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AIR FORCE HUMAN RESOURCES LABORATORY

HISTORICAL TASK ANALYSIS OF C-130E MAINTENANCE JOBS

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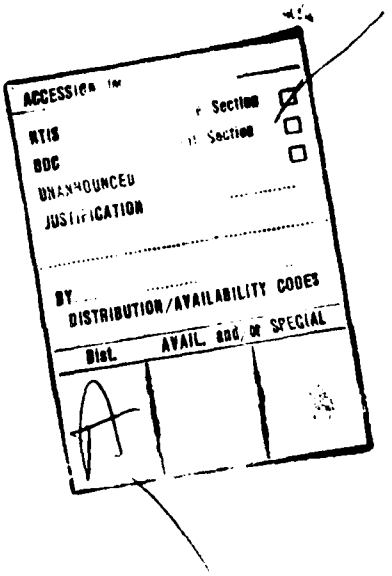

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This concluding HWSA report provides the results of data acquired at Little Rock Air Force Base, Arkansas, wherein 274 airmen personnel encompassing 11 Air Force Specialties completed task inventories against 6,294 C-130 maintenance tasks. Cumulative frequency polygons and histograms portraying duty/task results of each of the 11 AFSCs are also portrayed.

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INTRODUCTION

It is usually agreed that a considerable amount of the human resources used on a weapon system is in the maintenance fields. The results of a Life Cycle Cost (LCC) analysis ("Life Cycle Cost of C-130E Weapon System")[1] substantiated this finding showing 83% of LCC was for operation and support. Approximately 50% of this was attributed to military and civilian pay. Since this is the case, it is appropriate to attempt to determine the amount of time the maintenance technician is spending on the C-130E.

In order to accomplish the objective, a task analysis was performed for a selected set of AFSCs at a sample base. In addition to gathering quantifiable data of the personnel's perception of the job being performed, this information could be used to validate the initial projected personnel requirements made during the development of the weapon system by the System Program Office (SPO). Unfortunately the historical search did not uncover any SPO personnel requirements document so the comparison could not be made. The following data do provide some clues as to possible areas of high utilization. The task analysis data when contrasted with reliability and maintainability data establish points of high resource utilization.

SCOPE

The acquisition of duty/task data was confined to the 11 selected maintenance Air Force specialists annotated below. Appendix A lists the duties and responsibilities for each of the AFSs. A total of 274 maintenance personnel were inventoried at Little Rock Air Force Base, Arkansas, utilizing Occupational Survey Inventories (OSIs) developed by the Occupational Survey Branch, USAF Occupational Measurement Center, Lackland Air Force Base, Texas. The OSI used for the Aircraft Maintenance Specialist is enclosed as a sample, Appendix B. Skill-level-5 personnel were inventoried subsequent to completion of a pilot study at McChord Air Force Base, Washington, wherein skill levels 3, 5, 7, and 9 were task inventoried. The inventories encompassed a total of 6294 C-130 maintenance tasks accomplished within the three maintenance squadrons, namely: 1) Organizational; 2) Field; and 3) Avionics Maintenance Squadrons. Functional times, i.e., estimated times spent on performing duties at functional categories such as "Performing General Aircraft Maintenance" were acquired.

AFSC/NOMENCLATURE	SAMPLE N
32550 - Automatic Flight Control Systems	16
32551 - Avionics Instrument Systems	20
32850 - Avionics Communications Systems	29
42350 - Aircraft Electrical Systems	27
42351 - Aircraft Environmental Systems	11
42353 - Aircraft Fuel Systems	15
42354 - Aircraft Pneudraulic Systems	11
42650 - Aircraft Propeller System	24
42652 - Jet Engine	50
43151F- Aircraft Maintenance	50
53154 - Corrosion Control	21

METHODOLOGY

The methods used during the preparation, acquisition and analyses of Air Force Specialty (AFS) personnel duties and tasks are illustrated in Figure 1. During the planning and conduct of the C-130E Historical Weapon System Analyses program, attempts were made to generate detailed AFS maintenance duties and tasks. Air Force Manual 39-1 (Enlisted Personnel Airman Classification Manual)[2] was used as a means of defining the general scope of assigned task responsibilities. It soon became evident that this would not permit the definition of explicit task responsibilities without the use of C-130E technical orders. Tasks described within technical orders (TO) were: 1) too voluminous in nature; 2) would have required extensive time for individual AFSs to use; and 3) were insensitive to which AFSCs were responsible for performing discrete tasks within the TO. A final solution was provided by the Occupational Survey Branch, USAF Occupational Measurement Center, Lackland Air Force Base, Texas. Technical interchanges and interfaces with cognizant members of the Occupational Survey Branch resulted in the release of Occupational Survey Inventories (OSI) and Occupational Survey Reports (OSR) for each of the 11 selected maintenance AFSs evaluated under Phase I of Project 1959. These OSIs provided the most comprehensive AFS duty and task acquisition tool heretofore used by the C-130E study investigators. The OSIs contained discrete sections enablying the acquisition of: 1) background information; 2) maintenance equipment used on the job; 3) training courses completed; and 4) detailed duties/tasks. The latter portion of these OSIs are divided into functional work

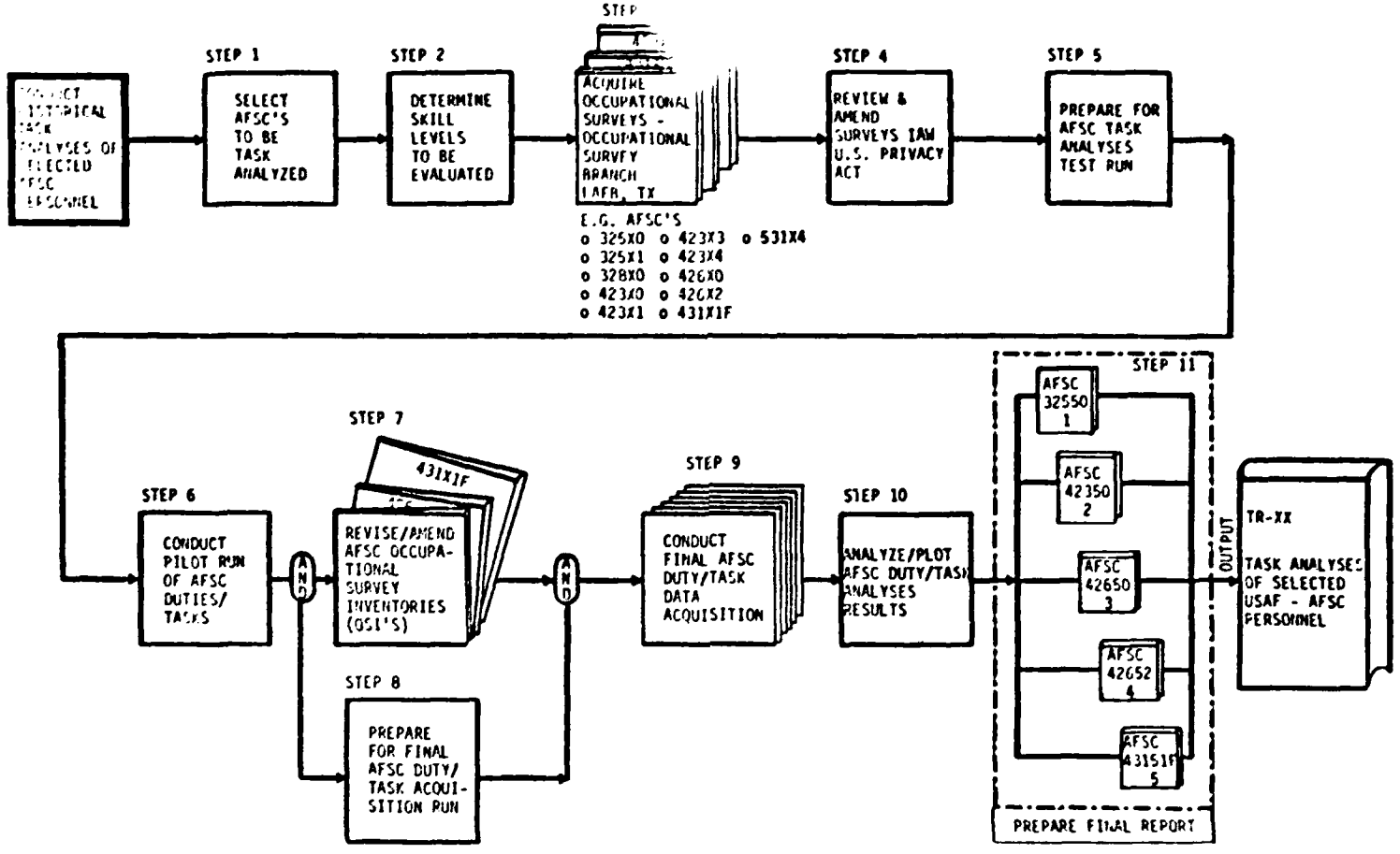


Figure 1 Historical AFSC Duty/Task Analyses Methodology

categories such as: 1) Organizing and Planning; 2) Directing and Implementing; 3) Inspecting and Evaluating; 4) Training; 5) Working with Forms, Records, Reports, etc.; 6) Performing Specific Maintenance Functions, etc. Each of these functions, in turn contained an average of 38 detailed tasks. Each OSI averaged about 570 tasks spread among an average of 15 major functional areas.

The preparation, implementation and analytical steps illustarated in Figure 1 are self-explanatory. Step 6 "Conduct Pilot Run of AFSC Duties/Tasks" was an important step in the methodology portrayed. This enabled the investigators to prepare for the final acquisition of comprehensive duty/task data. Results acquired during the pilot run (McChord Air Force Base, Washington), utilizing actual maintenance AFSCs (preferably skill levels 7 and 9), enabled the investigator to amend the OSIs to include maintenance tasks not identified in current OSIs. In this manner, the OSIs were amended to enable acquisition of specific weapon system maintenance tasks.

AFSs taking the OSIs at operational bases required an average of 55 minutes to complete the inventory with a range of 40 to 68 minutes. Prior to initiating the pilot run and the final inventories, contact and approval via formal letter of request were made to the cognizant command office (e.g., Deputy Command of Maintenance - 314th Tactical Airlift Wing) stipulating: 1) the purpose of the inventories; 2) contract justification; 3) time and area for conducting the inventories; 4) testing time required for each AFS; 5) total numbers of AFSs to be inventoried; and 6) facilities required to conduct the task inventories.

TASK ANALYSES SUMMARY

A total of 274 maintenance personnel encompassing 11 Air Force Specialties (AFSs) and consisting of 6294 tasks were inventoried at Little Rock Air Force Base, Arkansas (314th Tactical Airlift Wing). Prior to the acquisition of duty/task data at LRAFB, Arkansas, Boeing conducted a pilot task analysis program at McChord Air Force Base, Washington. The instruments used in acquiring duty/task data during Task V (Phase I, Project 1959) were Occupational Survey Inventories (OSI) developed by the Occupational Survey Branch, USAF Occupational Measurement Center, Lackland Air Force Base, Texas. Attempts to develop detailed duties of explicit AFS maintenance personnel fell well short of techniques and planning already devised by this organization.

The OSIs used during the pilot run at McChord Air Force Base, Washington, were then revised to reflect explicit C-130 tasks not present within the OSIs. The pilot run also served as the basis for deriving test protocols/techniques, and selecting the 5-level skills, inventoried at LRAFB, Arkansas. Table 1 provides a general summary of AFSs and numbers inventoried, as well as the numbers of functions, and tasks within each OSI. It also reflects computed correlations between AFM 39-1, Enlisted Personnel Airman Classification Manual, duties and those recorded by maintenance personnel on their designated Occupational Survey Inventories.

Each of the 11 OSIs contained an average of 15.36 functions (duties) with each function containing an average of 37.24 tasks. A total of 6294 tasks were contained within all 11 of the OSIs (average of 572.18 tasks/OSI). Acquisition of duty/task data encompassing 274 airman within the 11 AFSs summarized in Table 1 required 20 hours of testing with an average of 13.7 enlisted personnel being inventoried during each test hour. All inventories were completed under supervision and control of personnel subsystems specialists. Arrangements (made under the auspices and conditions set forth by the 314th Tactical Airlift Wing Deputy Commander for Maintenance) enabled data acquisition during low maintenance periods. Inventory completion required an average of 55 minutes per AFS. Results/entries incorporated into OSIs were reviewed by the test supervisor and the resident 314th TAW Maintenance Analysis Training (MAT) superintendent prior to acceptance of each completed OSI. In general, the Pearson Product Moment Analytical technique was utilized. Specifically, a bivariant distribution was plotted using planned tasks delineated in AFM 39-1, Enlisted Personnel Airman Classification Manual, and actual tasks performed in the operational environment. These ratios resulted in correlation coefficients range of .524 to .613.

RESULTS

Analyses of acquired data demonstrated that the skill level 5 personnel inventoried within the 11 selected AFSs spend over 66% of their assigned times to direct maintenance on the C-130 weapon system. The remaining times are allocated to: 1) indirect maintenance support (19%); and 2) planning, organizing, and training (13%). Figure 2, "AFSC Functional Times Allocation Summary," illustrates the time distributions acquired at Little Rock Air Force Base, Arkansas. Over 73% (4643 tasks) of the 6294 tasks inventoried, are accomplished by the 274 maintenance personnel evaluated at LRAFB, Arkansas.

Table 1 Occupational Survey Inventory (OSI) Summary

SOURCE: Occupational Survey Branch - USAF Occupational Measurement Center, Lackland Air Force Base, Texas 78236

EVALUATION SITE: Little Rock Air Force Base, Arkansas

DATE: January 31, 1977 through February 4, 1977

NUMBER OF TESTING HOURS: 20 hours

NUMBER OF ENLISTED PERSONNEL INVENTORIES: 274 ($\bar{X}$ of 13.7 Personnel per hour)

ITEM	AFSC/NOMENCLATURE	CORRELATION VALUES	NO. OF FUNCTIONS	NO. OF TOTAL TASKS	SAMPLE N	TOTAL POSSIBLE TASKS
1	325X0 - Automatic Flight Control Systems	.571	18	487	16	7 792
2	32551 - Avionics Instrument Systems	.585	14	928	20	18,560
3	32850 - Avionics Communications Systems	.561	17	521	29	15,109
4	42350 - Aircraft Electrical Systems	.591	11	424	27	11,448
5	42351 - Aircraft Environmental Systems	.554	18	736	11	8,096
6	42353 - Aircraft Fuel Systems	.529	11	297	15	4,455
7	42354 - Aircraft Pneudraulic Systems	.597	13	575	11	6,325
8	42650 - Aircraft Propeller Systems	.534	11	477	24	11,448
9	42652 - Jet Engine	.579	17	415	50	20,750
10	43151F - Aircraft Maintenance	.613	23	977	50	48,850
11	53154 - Corrosion Control	.608	16	457	21	9,597
			Σ= 169 Functions	Σ=6294	274	Σ=162,430 Tasks
$\bar{X}$ number of tasks per function = 37.243 i.e. : $\frac{6294}{169} = \underline{37.243}$						

Total numbers of possible tasks inventoried = 162,450

Average number of personnel/OSI = $\frac{274}{11} = \underline{24.9}$

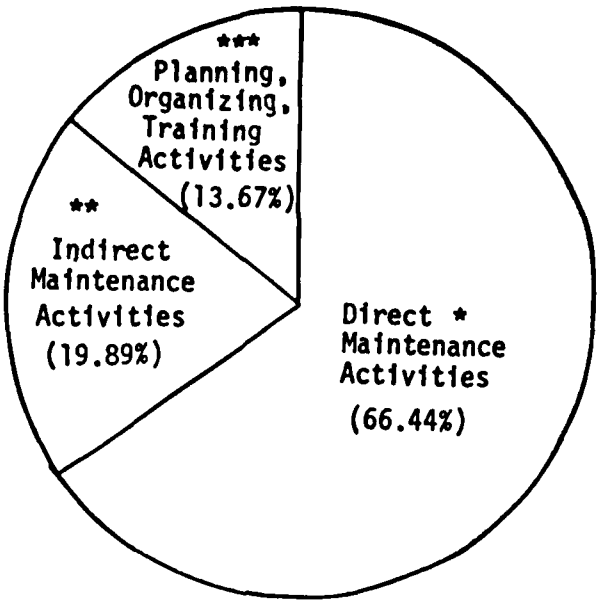


Figure 2 - AFS Functional Time Allocations Summary

* DIRECT MAINTENANCE - Those tasks performed by personnel within the 11 selected AFSs during organizational and intermediate maintenance that involve direct test, service, checkout, remove, install, troubleshoot, and calibration of C-130 flight equipment.

** INDIRECT MAINTENANCE - Those tasks performed by the personnel within the 11 selected AFSs during organizational and intermediate maintenance that involves maintaining shop equipment, maintaining forms and records, performing supply functions, preparing maintenance reports, etc.

*** PLANNING, ORGANIZING, TRAINING - Those tasks performed by the personnel within the 11 AFSs that involves training, directing, evaluating, planning, etc.

Analytical results that follow are highlighted summaries, frequency polygons, and histograms unique to each of the 11 AFSs inventoried.

AFSC 32550 - (Automatic Flight Control Systems)[3]

A total of 16 32550 AFSCs were inventoried. The OSI consisted of 18 major functions encompassing 487 detailed tasks. Table 2 provides a synopsis of analytical results derived subsequent to completion of these inventories. The relative proportions of tasks accomplished by one or more 5-skill level personnel are identified in column 4. This was derived by dividing the number of tasks performed within each function by the total number of tasks contained in all functions. Data contained in column 6 were derived by dividing the number of tasks performed within each function (column 5) by the total number of tasks contained within the same function (column 3). Relative proportions reflected in column 4, were accumulated (summed) and formatted into a cumulative frequency polygon as depicted in Figure 3. The relative percentages of tasks accomplished within each function (e.g., Function A- Planning and Organizing - consisting of 34 tasks) were converted into histogram frequencies and are exhibited on the right-hand side of each figure (e.g., Figure 3 right-half of page). As noted in Figure 3, over 65% (65.9135% or 321 out of 487 tasks) of the tasks contained within Function A are accomplished by 5-level personnel within this specialty. Correlation values of .571 were found to exist between duties actually performed by this AFSC when compared with AFM 39-1 job descriptions, and Lockheed developed support requirements analysis data.

AFSC 32551 - (Avionics Instrument Systems)[4]

Twenty (20) 32551 personnel were inventoried. The OSI encompassed 14 major functions consisting of 928 detailed tasks. Results are summarized on Table 3. Analytical results were evolved using the techniques summarized under AFSC 325X0. Over 77% (i.e., 77.1549%) or 716 out of 928 possible tasks are accomplished by one or more 5-level specialists. Cumulative frequencies are illustrated on the left-half of Figure 4. Relative proportions of tasks accomplished by this AFSC within each of the 14 major functions are summarized on the right-half of Figure 4. A correlation value of .585 was computed between tasks actually performed by 5-level specialists and those duties outlined in AFM 39-1, and Lockheed developed systems requirements analysis data.

