. Walker's Corsair disappeared in a fog bank as he was trying to crash-land on the beach after being hit in the engine by ground fire. As it turned out, TF-77 air attacks against "upstream" track and bridges had been particularly effective and the track destroyed by the commandos had not been used for over two months. The mission did result in significant efforts to improve the sharing of intelligence, particularly aerial photoreconnaissance, between TF-77 and other elements of the UN naval force. One method to enhance coordination was the establishment in June 1951 of an airdrop and pickup station on Yo-do Island in Wonsan Harbor to facilitate exchange of info and photos between the Wonsan area and TF-77. (Following the evacuation of Wonsan and Hungnam in December 1950, South Korean troops reoccupied several of the islands in the expansive harbor. Although Chinese troops would periodically try to drive off the South Korean outposts, they failed to do so.)

Strait of Formosa Operation, 8–15 April 1951

On 5 March 1951, Commander, Naval Forces Far East issued OpOrder 3-51, which included intelligence reports of a buildup of Communist Chinese forces, including a large number of junks. This buildup could have been an indicator of Chinese intention to invade Formosa using the junks as amphibious transport. With U.S. forces committed heavily in Korea, there was concern that China might take advantage of that to finish off the Nationalist Chinese, under Generalissimo Chiang Kai-shek, in their last major stronghold on the island of Formosa (now Taiwan). At the very beginning of the Korean War, the U.S. Seventh Fleet had established a permanent patrol (eventually designated Task Force 72) in the Formosa Strait. Generally consisting of three or four destroyers, sometimes augmented by antiaircraft light cruiser *Juneau* (CLAA-119) and

one or two submarines, TF-72's mission was to deter a Chinese Communist attack against Formosa. It was also intended to dissuade Chiang Kai-shek from doing anything to reinitiate the Chinese Civil War (which the Communists had won) at an inopportune time.

On 25 March 1951, the supreme U.S. commander in the Far East, General of the Army Douglas MacArthur, sent a top secret message to the Joint Chiefs of Staff in Washington requesting the JCS view of a proposal by Commander, Naval Forces Far East Vice Admiral C. Turner Joy to send Task Force 77 through the Formosa Strait into the South China Sea and then back to the Sea of Japan. The stated purpose of the operation was to be a show of force to deter any Chinese attempt to invade Formosa (Taiwan). In addition, the operation would serve to gain intelligence on Chinese operations, provide area familiarity for U.S. forces, and boost the morale of Nationalist Chinese forces on Formosa. The JCS responded favorably to the idea.

Some historians have argued that MacArthur had an ulterior motive for the operation as he had become increasingly frustrated by the sanctuary given to the Chinese in Manchuria under the UN and U.S. rules of engagement. In February, MacArthur had communicated with the JCS requesting authority to immediately strike targets in mainland China in the event China attacked U.S. forces outside the Korean area of operations. The JCS responded with a somewhat ambiguously worded response that on the one hand appeared to grant such authority to immediately strike, but on the other hand directed MacArthur to inform the JCS what he intended to strike and get permission before doing so. The argument is that if MacArthur could have provoked the Chinese to attack U.S. forces outside the Korean area, that would have given MacArthur the excuse he needed to attack Chinese targets in Manchuria and mainland China, thus widening the war—something explicitly against UN and U.S. national policy. The TF-77 operation would thus be the means to provoke the Chinese. When the British got wind of the operation, they wanted no part of it, viewing it as unnecessarily provocative and a threat to their agreements with the Communist Chinese regarding the future of Britain's colony in Hong Kong. There is some interesting circumstantial evidence that MacArthur wanted to provoke a confrontation, but no definitive proof. However, as executed, the operation was definitely provocative.

On 30 March 1951, the Commander Seventh Fleet issued OpOrder 75-51 directing the execution of the Formosa Strait operation to commence with the departure of TF-77 from its operating area off eastern North Korea on 7 April 1951. The action caught carrier *Princeton* in port at Sasebo in major upkeep, and TF-77 Commander Rear Admiral Ralph Ofstie (embarked in *Princeton*) had turned over tactical command of TF-77 to Rear Admiral William G. Tomlinson, Commander Carrier Division 3, embarked in carrier *Boxer*. At the time, the Commander Seventh Fleet, Vice Admiral Harold M. Martin, was embarked aboard carrier *Philippine Sea.* Mitigating against the provocation to war theory, *Princeton* was the most capable and combat-experienced of the three carriers; *Philippine Sea* only had an all-propeller (Corsair/Skyraider) air wing. Although *Boxer* had F9F Panther jets, her air wing included mostly recently activated reserve pilots, and the ship herself had only recently arrived in the theater.

At 1730 on 7 April, *Boxer, Philippine Sea,* and 10 destroyers of TF-77 departed their normal operating area, heading out of the Sea of Japan on a U.S.-only operation, although carrier HMS *Theseus* and light carrier *Bataan* were ordered to shift from the Yellow Sea to the Sea of Japan to cover the gap. TF-77 initially took a course as if to pass to the east of Formosa, but on the afternoon of 10 April veered sharply to the right to head into the Formosa Strait. There had been some additions and subtractions from the

screen during the transit south, so when TF-77 entered the strait the two carriers were accompanied by antiaircraft light cruiser *Juneau* and 12 destroyers. Three destroyers of the TF-72 Formosa Straits patrol were already in the strait.

By 1000 on 11 April, the two carriers were almost dead center in the Formosa Strait when *Philippine Sea* commenced launching 63 sorties, followed by another 60 from *Boxer* at 1100. The mission of the aircraft was to conduct an "aerial parade" along the three-mile limits off the Communist Chinese coast as a highly visible show of force. At the time of launch, three destroyers were on "bird dog" stations along the Chinese coast to provide radar warning and if necessary, at-sea search and rescue for any downed pilots. The destroyer *John W. Thomason* (DD-760) was positioned at the north end of the strait, 15 nautical miles off the Chinese port of Fizhou and about 100 nautical miles north of TF-77. Destroyer *Fiske* (DD-842) was stationed to the west of TF-77, 15 nautical miles off the Chinese port of Canton (Guangzhou). Destroyer *John A. Bole* (DD-755) was stationed in an unusually exposed position off the Chinese port of Swatow (Shantou), 130 nautical miles southwest of the nearest U.S. ship, *Fiske,* and 150 nautical miles southwest of TF-77. According to *Bole*'s log, she was steaming slowly on station 12–15 nautical miles off Swatow. According to her crew, she was dead in the water, three miles off the port, surrounded by about 47 motorized, armed Chinese junks.

Nothing of what some crewmembers say happened to *Bole* ever made it into official documentation (which doesn't mean it didn't happen), nor is there a record to explain why she was where her crew says she was. There continues to be speculation that *Bole* was the "bait" for MacArthur's desired Chinese provocation. A somewhat more benign explanation is that given the concern over the buildup of Chinese junks opposite Formosa, her mission was to get in amongst them to gather intelligence. Regardless, by any reasonable standard, the ship was deliberately placed in a precarious situation.

John A. Bole was an *Allen M. Sumner*–class destroyer, armed with six 5-inch/38-caliber guns in three twin turrets, two forward and one aft. Her secondary armament was 12 40mm guns (two quad and two double mounts), five 21-inch torpedo tubes, and antisubmarine weapons. *Bole* was commanded by Commander Marion H. Buaas, a 1938 U.S. Naval Academy graduate. Interestingly, Ensign Marion Buaas was the executive officer of the armed yacht *Isabel* (PY-10), which had been sent by name on the personal orders of President Franklin Roosevelt on a high-risk surface-reconnaissance mission from the Philippines to Japanese-occupied Cam Ranh Bay, Indochina, on 3 December 1941 (see H-Gram 003/H-003-3). The details of the *Isabel*'s mission were highly unusual, leading to speculation that it was an attempt by Roosevelt to get the Japanese to fire the first shot. There is no proof that was Roosevelt's intent, just as there is no definitive proof regarding MacArthur's intent for the TF-77 operations, but it certainly could have turned out that way.

In the days prior to the operation, *Bole* had twice taken on a cryptography specialist, which resulted in changes to procedures in how the ship encoded and decoded messages, apparent equipment changes in the code room, and restriction of code room access to the communications officer only. Such activity would not be incompatible with the ship being provided the equipment for a signals intelligence mission. What is more difficult to explain was an apparent senior officer (unidentified to this day) who was highlined aboard *Bole* on 10 April and remained sequestered in the captain's cabin for the 11-hour duration he was aboard *Bole* until he was highlined off.

According to crew recollections, an announcement was made that the ship was on a highly classified mission and no one was to talk

about it. The ship was at General Quarters (Battle Stations) for over five and a half hours. Radar operators noted the large number of surface contacts (the junks) and proximity to land (three miles). Lookouts described the vessels as motorized junks, each armed with what appeared to be a 76mm gun, and estimates of the number ranged from 41 to 47. Engineers recalled that the ship was not making way. According to the crew's accounts, *Bole* and the armed junks remained stationary, just warily watching each other, from 1100 to 1600. The situation became even tenser at 1300, when the aerial parade came overhead and aircraft flew mock strike profiles on the junks. Official accounts state aircraft remained outside the three-nautical-mile limit, but crew accounts claim aircraft flew mock dive-bombing profiles over land and drew shore-based antiaircraft fire. Official accounts indicate sporadic antiaircraft fire from shore but are vague as to exactly where and when. This would become increasingly common over the next three years as the Chinese often fired on U.S. aircraft and downed several (see H-Gram 029).

Throughout the tense incident, *Bole* and the Chinese junks maintained discipline and no shots were exchanged. At 1600, *Bole* slowly exited the area, and the junks made no effort to impede her departure. Although the incident had nothing to do with it, the public announcement that General MacArthur was being relieved by President Truman occurred while *Bole* was surrounded by Chinese junks.

In addition to the aerial parade, *Boxer* also launched six photoreconnaissance sorties by F9F-2 Panthers of VC-61 Detachment Fox with six jet escorts. In addition, *Boxer* launched 12 combat air patrol sorties and six antisubmarine patrol sorties. Accounts also indicate that the carriers had moved weapons up from magazines in case retaliatory strikes were required.

During the night of 11–12 April, the carriers moved to the north of the strait for underway replenishment, but returned the next morning and launched a second aerial parade along the Chinese three-nautical-mile limit, followed up by more photoreconnaissance. A third aerial parade was launched in the afternoon, this one flying over Formosa as a show of support for Chiang Kai-shek and the Chinese Nationalists. On 13 April, Vice Admiral Martin flew ashore to meet with Chiang. TF-77 then departed the area and returned to the Sea of Japan on 16 April. Several destroyers remained with the TF-72 Formosa Strait patrol. Meanwhile, the Chinese and North Koreans repaired much of the damage to railroads and bridges in North Korea previously inflicted by TF-77, pretty much unmolested.