TABLE 2 SUMMARY
OF
OSI FUNCTIONAL TITLES/NOMENCLATURES

AFSC OSI: 32550 Automatic Flight Control Systems Specialist Career Ladder (AFPT 90-325-248)

1 FUNCTION	2 TITLES/NOMENCLATURES	3 NUMBER OF TASKS	4 REL. FREQ.(%)	5 TASKS RECORDED	6 FUNCTION PERCENT
A	Planning and Organizing	34	1.0267	5	14.71
B	Directing and Implementing	36	5.1335	25	69.45
C	Evaluating and Impacting	37	4.5174	22	59.46
D	Training	28	2.2587	11	39.29
E	Maintaining Forms and Records	47	6.7762	33	70.21
F	Performing Shop or Facility Supply Functions	18	3.0800	15	83.33
G	Performing General Maintenance Tasks	100	17.4538	85	85.00
H	Calibrating and Adjusting Test Eqmt.	23	4.3121	21	91.30
I	Maintaining Remote and Magnetic Compass Systems	14	2.8747	14	100.00
J	Maintaining Automatic Astrocompass Sys.	12	- -	0	00.00
K	Maintaining Stability Augmentation Sys.	21	2.8747	14	66.66
L	Maintaining Auto. Flt. Control Sys.	42	6.3655	31	73.81
M	Maintaining Stall Warning or Stallimeter Systems	13	0.8213	4	30.77
N	Maintaining Go-around Sys. such as GAAS or RGA Systems	13	2.6694	13	100.00
O	Maintaining Active Lift Dist. Control Systems (ALDCS)	13	- -	0	00.00
P	Maintaining Automatic Throttle Sys.	13	2.6694	13	100.00
Q	Maintaining Pilot Assist Cable Servo System (PACS)	12	0.8214	4	33.33
R	Maintaining Shop Equipment & Fac.	11	2.2587	11	100.00
	TOTALS	487	65.9135	321	

Column 4 Relative Freq. = $\frac{\text{No. Tasks Performed}}{\text{Total Tasks}}$ e.g. $\frac{5 \text{ Tasks}}{487 \text{ Tasks}}$ = 1.0267%

Column 5 Tasks Recorded = The number of tasks recorded on scatter diagram (step interval = 1)

Column 6 Function Percent = $\frac{\text{No. of Tasks Performed}}{\text{No. of Tasks/Function}}$ e.g. $\frac{5 \text{ Tasks}}{34 \text{ Tasks}}$ = 14.71%

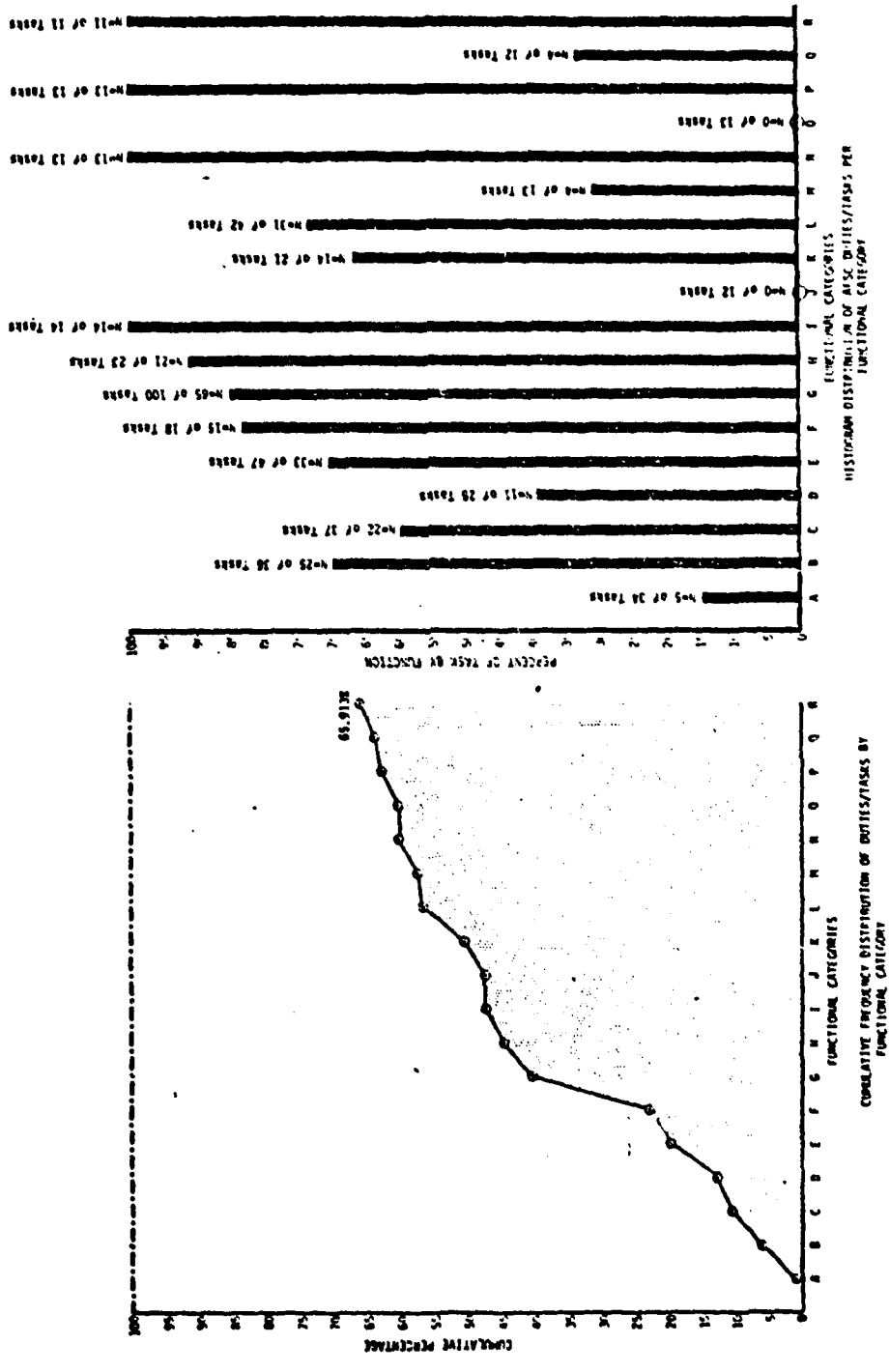


Figure 3 AFSC 32550 Automatic Flight Control Systems Specialist

TABLE 3 SUMMARY OF OSI FUNCTIONAL TITLES/NOMENCLATURES

AFSC OSI: 32551 Avionics Instrument Systems Specialist Career Ladder (AFPT 90-325-1?8)

1 FUNCTION	2 TITLES/NOMENCLATURES	3 NUMBER OF TASKS	4 REL. FREQ.(%)	5 TASKS RECORDED	6 FUNCTION PERCENT
A	Organizing and Planning	29	0.7543	7	24.14
B	Directing and Implementing	30	1.7241	16	53.33
C	Evaluating	19	0.8621	8	42.11
D	Training	28	1.1853	11	39.29
E	Performing Administrative Duties	38	2.6939	25	65.79
F	Performing General Flight Line Maintenance	36	3.3405	31	86.11
G	Inspecting and Operationally Checking Instrument Systems	118	11.7457	109	92.37
H	Troubleshooting Instrument Systems on Aircraft	116	10.8836	101	87.07
I	Removing From and Installing Instrument System Components on Aircraft	114	10.4526	97	85.09
J	Performing General Shop Maintenance	26	2.5862	24	92.31
K	Bench Checking Instrument Systems Components	117	10.3448	96	82.05
L	Calibrating and Adjusting Instrument System Components	102	7.9741	74	72.55
M	Removing and Replacing Parts of Instrument System Components	117	9.1595	85	72.65
N	Troubleshooting, Adjusting, and Removing or Replacing Parts of Category II Test Equipment and Tools	38	3.4482	32	84.21
	TOTALS	928	77.1549	716	

Column 4 Relative Freq. (Proportions) = $\frac{\text{No. of Tasks Performed}}{\text{Total Tasks}}$ e.g. $\frac{7}{928}$ = 0.7543%

Column 5 Tasks Recorded - The number of tasks recorded on scatter diagram (step interval = 1)

Column 6 Function Percent (Proportion) $\frac{\text{No. of Tasks Performed}}{\text{No. of Tasks Per Function}}$ e.g. $\frac{7}{29}$ = 24.14%

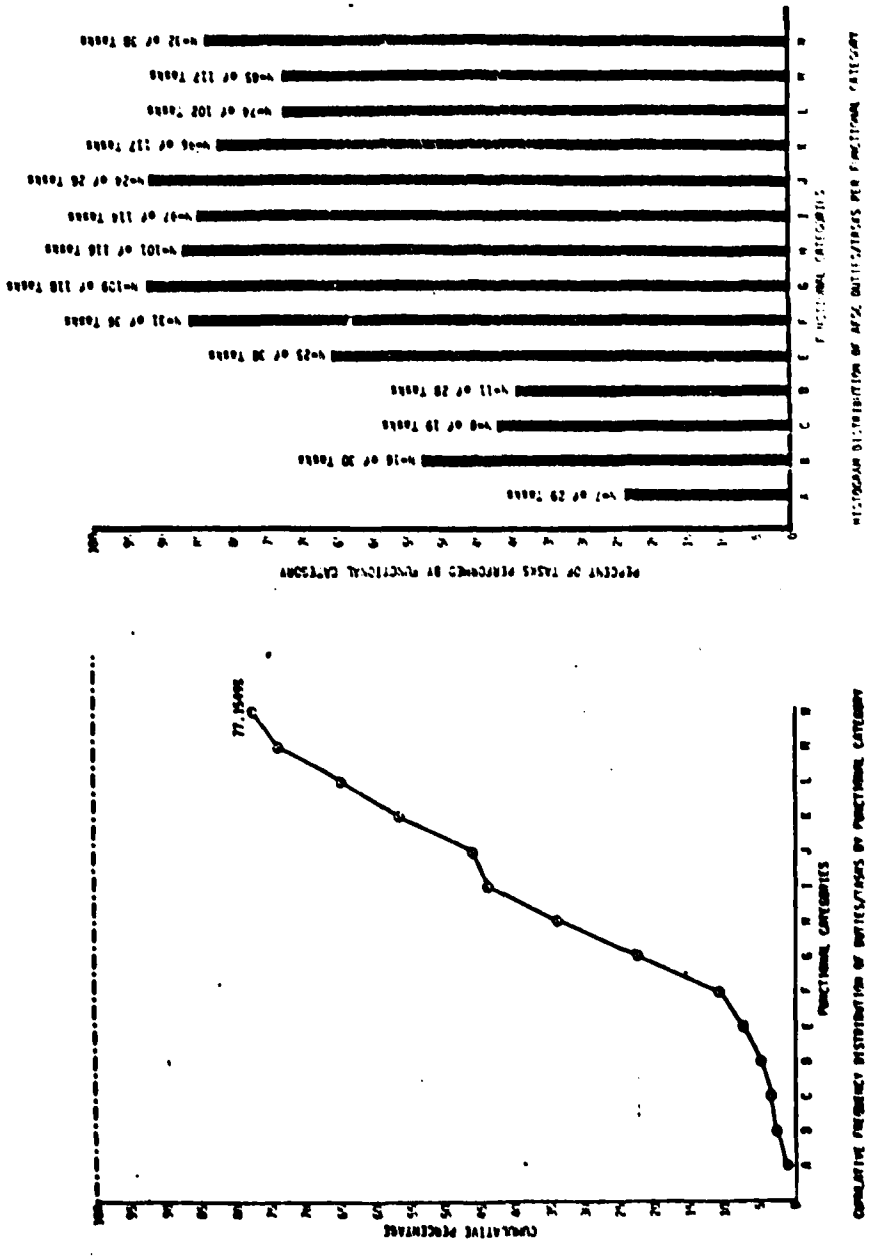


Figure 4 AFSC 32551 Avionics Instruments Specialist

AFSC 32850 - (Avionics Communications Systems)[5]

Twenty-nine (29) 32850 personnel were inventoried. The OSI used throughout the inventory consisted of 17 functions and contained a total of 521 tasks. Over 57% (57.1792) or 298 tasks out of 521 possible tasks are accomplished by one or more 5-level specialists. Table 4 provides a scenario of relative proportions of tasks accomplished by these personnel. Percentiles of tasks accomplished by these personnel are summarized in column 6. Figure 5 illustrates the cumulative frequencies and histogram distributions of tasks performed by avionics communication specialists. A relationship of .561 (correlation) between inventory tasks versus duties/tasks defined in AFM 39-1 and Lockheed developed systems requirements analysis data.

AFSC 42350 - (Aircraft Electrical Systems)[6]

The aircraft electrical systems occupational survey inventory consisted of 11 functions and 424 tasks. Over 89% (i.e., 89.4517%) of all of the tasks (or 383 tasks) are performed by one or more of the 27 specialists inventoried. Analytical results are summarized in columns 3, 4, 5, and 6 of Table 5. Figure 6 illustrates the cumulative and relative frequencies derived from analyses of data. Analytical methods described under AFSC 32550 above, were followed when deriving results summarized herein. A correlational value of agreement of .591 was established between tasks accomplished by 27 inventoried personnel compared to duty responsibility defined in AFM 39-1 and Lockheed developed systems requirements analysis data.

AFSC 42351 - (Aircraft Environmental Systems)[7]

Over 72 percent (72.8253%) of the 736 tasks inventoried by 11 environmental systems mechanics are accomplished by one or more 5-skill level personnel. The OSIs used to inventory these personnel encompassed 18 functional categories as depicted on Table 6. The numbers of tasks contained within each function are also listed. The cumulative percent distribution of tasks depicting the 536 tasks accomplished by 5-level personnel are illustrated in Figure 7. Histograms, depicting percent of tasks accomplished within each function, are also displayed in this figure. A correlation of agreement of .544 was established between tasks actually performed under operational conditions compared to duties described in AFM 39-1 and Lockheed developed systems requirements analysis data.

TABLE 4 SUMMARY
OF
OSI FUNCTIONAL TITLES/NOMENCLATURES

AFSC OSI: 32850 Avionics Communications Specialist Career Ladder
(AFPT 90-328-079)

1	2	3	4	5	6
FUNCTION	TITLES/NOMENCLATURES	NUMBER OF TASKS	REL. FREQ.(%)	TASKS RECORDED	FUNCTION PERCENT
A	Organizing & Planning	19	1.3435	7	36.84
B	Directing & Implementing	34	3.6468	19	55.88
C	Evaluating	21	0.9416	5	23.81
D	Training	18	1.3436	7	38.88
E	Working with Forms, Records, Reports, Directives or Technical Data	25	2.6871	14	56.00
F	Inspecting for Quality or Adherence to Technical Data	16	2.8791	15	93.75
G	Performing Gen. Maint. Sys. Line Maintenance Tasks	24	4.6065	24	100.00
H	Performing Gen. Com. Sys.Shop Maint. Tasks	33	6.1420	32	96.97
I	Repairing Com. Sys. Components	22	2.8790	15	68.18
J	Performing Flt Line C/O of Aircrew Communications Equipment	59	11.1324	58	98.30
K	Performing Fld Shop Maint. on Aircrew Communications Equipment	51	9.5969	50	98.04
L	Performing Flt Line C/O of ACP Radio Equipment	41	3.6468	19	46.34
M	Performing Flt Line C/O of ACP Com. Ancillary Equipment	45	- -	0	00.00
N	Performing Flt Line C/O of ACP Associated Equipment	20	1.1516	6	30.00
O	Performing ACP Inflight Technician Operator Functions	9	0.3838	2	22.22
P	Performing Fld Shop Maint. of ACP Communications Components	58	3.4549	18	31.03
Q	Performing Com. Sys Analyzer O&M Functions	26	1.3436	7	26.92
	TOTALS	521	57.1792	298	

Column 4 Relative Freq. (Proportions) = $\frac{\text{No. of Tasks Performed}}{\text{Total Tasks}}$ e.g. $\frac{7}{521}$ = 1.3435%

Column 5 Tasks Recorded = The number of OSI tasks recorded on scatter diagram (step interval = 1)

Column 6 Function Percent (Proportion) = $\frac{\text{No. of Tasks Performed}}{\text{No. of Tasks Per Function}}$ e.g. $\frac{7}{19}$ = 36.842%

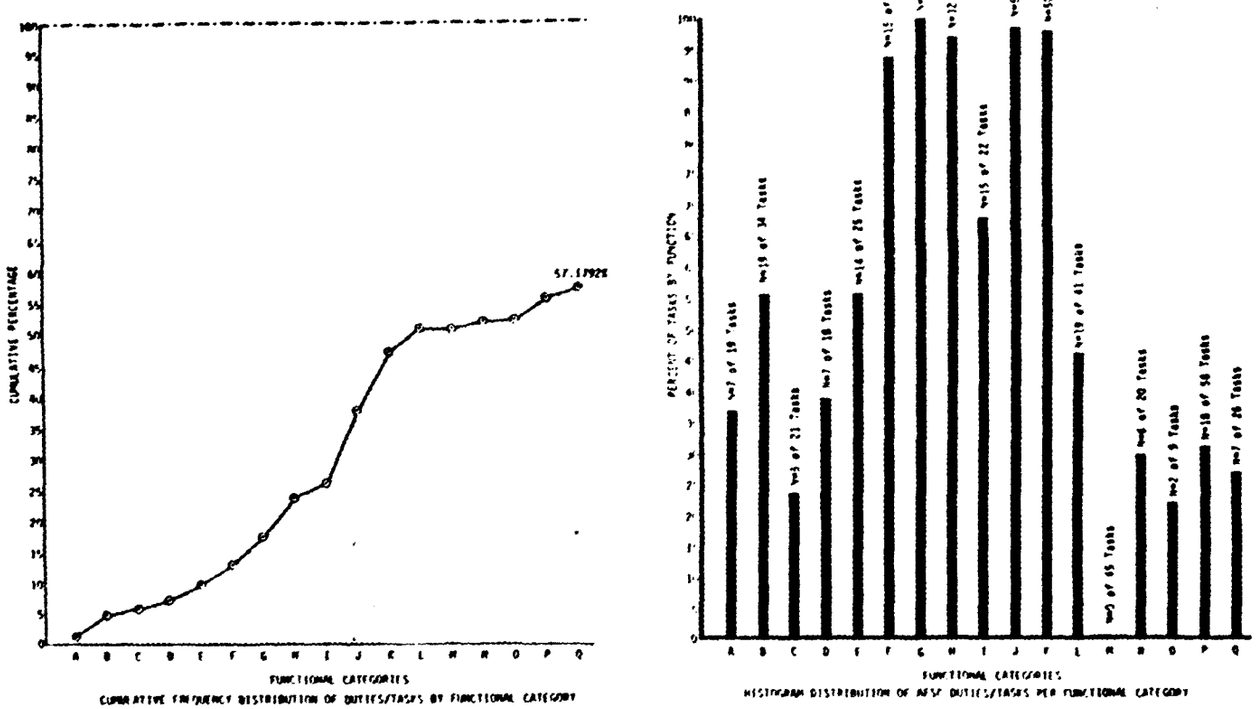


Figure 5 AFSC 32850 Avionics Communications Specialist

TABLE 5 SUMMARY
OF
OSI FUNCTIONAL TITLES/NOMENCLATURES

AFSC OSI: 42350 Aircraft Electrical Systems Specialist Career Ladder

1 FUNCTION	2 TITLES/NOMENCLATURES	3 NUMBER OF TASKS	4 REL. FREQ.(%)	5 TASKS RECORDED	6 FUNCTION PERCENT
A	Organizing and Planning	21	3.3018	14	66.66
B	Directing and Implementing	22	3.7736	16	72.72
C	Inspecting and Evaluating	22	3.5377	15	68.18
D	Training	20	2.3585	10	50.00
E	Preparing Forms, Records, or Reports	23	3.8387	20	86.96
F	Performing Quality Control	11	2.1226	9	81.81
G	Inspecting Aircraft Electrical Circuits	44	9.6698	41	93.18
H	Troubleshooting Aircraft Electrical Systems	44	10.3774	44	100.00
I	Bench Checking Conventional and Solid State Components	98	22.6415	96	97.96
J	Performing General Aircraft Electrical Shop Maintenance Tasks	95	22.1698	94	98.95
K	Maintaining Test Equipment	24	5.6603	24	100.00
	TOTALS	424	89.4517	383	

Column 4 Relative Freq. (Proportions) = $\frac{\text{No. of Tasks Performed}}{\text{Total Tasks}}$ e.g. $\frac{14}{424}$ = 3.3018%

Column 5 Tasks Recorded - The number of OSI Tasks recorded on scatter diagram (step interval = 1)

Column 6 Function Percent (Proportion) = $\frac{\text{No. of Tasks Performed}}{\text{No. of Tasks Perf Function}}$ e.g. $\frac{14}{21}$ = 66.6666%

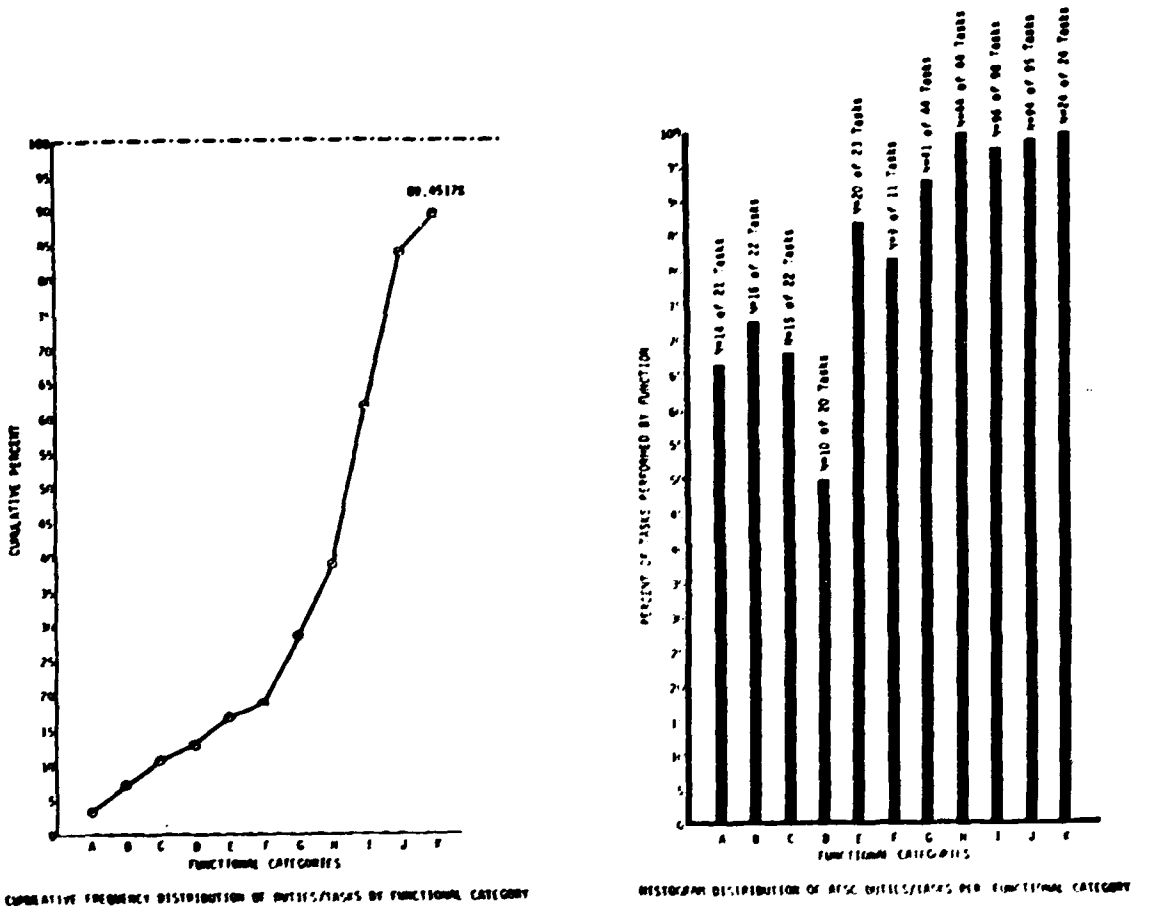


Figure 6 AFSC 42350 Aircraft Electrical Systems Specialist

TABLE 6 SUMMARY OF OSI FUNCTIONAL TITLES/NOMENCLATURES

AFSC OSI: 42351 Aircraft Environmental Systems Mechanic Career Ladder

1 FUNCTION	2 TITLES/NOMENCLATURES	3 NUMBER OF TASKS	4 REL. FREQ.(%)	5 TASKS RECORDED	6 FUNCTION PERCENT
A	Organizing and Planning	31	3.9402	29	93.55
B	Directing and Implementing	34	3.2608	24	70.59
C	Inspecting and Evaluating	27	1.4945	11	40.74
D	Training	22	1.4945	11	50.00
E	Maintaining Acft Combustion Heater Sys	11	1.4945	11	100.00
F	Maintaining acft Fire Extinguishing Sys	36	4.4837	33	91.66
G	Maintaining Acft Misc. Equipment	70	0.8152	6	8.57
H	Maintaining Acft Oxygen Systems	77	10.3261	76	98.70
I	Maintaining Acft Press. Systems	44	4.2119	31	70.45
J	Maintaining Acft Turbine Driven Starters	38	4.7554	35	92.11
K	Maintaining Air Turbine Motors (ATM)	10	1.3586	10	100.00
L	Maintaining Auxiliary Air Systems	82	5.9782	44	53.66
M	Maintaining Life Raft Inflation or Survival Equipment	22	2.0380	15	68.18
N	Maintaining Liquid Cycle Refrig. Systems	12	1.4945	11	91.66
O	Maintaining Servicing or Category II Test Equipment	60	5.4347	40	66.66
P	Performing Air Cond. Sys Functions	76	9.9184	73	96.05
Q	Performing Bleed Air Distribution System Functions	51	6.6576	49	96.08
R	Performing General Shop Maintenance	33	3.6685	27	81.82
	TOTALS	736	72.8253	536	

Column 4 Relative Freq. (Proportions) = $\frac{\text{No. of Tasks Performed}}{\text{Total Tasks}}$ e.g. $\frac{29}{736} = 3.9402\%$

Column 5 Tasks Recorded - The number of OSI tasks recorded on scatter diagram (step interval = 1)

Colum 6 Function Percent (Proportions) = $\frac{\text{No. of Tasks Performed}}{\text{No. of Tasks Per Function}}$ e.g. $\frac{29}{31} = 93.55\%$

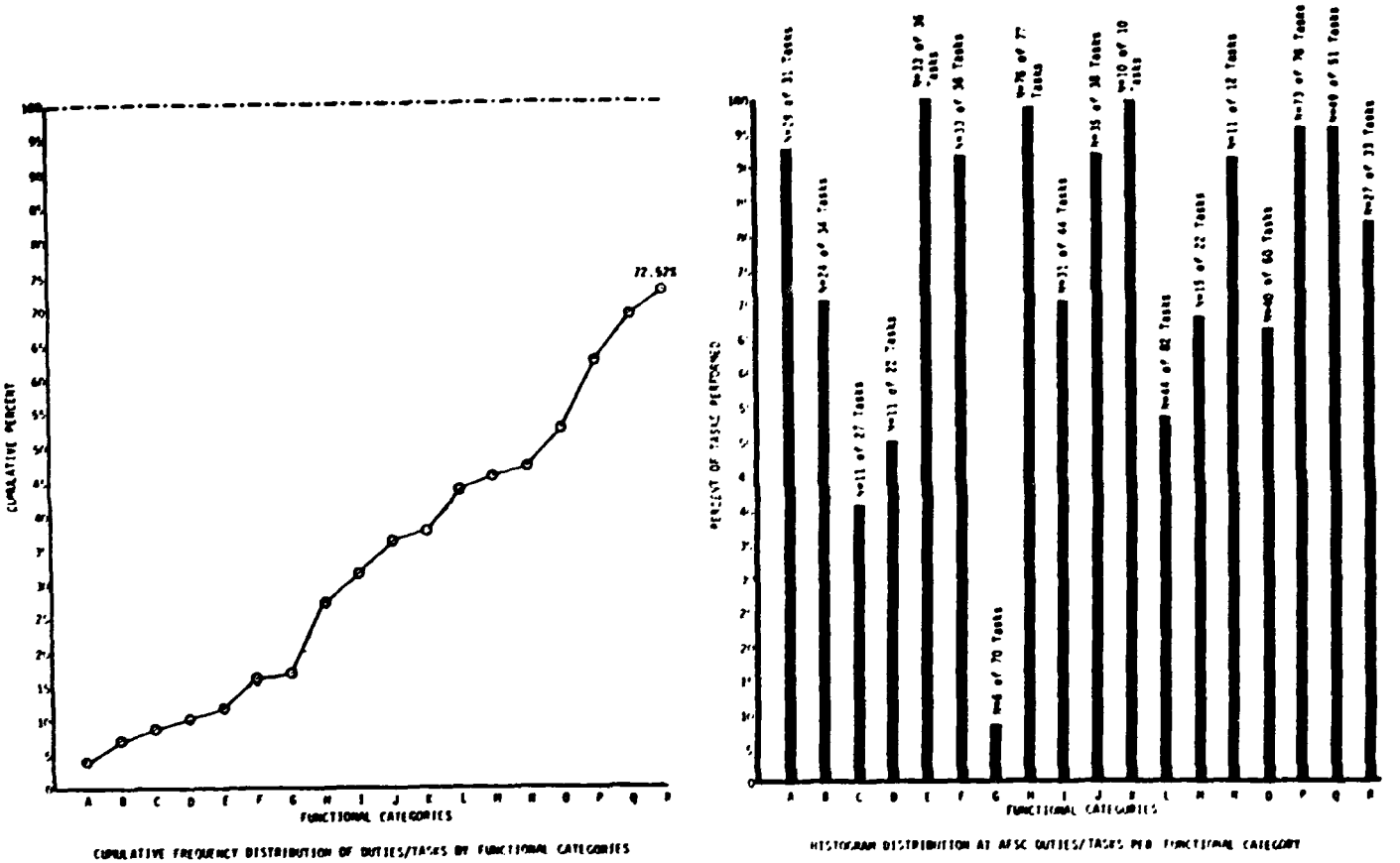


Figure 7 AFSC 42351 Aircraft Environmental Systems Repair Specialist

AFSC 42353 - (Aircraft Fuel Systems)[8]

Fifteen 42353 personnel were inventoried utilizing the Occupational Measurement Center occupational survey inventories. The OSI consisted of 11 major functions consisting of 297 tasks. Approximately 85% (84.8484%) of the 297 tasks are performed by one or more of the 5-skill level personnel. Analytical summaries of OSIs completed by these maintenance personnel are presented in Table 7. Figure 8 presents a cumulative frequency distribution and functional histogram distribution of results acquired during the Little Rock Air Force Base, Arkansas inventory. A correlation of .529 was determined to exist between tasks actually performed in the operational environment versus duties defined in AFM 39-1 and Lockheed developed systems requirements analysis data.

AFSC 42354 - (Aircraft Pneudraulic Systems)[9]

Occupational Survey Inventories (OSIs) were completed by 11 5-skill level personnel. The OSI consisted of the 13 major functional areas described in Table 8 and consisted of 575 tasks. Over 55% (55.3022%) of the tasks are performed by one or more 5-skill level specialists. The cumulative frequency distribution patterns derived during data analyses are illustrated in Figure 9. Histogram distributions depicting relative task proportions accomplished within each of the 13 functional areas are also illustrated. The correlation between tasks/duties performed by this AFSC, when compared to subtask descriptions, defined in AFM 39-1 and Lockheed developed systems requirements analysis data, was .587.

AFSC 42650 - (Aircraft Propeller Systems)[10]

This OSI was completed by 24 propeller maintenance specialist personnel qualified at the 5-skill level. Analytical results are tabulated in Table 9 and illustrated in Figure 10. Specialists recorded that 409 of the 477 tasks (or 85.7%) outlined within the 11 major functional categories are accomplished by one or more 5-level specialists. A correlation coefficient of .534 between AFM 39-1 duties and Lockheed developed systems requirements analysis data versus duties actually performed within the operational environment was established.

TABLE 7 SUMMARY
OF
OSI FUNCTIONAL TITLES/NOMENCLATURES

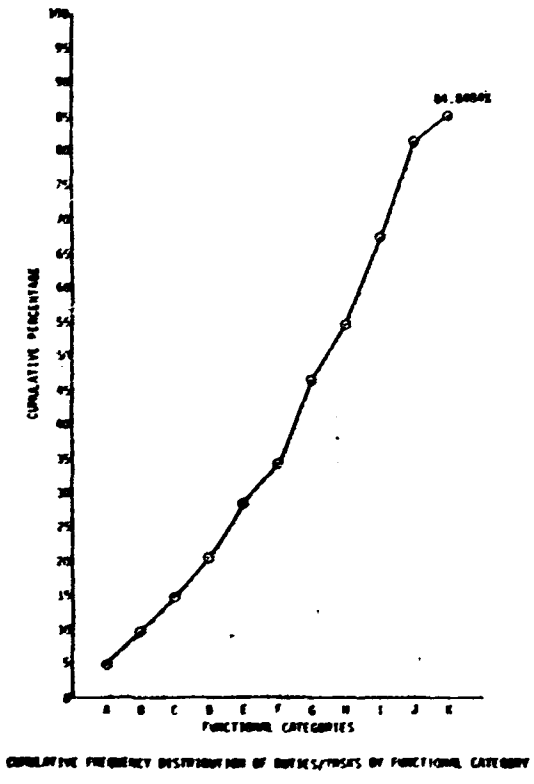
AFSC OSI: 42353 Aircraft Fuel Systems Mechanic Career Ladder
(AFPT 90-424-107)

1	2	3	4	5	6
FUNCTION	TITLES/NOMENCLATURES	NUMBER OF TASKS	REL. FREQ.(%)	TASKS RECORDED	FUNCTION PERCENT
A	Organizing and Planning	17	4.7138	14	82.35
B	Directing and Implementing	26	5.0505	15	57.69
C	Evaluating	25	5.0505	15	60.00
D	Training	23	5.7239	17	73.91
E	Maintaining Forms and Records	25	7.4074	22	88.00
F	Preparing Aircraft for Fuel Systems Maintenance	19	6.0606	18	94.74
G	Troubleshooting Aircraft Fuel Systems	37	12.4579	37	100.00
H	Inspecting Aircraft Fuel Systems	25	8.0808	24	96.00
I	Removing or Installing Fuel System Components	41	12.7946	38	92.68
J	Repair Aircraft Fuel Systems	47	13.8047	41	87.23
K	Performing Support Functions	12	3.7037	11	91.66
	TOTALS	297	84.8484	252	

Column 4 Relative Freq. (Proportions) = $\frac{\text{No. of Tasks Performed}}{\text{Total Tasks}}$ e.g. $\frac{14}{297}$ = 4.7138%

Column 5 Tasks Recorded = The number of OSI tasks recorded on scatter diagram (step interval = 1)

Column 6 Function Percent = $\frac{\text{No. of Tasks Performed}}{\text{No. of Tasks Per Function}}$ e.g. $\frac{14}{17}$ = 82.35%



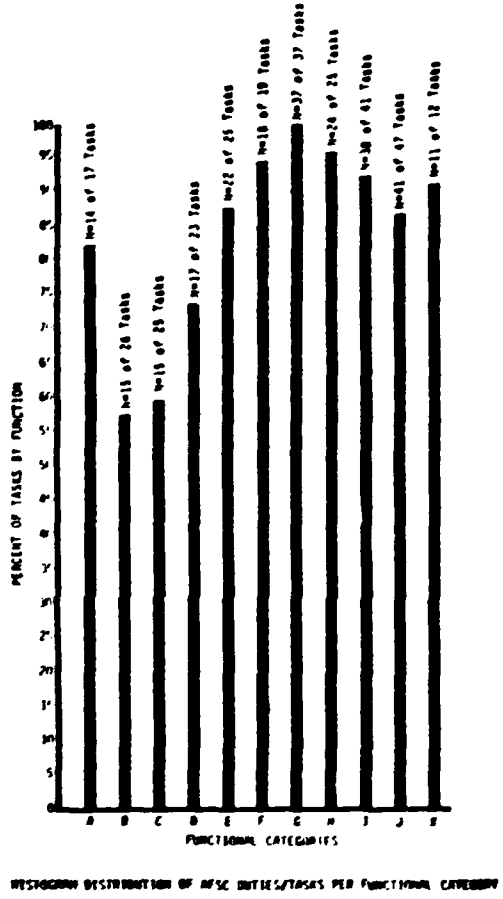


Figure 8 AFSC 42353 Aircraft Fuel Systems Mechanic

TABLE 8 SUMMARY
OF
OSI FUNCTIONAL TITLES/NOMENCLATURES

AFSC OSI: 42354 Aircraft Pneudraulic Systems Mechanic Career Ladder
(AFPT 90-421-207)

1 FUNCTION	2 TITLES/NOMENCLATURES	3 NUMBER OF TASKS	4 REL. FREQ.(%)	5 TASKS RECORDED	6 FUNCTION PERCENT
A	Organizing and Planning	24	2.7826	16	66.66
B	Directing and Implementing	26	3.8260	22	84.62
C	Inspecting and Evaluating	22	2.6068	13	59.09
D	Training	23	0.6956	4	17.39
E	Working with Forms, Records, Reports and Technical Data	32	4.000	23	71.88
F	Inspecting Aircraft Installed Pneudraulic Systems	64	5.5652	32	50.00
G	Performing Operational Checks of Aircraft Pneudraulic Systems	65	4.3478	25	38.46
H	Adjusting Pneudraulic Systems and Components	57	3.1304	18	31.58
I	Troubleshooting Aircraft Pneudraulic Systems	57	3.4783	20	35.08
J	Removing, Replacing, and Servicing Aircraft Pneudraulic Systems and Components	77	5.2174	30	38.96
K	Bench Checking Aircraft Pneudraulic Components	55	8.5217	49	89.09
L	Performing In-Shop Maintenance of Aircraft Pneudraulic Components	39	6.6087	38	97.44
M	Maintaining Shop and Aerospace Ground Equipment (AGE)	34	4.5217	26	76.47
	TOTALS	575	55.3022	316	

Column 4 Relative Freq. (Proportions) = $\frac{\text{No. of Tasks Performed}}{\text{Total Tasks}}$ e.g. $\frac{16}{575} = 2.7826\%$

Column 5 Tasks Recorded = The number of OSI tasks recorded on scatter diagram (step interval = 1)

Column 6 Function Percent = $\frac{\text{No. of Tasks Performed}}{\text{No. of Tasks Per Function}}$ e.g. $\frac{16}{24} = 66.6666\%$

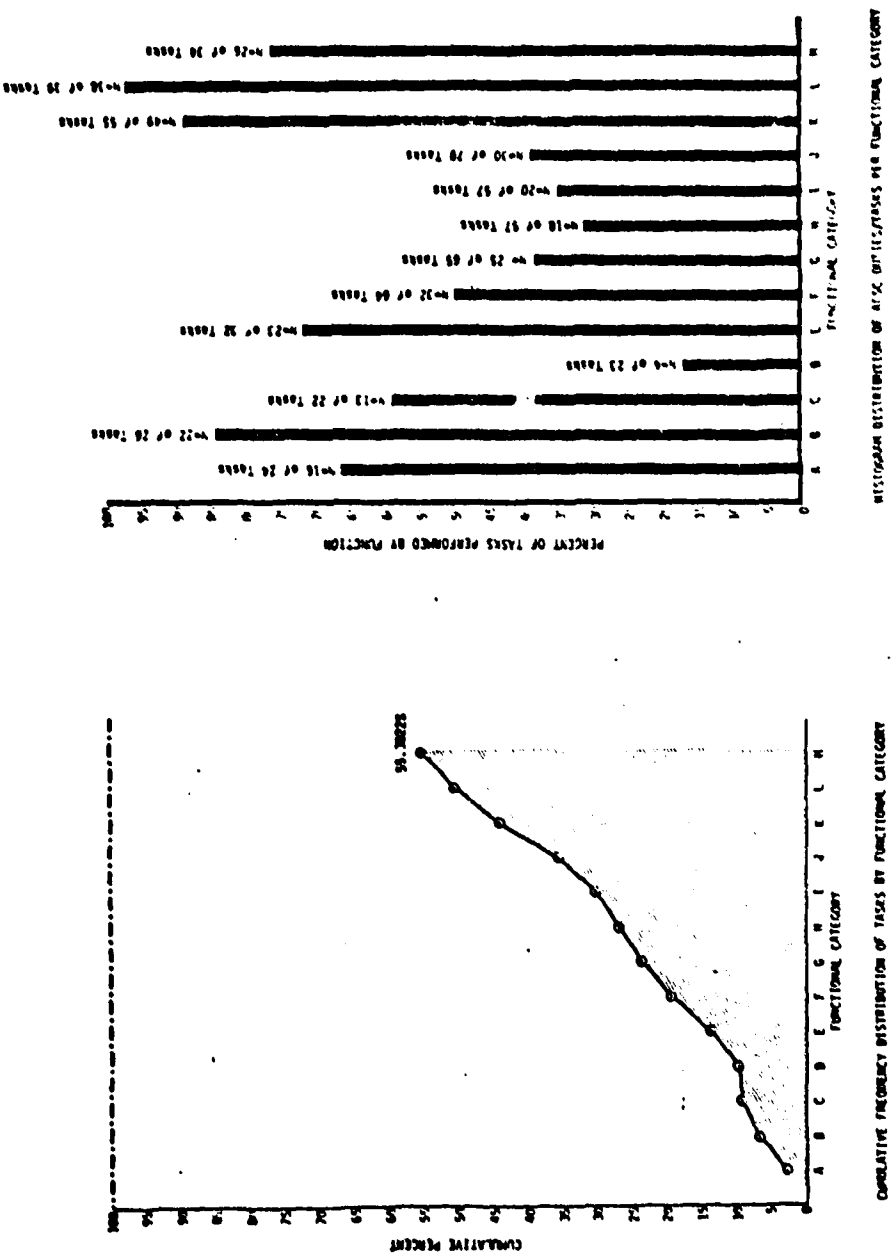


Figure 9 AFSC 42354 Aircraft Pneudraulic Repair Systems Mechanic

TABLE 9 SUMMARY
OF
OSI FUNCTIONAL TITLES/NOMENCLATURES

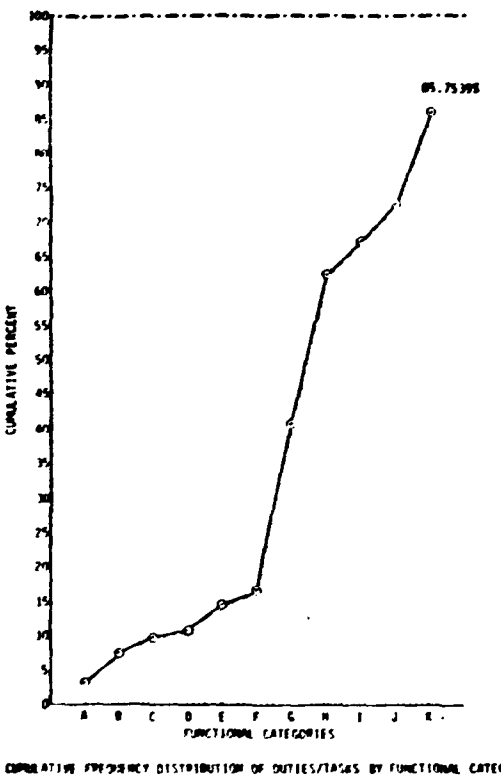
AFSC OSI: 42650 Aircraft Propeller Mechanic Career Ladder

1 FUNCTION	2 TITLES/NOMENCLATURES	3 NUMBER OF TASKS	4 REL. FREQ.(%)	5 TASKS RECORDED	6 FUNCTION PERCENT
A	Organizing and Planning	20	3.1446	15	75.00
B	Directing and Implementing	24	4.1929	20	83.33
C	Inspecting and Evaluating	24	2.3061	11	45.83
D	Training	22	1.0482	5	22.72
E	Maintaining Forms, Records, and Reports	18	3.7735	18	100.00
F	Performing Shop and Flight Line Safety	10	2.0964	10	100.00
G	Performing Flight Line Maintenance	121	24.3186	116	95.87
H	Performing In-Shop Assembly and Disassembly of Propellers	114	21.3836	102	89.47
I	Performing Maintenance Operating Checks of Conventional Propellers	26	4.8218	23	88.46
J	Performing Maintenance Operating Checks on Turbopropellers	26	5.4507	26	100.00
K	Bench Checking and Repairing	72	13.2075	63	87.50
	TOTALS	477	85.7539	409	

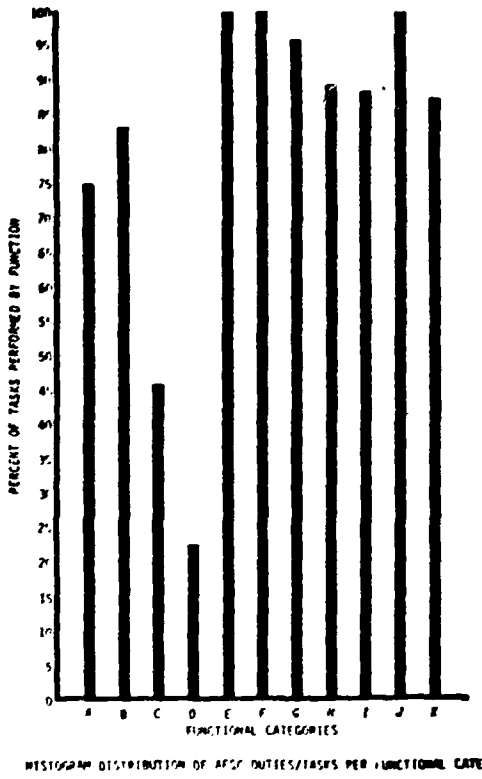
Column 4 Relative Freq. (Proportions) = $\frac{\text{No. of Tasks Performed}}{\text{Total Tasks}}$ e.g. $\frac{15}{477}$ = 3.1446%

Column 5 Tasks Recorded - The number of OSI tasks recorded on scatter diagram (step interval = 1)

Column 6 Function Percent = $\frac{\text{No. of Tasks Performed}}{\text{No. of Tasks Per Function}}$ e.g. $\frac{15}{20}$ = 75.00%



CUMULATIVE FREQUENCY DISTRIBUTION OF DUTIES/TASKS BY FUNCTIONAL CATEGORY



HISTOGRAM DISTRIBUTION OF AFSC DUTIES/TASKS PER FUNCTIONAL CATEGORY

Figure 10 AFSC 42650 Aircraft Propeller Systems Mechanic

AFSC 42652 - (Jet Engines)[11]

Fifty 5-skill level jet engine mechanics were inventoried. The OSI consisted of 17 functional categories which included 415 distinct specialty tasks. Over 88% of 367 out of the 415 possible tasks were recorded as being performed by one or more AFS personnel. Results acquired during data analyses are tabulated in Table 10 and illustrated in Figure 11. A correlation of agreement between duties prescribed in AFM 39-1 and Lockheed developed systems requirements analysis data and actual operational duties equal to .579 was computed.