Given that the Communist Chinese did not invade Formosa in the spring of 1951, it is conceivable that the TF-77 operation in the Strait of Formosa succeeded in its overtly stated mission, to deter the Chinese from doing so. It's also possible the Chinese were bluffing, or that they changed their minds due to the heavy losses they suffered in the two spring offensive in Korea. If the mission of TF-77 was to provoke the Chinese into attacking U.S. forces outside the Korean area of operations then it failed because the Chinese steadfastly refused to take the bait. Given British antipathy to the operation, and the deep penetration of British intelligence by spies working for the Soviet Union, it is conceivable the Chinese were tipped off as to MacArthur's possible ulterior motive. Like many things in history, it is possible no one will ever know for sure.

On 11 April 1951, after increasingly vocal and public disagreements regarding UN/U.S. strategy in the war, President Harry S. Truman relieved General of the Army Douglass MacArthur and replaced him with General Mathew Ridgeway (who did an incredible job of turning the Eighth Army around after the serious defeats during the Communist Chinese offensives in the fall and winter of 1950). The move was controversial with much of the American public, who were also becoming increasingly dissatisfied with the

conduct of the war. Although other military commanders, including Navy leaders, kept their opinions out of the public, most agreed with MacArthur that giving the Chinese sanctuary in Manchuria was a lousy way to run a war. The rules of engagement did not allow the Chinese airfields and logistics supply nodes just across the Yalu River in Manchuria to be attacked, which the Communists used to full advantage.

While most U.S. commanders in the region were willing to expand the war into Manchuria, the rest of the United Nations allies (including the British) were emphatically against it. Since the United States was providing 90 percent of the forces and suffering more than 90 percent of the casualties, many U.S. commanders resented having the UN allies exercise veto power over the operations—the tail wagging the dog. Nevertheless, overall U.S. strategy remained deeply concerned that the Korean War was a diversion by the Soviet Union to tie down U.S. forces as a prelude to a move against Western Europe. Substantial forces (such as *Midway*-class aircraft carriers) were held back from the Korean theater. Although some members of the Joint Chiefs agreed with MacArthur, they quickly fell in line. MacArthur's apparent increasing desire to resort to the use of atomic weapons against the Chinese was also a factor in Truman's decision.

On 22 April 1951, the Chinese launched their first major spring offensive, routing a South Korean division on the eastern flank before the 1st Marine Regiment stemmed the advance. Over the next five days in fierce fighting, the rest of the 1st Marine Division slowly pushed back and then finally crushed the Chinese, inflicting heavy casualties.

Between 29 and 30 April, heavy cruiser *Helena* (CA-75), light cruiser *Manchester*, and destroyers *Bausell* (DD-845), *Rogers* (DD-876), *Agerholm* (DD-826), and *Anderson* (DD-786) shelled targets in the Kojo-Tongchon area of the North Korean coast south of Wonsan as part of an amphibious demonstration to divert Chinese attention. The demonstration was supported by assault transports *Okanogan* (APA-22) and *Telfair* (APA-210) and attack cargo ship *Winston* (AKA-94). On 1 May, *Helena,* having just returned for her second Korean War deployment, was shelling targets near Wonsan when she encountered unusually heavy shore battery fire. *Helena* was bracketed by 104 rounds, all of which missed.

On 1 May 1951, carrier HMS *Glory* relieved HMS *Theseus* in the Yellow Sea, continuing operations with light carrier *Bataan*.

USS *John A. Bole* (DD-755), photographed during the early 1950s (NH 107149).

Hwachon Dam Strike

As the battle line steadied up in March, approximately where the border had been between North and South Korea at the start of the war, the Hwachon Dam presented a major problem for United Nations forces. Located 50 miles northeast of Seoul, the dam controlled the water level in the Pukhan River, which separated Communist Chinese forces from the U.S. Army, and in the Han River, which flowed through Seoul. Although the dam had briefly been under UN control when the Chinese were pushed back in February and March, the Chinese had regained control by April. The Chinese were then in a position to lower the level of the Pukhan River so it could be forded without bridges in the event the Chinese went on the offensive, which they

were planning to do in late April. Conversely, the Chinese could open the floodgates and inundate the valley in the event UN forces tried to cross the river.

The Hwachon Dam had been constructed by a Japanese-owned Korean company between 1939 and 1944, during the long period when Japan occupied Korea. The dam's purpose was to generate hydroelectric power. The concrete dam was 900 feet across, 276 feet high, and 20 feet to 240 feet thick at the base, and was reinforced by rocks on both the upstream and downstream sides.

An attempt was made to destroy the dam by the U.S. Air Force using two B-29 Superfortress bombers with two guided 12,000-pound ASM-A-1 Tarzon bombs, which drifted wide and did not have the desired effect. The Chinese soldiers and North Korean technicians responded on 8 April 1951 by opening 16 gates (each 20 by 60 feet), causing the Pukhan River to rise by seven feet, forcing U.S. Army engineers to pull back several pontoon bridges, and washing away a railroad abutment. By this point it was clear that destroying the dam and releasing the entire flow of the reservoir was not a good idea. Rather it was only necessary to disable some of the 18 sluice gates.

The Eighth Army then attempted to capture the dam via an overland assault, and the 7th Cavalry Regiment and 4th Ranger Company were given the mission, which required a steep uphill fight with inadequate roads to bring up artillery support against determined dug-in Chinese resistance. The Rangers originally intended to make a night assault by boat across the reservoir, but this was scrapped in favor of a ground assault by the cavalry regiment, which then bogged down. In a belated attempt at an amphibious assault onto the far side of the dam, nine serviceable plywood assault boats were brought up to the reservoir, but only four outboard motors. Delays resulted in the Rangers not getting their entire planned force across the reservoir by daybreak, and they lost the element of surprise. Those that made it across were subjected to Chinese counterattack and some hand-to-hand fighting. The Rangers held out until the evening before withdrawing back across the reservoir, and the entire operation was called off.

On 30 April 1951, Commander, Task Force 77 Rear Admiral Ofstie received an urgent request from the Eighth Army for Navy aircraft to attempt to disable two or more floodgates on the Hwachon Dam. In typical Navy fashion (the air tasking order—the ATO—hadn't been invented yet to slow things down), a strike was airborne that afternoon. Eight AD Skyraiders of VA-195 off *Princeton,* led by squadron commander Harold "Swede" Carlson, were escorted by five VF-193 F4U Corsairs to provide flak suppression. The Skyraiders were armed with 2,000-pound bombs and racks of 11.5-inch Tiny Tim rockets with 500-pound warheads. Carlson and his wingman flew into the valley first in order to draw fire from ground positions, which were then attacked by the Corsairs. The strike scored multiple hits with bombs and rockets, and all aircraft returned safely, but post-strike photoreconnaissance by F9F Panther jets confirmed that the gates had suffered no significant damage.

"Plan B," suggested by *Princeton* skipper Captain William Gallery, called for using the dozen Mark 13 aerial torpedoes stowed deep in *Princeton*'s magazine. Torpedoes had not been used since the end of World War II. With some considerable difficulty, due to lack of experience in the ordnance handlers, eight torpedoes were loaded onto AD Skyraiders. With the exception of the Air Group Commander Richard C. Merrick and Carlson, only about three other pilots in the air group had any experience with torpedoes. Carlson had flown TBM torpedo bombers off escort carrier *Nehenta Bay* (CVE-74) during 1944.

On 1 May 1951, eight AD Skyraiders armed with torpedoes launched from *Princeton.* Five

Skyraiders were from VA-195, led by Carlson, and three were from VC-35, with Air Group Commander Merrick flying strike lead. Eight VF-192 F4U Corsairs and four VF-193 Corsairs flew escort and flak suppression. The approach to the upstream side of the dam was very difficult, with the aircraft required to fly two by two between 4,000-foot mountain peaks. Although the torpedoes were improved versions of the Mark 13s that performed so abysmally early in World War II, the Skyraiders still had to fly a comparatively steady, low and slow approach for the torpedoes to work properly. Besides the steep mountains and antiaircraft fire, wire obstacles were also a hazard. Fortunately, antiaircraft fire was much lighter than the day before, possibly from having been worked over so well by the Corsairs.

All eight Skyraiders dropped their torpedo within tolerance. One torpedo went haywire in an erratic off-course pattern and one torpedo was a dud. The other six torpedoes hit and worked as intended. One sluice gate was demolished by two direct hits and a second gate was rendered inoperable as a result of one direct torpedo hit. All aircraft returned safely to the carriers. All the torpedo plane pilots were awarded the Distinguished Flying Cross for the last aerial torpedo attack in history. VA-195 subsequently changed its name from the "Tigers" to the "Dambusters." The squadron still exists as VFA-195, an F/A-18E Super Hornet squadron stationed in Japan as part of Carrier Air Wing 5. The Hwachon Dam still exists and is South Korea's second-largest source of electric power.

On 18 May 1951, Air Group Commander Merrick was shot down by enemy ground fire and killed. He was awarded a posthumous Navy Cross for the Hwachon Dam and another strike.

> *The President of the United States takes pride in presenting the Navy Cross (Posthumously) to Commander Richard Charles Merrick, United States Navy, for extraordinary heroism in connection with military operations against an armed enemy of the United Nations while serving as Commander Air Group NINETEEN (CAG-19), attached to the U.S.S Princeton (CV-37), and as Strike Leader during operations against enemy North Korean and Communist Chinese forces in direct support of United Nations forces in Korea, in May 1951. On two separate occasions, displaying extraordinary qualities of leadership and personal heroism, Commander Merrick participated in and led such aggressive attacks against the enemy and enemy installations that the resultant damage imposed a visible setback to the Pukhan River as scheduled, and of relieving an extremely hard-pressed and threatened unit of our own forces. His bravery in the face of intense enemy fire were characteristic of this outstanding officer whose conduct and performance were at all times an example of the spirit which fosters the highest traditions of the United States Naval Service. He gallantly gave his life for his country.*

On 5 May 1951, the South Korean patrol ship and minesweeper *JML-306* struck a mine and sank off Chinnanampo North Korea, suffering six killed and 18 wounded.

On 6 May 1951, Rear Admiral George R. Henderson relieved Rear Admiral Ralph A. Ofstie as Commander of Carrier Division 5 and Task Force 77, breaking his flag on *Princeton*. Rear Admiral Ofstie went on to be Deputy Chief of Naval Operations (air) and then Commander Sixth Fleet, but died while in the job. He had been awarded a Navy Cross as Commander Carrier Division 26—*Kitkun Bay* (CVE-71) and *Gambier Bay* (CVE-73)—as part of "Taffy 3" during the Battle off Samar in October 1944.

Between 6 and 7 May 1951, heavy cruiser *Helena* and destroyers *Orleck* (DD-886), *Fiske, Buck* (DD-

761), and HMS *Cockade* shelled targets in the Kansong-Kosong area near the 38th parallel, inflicting extensive damage to enemy troops, shelters, gun positions, and transport facilities. According to the subsequent reports, the naval gunfire saved South Korean troops in the area from "complete annihilation."

On 11 May 1951, the destroyer *Orleck* bombarded concentrations of enemy troops on the east coast. With the aid of shore fire control parties (SFCPs), *Orleck* inflicted over 300 casualties.