AFSC 43151F - (Aircraft Maintenance)[12]

Fifty 43151F aircraft maintenance personnel at Little Rock Air Force Base, Arkansas completed the 43151F/OSI. The inventory consisted of 23 major functional categories encompassing 977 individual tasks. Over 75% (76.6630%) or 749 out of the 977 tasks were performed by one or more of the 50 aircraft maintenance specialists inventoried. Results are tabulated in Table 11 and illustrated in Figure 12. A correlation of agreement between AFM 39-1 and Lockheed developed systems requirements analysis data and duties detailed in the OSI equal to .613 was established.

AFSC 53154 - (Corrosion Control)[13]

Twenty-one 53154 AFS personnel were inventoried. The OSI consisted of 13 applicable functional categories and encompassed 410 tasks. The OSI had three categories that were not applicable to aircraft systems, namely Functions N, O and P missile systems corrosion control. Forty-seven tasks contained within this inventory were not used in this study. Over 72% (72.1947%) or 296 out of a possible 410 tasks are performed by 5-level corrosion control personnel. Results of data analyzed within the 21 completed OSIs are tabulated in Table 12 and illustrated in Figure 13. A correlation between AFM 39-1 and Lockheed developed systems requirements analysis, versus actual duties performed at a Tactical Airlift Wing equal to .608 was computed.

CONCLUSIONS

"Lessons learned" during the planning implementation and analyses of task data enable the formulation of the following conclusions:

TABLE 10 SUMMARY
OF
OSI FUNCTIONAL TITLES/NOMENCLATURES

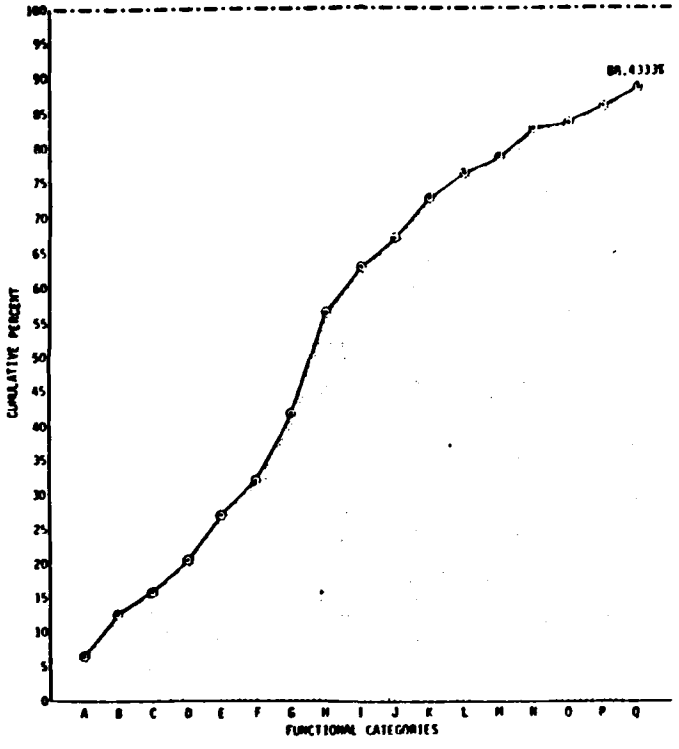
AFSC OSI: 42652 Jet Engine Mechanic Career Ladder
(AFPT 90-432-054)

1	2	3	4	5	6
FUNCTION	TITLES/NOMENCLATURES	NUMBER OF TASKS	REL. FREQ.(%)	TASKS RECORDED	FUNCTION PERCENT
A	Planning and Organizing	30	6.5060	27	90.00
B	Directing and Implementing	27	6.024	25	92.59
C	Evaluating	17	3.3735	14	82.35
D	Training	20	4.3373	18	90.00
E	Preparing Forms, Records, or Reports	30	6.7469	28	93.53
F	Inspecting and Performing Q/C	21	5.0602	21	100.00
G	Performing Flt Line Maintenance on Jet Engines	40	9.6385	40	100.00
H	Performing Intermediate Maintenance on Jet Engines	63	14.6988	61	96.83
I	Preserving and Depreserving Engines and Components	27	6.5060	27	100.00
J	Performing Balance Shop Functions	22	4.0964	17	77.27
K	Performing Engine Test Stand Functions	25	5.7831	24	96.00
L	Performing Engine Trim Pad Functions	17	3.6144	15	88.23
M	Repairing & Maintaining Small Gas Turbine Engines (SGTS)	9	2.1686	9	100.00
N	Maintaining Starters & Starter Test Stands	18	4.0964	17	94.44
O	Performing Spectrometric Oil Analysis	15	0.9638	4	26.66
P	Maintaining & Repairing Test Eqmt & Special Tools	23	2.1687	9	39.13
Q	Performing Supply Functions	11	2.6506	11	100.00
	TOTALS	415	88.4333	367	

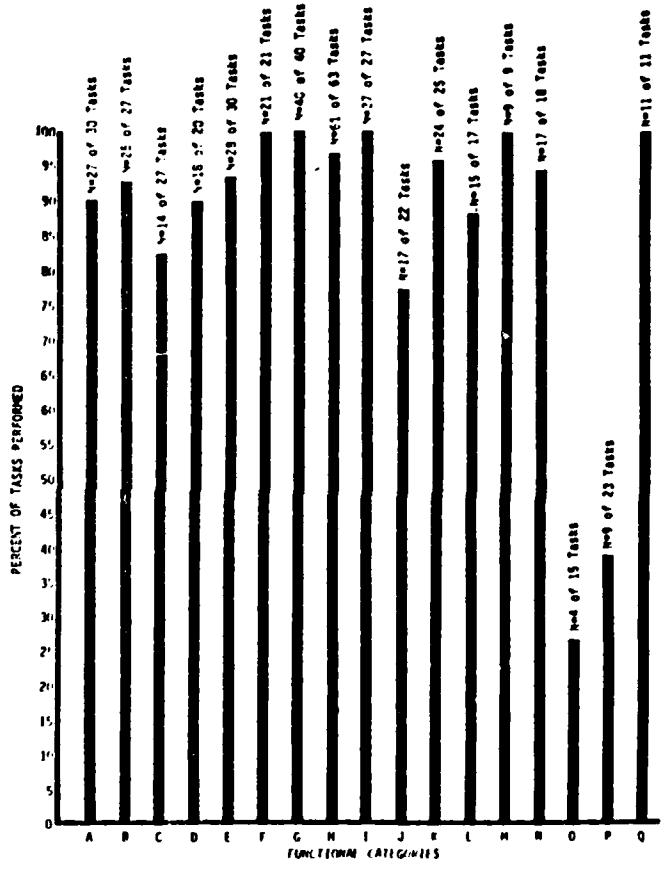
Column 4 Relative Freq. (Proportions) = $\frac{\text{No. of Tasks Performed}}{\text{Total Tasks}}$ e.g. $\frac{27}{415} = \underline{6.5060\%}$

Column 5 Tasks Recorded = The number of OSI tasks recorded or scatter diagram (step interval = 1)

Column 6 Function Percent (Proportions) = $\frac{\text{No. of Tasks Performed}}{\text{No. of Tasks Per Function}}$ e.g. $\frac{27}{30} = \underline{90.00\%}$



CUMULATIVE FREQUENCY DISTRIBUTION OF DUTIES/TASKS BY FUNCTIONAL CATEGORY



HISTOGRAM DISTRIBUTION OF AFSC'S DUTIES/TASKS PER FUNCTIONAL CATEGORY

Figure 11 AFSC 42652 Jet Engine Mechanic

TABLE 11 SUMMARY
OF
OSI FUNCTIONAL TITLES/NOMENCLATURES

AFSC OSI: 43151F Aircraft Maintenance Specialist Career Ladder
(AFPT 90-431-210)

1	2	3	4	5	6
FUNCTION	TITLES/NOMENCLATURES	NUMBER OF TASKS	REL. FREQ.(%)	TASKS RECORDED	FUNCTION PERCENT
A	Organizing and Planning	33	2.1493	21	63.64
B	Directing and Implementing	28	2.4565	24	85.71
C	Inspecting and Evaluating	19	1.2282	12	63.16
D	Training	15	1.5353	15	100.00
E	Maintaining Forms and Records	50	4.2989	42	84.00
F	Performing Supply Functions	19	1.7400	17	89.47
G	Performing Gen. Acft Maintenance	127	11.3613	111	87.40
H	Performing Grd Handling of Aircraft	68	6.3459	62	91.18
I	Maintaining Landing Gear Systems	80	6.2436	61	76.25
J	Maintaining Utility Systems	50	4.8106	47	94.00
K	Maintaining Flight Control Systems	66	6.6295	55	83.33
L	Maintaining Pneudraulic Systems	58	5.1137	50	86.21
M	Maintaining Electrical Systems	40	3.8895	38	95.00
N	Maintaining Fuel Systems	51	4.9130	48	94.12
O	Maintaining Non-Powered AGE	36	2.0471	20	55.55
P	Maintaining 780 Equipment	26	2.2518	22	84.62
Q	Performing Ge. Engine Maintenance	82	7.2671	71	86.59
R	Maintaining Reciprocating Engines	26	0.2047	2	7.69
S	Maintaining Turbo-Propeller Engines	11	0.9212	9	81.82
T	Maintaining Turbo-Jet Engines	7	0.3071	3	42.86
U	Maintaining Tow Targets	51	- -	0	00.00
V	Maintaining Aerial Delivery Systems	19	1.9447	19	100.00
W	Maintaining In-Flt Refueling (IFR) Sys	15	- -	0	00.00
	TOTALS	977	76.6630	749	

Column 4 Relative Freq. (Proportions) = $\frac{\text{No. of Tasks Performed}}{\text{Total Tasks}}$ e.g. $\frac{21}{977}$ = 2.1493%

Column 5 Tasks Recorded = The number of OSI tasks recorded on scatter diagram (step interval = 1)

Column 6 Function Percent (Proportions) = $\frac{\text{No. of Tasks Performed}}{\text{No. of Tasks Per Function}}$ e.g. $\frac{21}{33}$ = 63.64%

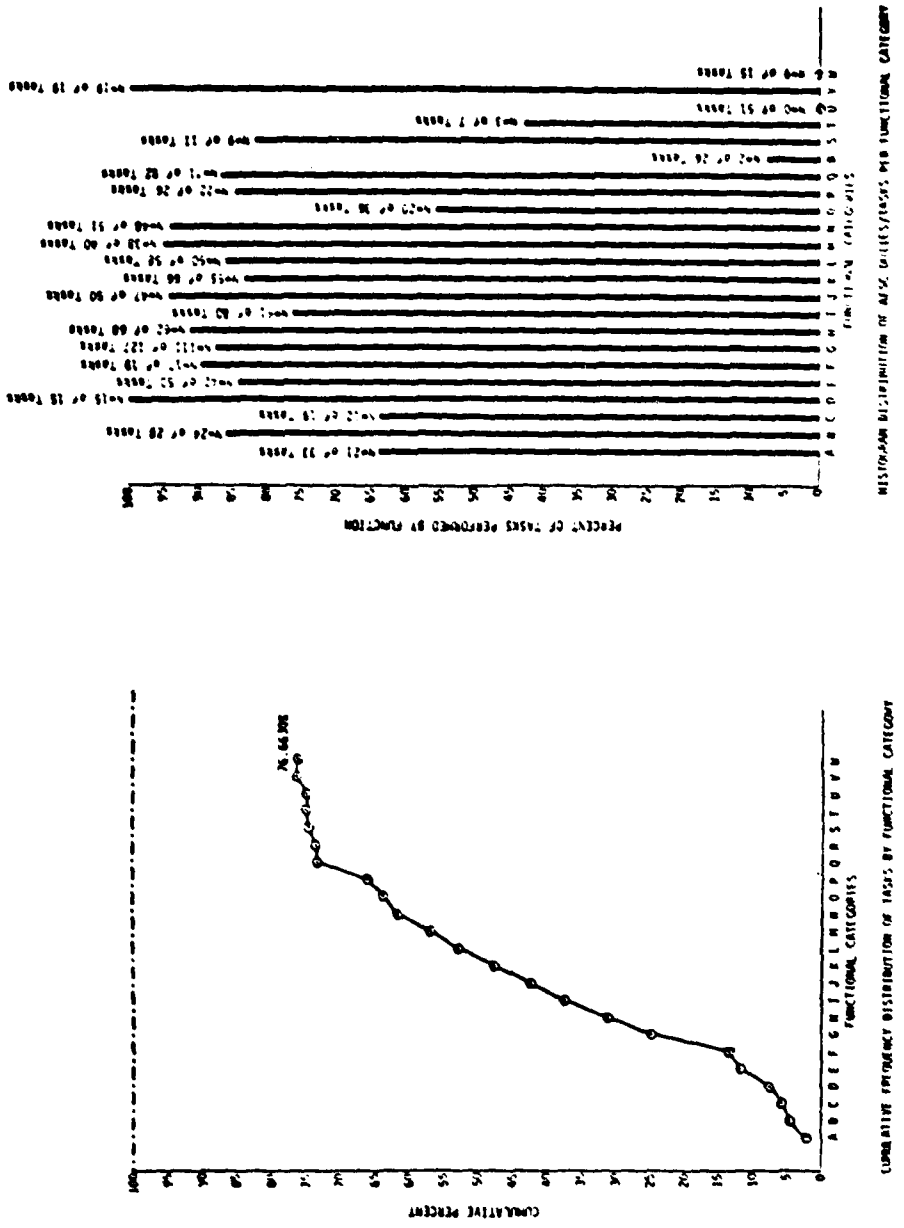


Figure 12 AFSC 43151F Aircraft Maintenance Mechanic

TABLE 12 SUMMARY
OF
OSI FUNCTIONAL TITLES/NOMENCLATURES

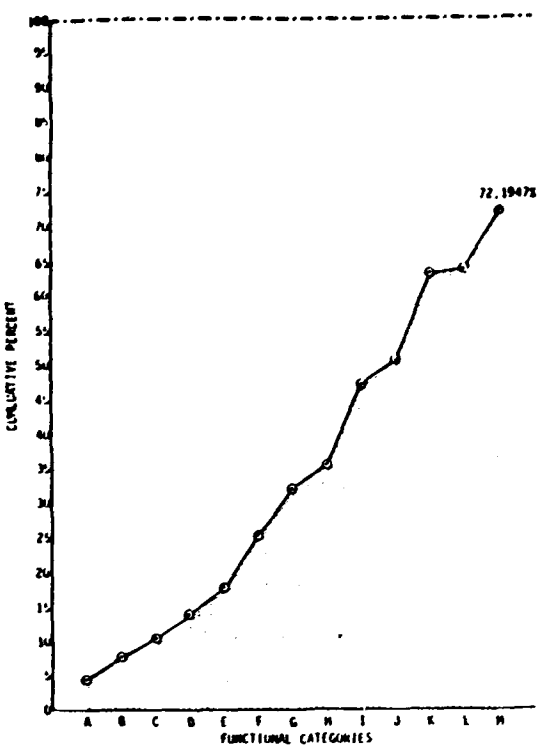
AFSC OSI: 53154 Corrosion Control Specialist Career Ladder
(AFPT 90-535-149)

1	2	3	4	5	6
FUNCTION	TITLES/NOMENCLATURES	NUMBER OF TASKS	REL. FREQ.(%)	TASKS RECORDED	FUNCTION PERCENT
A	Organizing and Planning	31	4.3902	18	58.06
B	Directing and Implementing	28	3.1707	13	46.43
C	Inspecting and Evaluating	24	2.6829	11	45.83
D	Training	27	3.4146	14	51.86
E	Working with Forms, Records, Reports, Directives, & Technical Data	40	3.9024	16	40.00
F	Performing Gen. Corr. Control Functions	40	7.5609	31	77.50
G	Washing Acft and AGE	34	6.8293	28	82.35
H	Inspecting Acft, AGE & Missile Fac.	15	3.4146	14	93.33
I	Removing Corr. & Protective Coatings	55	11.7013	48	87.27
J	Treating & Preparing Metal Surfaces	15	3.4146	14	93.33
K	Applying Protective Coating Systems	56	12.6829	52	92.86
L	Performing & Practicing Disaster Preparedness Functions	8	0.4878	2	25.00
M	Maintaining Corrosion Control Eqmt.	37	8.5365	35	94.59
N	Performing Missile Dispatch Functions	8	(N/A) - Missile Systems		
O	Performing Minuteman Corr. Control Func.	18	(N/A) - Missile Systems		
P	Performing Titan Missile Corrosion Control Functions	21	(N/A) - Missile Systems		
	TOTALS	457	72.1947	296	
	TOTAL	410	Applicable Tasks		

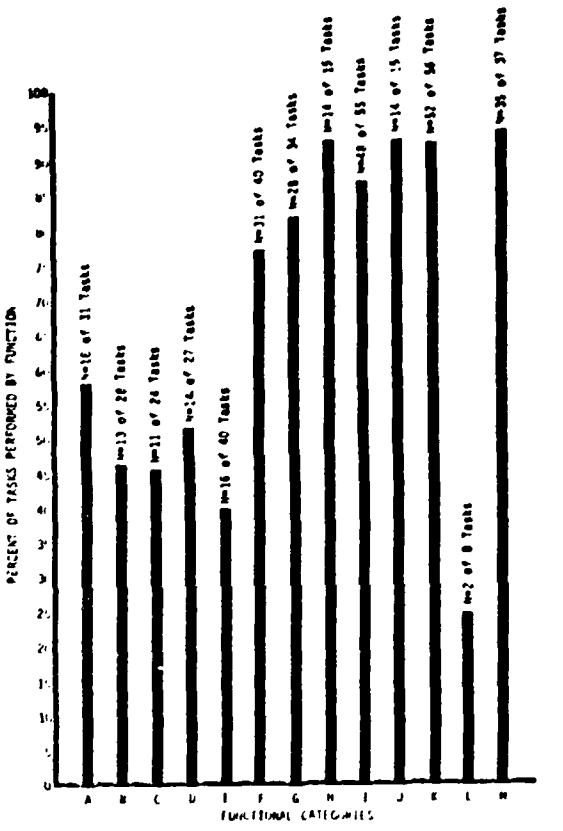
Column 4 Relative Freq. (Proportions) = $\frac{\text{No. of Tasks Performed}}{\text{Total Tasks}}$ e.g. $\frac{18}{410}$ = 4.3902%

Column 5 Tasks Recorded - The number of OSI tasks recorded on scatter diagram (step interval = 1)

Column 6 Function Percent (Proportions) = $\frac{\text{No. of Tasks Performed}}{\text{No. of Tasks Per Function}}$ e.g. $\frac{18}{31}$ = 58.06%



CUMULATIVE FREQUENCY DISTRIBUTION OF DUTIES/TASKS BY FUNCTIONAL CATEGORY



HISTOGRAM DISTRIBUTION OF AFSC DUTIES/TASKS PER FUNCTIONAL CATEGORY

Figure 13 AFSC 53154 Corrosion Control Specialist

1. Acquisition of data describing actual tasks or duties performed by maintenance or operations Air Force specialty (AFS) personnel is wholly dependent upon the cooperation of the cognizant commander (e.g., Deputy Commander for Maintenance).

2. Acquisition of duty/task data of any AFS, is best implemented under the "capture system" wherein each specialist completes his respective task inventory under the direct supervision of a test controller.

3. Although the correlations noted in Table 1 are statistically significant beyond the .05 level of confidence, the large discrepancies noted between the dependent variable (AFM 39-1 and Lockheed developed systems requirements analysis data) and independent variable (tasks actually performed) permit the following conclusions:

   a. AFM 39-1, Enlisted Personnel Airman Classification Manual, job descriptions and systems requirement analysis data serve as poor planning specifications when developing Personnel Planning Information (PPI) on new or modified USAF systems.

   b. Training Planning Information, Training Personnel Requirements and Unit Detailed Listings developed from PPI data should be comprehensive and accurate.

   c. Future PPI data development by contractors and others should utilize AFM 39-1 and AFM 36-1 (Officer Classification Manual)[14] as planning guides, but should be augmented by extensive data derived from operational work centers performing within the requirements of AFM 66-1 (Maintenance Management)[15] criteria.

   d. Manpower estimates provided by contractors to future weapon systems, system program offices (SPOs) and Using Commands should be sensitive to manpower impacts at individual work centers. Section V of Qualitative and Quantitative Personnel Requirements Information documents (a part of PPI) alluding to manpower changes due to new and/or system modifications should define explicit manpower changes by AFS and individual work centers.

4. Skill-level-5 Air Force specialists have been frequently referred to as the maintenance backbone of the USAF Approximately 74% (73.769%) of the 6294 duties and tasks (or 4643 tasks) contained within the 11 OSIs are performed by 5-level maintenance personnel. This percent of tasks accomplished by the 5-level airman partially supports the initial premise statement.

5. Aerospace contractor agencies at the weapon system planning level should be aware of the organizational and management structure existent within aircraft weapon system Using Commands.

REFERENCES

1. AFHRL-TR-77-46, "Life Cycle Cost of C-130E Weapon System, Air Force Human Resource Laboratory," July 1977. AD-A044 046.
2. Air Force Manual 39-1, Volumes I and II, "Enlisted Personnel Airman Classification Manual," 1 September 1976.
3. United States Air Force Job Inventory, AFPT-90-325-248, "Automatic Flight Control Systems Career Ladder," AFSC's 32530, 32550, 32570, and 32591, 1 July 1976.
4. United States Air Force Job Inventory, AFPT-90-325-128, "Avionics Instrument Systems Specialist Career Ladder," AFSC's 32531, 32551, 32571, and 32591.
5. United States Air Force Job Inventory, AFPT-90-328-079, "Avionics Communications Specialist Career Ladder," AFSC's 32830, 32850, 32870, 328X0A, and 32894, 15 July 1972.
6. United States Air Force Job Inventory, AFPT-90-423-106, "Aircraft Electrical Repair Career Ladder," AFSC's 42330, 42350, 42370, 42390, 15 July 1973.
7. United States Air Force Job Inventory, AFPT-90-422-180, "Aircraft Environmental Systems Repair Career Ladder," AFSC's 42331, 42351, 42371, and 42391, 1 July 1975.
8. United States Air Force Job Inventory, AFPT-90-424-107, "Aircraft Fuel Systems Mechanic/Technician Career Ladder," AFSC's 42333, 42353, 42373, 1 June 1973.
9. United States Air Force Job Inventory, AFPT-90-421-207, "Aircraft Pneudraulic Repair Career Ladder," AFSC's 42334, 42354, 42374, 1 August 1975.
10. United States Air Force Job Inventory, AFPT-90-421-131, "Aircraft Propeller Repairman Career Ladder," AFSC's 42630, 42650, and 42670, 1 December 1973.
11. United States Air Force Job Inventory, AFPT-90-432-054, "Jet Engine Mechanic Career Ladder," AFSC's 42632, 42652, 42672, and 42692, 1 March 1972.
12. United States Air Force Job Inventory, AFPT-90-431-210, "Aircraft Maintenance Career Ladder," AFSC's 43131A/C/E/F, 43151A/C/E/F, 43171A/C/E/F, and 43191, 1 April 1976.
13. United States Air Force Job Inventory, AFPT-90-535-149, "Corrosion Control Specialist Career Ladder," AFSC's 53134, 53154, 53174, and 53194, 1 May 1974.
14. Air Force Manual 36-1, "Office Classification Manual," 1 September 1976.
15. Air Force Manual 66-1, Volumes I through VI, "Maintenance Management" January 1974.

ABBREVIATIONS/ACRONYMS

AFB	Air Force Base
AFHRL	Air Force Human Resources Laboratory
AFM	Air Force Manual
AFS	Air Force Specialist
AFSC	Air Force Specialty Code
AFSC	Air Force Systems Command
ATC	Air Training Command
ATM	Air Turbine Motors
CDRL	Contract Data Requirements List
HWSA	Historical Weapon Systems Analysis
IAW	In Accordance With
IFR	In-Flight Refueling
LAFB	Lackland Air Force Base, Texas
LCC	Life Cycle Cost
LRAFB	Little Rock Air Force Base, Arkansas
LS&S	Logistics Support and Services
MAC	Military Airlift Command
MAFB	McChord Air Force Base, Washington
MAW	Military Airlift Wing
MPC	Military Personnel Center
N/A	Not Applicable
O&M	Operations and Maintenance
O&S	Operations and Support
OSI	Occupational Survey Inventory
OSR	Occupational Survey Report
PACS	Pilot Assist Cable Servo System
QC	Quality Control
SGTS	Small Gas Turbine System
SPO	System Program Office
STINFO	Scientific Technical Information
TAW	Tactical Airlift Wing
T.O.	Technical Order
TR	Technical Report
USAF	United States Air Force
W/S	Weapon System

APPEXDIX A

AIRMAN AIR FORCE SPECIALTY DUTIES AND RESPONSIBILITIES

AIRMAN AIR FORCE SPECIALTY

★AUTOMATIC FLIGHT CONTROL SYSTEMS SPECIALIST

1. SPECIALTY SUMMARY

Inspects, troubleshoots, removes, repairs, installs, adjusts, and modifies automatic flight control systems, components, and test equipment.

2. DUTIES AND RESPONSIBILITIES

a. *Performs inspection and maintenance on automatic flight control systems:* Inspects, checks, troubleshoots, and performs maintenance and special inspections on automatic flight control systems including autopilot amplifiers; yaw computers; yaw, pitch, and roll dampeners; gyros and accelerometers; automatic trim; servos and follow-up mechanisms; remote compass transmitters and indicators; and drive assemblies. Checks for proper automatic flight control systems response from signal sources such as compass or attitude reference; pilot's controls; fire control systems; ILS; and other associated systems. Diagnoses automatic flight control systems operational malfunctions and determines cause by using appropriate circuit diagrams and test equipment. Makes appropriate entries in aircraft forms.

b. *Repairs and maintains automatic flight control systems:* Troubleshoots and isolates system malfunctions. Removes automatic flight control systems malfunctioning units and replaces with serviceable units. Disassembles, repairs, and reassembles malfunctioning automatic flight control systems components. Performs adjustments and calibration checks to insure optimum operating efficiency of repaired assemblies. Adjusts and calibrates the automatic flight control systems, including responses and nulls about the control axis of pitch, roll, and yaw, automatic trim and gain changer circuitry, attitude stabilization, and attitude and Mach control circuits, using prescribed test equipment to include automatic tape programmed test equipment and compass calibrators.

c. *Supervises automatic flight control systems personnel:* Assigns maintenance functions to subordinates and observes performance to insure compliance with local procedures and applicable technical publications. Instructs subordinates in automatic flight control systems operational performance, operational checks, and proper utilization of applicable tools and test equipment.

3. SPECIALTY QUALIFICATIONS

a. *Knowledge:*

(1) Knowledge of electronic principles and solid state devices as applied to the operational maintenance of automatic flight control systems; and use and interpretation of logic circuits, signal data flow, wiring diagrams, component schematics, and technical publications is *mandatory*. Possession of mandatory knowledge will be determined in accordance with AFM 35-1.

(2) Knowledge of mechanical principles and aircraft flight characteristics is desirable.

b. *Education:* Completion of high school with courses in physics and mathematics is desirable.

c. *Experience:* Experience in functions such as installation, test, inspection, repair, and overhaul of automatic flight control systems is *mandatory.*

d. *Training:* Completion of a basic automatic flight control systems course is desirable.

e. *Other:*

(1) Normal color vision as defined in AFM 160-1 is *mandatory.*

(2) A minimum aptitude level of Electronic 80 is *mandatory.*

4. SPECIALTY DATA

a. *Grade Spread:*

Sergeant and staff sergeant	32550
Airman first class	32530

b. *Related D.O.T. Job:*

Electronics Mechanic	828.281

c. *Related DOD Occupational Subgroup:* 102

AIRMAN AIR FORCE SPECIALTY

AVIONICS INSTRUMENT SYSTEMS SPECIALIST

1. SPECIALTY SUMMARY

Installs, inspects, repairs, operates, troubleshoots, overhauls, and modifies avionic instruments, avionics instrument systems, components, and test equipment.

2. DUTIES AND RESPONSIBILITIES

a. *Performs preventive maintenance on electronic/transistorized instruments and instruments systems:* Inspects and tests electrical, electronic/transistorized instrument systems and component parts; mechanical flight and engine instrument systems; flight data recorder systems; central air data computer systems, including component parts such as computers, compensators, converters, and sensors; and gyro stabilized attitude reference and flight director indicating systems and components, such as gyro displacement platforms, compass adapters, attitude director indicators, horizontal situation indicators, computers, power supplies, amplifiers, and rate gyroscopes. Records instrument scale readings and computes instrument tolerances during operational checks.

b. *Installs, repairs, troubleshoots, overhauls, and modifies electrical, electronic/transistorized, and mechanical instruments and instrument systems:* Checks components for serviceability prior to installation. Repairs and replaces faulty wiring, electrical connectors, and pressure connections to components and systems. Troubleshoots and repairs central air data computer, flight data recorder, flight director, and attitude reference systems to insure correct output for related integrated systems. Analyzes, isolates, and repairs instrument systems and component malfunctions using circuit diagrams and test equipment, such as pitot-static testers, barometers and manometers, gyroscopic instrument testers, frequency counter, digital voltmeters, and specialized instrument systems testers and analyzers. Maintains and calibrates instrument systems test equipment as outlined in applicable technical directives. Swings and compensates gyro magnetic compasses. Aligns, balances, calibrates, and adjusts repaired assemblies and systems. Accomplishes modification of components and systems.

c. *Supervises avionics instrument systems personnel:* Assigns maintenance and operation tasks. Observes performance to insure compliance with directives and applicable technical publications. Instructs subordinates in techniques of installation, maintenance, and repair of instruments and instrument systems. Conducts on-the-job training and demonstrates use of tools and equipment.

3. SPECIALTY QUALIFICATIONS

a. *Knowledge:* Knowledge of theory and application of electronic principles; interpretation and application of mechanical drawings and wiring diagrams in relation to mechanical functions and electronic circuits; theory and application of servo-amplifiers; functional value of differential gearing; use, care, and interpretation of testing and measuring devices; and principles of power and motion transmission by electrical and mechanical means is *mandatory*. Possession of mandatory knowledge will be determined in accordance with AFM 35-1.

b. *Education:* Completion of high sch

with courses in physics and mathematics is desirable.

c. *Experience:* Experience in functions such as installation, testing, inspection, repair, and overhaul of instrument systems and components is *mandatory*.

d. *Training:* Completion of a basic avionics instrument systems course is desirable.

e. *Other:*

(1) Normal color vision as defined in AFM 160-1 is *mandatory*.

(2) A minimum aptitude level of Electronic 80 is *mandatory*.

4. SPECIALTY DATA

a. *Grade Spread:*

Sergeant and staff sergeant	32551
Airman first class	32531

b. *Related D.O.T. Jobs:*

Electronics Mechanic	828.281
Systems Tester	729.381

c. Related DOD Occupational Subgroup: 198

AIRMAN AIR FORCE SPECIALTY

AVIONIC COMMUNICATIONS SPECIALIST

1. SPECIALTY SUMMARY

Installs, maintains, modifies, troubleshoots, and repairs avionic communications equipment and test equipment.

2. DUTIES AND RESPONSIBILITIES

a. *Performs preventive maintenance on avionic communications equipment.* Inspects and tests avionic communications systems at specified intervals to locate defective components or interconnections. Adjusts or replaces defective components. Turns on equipment sets controls in various operating positions, and evaluates equipment performance, using applicable test equipment and technical orders.

b. *Installs avionic communications equipment.* Checks equipment visually and by use of test equipment for serviceability before installation. Assembles, connects, and interwires system components. Conducts detailed test of installed equipment for compliance with technical orders. Places in operation, and tunes, adjusts, and aligns components to obtain maximum operating efficiency.

c. *Repairs avionic communications equipment.* Isolates troubles in inoperative or malfunctioning equipment through prescribed TO checkout procedures, using peculiar or common test equipment. Repairs communications equipment such as HF transceivers, transmitters, and receivers; interphone; VHF AM and FM, UHF transceivers, UHF ADF, emergency radios, data link, and crash position indicators, using small handtools, soldering equipment, and common and peculiar test equipment. Tunes and adjusts avionic communications components according to technical orders, manufacturers' handbooks, and local procedures. Accomplishes routine modification of equipment according to modification work orders and TCTOs. Performs progressively more difficult testing and repair duties as specifically directed.

d. *Maintains inspection and maintenance records.* Posts entries on applicable maintenance and inspection forms and records. Completes maintenance data collection forms. Recommends methods to improve equipment performance and maintenance procedures.

e. *Supervises avionic communications repair personnel.* Assigns work and reviews completed repairs to insure compliance with local procedures and applicable technical publications. Instructs subordinates in techniques of installation, maintenance, and repair of avionic communications equipment. Insures personnel are aware of appropriate procedures prescribed by USAF maintenance management and safety directives.

3. SPECIALTY QUALIFICATIONS

a. *Knowledge:*

(1) Knowledge of theory of electronics and radio, including theory of transistors and solid state components; digital techniques; and interpretation of technical orders, wiring diagrams, and schematic drawings is mandatory. Possession of mandatory knowledge will be determined according to AFR 35-1.

(2) Knowledge of radar and computer electronic principles is desirable.

b. *Education.* Completion of high school with courses in physics and mathematics is desirable.

c. *Experience.* Experience in functions such as testing, tuning, adjusting, maintaining, or repairing avionic communications equipment; applying theory of electricity and radio to maintenance and repair of avionic communications equipment; and use of specialized test equipment is mandatory.

d. *Training:*

(1) Completion of a basic avionic communications maintenance course is desirable.

(2) Completion of an airborne command post equipment maintenance course is desirable for award of suffix "A."

* e. *Other:*

(1) Normal color vision as defined in AFM 160–1 is mandatory.

(2) A Secret security clearance according to AFR 205–32 is mandatory for award of this AFSC. Access certification for Secret information is mandatory for performance of duties under this AFSC unless duties warrant administrative withdrawal or downgrading of access, without prejudice, according to AFR 205–32.

(3) Minimum qualification as AFSC 32850 is mandatory for entry into training for award of suffix "A"

(4) A minimum aptitude level of Electronic 80 is mandatory.

(5) A Top Secret security clearance according to AFR 205–32 is mandatory for award of suffix "A". Access certification for Top Secret information is mandatory for performance of duties under this suffix unless duties warrant administrative withdrawal or downgrading of access, without prejudice, according to AFR 205–32.

4. SPECIALTY DATA

* a. *Grade Spread:*

Airman first-class through staff sergeant	32850
Airman first-class	32830

b. *Related D.O.T. Jobs:*

Radio Repairman	720.281
Radio Mechanic	823.281

c. *Related DOD Occupational Subgroup:* 101

5. *SPECIALTY SHREDOUTS

Suffix	*Portion of AFS to Which Related*
A	Airborne Command Post Communications Equipment Repairman

AIRMAN AIR FORCE SPECIALTY

* AIRCRAFT ELECTRICAL SYSTEMS SPECIALIST

1. SPECIALTY SUMMARY

Troubleshoots, inspects, installs, repairs, modifies, and overhauls aircraft electrical systems and associated electronic components, subsystems, and test equipment.

2. DUTIES AND RESPONSIBILITIES

a. *Inspects, troubleshoots, installs, and maintains aircraft electrical systems, components, subsystems, and test equipment.* Visually and operationally tests DC and AC power, landing gear, inition, starting, lighting, anti-skid, nose-wheel steering, nesa glass, electronic engine controls, static and rotary inverters, master caution, take-off warning, flight controls, fire and overheat warning, and fuel control systems. Uses applicable test equipment and publications to identify system and component malfunctions. Repairs and returns system and component to maximum efficiency consistent with design characteristics. Adjusts, aligns, calibrates, and services electrical and associated electronic systems, components, and test equipment such as DC and AC generators, voltage regulators, frequency and load controllers, relays, switching devices, constant speed drives, control and protection panels, inverters, and special equipment testers and power system load and monitoring devices to obtain maximum operating efficiency according to applicable technical publications.

b. *Repairs, modifies, and overhauls aircraft electrical systems and associated electronic components, subsystems, and test equipment.* Repairs, modifies, and overhauls electrical and solid state voltage regulators, control panels, protection panels, frequency and load controllers, static inverters, caution and warning panels, nose wheel steering and anti-skid amplifiers, nesa glass controllers, miniature modules, audible warning detectors, engine fuel and nozzle amplifiers, asymmetry detectors, transformer rectifiers, generators, actuators, relays, timing and sensing devices, lighting equipment, batteries (alkaline and lead acid), fire detectors, motors, rotary inverters and special equipment testers such as generator, actuator, inverter, battery charger analyzer, and power supplies according to technical publications. Repairs, modifies, and overhauls electrical components of powered aerospace ground equipment that is beyond the user's capability. Fabricates and modifies aircraft electrical wiring.

c. *Maintains inspection and maintenance records.* Posts entries on applicable maintenance and inspection records. Completes maintenance data forms. Recommends methods to improve equipment performance and maintenance procedures.

d. *Supervises aircraft electrical systems maintenance personnel.* Assigns work to subordinates and reviews completed repairs to insure compliance with local procedures and applicable technical publications. Instructs subordinates in the proper installation, operation, and repair of electrical systems and associated test equipment. Demonstrates the proper use of special tools and test equipment. Insures personnel adhere to appropriate procedures prescribed by USAF maintenance management directives.

3. SPECIALTY QUALIFICATIONS

a. *Knowledge.* Knowledge of electrical, electronic, and mechanical principles as applied to aircraft and associated ground equipment electrical systems; and use of blueprints, diagrams, and technical publications is mandatory. Possession of mandatory knowledge will be determined according to AFR 35–1.

b. *Education.* Completion of high school with a course in basic electronics and mathematics is desirable.

c. *Experience:*

(1) Experience in functions such as, maintenance or repair of aircraft electrical and electronic control systems and components, is mandatory.

(2) Experience in functions such as the supervision of operation of an aircraft electrical systems maintenance activity is desirable.

b. *Training.* Completion of a basic aircraft electrical systems maintenance course is desirable.

e. *Other:*

(1) Normal color vision as defined in AFM 160–1 is mandatory.

(2) A minimum aptitude level of Electronic 50 is mandatory.

4. SPECIALTY DATA

a. *Grade Spread:*

Airman first-class through staff sergeant	42350
Airman first-class	42330

b. *Related D.O.T. Job:*

Electrician, Airplane	825.281

c. *Related DOD Occupational Subgroup:* 602

AFSC 42351
Semiskilled AFSC 42331
Helper AFSC 42311

AIRMAN AIR FORCE SPECIALTY

AIRCRAFT ENVIRONMENTAL SYSTEMS MECHANIC

* 1. SPECIALTY SUMMARY

Installs, inspects, repairs, operates, troubleshoots, overhauls, and modifies aircraft oxygen, heating, air conditioning, cabin pressurization, anti-icing, air turbine, engine bleed air distribution, and fire extinguisher systems, components, and associated equipment; services, inspects, overhauls, and recharges life raft inflation equipment; and performs intermediate maintenance on cryogenic storage containers.

2. DUTIES AND RESPONSIBILITIES

a. *Performs preventive maintenance on aircraft environmental systems.* Inspects and tests aircraft oxygen systems and components such as oxygen converters, regulators, pressure reducing valves, relief valves, filler valves, flow indicators, and pressure gauges; air conditioning systems and components such as flow control valves, shut-off valves, heat exchangers, cooling turbines, electrical, electronic temperature regulators, temperature sensing devices, temperature control valves, transducers, and water separators; cabin pressurization systems and components such as pressure controllers, outflow valves and safety valves; combustion heater systems and components such as heaters, ignition units, fuel solenoids, fuel filters, fuel pressure regulators, fuel metering devices and temperature controls; anti-icing systems and components such as air pressure and flow regulators; air shut-off valves, temperature controls, and temperature sensing devices; air turbine motors and components such as shut-off valves, modulating valves, speed control governors, and overspeed mechanisms; engine bleed air distribution systems and components such as check valve, shut-off valves, filters, and ducting, air, combustion, and cartridge type turbine driven engine starters and system components; and fire extinguishing systems and components such as cylinders and control valves. Inspects and replaces wiring and electrical connectors to aircraft environmental systems components. Inspects for and treats corrosion on aircraft environmental systems and components.

b. *Installs, repairs, overhauls, and modifies aircraft environmental systems.* Removes, repairs, and replaces components of aircraft oxygen, air conditioning, cabin pressurization, combustion heater, engine bleed air distribution, fire extinguisher, and air turbine drive systems. Disassembles unit and examines parts for damage and for possible causes of malfunction. Makes operational checks, tests and troubleshoots environmental systems and components using electrical and electronic meters and test equipment such as manometers, flowmeters, cabin pressure leak testers, cabin temperature control system testers, combustion heater testers, cabin pressure calibrator sets, air conditioning valve test panels and calibrator sets, bellows deflection testers, anti-G suit valve testers, thermal switch testers, air turbine motor testers, oxygen regulator test stands, liquid oxygen accessories test stands, and liquid oxygen system field testers. Services, inspects, overhauls, and recharges life raft inflation equipment. Calibrates and adjusts repaired assemblies and systems. Accomplishes modifications of components and systems.

* c. *Performs intermediate maintenance on cryogenic storage containers.* Maintains and repairs mobile and skid mounted oxygen/nitrogen storage containers; removes and replaces valves and gauges; and performs vacuum and purge checks according to applicable technical publications.

d. *Supervises aircraft environmental systems maintenance personnel.* Assigns maintenance and operation tasks to subordinates. Observes performance to insure compliance with directives and applicable technical publications. Instructs subordinates in techniques of installation, maintenance, and repair of aircraft environmental systems.

3. SPECIALTY QUALIFICATIONS

a. *Knowledge.* Knowledge of electrical, electronic and mechanical principles as applied to fabrication, operation, and maintenance of aircraft pressurization, air conditioning, heating, engine bleed air distribution, air turbine, oxygen, fire extinguisher and anti-icing systems and components, and life raft inflation equipment; and use and interpretation of wiring diagrams, blueprints and technical publications is mandatory. Possession

mandatory knowledge will be determined according to AFR 35–1.

b. *Education.* Completion of high school with courses in general science or mechanics is desirable.

c. *Experience.* Experience in functions such as installation, maintenance, or repair of aircraft environmental systems is mandatory.

d. *Training.* Completion of a basic aircraft environmental systems maintenance course is desirable.

e. *Other:*

(1) Normal color vision as defined in AFR 160–43 is mandatory.

(2) A minimum aptitude level of Mechanical 40 is mandatory.

4. SPECIALTY DATA

a. *Grade Spread:*

Airman first-class through staff sergeant	42351
Airman first-class	42331

b. *Related D.O.T. Jobs:*

Oxygen-System Tester	806.381
Air-Conditioning Mechanic	620.281

c. *Related DOD Occupational Subgroup:* 602

AFSC 42353
Semiskilled AFSC 42333

AIRMAN AIR FORCE SPECIALTY

*AIRCRAFT FUEL SYSTEMS MECHANIC

1. SPECIALTY SUMMARY

Removes, repairs, inspects, installs, and modifies aircraft fuel systems to include integral fuel and water cell tanks, external tanks, and associated hardware and equipment.