Also on 11 May, at the request of the U.S. 5th Air Force, TF-77 planes attacked four railroad bridge targets in western North Korea, outside TF-77's normal area. The carrier aircraft strikes included 32 AD Skyraiders with two 2,000-pound bombs each, 32 F4U Corsairs for flak suppression, and 16 F9F Panthers for top cover. The attacks dropped three spans on the four bridges. Commander Naval Forces Far East expressed concern to Commander Seventh Fleet over this expansion of mission and directed that in the future such requests needed to be routed and approved by higher authority.

On 16 May 1951, the Chinese launched their second major spring offensive, this time threatening to envelope Seoul. As the Chinese army advanced, the U.S. Eighth Army requested that maximum air effort be devoted to close air support, and TF-77 strikes shifted accordingly. 18 May proved to be the worst day to date for TF-77 aircraft as six aircraft were lost to enemy ground fire (five F4U Corsairs, one AD Skyraider), with three pilots killed, one missing in action, and two recovered. Between April and June 1951, total carrier aircraft combat losses included three F9F Panthers, eight Skyraiders, and 19 Corsairs as enemy ground fire became more intense and more effective.

On 20 May 1951, recently recommissioned and newly arrived battleship *New Jersey* (BB-62) fired her first rounds in combat since World War II near Kansong, North Korea. The next day, while shelling targets off Wonsan, *New Jersey* was hit by a shore battery round that bounced off her No. 1 turret. However, one crewman was killed and three wounded by a near miss. The same day on the west coast, British commandos conducted a raid and demonstration near Cho-do Island, with gunfire support provided by heavy cruiser *Toledo* and air spotting provided by Marine aircraft off light carrier *Bataan*.

On 23 May 1951, LSMR "rocket ships" were used for the first time during the siege of Wonsan. Two LSMRs fired a total of 4,903 rockets at enemy concentrations in a 35-minute period, along with shelling by a light cruiser and destroyers as part of the coordinated Operation Fireball. The North Koreans quickly cleared troops out of rocket range. However, enemy shore batteries near Wonsan were unusually active on seven successive days, and on the night of 24 May an unusual amount of small craft activity was detected by radar. Light cruiser *Manchester* and destroyer *Brinkley Bass* (DD-887) fired on the contacts and broke up the enemy formation. At daybreak, four sampans were still afloat with 11 dead and one wounded aboard. *Manchester* reported that the sampans had each been reinforced to carry four M-26 moored contact mines.

On 29 May 1951, destroyer *Stickell* (DD-888) and patrol frigate *Burlington* (PF-51) put a raiding party ashore near Songjin, which destroyed three steel-decked junks with hand grenades. *Stickell* conducted a number of missions putting South Korean guerillas and intelligence collection teams ashore on the east coast of North Korea.

On 31 May 1951, the reactivated and recommissioned heavy cruiser *Los Angeles* (CA-135) arrived in theater with Rear Admiral Arleigh Burke embarked as Commander Cruiser Division 5.

On 1 June 1951, carrier *Philippine Sea,* deployed since July 1950, commenced return stateside and was relieved by *Bon Homme Richard* (CV-31). *Bon Homme Richard* served in the last months of World War II and was decommissioned at the end of the war. She was recommissioned in January 1951 in response to the Korean War. Of note, the original spelling of John Paul Jones' ship was *Bonhomme Richard*. This was misspelled as *Bon Homme Richard* on CV-31 but then corrected for amphibious assault ship *Bonhomme Richard* (LHD-6). LHD-6 was decommissioned on 21 April 2021 after being deemed beyond economical repair following the fire that started 12 July 2020.

In early June, the U.S. Eighth Army requested a change in air strike strategy, which was granted by senior leadership. This became Operation Strangle. Rather than attacking logistics lines running through North Korea, the great majority of air attacks would be focused on the roads south of the 39th parallel (i.e., in the immediate rear of the Chinese forward lines). This would prove ineffective as the Chinese had over 20,000 trucks and could replace them from the sanctuary in Manchuria as fast as they could be destroyed. The Chinese army subsisted on much less than U.S. or UN forces, so each truck could support more Chinese soldiers than U.S. or UN soldiers. There were also numerous alternate ways for the trucks to pass around damaged roads and bridges. If the trucks couldn't get through, the Chinese made extensive use of pack animals and humans to carry the loads through to the front. In the meantime, the Chinese and North Koreans had time to rebuild or repair many of the roads, railroads bridges, and tunnels that had been previously destroyed or damaged, at significant cost, further north, to the great frustration of both air force and naval aviators.

On the night of 2–3 June 1951, fast transport *Begor* with Underwater Demolition Team 3 (UDT-3) landed a force of South Korean guerillas on Song-do Island on the east coast of North Korea near Kojo (south of Wonsan). Another raiding party was put ashore near Songjin from destroyer *Rupertus* (DD-851); however, after receiving small arms fire, the party returned to the ship with three North Korean captives.

Between 2 and 5 June Commander in Chief, Pacific Fleet (Admiral Arthur W. Radford), Commander, U.S. Naval Forces Far East (Vice Admiral C. Turner Joy), and Commander Seventh Fleet (Vice Admiral Harold M. Martin) embarked on battleship *New Jersey* for conferences at Pusan and a battle area tour off Wonsan. This was repeated on 27 June with Chief of Naval Operations Forrest P. Sherman, three weeks before he died of a sudden series of heart attacks.

On 10 June 1951, in an ongoing effort to increase the effectiveness of night strikes on enemy logistics movements (which occurred almost entirely at night), two Navy PB4Y-2 aircraft (the Navy version of the B-24 four-engine bomber) dropped flares to support night attacks by Marine aircraft of VMF(N)-513.

USS *Walke* (DD-723) underway in East Asian waters, 23 November 1953. Note that *Walke* has been refitted with 3-inch/50-caliber guns by this time, replacing her original 40mm battery (NH 99810).

Walke Mine Strike

On 12 June 1951, destroyer *Walke* (DD-723) suffered a major explosion while escorting TF-77 carriers 60 miles off the coast of North Korea. The explosion devastated berthing compartments, killing 26 Sailors and wounding over 35 more. The

ship listed heavily and at one point was in danger of sinking. Nevertheless, under the command of Commander Marshall Fery Thompson, the crew succeeded in stopping the flooding and saving their ship. Four crewmen were awarded the Silver Star for repeatedly going into the damaged compartments to retrieve wounded Sailors. The cause of the explosion was assessed to be a drifting North Korean mine. However, given the distance from the coast, there was speculation that it might have been a torpedo. Ultimately, there were no North Korean ships left on the east coast capable of conducting the attack, and although rumors persisted (and still persist) of Soviet submarine involvement, no evidence has surfaced (sorry) of that. There was evidence that numerous mines were deliberately set adrift by the North Koreans, and in this case, the "big ocean, little ship" theory failed, and *Walke* was extremely unlucky.

On 14 June, destroyer-minesweeper *Thompson* (DMS-38) had just destroyed a railroad bridge and was conducting "junk busting" operations near Songjin within 40mm range of the beach when four enemy coastal defense guns in hiding opened fire. Some reports state *Thompson* was hit 13 or 14 times, but the only serious damage appeared to be a hit on the flying bridge that killed three Sailors and wounded three more and knocked out her primary fire control system. Despite this, *Thompson* returned fire, destroying one gun and damaging another.

On 20 June 1951, destroyer *Brinkley Bass* became the first to experiment with coordinated ship-air ground attack in conjunction with U.S. Air Force B-26 twin-engine bombers. The ship would identify targets for the B-26s and the B-26s would identify targets for naval gunfire that the ship couldn't see. The tactic was fairly successful and would be repeated.

With the costly failure of both Chinese spring offensives, the Chinese reached the conclusion that they did not have the logistics capability to drive the UN forces off the Korean Peninsula (something senior Chinese military leaders told Mao Tse-tung very early on). In addition, large numbers of Chinese troops were surrendering. The Chinese then shifted to a mostly defensive hold strategy. On the United Nations side, there was no appetite among civilian political leaders to resume large-scale offensive operations. The battle lines became increasingly static as a stalemate set in; the same hilltops would change hands multiple times, at great cost. The first significant negotiations for an end to the conflict commenced in July, but these would get bogged down (to a significant degree over the fate of the surrendered Chinese soldiers, many of whom did not want to go back to China). The war and casualties would drag on for two more years, as would the largely futile attacks against Chinese and North Korean logistics lines. Within the United States, disillusionment with the war continued to increase.

Sources include: *The U.S. Navy and the Korean War: Chronology of U.S. Pacific Fleet Operations, January–December 1951*. *Attack from the Sky: Naval Air Operations in the Korean War,* by Richard C. Knott: Naval Historical Center, 2004. *Such Men as These: The Story of the Navy Pilots Who Flew the Deadly Skies over Korea,* by David Sears: Da Capo Press, 2010. *Holding the Line: The Naval Air Campaign in Korea,* by Thomas McKelvey Cleaver: Osprey, 2019. *The Swatow Incident: Prelude to Total Victor—or Nuclear Disaster?* by L. Tracy Winslow: Archway Publishing, 2019.

A U.S. Navy commander stands near an Iraqi T-55 main battle tank that was destroyed during Operation Desert Storm. The tank is lying in the desert outside of Kuwait City, 1991 (National Archives: 6465076).

H-061-2: Desert Storm, March–June 1991

H-Gram 061, Attachment 2
Samuel J. Cox, Director, NHHC
May 2021

This series is a departure from my normal H-grams in that this is a personal recollection. I was the current intelligence officer/Iraq analyst on the intelligence staff of Commander, U.S. Naval Forces Central Command, for the entirety of Operations Desert Shield and Desert Storm, serving under Vice Admiral Hank Mauz and Vice Admiral Stan Arthur. I first wrote this a number of years after the fact, but I kept it true to what I believed and understood to be true at the time, so my dim view of joint operations as conducted during Desert Storm (which held the Navy back from making maximum contribution to the war) and of U.S. Central Command, particularly its intelligence support architecture, will be readily apparent. My reward for this heresy was to spend 12 of the next 21 years in joint commands, including three years as commander of the U.S. Central Command Joint Intelligence Center, where I had opportunity to see significant improvement in U.S. joint operations.

Desert Storm Deployment, USS Blue Ridge *(LCC-19), August 1990–June 1991*

Aftermath, Arabian Gulf, March–May 1991

April 1991, Mina Salman, Bahrain

"When are we going home?" became the new battle cry, although we quickly learned to be discreet about it after seeing what Vice Admiral

Arthur did to USS *Mars*, whose skipper had whined once too often. Ships that had been deployed the longest (except for us) were the first to start heading home. Within a few days of the formal cease-fire signing at Safwan on 2 March, the carriers *Saratoga*, *John F. Kennedy*, and *Midway*, and the battleship *Wisconsin* were heading home. But there was still a lot to do, such as clearing over a thousand Iraqi mines to make the waters of the northern Arabian Gulf safe for navigation. As the commander of Middle East Force (I think) observed, "The mines haven't stopped fighting yet."

Mars was part of a group of logistics ships that arrived just before the start of Desert Storm, and even though she hadn't been deployed as long as many other ships, her skipper was very vociferous about how badly his crew wanted to go home. Admiral Arthur was normally rather mild-mannered, but you don't survive over 500 combat missions in Vietnam without having a hard edge, and he got fed up. *Mars* was directed to go home immediately, by herself, without the rest of the ships in her logistics group. Several days after the *Mars* rather ignominiously slunk out of the Gulf, the staff surface operations officer noticed that she was considerably exceeding her authorized speed of advance, apparently in an attempt to squeeze a day or so more of liberty out of her scheduled stop in Singapore. In a zinger of a message, Admiral Arthur responded by giving a direct order for *Mars* to proceed at a specific speed that would preclude her from stopping in Singapore at all and result in an excruciatingly slow transit across the Pacific until she crossed out of the Seventh Fleet area at the International Date Line (we still retained responsibility for the Seventh Fleet area in the Western Pacific throughout the Desert Shield/Storm operation). There was no whining from any other ship.

Compared to the period before and during the combat phase of Desert Storm, the intensity of our workload decreased greatly. Nevertheless, there was still a lot of work to do, and since most of us were mentally and physically exhausted by the long ordeal, it was still grueling. The euphoria of the stunning and overwhelming victory wore off quickly, especially as it appeared the victory was quickly being tarnished.

No one, including me, thought that Saddam would last more than a few weeks after such a lopsided and humiliating defeat, one of the worst in modern military history, before he would be overthrown or assassinated by his own generals. But, to everyone's frustration, Saddam didn't act like he'd been defeated at all and, in fact, was claiming a great victory. Worse, as U.S. forces were in a pell-mell rush to redeploy home, Saddam was busy using his remaining forces to ruthlessly crush uprisings by Iraqi Shia and Kurd populations, who had been encouraged to revolt by public statements by senior U.S. officials, to include the President of the United States.

Despite U.S. rhetoric, Saddam thumbed his nose and used his Baathist thugs to suppress and massacre Shia opposition in the south of Iraq, sometimes practically within sight of remaining U.S. forces. Shia leaders pleaded for U.S. help, but none came. Using a loophole in the cease-fire agreement, Iraqi helicopters repeatedly flew combat missions (instead of permitted logistics flights) in southern Iraq to destroy Shia rebels, who had no hope without any kind of air defense. Despite General Schwarzkopf's famous statement about helicopters—"If they fly, they die"—the only dying was being done by Shia men, women, and children.

In the north of Iraq, Saddam attempted to flaunt the cease-fire agreement by launching fixed-wing Su-22 Fitter jet fighters to bomb Kurd positions. Although three of these jets were promptly shot down in mid-March, the Iraqi army had no problem driving tens of thousands of Kurd civilians from their homes into the cold mountains, creating an immense humanitarian crisis. Although the U.S. military launched a major relief effort to bring food and shelter to thousands of

freezing refugees, the Kurds still felt betrayed by promises of U.S. military assistance that didn't come. The Kurds' uprising proved to be a massive disaster.

Although there were numerous good reasons not to have invaded Iraq and gone all the way to Baghdad (reasons that became even more obvious in the post–major combat phase of Operation Iraqi Freedom in 2003), the American drawdown was so precipitous that within a matter of weeks, we no longer had the capability to do so even if American leaders had so directed. While the United States was busy celebrating our great victory, Saddam was busy reconsolidating his hold on power with brutal efficiency.

As the fruits of victory over Iraq soured, considerable staff energy was expended on determining what the U.S. Navy command structure in the Middle East should be after the war. There was near-universal agreement that the command structure that existed at the very start of Desert Shield in August 1990 was completely screwed up. General Schwarzkopf made clear he did not want to go back to the pre-war structure. For all the inter-service animosity, once General Schwarzkopf had a three-star Navy component commander, he didn't want to let go.

The Navy had resisted the formation of U.S. Central Command in the mid-1980s, viewing it as a potential permanent drain on resources from the Atlantic and Pacific Fleets. The service reluctantly agreed to form a naval component staff for Central Command, but deliberately kept it small and weak. In fact, the naval component command for CENTCOM was stood up at Pearl Harbor, far from the CENTCOM headquarters in Tampa. In Hawaii, it could be kept under the thumb of the Pacific Fleet commander. In fact, the commander of "NAVCENT Pearl Harbor" was only a one-star admiral (a brand-new one at that), who was a member of the Pacific Fleet staff, working CENTCOM issues as an additional duty.

When Saddam invaded Kuwait, this officer and small NAVCENT Pearl Harbor staff immediately flew out to Bahrain to serve as the Central Command naval component commander, where he was grossly outgunned by the Air Force, Army, and Marine Corps component commanders, who were all three-stars. Even more awkward, he was outranked by a Navy command that was already based in Bahrain, the two-star Commander, Middle East Force (COMIDEASTFOR). The arrangement was so dysfunctional that within a week, Vice Admiral Mauz (a three-star) was directed to fly to Bahrain with part of his staff to take charge of the mess, while the rest of the Seventh Fleet staff (including me) sailed to Bahrain on the flagship, *Blue Ridge*.

After Admiral Mauz took command of the operation and was designated Commander, U.S. Naval Forces Central Command (NAVCENT), in mid-August, COMIDEASTFOR was designated as a subordinate NAVCENT task force (TF-150) and put in charge of the maritime interception operations. The original NAVCENT Pearl Harbor staff was re-designated as Commander, Naval Logistics Support Force (COMNAVLOGSUPFOR), known more commonly by the NAVCENT staff as "COMNAVLOGJAM" or just "Log Jam" (for good reason, but not because the staff wasn't doing its best).

After the war, a variety of command proposals were batted around among CENTCOM, NAVCENT, and "Big Navy" in an attempt to come up with a more permanent solution. One plan appeared to gain considerable momentum, much to the consternation of many of us on the staff. This plan called for those of us on the NAVCENT staff to get off *Blue Ridge* and establish a permanent naval component command headquarters in Bahrain, staying until our normal tour length was up. *Blue Ridge* would go back to Japan and new people would be brought in to reconstitute the Seventh Fleet staff for control of naval operations in the Western Pacific and Indian Ocean. Although there was actually considerable

logic to this plan, I still thought it sucked. It would mean that out of my two-year Seventh Fleet tour, I would spend all but two weeks of it away from my wife in Japan, which the Navy would no doubt count as a "co-located" tour.

As April dragged on, there appeared to be no resolution on the command issue. Our stay in the Gulf looked to remain indefinite. All the ships that were in the Gulf for Desert Storm had started for home; many were already home. Replacements were already arriving, such as the carrier USS *Nimitz*. Yet there seemed no end in sight for us.

Then, one day, practically out of the blue, we were told we were leaving in a few days. It was if higher authority had just decided, "Screw it, we're out of here." The next few days were a scramble, as we dumped our responsibilities onto COMIDEASTFOR and hit the road, leaving much undone. It would be another three years before the Navy command relationships in the Middle East would be sorted out.

Late April 1991, Strait of Hormuz, Underway on USS Blue Ridge

My thoughts and emotions were decidedly mixed as I watched the Iranian radar site on Lesser Tunb Island fade into the shimmering heat and dust-blown haze; at last, we were in the Strait of Hormuz, exiting the Arabian Gulf. By far the dominant sensation was one of overwhelming relief and gratitude for surviving a war zone and to be finally heading home. I was tired to my core from months of doing my utmost to give the best intelligence support to forces engaged in life-and-death combat operations. We'd achieved a great victory, yet I had this gnawing feeling that we hadn't finished the job. If I never had to work with Central Command again it would be too soon, yet I had this feeling that someday I'd be back. I wasn't really expecting Saddam to still be there when I did. Little did I know I'd be back as the N2 for the *Theodore Roosevelt* Battle Group (1999), the N2 for Naval Forces Central Command/Fifth Fleet (1999–2001), and as commanding officer of the U.S. Central Command Joint Intelligence Center (2004–2007).

I believed strongly at the time (and still do) that invading Iraq would have been a huge mistake, resulting in protracted struggle with no obvious way out. I also believed it was the right thing to do when we did it to stop the slaughter on the "Highway of Death." Our mission was to liberate Kuwait, and we did that. But I also believed we could have and should have done much more to help the Shia and the Kurds, thousands of whom died because they mistook our empty rhetoric for a promise of aid if they rose up against Saddam. They did, and were massacred. We were too busy throwing ourselves ticker-tape parades to notice. When the confetti settled, Saddam was still standing.

I felt strongly that the U.S. Navy in Desert Storm had the best intelligence of any naval force in the history of warfare. Yet it was far less than it could have and should have been. Because of shortsighted and parochial decisions made well before Desert Storm, the naval intelligence support infrastructure that existed and worked so well in the Atlantic, Mediterranean, and Pacific did not exist in Central Command. Naval forces in Desert Storm did not get all the support they would have gotten had the war been fought anywhere else; and the Navy had mostly itself to blame because of its failure to invest more than the bare minimum in Central Command. The entire Ocean Surveillance Information System (OSIS) infrastructure was built for the wrong war. It was also clear that the concept of "Joint Operations" still had a very long way to go. I don't think there was an officer on the NAVCENT staff who wasn't completely fed up with the Central Command staff in general, and the joint force air component command concept in particular. From our perspective, joint operations were apparently all about Army, Navy, Air Force, and Marines working together on or over land to do what the Army and Air Force wanted. If the problem was on or over water, then it was a Navy problem for the

Navy to handle, and don't expect any help from the rest of the "joint" force. (Although the coordination mechanisms are vastly improved, this statement is still largely true even today). In fact, when I gave Admiral Arthur the "Intelligence Lessons Learned" brief I'd been tasked to prepare, I showed an "unofficial" graphic, on which lesson number one was, "Joint Sucks. (If you want it done right, do it yourself)." This lesson was roundly applauded by the audience. (Lesson number two, "MISREPS lie" wasn't such a big hit, but grudgingly recognized as true. MISREPS are "mission reports" by pilots that resulted in inflated claims of tanks destroyed, ships sunk, and a supertanker being blown up.)

We all watched with disgust as the post-war spin in Washington seemed intent on belittling the Navy contribution. The Navy public relations campaign in Washington was abysmal. One time the staff public affairs officer stood up all excited and briefed the admiral about a great article on our operations that appeared in *Sea Power* magazine. He seemed taken aback when he was greeted by stony silence from the entire staff and a collective unspoken shrug, "Big deal. If we can't get our story told in *Sea Power*, where the hell can we? The people who read *Sea Power* already believe."

What galled us the most, however, was our strong belief that joint operations as conducted in Desert Storm actually held the Navy back, preventing us from making even greater contributions to the war than we did (and didn't get much credit for). Worst of all, if the Iraqis hadn't been so completely incompetent, and we hadn't been so lucky, joint operations as conducted in Desert Storm could easily have cost the lives of hundreds of Sailors.

We were glad to be leaving. WESTPAC ho!