2. DUTIES AND RESPONSIBILITIES

a. *Determines maintenance requirements on structural sealing and tank repair.* Locates leaks in integral sealed tanks, fuel and water cells, and external tanks by approved testing methods and procedures outlined in applicable technical publications. Determines location of leaks by visual inspection or by removing closure panels and using approved leak tracing methods. Determines scope and complexity of repairs by consulting technical orders and engineering instructions.

b. *Performs maintenance on fuel tanks and cells.* Drains fuel from tanks and cells and purges tanks. Removes access panels. Removes, disassembles, repairs, reassembles, and installs components. Removes, repairs, and tests cells. Repairs and tests tanks. Cleans cavities and inspects for foreign objects, corrosion, deterioration, and fungus. Installs cells in cavities using necessary support devices. Cleans and seals critical areas.

c. *Inspects and repairs aircraft fuel systems.* Inspects surfaces for fuel seepage and presence of fuel odors. Applies sealant in correct proportion by brushing, filleting, and injection to assure proper curing and adequate coverage. Applies protective topcoat sealants, insures proper cure of installed sealants as demanded by environmental conditions according to technical orders.

d. *Supervises aircraft fuel systems mechanics.* Assigns maintenance and repair functions to subordinates and observes performance to insure compliance with local procedures and applicable technical publications. Instruct subordinates in techniques of maintenance, repair, and installation of aircraft fuel systems and related components. Demonstrates the proper use of special tools and test equipment. Insures personnel adhere to appropriate procedures prescribed by USAF maintenance management publications.

3. SPECIALTY QUALIFICATIONS

a. *Knowledge.* Knowledge of internal hardware such as interconnects, lines, valves, gauges, controls, pumps, and other attachments; sealing material characteristics; sheet metal parts; rubber products; and application and curing of organic sealing compounds and cement is mandatory. Possession of mandatory knowledge will be determined according to AFR 35–1.

b. *Education.* Completion of high school with courses in general science or physics is desirable.

c. *Experience:*

(1) Experience in functions such as installation, repair, or modification of aircraft fuel systems is mandatory.

(2) Experience in functions such as record preparation and management techniques is desirable.

d. *Training.* Completion of a basic aircraft fuel systems maintenance course is desirable.

e. *Other:*

(1) Normal color vision as defined in AFM 160–1 is mandatory.

(2) A minimum aptitude level of Mechanical 40 is mandatory.

4. SPECIALTY DATA

a. *Grade Spread:*

Airman first-class through staff sergeant	42353
Airman first-class	42333

b. *Related D.O.T. Job:*

Fuel-System-Maintenance Man	630.781

c. *Related DOD Occupational Subgroup:* 602

AFSC 42354
Semiskilled AFSC 42334
Helper AFSC 42314

AIRMAN AIR FORCE SPECIALTY

★ AIRCRAFT PNEUDRAULIC SYSTEMS MECHANIC

1. SPECIALTY SUMMARY

Inspects, troubleshoots, installs, repairs, overhauls, and modifies aircraft pneumatic/hydraulic, in-flight refueling systems, and associated pneumatic/hydraulic aerospace ground equipment.

2. DUTIES AND RESPONSIBILITIES

a. *Performs preventive maintenance on aircraft, in-flight refueling systems; and ground support equipment pneumatic/hydraulic systems.* Accomplishes periodic and special inspections on pumps, accumulators, reservoirs, valves, cylinders, brakes, wheels, shock absorber struts, filters, shimmy dampers, control surface booster units, flying boom assembly and related equipment. Observes for air, inert gas or fluid leaks in reservoir, cracks and external damage, and security of mounting. Checks brakes for sponginess, cracked and chipped linings, clearance, warped discs, and accumulator air pressure. Checks components and subassemblies for operation, adjustment, pressures, internal leakage, external leaks under pressure, sychronization, and sequencing, using portable test stand for power supply. Removes, installs, and services aircraft pneumatic/hydraulic systems, in-flight refueling systems, and related ground equipment.

b. *Installs and repairs aircraft pneumatic/hydraulic and in-flight refueling components and ground equipment pneumatic/hydraulic components.* Dissassembles, cleans, repairs, assembles, and tests pneumatic/hydraulic and in-flight refueling accessories. Removes covers, poppets, springs, cam seals, pistons, valves, and valve seats. Examines parts for wear, scratches, cracks, and damage. Inspects seals, gaskets, and hose for tears, nicks, and other damage. Inspects equipment removed from storage for condition and any obvious damage. Resurfaces valve seats and valves. Hones and polishes cylinders and pistons to remove scratches and to assure fit. Replaces bushings, bearings, and bearing sleeves. Reworks parts of systems and their components, including landing gear, wing flaps, cowl flaps, carburetor air inlet doors, bomb doors, windshield wipers, shock struts, brakes, flying boom assembly, jacking equipment aerostands, and portable hydraulic test stands. Reconditions and tests pneumatic/hydraulic units, and in-flight refueling units such as accumulators, actuating struts, selector valves, control valves, and relief valves. Adjusts, aligns, rigs, and calibrates pneumatic/hydraulic components, and flying boom components to insure maximum operating efficiency consistent with design characteristics. Troubleshoots aircraft pneumatic/hydraulic systems, in-flight refueling systems, and components of aircraft pneumatic/hydraulic, and in-flight refueling systems. Performs corrosion control.

c. *Inspects, tests, installs, repairs, overhauls, and modifies aircraft in-flight refueling electrical systems.* Troubleshoots malfunctions of components, such as signal amplifiers, nozzles, instrument gauges, and flying booms. Replaces defective parts with serviceable items. Adjusts and repairs electrical devices such as elevation, telescope, and azimuth control assemblies, and performs operational tests of aircraft in-flight refueling electrical accessories. Conducts detailed tests of in-flight refueling electrical systems using ohmmeter, voltmeter, and electrical test equipment. Isolates malfunctions by visual inspections and electrical checks, and observes instrument indications. Adjusts, aligns, and calibrates aircraft in-flight refueling electrical systems to insure maximum operational efficiency consistent with design characteristics, using wiring diagrams and technical publications.

d. *Supervises aircraft pneudraulic systems maintenance personnel.* Assigns preventive maintenance and repair tasks to subordinates and observes performance to insure compliance with local procedures and applicable technical publications. Instructs subordinates in techniques of installation, repair, and maintenance of aircraft pneumatic/hydraulic systems, in-flight refueling systems, and ground equipment pneumatic/hydraulic systems.

3. SPECIALTY QUALIFICATIONS

a. *Knowledge.* Knowledge of electrical and mechanical principles as applied to aircraft, in-flight refueling, and associated ground equipment pneumatic/hydraulic systems; and use and interpretation of blueprints, wiring diagrams, and technical publications is mandatory. Possession of mandatory knowledge will be determined according to AFR 35–1.

b. *Education.* Completion of high school with courses in hydraulics or general science is desirable.

c. *Experience.* Experience in functions such as installation, modification, or repair of aircraft or associated ground equipment pneumatic, hydraulic and electrical systems and components is mandatory.

d. *Training.* Completion of a basic aircraft pneudraulic systems maintenance course is desirable.

e. *Other:*

(1) Normal color vision as defined in AFR 160–43 is mandatory.

(2) A minimum aptitude level of Mechanical 40 or Electronic 40 is mandatory.

4. SPECIALTY DATA

a. *Grade Spread:*

Airman first-class through staff sergeant	42354
Airman first-class	42334

b. *Related D.O.T. Jobs:*

Aircraft Mechanic, Heat and Vent	801.381
Aircraft Mechanic, Plumbing and Hydraulic	862.381
Fuel System Maintenance Man	630.781

c. *Related DOD Occupational Subgroup:* 602

AFSC 42650
Semiskilled AFSC 42630

AIRMAN AIR FORCE SPECIALTY

*AIRCRAFT PROPELLER MECHANIC

1. SPECIALTY SUMMARY

Removes, installs, inspects, repairs and troubleshoots aircraft propellers.

2. DUTIES AND RESPONSIBILITIES

a. *Disassembles, cleans, and inspects aircraft propellers.* Disassembles propellers into component parts such as blades, gears, bearings, brushes, shafts, rollers, hubs, slip rings, separators, covers, pistons, housings, motors, seals, gaskets, bolts, nuts, and washers. Cleans and inspects all parts.

b. *Repairs aircraft propellers and component parts.* Troubleshoots and repairs malfunctions found in propellers, governors, sychronizers, feathering pumps, and control systems, using small handtools, such as hammers, pliers, wrenches, and related test equipment. Reassembles parts into major propeller assembly and balances propeller by inserting lead into hollow barrel bolts or weights in slots in blade nuts. Tests propeller by using electric or hydraulic test stand to check for operation and evidence of oil leakage. Operates propeller through full blade angle range. Makes necessary corrections such as adjusting stops to agree with prescribed angles to insure efficient operation of propeller.

c. *Installs propeller and component parts.* Removes and installs propeller on engine shaft, using chain fall, propeller slings, and hoist. Removes and installs control unit and checks for operation. Makes necessary adjustments to propeller and governor synchronizer to insure maximum operating efficiency.

d. *Supervises aircraft propeller maintenance personnel.* Assigns maintenance and repair functions to subordinates and observes performance to insure compliance with procedures and applicable technical publications. Instructs subordinates in techniques of installation, repair, and overhaul of aircraft propellers. Conducts on-the-job training.

3. SPECIALTY QUALIFICATIONS

a. *Knowledge.* Knowledge of electrical, pneudraulic, and mechanical principles as applied to aircraft propellers; and use of technical publications, forms, records, and maintenance management procedures is mandatory. Possession of mandatory knowledge will be determined according to AFR 35–1.

b. *Education.* Completion of high school with courses in general science or mechanics is desirable.

c. *Experience.* Experience in functions, such as installation, repair, or overhaul of aircraft propellers, is mandatory.

d. *Training.* Completion of a basic aircraft propeller maintenance course is desirable.

e. *Other:*

(1) Normal color vision as defined in AFM 160–1 is mandatory.

(2) A minimum aptitude level of Mechanical 40 or Electronic 40 is mandatory.

4. SPECIALTY DATA

a. *Grade Spread:*

Airman first-class through staff sergeant	42650
Airman first-class	42650

b. *Related D.O.T. Job:*

Aircraft-and-Engine Mechanic	621.281

c. *Related DOD Occupational Subgroup:* 602

*AFSC 42652

*Semiskilled AFSC 42632

AIRMAN AIR FORCE SPECIALTY

*JET ENGINE MECHANIC

1. SPECIALTY SUMMARY

Inspects, removes, installs, disassembles, troubleshoots, repairs assembles, services, tests, and modifies turbojet, turboprop, and turbofan aircraft engines, turbojet missile engines, and small gas turbine engines.

2. DUTIES AND RESPONSIBILITIES

a. *Performs inspections and preventive maintenance on jet engines including small gas turbine engines and turbojet missile engines.* Performs engine periodic and special inspections by checking engine components for cracks, dents, security of attachment, servicing leakage, foreign matter, clearances, deformation, and proper safeties. Removes from and installs engine in aircraft, including disconnecting and connecting fuel, oil, air, and hydraulic lines, aligning of engine, and inspecting controls for freedom of movement and mounting pads for condition. Analyzes and evaluates an operating engine and makes engine performance adjustments such as maximum and minimum rpm, exhaust gas temperature (EGT), and oil pressure. Recognizes troubles through evaluation of engine and engine systems operational checks. Analyzes trouble indication and determines possible cause using technical order diagrams. Isolates troubles by using such test equipment as fuel and oil pressure gauges, exhaust gas temperature test instruments, and engine pressure ratio gauge. Takes appropriate action to insure correction of defect. Operates and performs operator maintenance on jet engine ground support equipment, such as maintenance stands, auxiliary power units, and air compressors. Selects, uses, and cares for common hand and special tools. Observes and practices safety procedures.

b. *Accomplishes field maintenance repair and engine build-up.* Disassembles engine to the extent necessary to repair and replace engine parts, to include removing and disassembling engine components such as exhaust cone or afterburner, turbine rotor(s), combustion chamber(s), compressor(s), engine plumbing, electrical leads and units, bearings, seals, oil metering jets, and filters. Cleans and inspects engine components using visual inspection methods. Analyzes engine inspection findings to determine need for repairs. Repairs engine by replacing parts and removing defects such as nicks, dents, scratches, and burrs. Assembles engine adhering to prescribed procedures, torque values, safetying methods, and clearances on such items as compressor rotor, turbine rotor, and afterburner nozzle. Modifies engines according to technical directives. Removes and installs quick-engine change kit. Prepares engine for installation in aircraft. Accomplishes corrosion control.

c. *Performs special and field maintenance tests of jet engines including small gas turbine engines and turbojet missile engines.* Installs engines in test stand. Installs test equipment and makes necessary connections. Performs preoperational and postoperational inspections. Operates the engine and performs engine test, according to applicable directives, to include checking for leaks, making engine trip checks and idle and maximum rpm adjustments, checking vibration, and completing test log sheet. Removes engine from test stand. Accomplishes operator maintenance on test stand. Follows established control procedures to eliminate the possibility of foreign object damage to engines.

d. *Supervises jet engine maintenance personnel.* Assigns maintenance functions to subordinates and observes performance to insure compliance with applicable directives. Instructs subordinates in maintenance of turboprop and jet engines and associated equipment.

3. SPECIALTY QUALIFICATIONS

a. *Knowledge:*

(1) Knowledge of mechanical principles as applied to turboprop and jet engines; and the use of technical publications is mandatory. Possession of mandatory knowledge will be determined according to AFR 35-1.

(2) Knowledge of electrical theory is desirable.

b. *Education.* Completion of high school with a course in mechanics or mathematics is desirable.

c. *Experience.*

(1) Experience in functions such as installation, repair, or maintenance of jet engines is mandatory.

(2) Experience in testing of jet engines is desirable.

d. *Training.* Completion of a basic jet engine maintenance course is desirable.

e. *Other:*

(1) Normal color vision as defined in AFM 160–1 is mandatory.

(2) A minimum aptitude level of Mechanical 40 is mandatory.

4. SPECIALTY DATA

a. *General Spread:*

Airman first-class through staff sergeant	42652
Airman first-class	42632

b. *Related D.O.T. Jobs.*

Aircraft-and-Engine Mechanic	621.281
Assembler, Aircraft Power Plant	621.381

c. *Related DOD Occupational Subgroup:* 601

AIRMAN AIR FORCE SPECIALTY

AIRCRAFT MAINTENANCE SPECIALIST

1. SPECIALTY SUMMARY

Inspects, repairs, maintains, services, and modifies aircraft and aircraft installed equipment; performs crew chief, flight chief, and maintenance staff functions; and performs tow reel operator functions.

2. DUTIES AND RESPONSIBILITIES

★a. *Performs inspections, functional checks, and preventive maintenance on aircraft and aircraft installed equipment:* Performs preflight, daily, and periodic inspections of aircraft structures, landing gear, engines, instruments, cockpits, cabins, flight surfaces, and controls. Inspects and performs functional checks on hydraulic, electrical, pressurization, lubrication, anti-icing, vacuum, induction, and exhaust systems, and installed equipment such as external tanks, tow reels, hoists, and APU's. Inspects aircraft components for cleanliness, alignment, proper clearance and operation, evidence of wear, cracks, and on looseness, using feeler gages, micrometers, tensiometers, and hand and special tools. Determines feasibility of retreading aircraft tires when specifically assigned to the aircraft tire repair function.

b. *Repairs, maintains, and services aircraft and aircraft installed equipment:* Determines and indicates actions to correct malfunctions as indicated on aircraft forms and clears forms. Cleans aircraft and engines using prescribed solvents or cleaning materials. Detects and removes corrosion and applies protective measures to prevent corrosion. Troubleshoots malfunctions pertaining to aircraft structures, landing gear, control surfaces, induction, exhaust, ventilation, and heating systems. Repairs damaged control surfaces and conducts detailed tests of repaired components using bench mockups and related test equipment. Removes and replaces items such as control surfaces, engines, wheels, brakes, tires, cowling, enclosures, hose, and tubing. Services oil, de-icing, fuel, hydraulic, and oxygen (includes liquid oxygen) systems. Tows, taxis, parks, and moors aircraft. Adjusts and maintains installed equipment such as tow targets, electrical windlasses, hydraulic reels, drive assemblies, electric motors, and gear trains, removing and replacing worn or inoperative parts and elements such as bearings, shear pins, level wind cams, cables, brake drums, and cable meters. Performs operator maintenance on aircraft installed auxiliary power unit. Interprets blueprints, diagrams, and applicable publications.

c. *Inspects tow targets and preflights and operates target towing equipment:* Inspects and loads target aboard aircraft in preparation for flight. Assembles and disassembles glider type target, using jigs, clinameters, and leveling devices. Preflights target towing equipment for kinked or broken cables, loose mounts, and other defects. Launches targets, plays out cable, and operates clutch and

brake. Performs minor adjustments and releases and replaces targets.

d. *Performs flight chief and maintenance staff functions:* Coordinates and adjusts individual daily maintenance plans to meet operational commitments for flight of aircraft. Supervises crew chiefs within his flight. Assures compliance with applicable requirements of the Maintenance Management System (AFM 66-1). Performs functions, as a member of the maintenance staff, as assigned to quality control, maintenance control, training, or analysis divisions.

e. *Supervises aircraft maintenance personnel:* Assigns maintenance and repair functions to subordinates and observes performance to insure compliance with applicable technical publications and local policy and procedures. Instructs subordinates in techniques of repair and maintenance of aircraft and related equipment and in use of diagrams, blueprints, and technical publications. Accomplishes maintenance and exception time accounting documentation. Conducts on-the-job training.

3. SPECIALTY QUALIFICATIONS

a. *Knowledge:*

(1) Knowledge of electrical, hydraulic, and mechanical principles as applied to aircraft; theory of flight; concepts and application of AFM 66-1, Maintenance Management System; maintenance and manhour reporting; and use of blueprints, diagrams, and technical publications is *mandatory*. Possession of mandatory knowledge will be determined in accordance with AFM 35-1.

(2) Knowledge of supply procedures is desirable.

b. *Education:* Completion of high school is desirable.

c. *Experience:*

(1) Experience in functions such as repair and maintenance of aircraft and related installed and ground support equipment is *mandatory*.

(2) Experience in functions such as performing or supervising aircraft inspections and in performing tow reel operator functions is desirable.

d. *Training:* Completion of basic aircraft maintenance course is desirable.

e. *Other:*

(1) Normal color vision as defined in AFM 160-1 is *mandatory*.

★(2) A minimum aptitude level of Mechanical 50 or Electronic 50 is *mandatory*.

4. SPECIALTY DATA

a. *Grade Spread:*

Sergeant and staff sergeant	43151
Airman first class	43131

b. *Related D.O.T. Jobs:*

Airplane Mechanic	621.281
Tire and Tube Repairman	915.884
Tire Repairman	915.884

c. *Related DOD Occuptioanal Subgroup:* 600

5. *SPECIALTY SHREDOUTS

Suffix	*Portion of AFS to Which Related*
A	Reciprocating Engine Aircraft
C	Jet Aircraft One and Two Engines
E	Jet Aircraft Over Two Engines
F	Turbo-Prop Aircraft

AFSC 53154
Semiskilled AFSC 53134

AIRMAN AIR FORCE SPECIALTY

CORROSION CONTROL SPECIALIST

1. SPECIALTY SUMMARY

Identifies corrosion, and applies appropriate preservative treatment to metal surfaces of missile, aircraft, and support systems equipment to meet requirements for preservation, eliminate deterioration, and effect corrosion control.

2. DUTIES AND RESPONSIBILITIES

*a. *Identifies metal corrosion.* Performs necessary testing to identify type corrosion present by examination with magnifying equipment, and chemical and mechanical checks. Identifies type metal corroded to insure proper corrosion treatment procedures are sued. Determines metal identity by use of technical publications and by subjecting to chemical and mechanical tests.

b. *Removes corrosion.* Removes corrosion by mechanical and chemical procedures to include use of portable powered (electric and pneumatic) sanders, buffers, brushes, sand blasters, vacuum blasters, vacuum cleaners, scrapers, and grinders, handtools such as scrapers, wire brushes, sand paper, steel and aluminum wool, files, paint removers, acids, caustics, solvents, alcohols, and other agents used in corrosion control processes.

c. *Treats and cleans metals.* Treats metal with chemical procedures to protect metal from oxidation, to include use of acids and caustics for passivation and etching, and performs functions such as pickling of metals to prepare metal for good bonding with primer coat of protective materials. Uses appropriate solutions for each type of metal to be treated.

d. *Applies protective coatings.* Applies protective coatings after proper removal of corrosion and treatment of metals. Uses conventional paint spray equipment, electrostatic spray equipment, brushes, pressurized paint cans, and special applicators when applying primers and surface coats.

*e. *Inspects and removes protective coatings.* Inspects coatings visually and with use of optic and mechanical means for prescribed thickness, damage, deterioration, holidays, voids, and evidence of proper application. Removes coatings by use of manual and powered tools and chemicals.

f. *Operates and maintains equipment.* Operates and maintains portable powered pneumatic and electric sanders, buffers, brushes, sand blasters, vacuum cleaners, vacuum blasters, scrapers, grinders, and sprayers (pneumatic and electrostatic), and special corrosion detection and measuring equipment. Stores, disposes, and uses special materials for corrosion removal, treatment, and protection. Uses, blends, stores, and disposes of acids, caustics, alcohols, solvents, cleaners, primers, and surface coatings.

g. *Supervises corrosion control personnel.* Schedules work assignments by priority and workload. Prepares reports. Conducts on-the-job training.

3. SPECIALTY QUALIFICATIONS

a. *Knowledge.* Knowledge of characteristics of metals; metal identification; corrosion identification, corrosion removal; preparation and cleaning of metals; application of protective coatings, operation and maintenance of corrosion control equipment; mixing, storage, and use of acids, solvents, alcohols, caustics, primers, and paints; technical orders and manuals; drawings; safety codes and practices, and maintenance management is mandatory. Possession of mandatory knowledge will be determined according to AFR 35–1.

b. *Education.* Completion of high school with courses in chemistry and physics is desirable.

c. *Experience.* Experience in functions such as corrosion identification, corrosion removal, preparation and cleaning of metals, and application of coatings is mandatory.

d. *Training.* Completion of a basic corrosion control course is desirable.

e. *Other:*

(1) A minimum aptitude level of Mechanical is mandatory.