Late May 1991, Hong Kong

The nighttime view from the American Club in Hong Kong was spectacular beyond belief, as if the heavens had been turned upside down and the rheostat on the multitudes of stars cranked way up; the city was glowing with luminescent energy. The restaurant was about 20 stories up right on the waterfront. Laid out below in a 270-degree arc was downtown Victoria, the bustling harbor, Kowloon, Kai-Tak airport, lights as far as the Chinese border, with hundreds of ships, boats, planes, cars, and all other modes of transportation in frenetic motion. There is no urban view to compare. Best of all, my wife was there to share it (and the food was really good—and reasonable).

There had been considerable debate on the staff as to whether we wanted to stop somewhere for our first real liberty in months or to continue straight home to Yokosuka. But there was only one vote that really counted, and the admiral chose to stop in Hong Kong. It was a great liberty call for the single Sailors, and the vast majority of the staff's and ship's company's wives flew down from Japan to meet us. So, for many, this was our real homecoming reunion. It was truly joyous.

It was a short visit and it flew by in a blur of activity, just like Hong Kong itself. The city was simply in constant motion, truly a world hub of commerce, and a world away from troubles of the Middle East. I could have ridden the Star Ferry between Victoria and Kowloon all day long; it is one of the most memorable rides in the entire world, and all for only seven cents (12 if you want to go "first class"), which has to be about the best entertainment deal on the planet.
Hong Kong was what "WESTPAC" and the Seventh Fleet were supposed to be about. Bahrain and the Arabian Gulf hadn't even been in the fine print when the detailer signed me up to go. It was a great taste of the rest of my terrific assignment to the Seventh Fleet staff.

Early June 1991, Yokosuka, Japan

A rousing chorus of jeers went up as we watched the Desert Storm Victory Celebration held in New York City; a few threw wads of paper at the TV.

There, on prominent display, representing the U.S. Navy contribution to the war effort was our sister ship, flagship of the Second Fleet, USS *Mount Whitney*.(LCC-20). *Mount Whitney* never left the pier in Norfolk the entire war.

What made the sight of *Mount Whitney* even more annoying was that she could have played a major role in Desert Storm, but the Atlantic Fleet Commander apparently decided that she had something more important to do than serve as the flagship for the largest U.S. Navy armada assembled since World War II. At about the four-month point in *Blue Ridge's* deployment to the Arabian Gulf, with no apparent end in sight, there was serious discussion about getting a relief. At that time, the Navy was very strict about adhering to a six-month maximum for deployments, having learned the hard way that deployments longer than six months caused Sailors to start to vote with their feet and get out of the service. We had already sent two carriers home, *Dwight D. Eisenhower* and *Independence*, which had been on-scene at the very beginning of Desert Shield, when they approached the six-month mark. The fact that the Navy continued standard rotations throughout Desert Shield raised eyebrows at CENTCOM, since Army and Air Force deployments were all a one-way flow. The regularly scheduled change of command between Vice Admiral Mauz and Vice Admiral Arthur on 1 December 1990 provoked further consternation.

Despite the Navy's apparent business-as-usual approach, it was very clear that it made no sense to turn over the admiral's staff just before a war started; we'd developed considerable irreplaceable corporate knowledge. The flagship, on the other hand, was a different matter. *Blue Ridge* was basically a large floating office building, communications station, and barracks, but its older design made it very manpower-intensive. Keeping the ship deployed past six months would affect an awful lot of Sailors. *Mount Whitney* was virtually identical to *Blue Ridge*, so somebody came up with an obvious solution: have *Mount Whitney* off-load the Second Fleet Staff in Norfolk, steam over to the Arabian Gulf, where the 300-person NAVCENT staff (over twice the normal size, counting augmentees) would "cross-deck" from *Blue Ridge* to *Mount Whitney*. *Blue Ridge* and her 1,200 crewman would then go home to Japan on time. The Atlantic Fleet immediately balked at this idea: *Mount Whitney* was far too important to Atlantic Fleet operations, she couldn't possibly be spared, blah, blah. When the proposal was raised to an even higher level, the final decision came down: *Mount Whitney* needed so much repair work and she couldn't possibly get underway for so long. The idea was dropped; *Blue Ridge* would stay for the duration; of course, *Mount Whitney* wasn't so broken that she couldn't make it to the victory party.

While *Mount Whitney* and the Second Fleet staff were getting the tickertape parade treatment in New York, our homecoming a few days earlier had been rather anticlimactic. *Blue Ridge* returned to Yokosuka on a dismal, chilly, wind- and rain-swept day. One forlorn Japanese Maritime Self-Defense Force tugboat came out to greet us, her sputtering water cannon dribbling out a limp salute. Dozens of tugs and ships had met the carrier *Midway* when she returned to Yokosuka two months before we did. No doubt, *Midway* deserved her welcome: the oldest carrier in the Navy had flown thousands of strike sorties in Desert Storm without losing a single plane, but hero's welcome fatigue had set in by the time we returned home.

A couple of the West Coast amphibious ships that had already been in the Indian Ocean at the very start of Desert Shield were actually deployed for a few days longer than *Blue Ridge*, but they had returned to their home port earlier. *Blue Ridge*, with the Seventh Fleet Staff embarked, was the last ship to return home from Desert Shield/Storm, with a deployment that came in just a few days under ten months long.

Despite our rather lame official welcome, the welcome from family on the pier was every bit as emotionally intense as after my previous deployments. It truly was good to be "home," even though I had never been to it yet. During my absence, my wife had moved into on-base housing from the house in Shonan Takatori that I'd lived in for all of two weeks before deploying.

I felt exhausted and relieved finally to be back after my longest deployment. I knew I never wanted to go through something like Desert Storm again, but I wouldn't have wanted to miss it.

Source: Me. Although I wrote these pieces from memory a number of years after the fact, the best fairly comprehensive source for information on the U.S. Navy during Desert Shield/Desert Storm is still the two-volume set of *Desert Shield at Sea: What the Navy Really Did* and *Desert Storm at Sea: What the Navy Really Did*, both by Marvin Pokrant (the NAVCENT/Seventh Fleet CNA rep during both operations) (Westport, CT: Greenwood Press, 1999). Also useful is Department of the Navy, Office of the Chief of Naval Operations, *The United States Navy in Desert Shield, Desert Storm* of 15 May 1991, which has the best chronology and other facts and figures, although some number of them are “first reports” (always wrong). I would note that these are more “PC” than my account. Moreover, *Shield and Storm: The United States Navy in the Persian Gulf War* by Edward J. Marolda and Robert J. Schneller (Washington, DC: Naval Historical Center, 1998) is excellent.

The hospital ship USNS *Mercy* (T-AH-19) is docked in port at Bahrain during Operation Desert Storm, 1 February 1991 (National Archives: 6477713).

H-061-3 Desert Storm—Sealift, Seabees, Navy Medicine

H-Gram 061, Attachment 3

Samuel J. Cox, NHHC Director

May 2021

Sealift

The long-established maritime superiority of the United States Navy enabled the largest and fastest strategic sealift in history, with more than 240 ships delivering 18.3 billion pounds of equipment and supplies to the theater during Phase I and Phase II of Operation Desert Shield and during the combat phase of Operation Desert Storm. Military Sealift Command–controlled ships transported 3.4 million tons of cargo and equipment and 6.8 million tons of fuels halfway around the world to the Middle East (and much of it back). Over 90 percent of cargo was transported into theater via sealift and 95 percent was returned the same way. This massive sealift primarily supported the ground and air force buildup and campaign. Naval forces arrived in theater with a full sea-based, self-sustained logistics support capability that required minimal airlift and sealift for deployment and support. The Combat Logistics Force performed superbly in meeting the afloat Navy needs. For example, aircraft readiness on the carriers averaged 90 percent thanks to organic naval logistics support. Only 4.4 percent of the tonnage of supplies transported by sealift was for the Navy, and

almost all of that was for three fleet hospitals ashore

The Military Sealift Command (MSC), commanded by Vice Admiral Francis R. Donovan, was the maritime component of U.S. Transportation Command, a supporting command to U.S. Central Command. MSC had three major forces. The Naval Fleet Auxiliary Force (which included the Combat Logistics Force) consisted of those auxiliary ships such as tankers, stores ships, ammunition ships, and tenders providing direct support to U.S. Navy afloat forces. The Special Mission Support Force included vessels such as oceanographic research ships, missile-tracking ships, and cable-laying/repair ships. The third MSC component was the Strategic Sealift Force, which included 25 Afloat Prepositioning Force ships, eight fast sealift ships, two hospital ships, and two U.S. Marine Corps aviation support ships.

Significant enhancements in U.S. strategic sealift capability, initiated by President Jimmy Carter (1977 Presidential Review Directive 18, which created the Rapid Deployment Joint Task Force), came to fruition in the mid-1980s and played a key role during Desert Shield and Desert Storm. Prior to the late '70s, the United States was dependent on a dwindling U.S.-flag merchant fleet and an aging national defense reserve fleet consisting of mothballed World War II–era cargo ships. The twin jolts of the Iran hostage crisis and the Soviet invasion of Afghanistan, both in 1979, led to the announcement of the Carter Doctrine at the beginning of 1980 that the United States would use force, if necessary, to defend allies and interests in the event of a Soviet or proxy attack in the Arabian Gulf region. It also led to the realization that U.S. logistics capability to support large-scale combat in the region was woefully inadequate. As a result, requirements were established and funded ($7 billion) for the procurement of afloat prepositioning ships (APS), fast sealift ships (FSS), and the Ready Reserve Force (RRF) to rectify the decline in sealift capability.

In October 1981, President Ronald Reagan announced the Reagan Corollary to the Carter Doctrine, which stated the United States would intervene to protect Saudi Arabia, which was threatened by the Iran-Iraq War (started by Iraq in 1980). As a result, the Reagan administration continued and accelerated the Carter administration sealift program. By 1990, available U.S. sealift forces were specifically sized and located for a global war originating out of a conflict in the Arabian Gulf. About three-quarters of the deliveries made by ships during Desert Shield and Desert Storm were the direct result of the $7 billion dollar investment in strategic sealift programs starting in the late 1970s.

The key elements of MSC's Strategic Sealift Force were the afloat prepositioning ships and maritime prepositioning ships (MPS), the fast sealift ships, and the Ready Reserve Force. The afloat and maritime prepositioning ships were positioned to deliver their cargo to the Arabian Gulf at least two weeks sooner than the fastest seaborne deliveries from the continental United States. The eight fast sealift ships could transit twice as fast as conventional sealift and together could transport the equipment of an entire U.S. Army heavy division (i.e., armored or mechanized infantry). The Ready Reserve Force would deliver additional divisions augmented by the use of U.S.-flag merchant ships in the Sealift Readiness Program, the charter of commercial vessels, and if necessary, the requisition of additional U.S.-flag vessels.

At the outset of Desert Shield, there were 11 afloat prepositioning ships, most located at Diego Garcia (a British possession in the central Indian Ocean, extensively built up with U.S. facilities beginning with the Iranian hostage crisis in 1979). The afloat prepositioning ships were loaded with ordnance, fuel, and supplies for U.S. Air Force and U.S. Army units (the personnel would fly to the theater). One of the afloat prepositioning ships (MV *Noble Star*) was loaded with the gear for a naval field hospital (Navy Field Hospital 5). The

afloat prepositioning ships were manned by civilian crews under contract to Military Sealift Command. One afloat prepositioning ship was not available for use at the time.

There were also 13 maritime prepositioning ships, at that time divided between three squadrons located in the Atlantic, Diego Garcia, and Guam. The maritime prepositioning ships were loaded with equipment and 30 days' supply for three Marine expeditionary brigades. Like the afloat prepositioning ships, the maritime prepositioning ships were manned continuously by civilian crews.

Based on requirements laid out during the Carter administration, the United States purchased eight high-speed SL-7 container ships (originally built in the Netherlands and West Germany in 1972 and 1973 for commercial service) and modified them to serve as fast sealift ships for the rapid deployment of Army equipment. These were subsequently designated the *Algol*-class (T-AKR). Each fast sealift ship was (and still is) 946 feet long, and each could carry up to 700 Army vehicles, including the M1A1 Abrams Main Battle Tank and the armored Bradley Fighting Vehicle. Each had a full crew of 40 and a top speed of 33 knots, and each was designed to transit at a sustained speed of 30 knots. Based in the United States, the fast sealift ships were maintained in a 96-hour condition of readiness, manned with a skeleton civilian crew.

In addition, two supertankers were acquired by the U.S. Navy and converted to the large 1,000-bed hospital ships *Mercy* (T-AH-19) and *Comfort* (T-AH-20), with conversion completed in 1986 and 1987. These ships were also operated by civilian crews (although the 1,250-person medical complement would consist of active-duty and reserve Navy personnel) under MSC control and maintained in a similar readiness status as the fast sealift ships.

Also during the Carter administration in the late 1970s, the U.S. Navy began purchasing militarily useful ships to augment the aging mothball fleet of mostly World War II–vintage cargo ships. Over the next 10 years the Ready Reserve Force increased to 96 ships. These ships included 17 roll-on/roll-off (RO/RO) ships, as well as barge carriers, break-bulk ships, and small tankers maintained in an inactive status without crews at various ports by the Maritime Administration (MARAD). The ships had different assigned-readiness statuses and could be activated in 5, 10, or 20 days depending on readiness status. Upon receipt of activation orders, the ships would be towed to shipyards for mechanical preparations to sail, with crews drawn from available U.S. civilian merchant mariners. The Maritime Administration was also responsible for maintaining two U.S. Marine Corps aviation support ships, *Wright* (T-AVB-3) and *Curtiss* (T-AVB-4), also acquired and converted in the mid-1980s.

Following the Iraqi invasion of Kuwait on 2 August 1990, the first U.S. ground combat forces on the scene in Saudi Arabia were two brigades of the 82nd Airborne Division airlifted into theater beginning on 8 August. However, these Army forces were initially reliant on provisions from the U.S. Marine Corps. All the heavy U.S. Army forces were almost entirely dependent on sealift for their equipment and sustainment.

Following the deployment order on 7 August 1990, the maritime prepositioning ships of MPS Squadron 2 (MPSRON 2) at Diego Garcia and MPSRON 3 at Guam were shortly underway for the Arabian Gulf. (MPSRON 1 at Morehead City, North Carolina, was activated for Phase II of Desert Shield.) Ten afloat prepositioning ships were also shortly bound for the Arabian Gulf.

On 14 August the first two of three maritime prepositioning ships from Diego Garcia arrived at Jubayl, Saudi Arabia, with U.S. Marine Corps air ordnance embarked. This was the first non-exercise employment of maritime prepositioning ships. The ships would have been there sooner, but were held off awaiting King Fahd's formal

assent for additional U.S. forces to land in Saudi Arabia. Within four days of their arrival at Jubayl, Navy cargo handlers offloaded more cargo from the three ships than could be carried by 3,000 C-141 flights. This was followed by two more maritime prepositioning ships. The first two afloat prepositioning ships, with U.S. Air Force ordnance, arrived in Saudi Arabia between 17 and 19 August.

The maritime prepositioning concept was validated during Desert Shield and Desert Storm. No other alternative could have achieved the early force closure observed beginning 14 August 1990, only seven days after the deployment order. By 25 August, the 16,600 Marines of the 7th Marine Expeditionary Brigade were married up with their equipment, constituting the first heavy ground combat capability in theater. The two squadrons of maritime prepositioning ships delivered unit equipment and 30 days' worth of supplies for two marine expeditionary brigades (MEBs) totaling 45,000 men during Phase I of Desert Shield. This would have required 2,100 lifts by C-5 aircraft.

On 17 August 1990, fast sealift ships *Altair* (T-AKR-291) and *Capella* (T-AKR-293) departed Savannah, Georgia, with equipment of the 24th Infantry Division (Mechanized) embarked. Although it took six days to activate the ships (instead of the planned four days) and actual average speed was limited to 23 knots, vice 30, due to adverse weather and waiting at the Suez Canal, both ships arrived in Saudi Arabia on 27 August, with *Algol* (T-AKR-287) arriving on 4 September and *Denebola* (T-AKR-289) on 6 September with additional 24th Mech equipment.

Unfortunately, USNS *Antares* (T-AKR-294), carrying many of 24th Mech's tanks, broke down in the middle of the Atlantic and had to be towed to Rota, Spain, by ocean tug USNS *Apache* (T-ATF-172). Her cargo was then cross-decked by Seabees and soldiers to *Altair,* which was returning from Saudi Arabia, and which then delivered the tanks and other cargo three weeks later than planned. *Antares* had previously suffered an engine room fire returning from an exercise in South Korea. Interim repairs had been made, but a complete overhaul had been deferred due to funding. Sending *Antares* to sea was a deliberate, calculated risk (win some, lose some). Of the seven operational fast sealift ships, five of them completed three deliveries each during Phase I of Desert Shield (through the end of November 1990) and on later transits averaged 27 knots. The fast sealift ships delivered 20 percent of all cargo during Phase I.

The Military Sealift Command activated 44 ships of the Ready Reserve Force for Phase I of Desert Shield. This proved more challenging than the afloat and maritime prepositioning ships and the fast sealift ships. A particular difficulty was finding enough engineers qualified to operate the older power plants. Of the 44 ships, only 12 were activated on time, another 12 were one to five days late, and the others even later. Nevertheless, once activated, the ships maintained an impressive 93 percent readiness level. It also quickly became apparent that the 17 roll-on/roll-off ships were not enough, so more had to be chartered. It turned out that chartering a commercial cargo ship was actually faster and cheaper than activating and deploying a Reserve Ready Force ship. Fortunately, owners were amenable to charter (thanks to U.S. Navy control of the sea). Charter ships actually carried about 30 percent of total cargo during Phase I.

A particularly significant MSC charter was that of the Dutch "float on/float off" heavy-lift ship *Super Servant 3,* which embarked minesweepers *Impervious* (MSO-449), *Adroit* (MSO-509), *Leader* (MSO-490), and newly commissioned *Avenger* (MCM-1) at Norfolk and transported them to Bahrain, arriving on 1 October 1990. *Guardian* (MCM-5) crossed over on her own power in a 41-day transit.

Despite the challenges, by November 1990, Sealift delivered the gear and sustainment for a 100,000-man force, including the 24th Mechanized Division (primarily aboard fast sealift ships) followed by the 101st Air Assault Division, 3rd Armored Cavalry Regiment, 1st Armored Cavalry Division, and associated corps command element. This equipment included 700 tanks, 1000 armored fighting vehicles, 145 AH-64 Apache attack helicopters, and 294 155mm self-propelled howitzers. All of this was accomplished despite the fact that no "time-phased force and deployment data" existed because the operational plan to counter an invasion of Kuwait had not been completed. Basically, the entire operation had to be done on the fly.

During Phase I of Desert Shield (which ended 5 December 1990), sealift delivered 1,034,900 tons of equipment, 135,100 tons of supplies, and 1,800,000 tons of petroleum products. Of 173 ships involved, 124 were U.S.-flag vessels, which delivered 85 percent of the tonnage. During the first three weeks of Desert Shield, MSC delivered more tonnage to the Gulf than during the first three months of the Korean War.

The U.S. Army forces in Saudi Arabia would more than double during Phase II of Desert Shield with the decision to transport the entire U.S. Army VII Corps from Europe to Saudi Arabia. The VII Corps was a heavily armored force originally intended to duke it out with the Soviet Red Army in the Fulda Gap between East and West Germany in the event the Cold War turned into World War III. VII Corps included the 1st Mechanized Division, the 1st and 3rd Armored Divisions, and the 2nd Armored Cavalry Regiment. It was calculated that moving the 50,500 pieces of equipment of the VII Corps would take 111 shiploads (it actually took more like 140).

During Phase II of Desert Shield, MSC controlled seven fast sealift ships, four maritime prepositioning ships, six afloat prepositioning ships, 39 Ready Reserve Force ships, and 45 merchant charters. Once again, the fast sealift ships showed their worth; several made seven round trips during Phase II. All told, through all of Desert Shield, the seven fast sealift ships delivered 14 percent of the total tonnage of equipment and cargo. During Phase II, sealift delivered 1,270,300 short tons of equipment (235,400 more than in Phase I), 404,700 tons of supplies (triple that delivered in Phase I), and 3,500,000 tons of fuel (1,700,000 more than in Phase I). During Desert Shield, the seven SL-7 fast sealift ships delivered cargo equivalent to 116 World War II Liberty ships.

By the onset of Desert Storm combat operations in January 1991, U.S. forces had built up vast stores of equipment and supplies, enough to overwhelm the Iraqi forces occupying Kuwait, thanks to U.S. sealift capability. Strategic sealift was a major success due to the major U.S. investment initiated in the late 1970s (and which still significantly underpins the current U.S. strategic sealift capability), as well as to the well-developed port infrastructure in Saudi Arabia and in Europe (for the on-load of VII Corps). Most important of all was sea control (largely taken for granted by other services). The massive flow of material was uncontested, and not because the Iraqis lacked the means to contest it had they been able to do so. Because the U.S. Navy had command of the sea, the charter market (for civilian ships) was responsive to requests since ship owners knew their ships would be safe, even going into a war zone. This success was all the more remarkable given that early and accurate identification of lift requirements was difficult and changed often. Those who lived through it would likely characterize the initial phases as borderline chaos, but the ingenuity, determination, and perseverance of the Military Sealift Command overcame all obstacles and literally delivered victory to the coalition force and freedom to the Kuwaiti people.

And then MSC brought much of the equipment and supplies back, a monumental task almost as challenging as getting it there in the first place.