(2) Normal color vision as defined in AFM 160–1 is mandatory.

4. SPECIALTY DATA

a. *Grade Spread:*

Airman first-class through staff sergeant	53154
Airman first-class	53134

b. *Related D.O.T. Jobs:*

Metal-Cleaner, Immersion	503.885
Painter, Aircraft	845.781

c. *Related DOD Occupational Subgroup:* 790

APPENDIX B

USAF JOB INVENTORY - AIRCRAFT MAINTENANCE CAREER LADDER

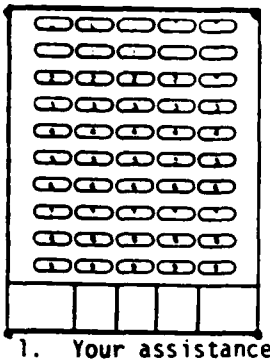
UNITED STATES AIR FORCE
JOB INVENTORY

AIRCRAFT MAINTENANCE CAREER LADDER

AFSCs 43131 A/C/E/F, 43151 A/C/E/F,
43171 A/C/E/F, AND 43191

AFPT 90-431-210
1 April 1976

OCCUPATIONAL SURVEY BRANCH
USAF OCCUPATIONAL MEASUREMENT CENTER
LACKLAND AFB TEXAS 78236



CODING INSTRUCTIONS

Print the booklet copy numbers which you will find stamped in the upper right hand corner of the front cover in the coding box in the upper left hand side of the front cover and in the coding box on this page. After copying the numbers in the spaces at the bottom of the coding block, including all zeros, completely darken the circles containing the corresponding numbers.

GENERAL INSTRUCTIONS

1. Your assistance in completing this survey is very important to you and the Air Force. Your answers and the answers of other airmen completing this USAF Job Inventory will be used to develop:

    a. Specialty descriptions for your career field.

    b. Specialty training standards and resident training courses.

    c. Career development courses for upgrade training in your career field.

    d. Specialty Knowledge Tests (SKTs).

2. To qualify for this survey, you must meet the following conditions.

YOU MUST HAVE:

    a. A duty AFSC of 43131 A/C/E/F, 43151 A/C/E/F, 43171 A/C/E/F or

    b. A duty AFSC of 43191 and be supervising 431X1 personnel.

    c. Held your duty AFSC for at least six weeks.

    d. Been working in your present job for at least eight weeks.

3. This USAF Inventory is in two sections:

    a. A Background Information section where you provide information about yourself, and

    b. A DUTY-TASK LIST section where you provide information about your current job.

4. In providing the information requested, it is equally important to follow the procedures given throughout the booklet. PRINT ALL WRITE-IN INFORMATION. DO NOT WRITE IN CLASSIFIED INFORMATION. DO NOT WRITE IN BASE OR APO NUMBER.

INSTRUCTIONS FOR BACKGROUND INFORMATION

Complete each item in the BACKGROUND INFORMATION section, pages iii through xi. Now turn to page iii and BEGIN.

BACKGROUND INFORMATION

PRINT YOUR ANSWERS AND CHECK PROPER BOXES

DATE (Use Numbers ONLY) YEAR MONTH DAY (Card 01 5–10)

NAME (Last, First, Middle Initial) (11–34)

☐ MALE ☐ FEMALE (35)

SOCIAL SECURITY ACCOUNT NUMBER (SSAN) (36–44)

AGE LAST BIRTHDAY (In Years) (45–46)

DATE OF BIRTH YR MO DAY (47–52)

AUTOVON PREFIX

PRIMARY AFSC (Leave blank if None) PREFIX (53) NUMBER (54–58) SUFFIX (59)

DUTY AFSC (Leave blank if None) PREFIX (60) NUMBER (61–65) SUFFIX (66)

TELEPHONE (Duty Ext)

CONTROL AFSC (Leave blank if None) PREFIX (67) NUMBER (68–72) SUFFIX (73)

OTHER AFSC IF ANY (Leave blank if None) PREFIX (5) NUMBER (6–10) SUFFIX (11)

IF YOU WERE CONVERTED OR RETRAINED, WHAT AFSC DID YOU HAVE BEFORE? (Leave blank if None) PREFIX (12) NUMBER (13–17) SUFFIX (18)

FOR HOW MANY PEOPLE, AIRMEN AND CIVILIANS, ARE YOU THE IMMEDIATE SUPERVISOR? (Include ONLY those who report DIRECTLY to you AND whose performance ratings or efficiency reports YOU WRITE). NUMBER (19–20)

MAJOR COMMAND (Check one box) (21)

☐ A AAC ☐ G ACIC ☐ C ADC ☐ E AFAFC ☐ Y AFCS ☐ O AFDSDC ☐ F AFLC ☐ M AFRES

☐ H AFSC ☐ I ARPC ☐ J ATC ☐ K AU ☐ P HQ COMD ☐ V HQ COMD SPEC ACTY ☐ N HQ USAF ☐ W HQ USAF FLD EXT

☐ Q MAC ☐ R PACAF ☐ S SAC ☐ T TAC ☐ B USAFA ☐ D USAFE ☐ L USAF SO ☐ U USAFSS

☐ OTHER UNIT OR ORGANIZATION (Not under major command) IF "OTHER UNIT" WRITE IN NAME _____

TIME IN PRESENT JOB (Duty assignment in present unit on current tour only) YEARS (22–23) AND MONTHS (24–25)

TIME AT PRESENT HOME BASE OR INSTALLATION (On current tour only) YEARS (26–27) AND MONTHS (28–29)

TOTAL TIME IN DUTY AFSC (Add the times for all jobs, in all units, on all tours—in duty AFSC jobs) YEARS (30–31) AND MONTHS (32–33)

TOTAL TIME IN CAREER FIELD (Add the times for all work in your career field) YEARS (34–35) AND MONTHS (36–37)

HOW MUCH ACTIVE MILITARY SERVICE (TAFMS) DO YOU HAVE? YEARS (38–39) AND MONTHS (40–41)

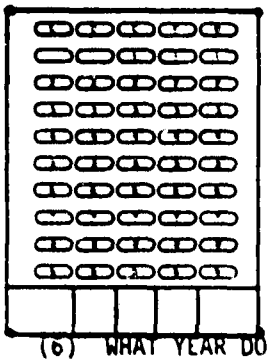
CIRCLE THE HIGHEST SCHOOL GRADE OR COLLEGE/UNIVERSITY YEAR YOU HAVE COMPLETED (Include equal level, like GED; but NOT special training, like vocational, outside regular school) (42–43)

ELEMENTARY SCHOOL								HIGH SCHOOL				COLLEGE OR UNIVERSITY					
01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18

ORGANIZATION TO WHICH ASSIGNED (Do not include name of base) (44–59)

TITLE OF MY PRESENT JOB OR POSITION (DUTY ASSIGNMENT) (NOTE Do not give just the title of your Air Force Specialty — UNLESS that is the only name your job has) (60–73)

(Continued next page)



(CARD 03: 5-18)

BACKGROUND INFORMATION (CONTINUED)

GRADE

	E1	E2	E3	E4	E5	E6	E7	E8	E9
(5)	[]	[]	[]	[]	[]	[]	[]	[]	[]
	AB	AMN	A1C	SGT	SSGT	TSGT	MSGT	SMSGT	CMSGT

(6) WHAT YEAR DO YOU PLAN TO LEAVE THE AIR FORCE?

1 [] 1976 2 [] 1977 3 [] 1978 4 [] 1979 5 [] 1980 or later

I AM ASSIGNED TO A BASE OR INSTALLATION WHICH IS LOCATED:

(7) [] INSIDE THE CONTINENTAL U.S. (CONUS or zone of the interior)

(8) [] OUTSIDE THE CONTINENTAL U.S. ("Overseas"): INCLUDES ALASKA AND HAWAII

HOW WERE YOU ASSIGNED TO YOUR PRESENT CAREER LADDER (Check only one box)

(9) [] COMPLETING RESIDENT TECHNICAL TRAINING

(10) [] BEING RECLASSIFIED WITHOUT COMPLETING TECHNICAL TRAINING OR OJT

(11) [] DIRECT DUTY ASSIGNMENT (DDA) FROM BASIC TRAINING TO OJT WITHOUT BYPASS TEST

(12) [] DDA FROM BASIC TRAINING BY BYPASS TEST

(13) [] BEING CONVERTED FROM ANOTHER AF SPECIALTY, WITHOUT TRAINING BY CLASSIFICATION BOARD ACTION

(14) [] BEING RETRAINED FROM ANOTHER SPECIALTY

(15) [] REENLISTING AFTER PRIOR SERVICE IN USAF, OR FROM ANOTHER BRANCH OF SERVICE

(16) I WILL BE ELIGIBLE FOR RETIREMENT AT THE END OF MY CURRENT ENLISTMENT:

[] YES [] NO

(17) I WILL BE ELIGIBLE TO REENLIST AT THE END OF MY CURRENT ENLISTMENT:

[] YES [] NO

(18) I PLAN TO REENLIST:

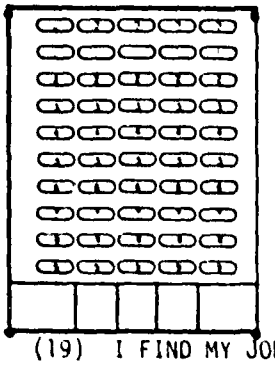
1 [] NO

2 [] UNCERTAIN, PROBABLY NO

3 [] UNCERTAIN, PROBABLY YES

4 [] YES

(Continued next page)



BACKGROUND INFORMATION (CONTINUED)

(CARD 03: 19-25)

(19) I FIND MY JOB:

1 [] EXTREMELY DULL
2 [] VERY DULL
3 [] FAIRLY DULL
4 [] SO-SO
5 [] FAIRLY INTERESTING
6 [] VERY INTERESTING
7 [] EXTREMELY INTERESTING

(20) MY JOB UTILIZES MY TALENTS:

1 [] NOT AT ALL
2 [] VERY LITTLE
3 [] FAIRLY WELL
4 [] QUITE WELL
5 [] VERY WELL
6 [] EXCELLENTLY
7 [] PERFECTLY

(21) MY JOB UTILIZES MY TRAINING:

1 [] NOT AT ALL
2 [] VERY LITTLE
3 [] FAIRLY WELL
4 [] QUITE WELL
5 [] VERY WELL
6 [] EXCELLENTLY
7 [] PERFECTLY

(22) ARE YOU COMPLETING THIS USAF JOB INVENTORY UNDER DIRECT SUPERVISION OF THE CBPO OCCUPATIONAL SURVEY CONTROL OFFICER?

[] YES [] NO

(23) ARE YOU COMPLETING THIS USAF JOB INVENTORY AT YOUR HOME OR BARRACKS?

[] YES [] NO

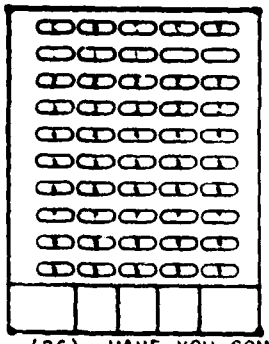
(24) ARE YOU COMPLETING THIS USAF JOB INVENTORY AT THE ORGANIZATION AT WHICH YOU WORK?

[] YES [] NO

(25) HAVE THE INSTRUCTIONS FOR COMPLETING THIS SURVEY BEEN READ OR EXPLAINED TO YOU?

[] YES [] NO

(Continued next page)



BACKGROUND INFORMATION (CONTINUED)

(CARD 03: 26-54)

(26) HAVE YOU COMPLETED ANY COURSES APPLICABLE TO YOUR CAREER LADDER?

[] YES [] NO

IF YES, CHECK COURSES YOU HAVE COMPLETED:

(27) [] AIRCRAFT MAINTENANCE SPECIALIST, JET AIRCRAFT, ONE AND TWO ENGINE - 3ABR43131C-1

(28) [] AIRCRAFT MAINTENANCE SPECIALIST, JET OVER TWO ENGINES - 3ABR43131E

(29) [] AIRCRAFT MAINTENANCE SPECIALIST, RECIPROCATING ENGINE AIRCRAFT - 3ABR43131A

(30) [] AIRCRAFT MAINTENANCE SPECIALIST, TURBOPROP AIRCRAFT - 3ABR43131F

(31) [] AIRCRAFT MAINTENANCE TECHNICIAN - 3ABR43171

(32) [] WEIGHT AND BALANCE - 3AZR43171-2

(33) ARE YOU ASSIGNED TO AN AIRCRAFT MAINTENANCE FUNCTION?

[] YES [] NO

IF YES, CHECK MAINTENANCE FUNCTION TO WHICH YOU ARE ASSIGNED:

(34) [] AIRCRAFT REPAIR AND RECLAMATION (APR)

(35) [] ALERT BRANCH

(36) [] BASE AND TRANSIENT MAINTENANCE

(37) [] CORROSION CONTROL

(38) [] DOCK INSPECTION

(39) [] FIELD MAINTENANCE SUPERINTENDENT

(40) [] FLIGHT LINE MAINTENANCE

(41) [] FLIGHT MECHANIC

(42) [] MAINTENANCE CONTROL

(43) [] MAINTENANCE STANDARDIZATION

(44) [] NON-POWERED AGE MAINTENANCE

(45) [] QUALITY CONTROL

(46) [] RECORDS AND REPORTS

(47) [] SCHEDULED MAINTENANCE

(48) [] SERVICING BRANCH

(49) [] SUPPLY

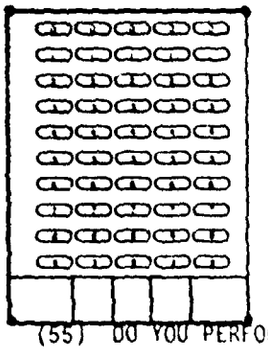
(50) [] TECHNICAL TRAINING

(51) [] TOW TARGET SYSTEMS MAINTENANCE

(52) [] TRAINING AND STANDARDIZATION

(53) [] TRAINING CONTROL

(54) [] OTHER (PLEASE SPECIFY ON BLANK PAGES AT END OF BOOKLET.)



BACKGROUND INFORMATION (*CONTINUED*)

(CARD 03:55-73)
(CARD 04: 5-11)

(55) DO YOU PERFORM ANY OF THE FUNCTIONS OF THE FOLLOWING POSITIONS?

[] YES [] NO

IF YES, CHECK FUNCTIONS PERFORMED:

(56) [] MOBILITY NCO

(57) [] GROUND SAFETY NCO

(58) [] TECHNICAL ORDER MONITOR

(59) [] TRAINING NCO

AT WHAT LEVEL DO YOU PERFORM THE ABOVE LISTED FUNCTIONS?

(60) [] ORGANIZATIONAL MAINTENANCE

(61) [] FIELD MAINTENANCE

(62) [] INTERMEDIATE MAINTENANCE

(63) [] DEPOT MAINTENANCE

(64) ARE YOU ASSIGNED TO ANY OF THE FOLLOWING INSPECTION TEAMS?

[] YES [] NO

IF YES, CHECK INSPECTION TEAM OF ASSIGNMENT.

(65) [] COMMAND IG

(66) [] USAF IG (RMI)

(67) [] COMMAND SAFETY TEAMS

(68) [] M.S.E.T.

(69) DO YOU USE AEROSPACE GROUND EQUIPMENT IN YOUR PRESENT ASSIGNMENT?

[] YES [] NO

IF YES, CHECK GROUND EQUIPMENT YOU USE:

AIR COMPRESSORS

(70) [] MB-8

(71) [] MB-9

(72) [] MC-1

(73) [] MC-1A

(5) [] MC-2A

AUXILIARY ELECTRICAL POWER UNITS

(6) [] C-22

(7) [] C-26

(8) [] MD3

(9) [] M32A-13

(10) [] M32A60

(11) [] NF-2

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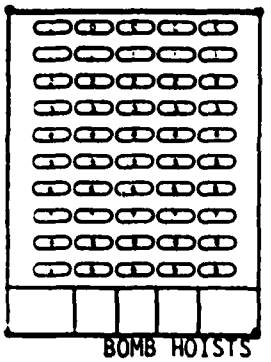


BACKGROUND INFORMATION (CONTINUED)

(CARD 04: 12-45)

BOMB HOISTS

(12) [] BOMB HOIST

(13) [] MJ-1 BOMB LIFT

GAS TURBINE COMPRESSORS

(14) [] MA-1A

(15) [] MA-2

GROUND AIR CONDITIONING UNITS

(16) [] A-3

(17) [] MA-1

(18) [] MA-3

HYDRAULIC TEST STANDS

(19) [] HYDRAULIC SERVICING CART

(20) [] D-5

(21) [] D-6

(22) [] MJ-2A

(23) [] MK-3A

(24) [] MB-3 DE-ICER TRUCK

(25) [] TTU-28

OXYGEN AND NITROGEN SERVICING UNITS

(26) [] GASEOUS OXYGEN (HIGH & LOW)

(27) [] GASEOUS NITROGEN

(28) [] LIQUID OXYGEN (LOX)

PORTABLE GROUND HEATERS AND BLOWERS

(29) [] BT-400

(30) [] F-4

(31) [] H-1

TOWING VEHICLES

(32) [] CLARK TUG

(33) [] COLEMAN

(34) [] EUCLAD

(35) [] FEDERAL

(36) [] LOW BOY

(37) [] WHEEL MOVER

PORTABLE FIELD LIGHTING EQUIPMENT

(38) [] NF-1

(39) [] NF-2 LITE ALL

(40) [] B-1

(41) [] B-9

MISCELLANEOUS EQUIPMENT

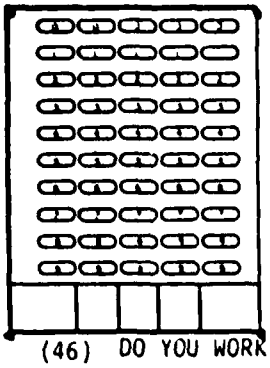
(42) [] CABIN PRESSURE TESTERS

(43) [] MB-4

(44) [] WATER SERVICING CARTS

(45) [] OTHER (PLEASE SPECIFY ON BLANK PAGES AT END OF BOOKLET.)

(Continued next page)



BACKGROUND INFORMATION (CONTINUED)

(CARD 04: 46-73)
(CARD 05: 5-40)

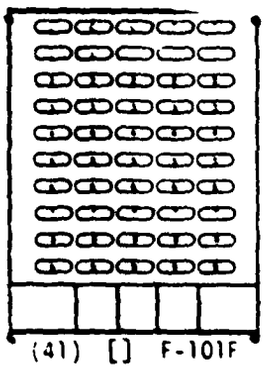
(46) DO YOU WORK WITH ANY OF THE FOLLOWING AIRCRAFT?

[] YES [] NO

IF YES, INDICATE THE AIRCRAFT YOU WORK ON:

(47)	[]	A-1	(68)	[]	C-7	(20)	[]	CH-3
(48)	[]	A-7D	(69)	[]	C-9	(21)	[]	CH-53
(49)	[]	A-10	(70)	[]	C-10	(22)	[]	DC-130
(50)	[]	A-37	(71)	[]	C-47	(23)	[]	EB-57B
(51)	[]	AC-47	(72)	[]	C-54	(24)	[]	EB-57C
(52)	[]	AC-119G	(73)	[]	C-97	(25)	[]	EB-57E
(53)	[]	AC-119K	(5)	[]	C-118	(26)	[]	EB-57G
(54)	[]	AC-130A	(6)	[]	C-119	(27)	[]	EB-66
(55)	[]	AC-130E	(7)	[]	C-121	(28)	[]	EC-47
(56)	[]	B-1	(8)	[]	C-123	(29)	[]	EC-121D
(57)	[]	B-52C	(9)	[]	C-124	(30)	[]	EC-121R
(58)	[]	B-52D	(10)	[]	C-130A	(31)	[]	EC-121T
(59)	[]	B-52E	(11)	[]	C-130B	(32)	[]	EC-135
(60)	[]	B-52F	(12)	[]	C-130D	(33)	[]	F-4C
(61)	[]	B-52G	(13)	[]	C-130E	(34)	[]	F-4D
(62)	[]	B-52H	(14)	[]	C-131	(35)	[]	F-4E
(63)	[]	B-57B	(15)	[]	C-133	(36)	[]	F-5
(64)	[]	B-57C	(16)	[]	C-135	(37)	[]	F-15
(65)	[]	B-57E	(17)	[]	C-137	(38)	[]	F-16
(66)	[]	B-57G	(18)	[]	C-140	(39)	[]	F-100
(67)	[]	C-5	(19)	[]	C-141	(40)	[]	F-101B

(Continued next page)

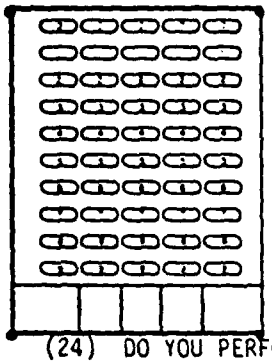


BACKGROUND INFORMATION (CONTINUED)

(CARD 05: 41-73)
(CARD 06: 5-23)

(41) [] F-101F
(42) [] F-102
(43) [] F-104A
(44) [] F-104G
(45) [] F-105
(46) [] F-106A
(47) [] F-106B
(48) [] F-111A
(49) [] F-111D
(50) [] F-111E
(51) [] F-111F
(52) [] FB-111
(53) [] HC-130H
(54) [] HC-130N
(55) [] HC-130P
(56) [] HH-53
(57) [] JC-130B
(58) [] JC-130H
(59) [] JC-130P
(60) [] KC-135
(61) [] L-28
(62) [] O-1
(63) [] OV-10
(64) [] OV-10A
(65) [] QU-22B
(66) [] RB-66
(67) [] RC-130
(68) [] RC-135
(69) [] SR-71
(70) [] TH-1D
(71) [] TH-1F
(72) [] TH-1N
(73) [] TH-1P
(5) [] T-28
(6) [] T-29
(7) [] T-33
(8) [] T-34
(9) [] T-37
(10) [] T-38
(11) [] T-39
(12) [] T-43
(13) [] TF-102
(14) [] U-2
(15) [] U-6
(16) [] U-10
(17) [] UH-1D
(18) [] UH-1F
(19) [] UH-1N
(20) [] UH-1P
(21) [] VC-6A
(22) [] WB-57F
(23) [] OTHER (PLEASE SPECIFY ON BLANK PAGES AT END OF BOOKLET.)