Seabees in Desert Shield/Desert Storm

When the first three ships of Maritime Prepositioning Squadron 2 (MPSRON 2) arrived at Jubayl, Saudi Arabia, on 15 August 1990, a detachment of 210 Seabees from Amphibious Construction Battalion 1 was already waiting for them, having arrived on 13 August. Trained in cargo handling, the Seabees used the maritime prepositioning ships' own cranes to offload cargo containers filled with ammunition, food, and other gear, while light armored vehicles (LAVs), amphibious assault vehicles (AAVs), and artillery rolled directly off the ships onto the quay. Seabees then offloaded the next two of the five ships of MPSRON 2. Meanwhile, personnel of the 7th Marine Expeditionary Brigade (7th MEB) began arriving by air on 14 August. By 25 August 1990, the 15,242 Marines of 7th MEB were fully married up with their equipment (123 armored vehicles and 124 aircraft, including F/A-18 Hornet fighter-bombers) in a blocking position north of Jubayl to counter the Iraqis if they crossed the Kuwaiti border into Saudi Arabia.

With the initial deployment order on 7 August 1990, Navy Mobile Construction Battalions (NMCBs) 4, 5, 7, and 40 were alerted to deploy to the Arabian Gulf area. Between 10 and 20 August, 100 Seabees of Amphibious Construction Battalion 2 (ACB 2) departed Norfolk on amphibious ships loaded with Marines. Over the next months, the Seabees of ACB 2 would participate in numerous amphibious exercises in the Gulf region as part of the deception plan to convince the Iraqis that an amphibious assault into Kuwait was in the offing.

The next Seabee units to arrive after the cargo handlers were Construction Battalion Unit 411, with 80 Seabees commanded by Lieutenant Susan Globokar, and Construction Battalion Unit 415, commanded by Lieutenant Lynn Bever. These were the first Seabee units commanded by women to deploy to a war zone. Their first task was to set up Naval Field Hospital 5, which had been delivered by an afloat prepositioning ship. Originally intended for Dhahran, the hospital was shifted further north to Jubayl at the direction of the Commander of Marine Forces Central Command (MARCENT), Lieutenant General Walt Boomer, who wanted the hospital closer to where his Marines might be fighting. Although this shift caused some disruption, by the end of August the Seabees had transformed the over 400 shipping containers into an actual hospital, assisted by medical personnel arriving by air, who pitched in with heavy manual labor as well. The operating rooms, intensive care, and radiological facilities of Fleet Hospital 5 were operational by the beginning of September.

By 14 September 1990, the initial elements of each of the four deploying Navy Mobile Construction Battalions (NMCBs) had arrived in the theater, each with 89 Seebees who could operate for 30 days without supply. NMCB 40 deployed from Guam, and the main body was in Saudi Arabia by 27 September. By 18 October, the main bodies of all four battalions were in place. NMCB 5 deployed from Port Hueneme and NMCB 4 deployed from Puerto Rico, both to Saudi Arabia. NMCB 7 deployed from Okinawa to Bahrain. Of note, NMCB 5 named its cantonment near Jubail airport in honor of Steelworker Second Class Robert Dean Stethem, a Seabee

diver, who was tortured and killed during the hijacking of TWA Flight 847 on 15 June 1985 by Iranian-backed Lebanese Hezbollah terrorists. The Seabees quickly went to work doing what they have done since first going ashore with U.S. Marines in 1942. In addition to unloading maritime prepositioning ships, the Seabees built storage facilities in the ports, paved roads, widened taxiways, drilled water wells, installed electrical systems, erected tent facilities, and generally improved habitability for the Marines. The Seabees also built fighting bunkers, tank barriers, and ammunition storage sites. Improving airfields and creating base camps for Marines was the first priority. Improving "quality of life" for Marines came later.

The Seabees built base camps for the 3rd Marine Air Wing, Marine Air Groups 11, 13, 16, and 26, and the 1st and 2nd Marine Divisions. NMCB 7 in Bahrain supported Army and Air Force units in addition to Marines. NMCB 7 built an aviation storage facility, a munitions transfer road, and a 60,000-square-foot parking apron.

The largest Seabee project during Desert Shield was a 15,000-person camp for the II Marine Expeditionary Force (II MEF), which was the largest multi-battalion Seabee project since the Vietnam War. Construction began in late November and eventually involved all the Seabee units. Dubbed "Wally World," the complex consisted of six 2,500-man modules, including office space, berthing, hygiene facilities, roads, and parking. Another major project was the headquarters complex for the I Marine Expeditionary Force (1 MEF). Throughout Desert Shield, Seabees worked seven days per week in two 12-hour shifts, only taking off on Thanksgiving and Christmas. Conditions were extremely difficult, ranging from the intense heat of the late summer to cold winter nights, and the sand was very hard on equipment.

The so-called new generation Seabees adopted numerous innovative construction techniques and equipment in order to erect buildings as much as 80 percent faster than through using conventional means. Automatic building machines produced K-Span arches that stretched fabric membranes over steel frames and formed "sprung instant" and "clamshell" structures, which were then emplaced on concrete slabs. The area around Jubayl was quickly covered with Seabee-built huts and tent cities.

As Desert Shield went on, additional Seabee units deployed to the region. The 3rd Naval Construction Regiment, a reserve regiment, was mobilized to provide command and control over the deployed battalions under the command of Captain Michael Johnson (Civil Engineering Corps). In December, reserve NMCB 24 was mobilized and deployed to relieve NMCB 4. Reserve NMCB 74 relieved NMCB 7 at Bahrain (NMCB 7 moved to Jubayl). NMCB 74 moved into Seabee Camp Tom Orr and finished construction at the Navy's Administrative Support Unit (ASU) Bahrain, along with continuing improvements to Shaikh Isa airfield for Marine Air Group 11 and Bahrain Defense Force units. NMCB 5 and NMCB 40 were joined by Details 15 and 16 from NMCB 1, which was deployed to Rota, Spain. NMCB 5 and NMCB 40 continued extending airfields, installing tank barriers, and establishing ammunition and water supply points. By the onset of Desert Storm, 2,800 Seabees with 1,375 pieces of construction equipment were deployed to the region.

The air campaign for Desert Storm commenced on 16 January 1991 (17 January in the Gulf). U.S. Army, Marine, and coalition forces began moving north from their defensive positions toward the Kuwait border in preparation for the ground offensive to eject the Iraqis from Kuwait. U.S. Navy Seabees played an absolutely critical role in the preparations that enabled the I Marine Expeditionary Force (I MEF) to conduct an assault into southern Kuwait and the U.S. Army to make a "Hail Mary" end around western Kuwait. Spearheaded by the 1st Marine Division, the U.S.

Marines were to attack into southern Kuwait, where Iraqi defenses were the strongest, in order to fix Iraqi units in place until the U.S. Army could roll them up from the western flank. The logistics preparations for the Marine's supporting attack and the Army's main attack were immense. In addition, in order to maintain operational security, these logistics preparations had to be done only at the last possible moment. Without the U.S. Navy Seabees, this would not have been possible.

In order to support the planned I MEF attack into Kuwait, the Commanding General of the Direct Support Command, (future Commandant of Marine Corps) Brigadier General Charles C. Krulak, directed that a logistics support base be established in the desert about 35 miles south of the Kuwait border and 36 miles west of Ras Al Mishab on the coast. Before the base could be established, Seabees of NMCBs 5, 40, and 74 and Marine engineers had to widen the two-lane dirt track between Ras Al Mishab to the logistics base (named Kibrit by the Marines) to eight lanes and improve the adjacent dirt airstrip to be C-130 capable. Between late December and 6 February, 1.8 million gallons of fuel and 15,800 tons of ammunition were concentrated at Kibrit. The Navy 1st Medical Battalion also set up a 470-bed hospital at Kibrit. The Seabees built an enemy prisoner of war (EPW) camp, capable of holding 40,000 prisoners.

In early February, the commander of MARCENT and I MEF, Lieutenant General Walter Boomer, moved his planned main point of attack even further west, necessitating another major logistics base be established 23 miles west of Kibrit, which the Marines would name Al Khanjar. With his confidence that the Seabees and Marine engineers could get the necessary infrastructure in place in time, Lieutenant General Boomer was able to back off his position that a supporting amphibious assault on the coast of Kuwait was required. This shift became apparent during a meeting aboard the Naval Forces Central Command (NAVCENT) flagship *Blue Ridge* (LCC-19) on 2 February 1991 between Lieutenant General Boomer, Vice Admiral Stan Arthur, and General Norman Schwarzkopf.

With the onset of the ground campaign fast approaching, between 6 and 20 February, NMCB's 5, 24, 74, and 40 and Marine engineers built the largest ammunition supply point in the history of the Marine Corps. The work included 24 miles of blast wall berms and two 5,700-foot dirt airstrips for C-130 operations. The complex covered 11,280 acres and was stockpiled with 5 million gallons of fuel and one million gallons of water. The complex also had a naval hospital with 14 operating rooms, established by the Marine 2nd Medical Battalion (also staffed with Navy personnel).

During this period, which turned out to be the wettest in Saudi Arabia in years, Seabees built and maintained over two hundred miles of roads just south of the Kuwait border in order to support both the Marines and U.S. Army forces further to the west. As many as 500 heavy haulers and thousands of tactical vehicles traversed this six-lane road every day. The Seabees also built a 1,500-foot runway for remotely piloted vehicles (RPV) for tactical aerial reconnaissance.

As part of the deception plan to hide the westward movement from the Iraqis, Seabees participated with the Marine Task Force Troy in creating a phantom force. The Seabees constructed 35 wood and canvas tanks and artillery pieces and emplaced them in the night along the Kuwait border. The mock equipment was realistic enough to draw concentrated Iraqi mortar fire.

As Marine reconnaissance teams began infiltrating into Kuwait on 17 February, the Seabees commenced bulldozing channels through the berm on the Saudi side of the border to enable Marine forces to pass. On 21 February, Marine forces moved into position to attack into Kuwait, drawing sporadic artillery fire as Seabees

kept working until the main attack commenced on 24 February. On the day before the attack, the Seabees dug in the position for the 1st Marine Division command element. Once the attack was underway, Seabees continued work on improving the main supply route while Marine engineers improved lanes through the breeches in Iraqi defenses. The day after the attack commenced, advanced parties from NMCB 5 and NMCB 24 entered Kuwait to prepare positions for the I MEF command element and to repair airfields, maintain roads, and build more EPW camps, all while surrounded by hundreds of burning Kuwaiti oil wells, which the Iraqis had sabotaged as a last act of spite before most of them tried to flee. Following the cease-fire on 28 February, Seabees in Kuwait began returning to their units south of the border. During Desert Storm, U.S. Marines captured, destroyed, or damaged 1,060 tanks, 608 armored personnel carriers, and 432 artillery pieces—thanks to the roads, airfields, ammunition, and water supply points built by U.S. Navy Seabees.

The last word goes to Lieutenant General Boomer, who to staff remarked, "Seabees were doers. They don't talk a lot of bullshit—they just go out and do the job."

(I would note that on 1 November 1943, Chief Carpenter Samuel J. Cox led 62 Seabees of the 53rd Construction Battalion ashore in the second wave at Yellow Beach on Japanese-held Bougainville. I believe even my grandfather would have been amazed at and proud of what the Seabees accomplished during Desert Shield/Storm.)

Two Navy corpsmen treat a Marine gunnery sergeant suffering from the effects of smoke produced by the burning Kuwaiti oil fields during Operation Desert Storm, 1 February 1991.(National Archives: 6469995).

Navy Medicine in Desert Shield/Desert Storm

The President of the United States takes pleasure in presenting the Silver Star to Hospital Corpsman Third Class Anthony Martin, United States Navy, for conspicuous gallantry and intrepidity in action against the enemy while serving as a Corpsman attached to Company L, 3d Battalion, 9th Marines, FIRST Marine Division, in action on 24 February 1991 in support of Operation DESERT STORM during an Iraqi mortar barrage. On that date Petty Officer Martin and Marines of Company L were assaulting across Al Wafra oil field when the Americans came across a large group of Iraqi soldiers waving white flags. The Marines began frisking them when they suddenly came under attack from an enemy mortar barrage. As 82-millimeter mortar rounds exploded around him, Petty Officer Martin repeatedly ran to the rescue of wounded Marines. His gallant actions and dedicated devotion to duty, without regard for his own life, were in keeping with the highest traditions of military service and reflect great credit upon himself and the United States Naval Service.

Petty Officer Martin was one of 5,800 U.S. Navy hospital corpsmen who deployed with their assigned Marine units during Desert Shield and Desert Storm. He was one of only six U.S. Navy personnel to be awarded a Silver Star during the conflict. Since the establishment of the U.S. Navy Hospital Corps in 1898 (which brought some semblance of order to the Navy's ad hoc medical system), Navy hospital corpsmen have provided medical care to U.S. Marines. Since World War I, navy hospital corpsmen have served as integral members of Marine Corps units, providing battlefield first aid to the wounded, frequently under direct enemy fire. The nature of their work requires extreme courage, and over the years hospital corpsmen have been awarded 23 Medals of Honor, 179 Navy Crosses, 950 Silver Stars, and over 1,600 Bronze Stars with Combat "V" (and 31 U.S. Army Distinguished Service Crosses). Fortunately during Desert Storm, the U.S. victory was so overwhelming that the vast majority of wounded were captured Iraqis (who received far better medical care from the U.S. than they ever did from their own country).

Upon the Iraqi invasion of Kuwait on 2 August 1990, U.S. medical capability in the U.S. Central Command theater was almost entirely sea based, with some capability aboard the Middle East Force flagship *La Salle* (AGF-3) and hospital corpsmen aboard ships of the Middle East Force. This was quickly augmented by the significant medical capability aboard the aircraft carriers *Dwight D. Eisenhower* (CVN-69) and *Independence* (CV-62), which were in theater by 7–8 August. In fact Navy ships and fleet hospitals provided well over two-thirds of in-theater medical capability for the first four months of Desert Shield.

More hospital corpsmen arrived with the 7th Marine Expeditionary Brigade at Jubayl on 14 August. Typically, 11 corpsmen were assigned to each company of Marines. Additional Navy medical personnel from Naval Hospital Portsmouth, Virginia, flew in to meet the arrival of afloat prepositioning ship MV *Noble Star,* which arrived at Jubayl on 15 August and offloaded 400 containers with all the equipment to set up Fleet Hospital 5 (FH 5). With the significant help of Naval Construction Battalion Units 411 and 415, FH 5 was set up in 16 days (and cared for its first patient only five days after construction began). FH 5 was a 500-bed forward-deployed medical facility, with operating rooms, intensive care units, and radiological facilities. This was the first deployment of FH 5, and for a time it was the only such facility in the region. Two more such fleet hospitals (FH 6 and FH 15) were set up in late January 1991 after the onset of the air campaign and in preparation for expected increased casualties during the impending ground offensive. The three fleet hospitals combined cared for over 32,000 patients, including members of all coalition forces, expatriates, enemy prisoners of war, and Kuwaiti refugees. The Navy (and Air Force) field hospitals were equipped with the newer deployable medical systems (DEPMEDS), whereas the initial Army light divisions (82nd Airborne) deployed with Vietnam-era hospital equipment but by December 1990 had also converted to DEPMEDS.

Additional medical capability arrived on 1 September, when the Seventh Fleet command ship *Blue Ridge* (LCC-19) arrived at Bahrain with her medical facility. This was followed on 4 September through 8 September by the arrival of 18 amphibious ships from both the Atlantic and Pacific Fleet, many with significant capability to care for wounded personnel. The most significant arrival, however, was the hospital ship USNS *Comfort* (T-AH-20), which reached the Gulf of Oman on 7 September.

The hospital ships USNS *Mercy* (T-AH-19) and *Comfort* were converted from San Clemente-class commercial supertankers (originally built in 1974–1976). Conversions began in 1984 and were completed in 1986 and 1987, respectively, at a cost of $208 million per ship. They were and are the largest hospital ships in the world. Each ship

has 1,000 beds, 50 trauma stations in the casualty receiving area, 12 operating rooms, a 20-bed recovery room, 80 intensive care beds, and 16 light and intermediate care wards. The ships were assigned to the Military Sealift Command (MSC) and were manned by civilian crews (about 12 ships when in reduced operating status and about 60 when fully activated). At the time, the ships were in a 96-hour alert status (now they are in 76-hour status). When activated, a medical treatment facility staff of about 1,200 medical personnel is embarked under the command of a Navy Medical Corps or Navy Nurse Corps captain.

Desert Shield deployment orders were issued on 7 August 1990. On 10 August *Mercy* and *Comfort* were activated and commenced deployment preparations. *Comfort* departed Baltimore on 11 August and then deployed for the Middle East on 14 August. On 15 August, *Mercy* deployed from San Diego. *Comfort* transited the Suez Canal on 30 August and transited the Strait of Hormuz on 8 September. By 23 September, *Mercy* had arrived in the Arabian Gulf and the two ships steamed together for the first time. Together with Fleet Hospital 5, *Mercy* and *Comfort* provided the most comprehensive medical care facilities in the theater and the best capability to deal with a major influx of combat casualties. The hospital ships mirrored fully staffed hospitals in the continental United States (CONUS). At the onset of the ground campaign on 24 February, both ships were moved into position off Khafji, Saudi Arabia, just south of the Kuwait border, in order to be as close to the battlefield as possible without going into mined waters.

Ultimately, more than 6,100 active-duty Navy men and women deployed to the theater to provide medical care to coalition forces. A major challenge was continuing the high level of care in stateside hospitals as active-duty medical personnel were deployed forward. As a result, over 10,400 Navy medical reservists were mobilized to fill staffing gaps in CONUS hospitals, and were among the very first Navy reservists to be activated. Managing the disruption caused by the sudden departure of much of the hospital staffs was a major accomplishment of the Navy Medical Corps, and the fact that care for dependents continued unabated was a major morale booster for Navy personnel deployed to the theater ashore and afloat.

An unsung hero of Desert Storm was the Navy Forward Laboratory (NFL), which did fall under Commander, U.S. Navy Forces Central Command (COMNAVCENT), and which played a key role in minimizing the effect of infectious diseases and medical ailments endemic to the region, not just for the Navy, but for all U.S. military personnel. The Navy was uniquely prepared, medically, to operate in the Middle East thanks especially to the U.S. Naval Medical Research Unit No. 3 (NAMRU-3) in Cairo, which has operated since 1947, even during periods when the United States and Egypt have broken off diplomatic relations. NAMRU-3 led the world in research on infectious diseases in the Middle East. When Desert Shield began, the Navy had a world-class diagnostic laboratory, an extensive research and disease surveillance program, and medical personnel with extensive experience in the region.

In September 1990, the Navy Forward Laboratory was established in Jubayl, Saudi Arabia, with a staff of eight: four Medical Service Corps officers (microbiologists), two Medical Corps officers (infectious disease specialists), and two hospital corpsmen (advanced laboratory technicians). The pretested mobile laboratory gear came from the Navy Environmental and Preventive Medicine Unit in Naples (NEPMU 7). Attached to the Naval Logistics Support Command in Bahrain, the NFL reported directly to the NAVCENT surgeon and became the theater-wide infectious disease reference laboratory for coalition forces. The NFL also played a key role in preparations for potential Iraqi use of biological warfare (BW) agents. The capability of the NFL was augmented by several deployed vector control and preventive medicine teams; between 140 and 160 preventive medicine

specialists were ashore and more were afloat on Navy ships.

Compared to previous desert combat operations, casualties due to heat stress/heat stroke and disease were drastically reduced thanks to the NFL and preventive medicine teams. As the only in-theater capability to detect epidemic diarrheal agents, the NFL was credited with preventing a major diarrhea outbreak, saving 10–20 percent of the Navy and Marine Corps force by the immediate implementation of effective preventive measures and the use of special antibiotics. (Try being on an aircraft carrier when half the crew had "Pharaoh's Revenge." It wasn't pretty.) The NFL also was the first to identify problems with fielded medical BW diagnostic systems (30–40 percent false positive), as well as problems with environmental sample BW detection kits, developing work-arounds just in time for the start of the ground campaign.

The performance of Navy medicine in Desert Shield and Storm was simply extraordinary. In only a few months, a complete medical system was in place, with thousands of beds to support tens of thousands of Navy and Marine (and other) personnel, and with a full range of services, including preventive and environmental medicine, food inspection, medical and dental care, medical maintenance, supply and logistics support, and the capability for the movement and evacuation of patients.

An article in the *New England Journal of Medicine* summed it up better than I can:

> It is difficult to describe adequately the professionalism, hard work and sacrifice that have gone into the preparations of the past six months.... Even though there were relatively few casualties as a result of Operation Desert Storm, the level of preparedness was high. Medical units were in place, well-equipped, staffed with trained and capable personnel, and ready to perform their mission under the most difficult circumstances.

Sources include: "Medical Support for American Troops in the Persian Gulf," by Brigadier General Ronald R. Blanck, DO, MC, and Colonel William H. Bell, MSC, in the *New England Journal of Medicine,* 21 March 1991. "Navy Medical Support: Winning the Battle against an Unseen Enemy," by Liz Lavallee, Navy Bureau of Medicine and Surgery, at history.amedd.army.mil, September/October 1992. "Military Medicine in Operations Desert Shield and Desert Storm: The Navy Forward Laboratory, Biological Warfare Detection, and Preventive Medicine," at gulflink.health.mil. *Desert Shield at Sea: What the Navy Really Did* and *Desert Storm at Sea: What the Navy Really Did,* both by Marvin Pokrant (the NAVCENT/C7F CNA Rep during both operations): Greenwood Press, 1999. Also useful is the Department of the Navy, Office of the Chief of Naval Operations, *The United States Navy in "Desert Shield" "Desert Storm"* of 15 May 1991, which has the best chronology and other facts and figures, although some number of them are "first reports" (always wrong). I would note that these are more "PC" than my account. Also, *Shield and Storm: The United States Navy in the Persian Gulf War,* by Edward J. Marolda and Robert J. Schneller: Naval Historical Center, 1998, is excellent.