(Continued next page)



BACKGROUND INFORMATION (CONTINUED)

(CARD 06: 24-47)

(24) DO YOU PERFORM SCHEDULED AIRCRAFT INSPECTIONS?

[] YES [] NO

IF YES, CHECK THE SCHEDULED AIRCRAFT INSPECTIONS THAT YOU PERFORM:

(25) [] ACCEPTANCE INSPECTIONS

(26) [] FOREIGN OBJECT DAMAGE (FOD) INSPECTIONS

(27) [] INFLIGHT INSPECTIONS

(28) [] ISOCHRONAL INSPECTIONS

(29) [] PERIODIC INSPECTIONS

(30) [] PHASED INSPECTIONS

(31) [] POSTFLIGHT INSPECTIONS

(32) [] PREFLIGHT INSPECTIONS

(33) [] SPECIAL INSPECTIONS

(34) [] THRUFLIGHT INSPECTIONS

(35) [] OTHER (PLEASE SPECIFY ON BLANK PAGES AT END OF BOOKLET.)

(36) DO YOU CURRENTLY POSSESS THE 43191 AFSC?

[] YES [] NO

IF YES, COMPLETE THE FOLLOWING QUESTION.

FROM WHICH SHRED DID YOU PROGRESS TO THE 9 SKILL LEVEL?

(37) [] 431X1A

(38) [] 431X1C

(39) [] 431X1E

(40) [] 431X1F

(41) DO YOU HAVE SUBORDINATE SUPERVISORS REPORTING DIRECTLY TO YOU?

[] YES [] NO

IF YES, ANSWER THE FOLLOWING QUESTION.

HOW MANY TOTAL PERSONNEL DO YOU SUPERVISE INCLUDING SUBORDINATE SUPERVISORS AND THEIR SUBORDINATES?

(42) [] 1-10

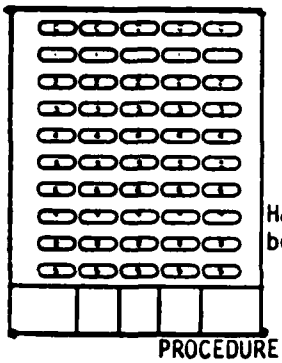
(43) [] 11-20

(44) [] 21-30

(45) [] 31-40

(46) [] 41-50

(47) [] OVER 50



READ THIS PAGE BEFORE GOING FURTHER

Have you completed the Background Information Section? Make sure, before you continue with this procedure.

PROCEDURE A. CHECKING TASKS OF PRESENT JOB

1. As you read each task in the Duty-Task section, pages 1 through 46 place a check beside each task that you perform in your present job. Put your check mark in the column headed "Check-If Done Now." When you have reached page 46, follow the arrow for your next instructions.

2. DO NOT COMPLETE THE RIGHT-HAND COLUMN AT THIS TIME.

3. If a task that you perform is not listed anywhere in the entire list, write it on page 47 or 48, but do not add tasks that are classified.

4. Do not confuse work you do yourself with work you supervise.

5. Remember, at this time you are to complete only the column headed "Check-If Done Now" for pages 1 through 46. Now, turn to page 1 and BEGIN.

PROCEDURE B. RATING TIME SPENT ON TASKS ON PRESENT JOB

1. Have you checked each task that you perform in your present job? Make sure, before you continue with this procedure.

2. Now you are to rate the relative amount of time you spend performing each task in your present job. Relative time spent means the total time you spend doing the task compared with the time you spend on each of the other tasks of your present job.

3. Use a rating of "1" if you spend a "very small amount" of time on a task. Use a rating of "2" for "much below average" time, and so on, up to a rating of "9" if you spend a "very large amount" of time on the task.

4. Remember, you are to rate only tasks that you have already checked in the first column of pages 1 through 46.

5. Place your rating, according to the 9-point scale, in the right-hand column headed "Time Spent Present Job" by blackening the appropriate circle. Caution: COMPLETELY fill in the circle you have chosen, but do NOT overlap into other circles on the same line.

6. When you have completed all your ratings in the right-hand column of pages 1 through 46, you will have completed this USAF Job Inventory and you may turn it in to your Occupational Survey Control Officer.

7. Now, turn to page 1 and BEGIN your ratings for the right-hand column.

1. Check tasks you perform now (✓).
2. On the back of the book, write in any unlisted tasks which you do now.
3. In the "Time Spent" column, rate all checked (✓) tasks on time spent in present job.

AFSC 431X1

A. ORGANIZING AND PLANNING

	Check ✓ IF DONE NOW	TIME SPENT Present Job (1. Very small amount. 2. Much below average. 3. Below average. 4. Slightly below average. 5. About average. 6. Slightly above average. 7. Above average. 8. Much above average. 9. Very large amount.)
1. Analyze reports or maintenance plans		①②③④⑤⑥⑦⑧⑨
2. Assign personnel to duty positions		①②③④⑤⑥⑦⑧⑨
3. Assign space for equipment or supplies		①②③④⑤⑥⑦⑧⑨
4. Coordinate with maintenance personnel or job control for availability of specialists or equipment, tools, or parts		①②③④⑤⑥⑦⑧⑨
5. Coordinate with other activities on availability of facilities		①②③④⑤⑥⑦⑧⑨
6. Coordinate work activities with maintenance specialists or other personnel or agencies		①②③④⑤⑥⑦⑧⑨
7. Determine facilities for work functions		①②③④⑤⑥⑦⑧⑨
8. Develop mobility plans		①②③④⑤⑥⑦⑧⑨
9. Develop or improve work methods and procedures		①②③④⑤⑥⑦⑧⑨
10. Establish Air Force regulations, manuals, pamphlets, or letter files		①②③④⑤⑥⑦⑧⑨
11. Establish corrosion control programs		①②③④⑤⑥⑦⑧⑨
12. Establish maintenance controls		①②③④⑤⑥⑦⑧⑨
13. Establish performance standards		①②③④⑤⑥⑦⑧⑨
14. Establish required level of supplies, special tools, test equipment, or parts other than bench stock		①②③④⑤⑥⑦⑧⑨
15. Establish requirement for section directives, office instructions, or standing operating procedures		①②③④⑤⑥⑦⑧⑨
16. Establish technical order (TO) publication files		①②③④⑤⑥⑦⑧⑨
17. Establish work methods		①②③④⑤⑥⑦⑧⑨
18. Interpret maintenance policies or directives for subordinates		①②③④⑤⑥⑦⑧⑨
19. Maintain property custodian authorization/custody receipt listings (CACRL)		①②③④⑤⑥⑦⑧⑨
20. Plan contingency programs		①②③④⑤⑥⑦⑧⑨
21. Plan maintenance deficiency analysis programs		①②③④⑤⑥⑦⑧⑨
22. Plan maintenance or inspections of aircraft		①②③④⑤⑥⑦⑧⑨
23. Plan or prepare functional charts		①②③④⑤⑥⑦⑧⑨
24. Plan or prepare status boards		①②③④⑤⑥⑦⑧⑨

(Continued next page)

	1 Check tasks you perform now (✓) 2 On the back of the book, write in any unlisted tasks which you do now 3 In the "Time Spent" column, rate all checked (✓) tasks on time spent in present job	Check	TIME SPENT Present Job
	AFSC 431X1 A. ORGANIZING AND PLANNING (CONTINUED)	✓ IF DONE NOW	1. Very small amount 2. Much below average. 3. Below average. 4. Slightly below average. 5. About average. 6. Slightly above average. 7. Above average. 8. Much above average. 9. Very large amount.
25.	Plan or prepare unit orientation programs		①②③④⑤⑥⑦⑧⑨
26.	Plan or schedule leaves or passes		①②③④⑤⑥⑦⑧⑨
27.	Plan or schedule work assignments		①②③④⑤⑥⑦⑧⑨
28.	Plan safety programs		①②③④⑤⑥⑦⑧⑨
29.	Plan security programs		①②③④⑤⑥⑦⑧⑨
30.	Plan unit training programs		①②③④⑤⑥⑦⑧⑨
31.	Plan utilization of equipment		①②③④⑤⑥⑦⑧⑨
32.	Prepare input to mobility plans		①②③④⑤⑥⑦⑧⑨
33.	Prepare justifications for test equipment, special tools, or bench stock		①②③④⑤⑥⑦⑧⑨
NOTE:	If any task you perform under this duty is not listed, write it on page 47 or 48		①②③④⑤⑥⑦⑧⑨
			①②③④⑤⑥⑦⑧⑨
			①②③④⑤⑥⑦⑧⑨
	B. DIRECTING AND IMPLEMENTING		①②③④⑤⑥⑦⑧⑨
			①②③④⑤⑥⑦⑧⑨
			①②③④⑤⑥⑦⑧⑨
1.	Adjust daily maintenance plans to meet operational commitments for aircraft		①②③④⑤⑥⑦⑧⑨
2.	Advise subordinates on resolution of problems		①②③④⑤⑥⑦⑧⑨
3.	Compile information for reports or staff studies		①②③④⑤⑥⑦⑧⑨
4.	Counsel personnel on personal or military related problems		①②③④⑤⑥⑦⑧⑨
5.	Direct aircraft inspection activities		①②③④⑤⑥⑦⑧⑨
6.	Direct inspection programs		①②③④⑤⑥⑦⑧⑨
7.	Direct maintenance data collection (MDC) programs		①②③④⑤⑥⑦⑧⑨
8.	Direct maintenance of facilities		①②③④⑤⑥⑦⑧⑨
9.	Direct maintenance or utilization of equipment, supplies, or work space		①②③④⑤⑥⑦⑧⑨

(Continued next page)

	1. Check tasks you perform now (✓). 2. On the back of the book, write in any unlisted tasks which you do now. 3. In the "Time Spent" column, rate all checked (✓) tasks on time spent in present job.	Check	TIME SPENT Present Job
	AFSC 431X1 B. DIRECTING AND IMPLEMENTING (CONTINUED)	✓ IF DONE NOW	1. Very small amount. 2. Much below average. 3. Below average. 4. Slightly below average. 5. About average. 6. Slightly above average. 7. Above average. 8. Much above average. 9. Very large amount.
10.	Direct subordinates in maintaining security standards or procedures		⓪①②③④⑤⑥⑦⑧⑨
11.	Direct subordinates in maintaining work performance		⓪①②③④⑤⑥⑦⑧⑨
12.	Direct unit safety programs		⓪①②③④⑤⑥⑦⑧⑨
13.	Direct utilization of technical publications in maintaining aircraft		⓪①②③④⑤⑥⑦⑧⑨
14.	Draft changes to job descriptions		⓪①②③④⑤⑥⑦⑧⑨
15.	Draft correspondence or reports		⓪①②③④⑤⑥⑦⑧⑨
16.	Implement aircraft weight and balance programs		⓪①②③④⑤⑥⑦⑧⑨
17.	Implement mobility plans		⓪①②③④⑤⑥⑦⑧⑨
18.	Interpret maintenance procedures on repair of aircraft or related equipment		⓪①②③④⑤⑥⑦⑧⑨
19.	Maintain status boards		⓪①②③④⑤⑥⑦⑧⑨
20.	Orient newly assigned personnel		⓪①②③④⑤⑥⑦⑧⑨
21.	Prepare request for changes to equipment authorization lists		⓪①②③④⑤⑥⑦⑧⑨
22.	Prepare Maintenance Preplan forms (AF Form 2406)		⓪①②③④⑤⑥⑦⑧⑨
23.	Prepare replies to inspection reports		⓪①②③④⑤⑥⑦⑧⑨
24.	Prepare unit inspection reports or charts		⓪①②③④⑤⑥⑦⑧⑨
25.	Supervise Aircraft Maintenance Specialists (43151)		⓪①②③④⑤⑥⑦⑧⑨
26.	Supervise Aircraft Maintenance Technicians (43171)		⓪①②③④⑤⑥⑦⑧⑨
27.	Supervise Apprentice Aircraft Maintenance Specialists (43131)		⓪①②③④⑤⑥⑦⑧⑨
28.	Supervise civilian aircraft maintenance personnel		⓪①②③④⑤⑥⑦⑧⑨
NOTE:	If any task you perform under this duty is not listed, write it on page 47 or 48.		⓪①②③④⑤⑥⑦⑧⑨
			⓪①②③④⑤⑥⑦⑧⑨
			⓪①②③④⑤⑥⑦⑧⑨
			⓪①②③④⑤⑥⑦⑧⑨
			⓪①②③④⑤⑥⑦⑧⑨

1. Check tasks you perform now (✓).
2. On the back of the book, write in any unlisted tasks which you do now.
3. In the "Time Spent" column, rate all checked (✓) tasks on time spent in present job.

AFSC 431X1

C. INSPECTING AND EVALUATING

	Check ✓ IF DONE NOW	TIME SPENT Present Job (1. Very small amount. 2. Much below average. 3. Below average. 4. Slightly below average. 5. About average. 6. Slightly above average. 7. Above average. 8. Much above average. 9. Very large amount.)
1. Certify status of repairable, serviceable, or condemned parts		①②③④⑤⑥⑦⑧⑨
2. Edit or review correspondence or reports		①②③④⑤⑥⑦⑧⑨
3. Evaluate corrosion control programs		①②③④⑤⑥⑦⑧⑨
4. Evaluate Quality Deficiency Reports (Category II) forms (SF Form 368)		①②③④⑤⑥⑦⑧⑨
5. Evaluate suggestions		①②③④⑤⑥⑦⑧⑨
6. Evaluate Technical Order System Publication Improvement Reports and Reply forms (AFTO Form 22)		①②③④⑤⑥⑦⑧⑨
7. Evaluate training programs		①②③④⑤⑥⑦⑧⑨
8. Evaluate unit safety practices or procedures		①②③④⑤⑥⑦⑧⑨
9. Evaluate unit security practices or procedures		①②③④⑤⑥⑦⑧⑨
10. Evaluate use of work space, equipment, or supplies		①②③④⑤⑥⑦⑧⑨
11. Evaluate work performance of military personnel		①②③④⑤⑥⑦⑧⑨
12. Inspect work performed by subordinates		①②③④⑤⑥⑦⑧⑨
13. Inspect maintenance equipment		①②③④⑤⑥⑦⑧⑨
14. Inspect work areas		①②③④⑤⑥⑦⑧⑨
15. Perform QC technical inspections		①②③④⑤⑥⑦⑧⑨
16. Prepare recommendations for change to training programs		①②③④⑤⑥⑦⑧⑨
17. Review aircraft records or maintenance forms		①②③④⑤⑥⑦⑧⑨
18. Review or annotate Maintenance Preplan forms (AF Form 2406)		①②③④⑤⑥⑦⑧⑨
19. Review Priority Monitor Reports (PRM D-18)		①②③④⑤⑥⑦⑧⑨
NOTE: If any task you perform under this duty is not listed, write it on page 47 or 48.		①②③④⑤⑥⑦⑧⑨
		①②③④⑤⑥⑦⑧⑨
		①②③④⑤⑥⑦⑧⑨
		①②③④⑤⑥⑦⑧⑨
		①②③④⑤⑥⑦⑧⑨

	1. Check tasks you perform now (✓). 2. On the back of the book, write in any unlisted tasks which you do now. 3. In the "Time Spent" column, rate all checked (✓) tasks on time spent in present job AFSC 431X1 D. TRAINING	Check ✓ IF DONE NOW	TIME SPENT Present Job 1. Very small amount. 2. Much below average. 3. Below average. 4. Slightly below average. 5. About average. 6. Slightly above average. 7. Above average. 8. Much above average. 9. Very large amount.
1.	Administer oral, written, or performance tests		1 2 3 4 5 6 7 8 9
2.	Conduct classroom training		1 2 3 4 5 6 7 8 9
3.	Conduct lectures or briefings		1 2 3 4 5 6 7 8 9
4.	Conduct on-the-job training (OJT)		1 2 3 4 5 6 7 8 9
5.	Conduct or attend conferences		1 2 3 4 5 6 7 8 9
6.	Develop OJT materials		1 2 3 4 5 6 7 8 9
7.	Develop proficiency tests		1 2 3 4 5 6 7 8 9
8.	Direct OJT programs		1 2 3 4 5 6 7 8 9
9.	Evaluate or review Specialty Training Standards (STS)		1 2 3 4 5 6 7 8 9
10.	Initiate request for training aids, classrooms, or equipment		1 2 3 4 5 6 7 8 9
11.	Prepare Job Proficiency Guides (JPG) or JPG Continuation Sheets		1 2 3 4 5 6 7 8 9
12.	Prepare requests for career development course (CDC) materials		1 2 3 4 5 6 7 8 9
13.	Review training progress of individuals		1 2 3 4 5 6 7 8 9
14.	Select individuals for specialized training courses		1 2 3 4 5 6 7 8 9
15.	Select or assign instructors or trainers		1 2 3 4 5 6 7 8 9
NOTE:	If any task you perform under this duty is not listed, write it on page 47 or 48.		1 2 3 4 5 6 7 8 9
			1 2 3 4 5 6 7 8 9
			1 2 3 4 5 6 7 8 9
	E. MAINTAINING FORMS AND RECORDS		1 2 3 4 5 6 7 8 9
			1 2 3 4 5 6 7 8 9
			1 2 3 4 5 6 7 8 9
1.	Initiate or forward Aerospace Vehicle Data Card forms (AF Form 359)		1 2 3 4 5 6 7 8 9
2.	Initiate or post entries to Accessory Replacement Document forms (AFTO Form 781E)		1 2 3 4 5 6 7 8 9
3.	Initiate or post entries to Aerospace Vehicle-Engine Flight forms (AFTO Form 781J)		1 2 3 4 5 6 7 8 9

(Continued next page)

1. Check tasks you perform now (✓)
2. On the back of the book, write in any unlisted tasks which you do now
3. In the "Time Spent" column rate all check (✓) tasks on time spent in present job

AFSC 431X1

E. MAINTAINING FORMS AND RECORDS (CONTINUED)

	Check ✓ IF DONE NOW	TIME SPENT Present Job (1 Very small amount, 2 Much below average, 3 Below average, 4 Slightly below average, 5 About average, 6 Slightly above average, 7 Above average, 8 Much above average, 9 Very large amount)
4. Initiate or post entries to Aerospace Vehicle Flight Data Document forms (AFTO Form 781)		
5. Initiate or post entries to Aerospace Vehicle Flight Report and Maintenance Document forms (AFTO Form 781F)		
6. Initiate or post entries to Aerospace Vehicle Flight Status and Maintenance Document forms (AFTO Form 781H)		
7. Initiate or post entries to aerospace vehicle inspection forms (AFTO Form 781K)		
8. Initiate or post entries to aircraft historical records		
9. Initiate or post entries to Aircraft Inventory Record Certification and Record of Transfers forms (DD Form 780-3)		
10. Initiate or post entries to Aircraft Inventory Record Equipment List forms (DD Form 780-1)		
11. Initiate or post entries to Aircraft Inventory Record forms (DD Form 780)		
12. Initiate or post entries to Aircraft Inventory Record Shortages forms (DD Form 780-2)		
13. Initiate or post entries to Airplane Weight Record forms (DD Form 365B)		
14. Initiate or post entries to Avionics Configuration and Load Status Document forms (AFTO Form 781C)		
15. Initiate or post entries to Calendar and Hourly Item Inspection Document forms (AFTO Form 781D)		
16. Initiate or post entries to Chart A-Basic Weight Checklist forms (DD Form 365A)		
17. Initiate or post entries to Chart C-Basic Weight and Balance Record forms (DD Form 365C)		
18. Initiate or post entries to Equipment Discrepancies forms (AF Form 2421)		
19. Initiate or post entries to General Mission Classification-Mission Symbols forms (AFTO Form 781G)		
20. Initiate or post entries to J79 Engine Run Up Record forms (AFTO Form 781N)		
Initiate or post entries to Maintenance Discrepancy and Work Document forms (AFTO Form 781A)		
Initiate or post entries to Nonpowered AGE Record Forms (AFTO Form 454)		
Initiate or post entries to Record of Weight and Balance [illegible] forms (DD Form 365)		
[illegible] post entries to Status Symbols and Functional [illegible] Forms (AFTO Form 781M)		
[illegible] post entries to Trainer/AGE Status and [illegible] Forms (AFTO Form 443)		
[illegible] entries to Weight and Balance Clearance [illegible] Form 365F)		
[illegible] Personnel Crew Evaluation Report		

(Continued next page)

1. Check tasks you perform now (✓).
2. On the back of the book, write in any unlisted tasks which you do now.
3. In the "Time Spent" column, rate all checked (✓) tasks on time spent in present job.

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E. MAINTAINING FORMS AND RECORDS (CONTINUED)

	Check ✓ IF DONE NOW	TIME SPENT Present Job 1. Very small amount 2. Much below average. 3. Below average. 4. Slightly below average 5. About average. 6. Slightly above average 7. Above average. 8. Much above average 9. Very large amount.
28. Initiate or review Quality Control Inspection Summary forms (AF Form 2420)		
29. Initiate or review Routing and Review of Quality Control Reports forms (AF Form 2419)		
30. Initiate or review Supply Control Log forms (AF Form 2413)		
31. Initiate Technical Order System Publication Improvement Reports and Reply forms (AFTO Form 22)		
32. Initiate work orders by voice communications		
33. Maintain or file On-The-Job Training Record forms (AF Form 623)		
34. Maintain standard Air Force publication files		
35. Maintain technical publications files		
36. Prepare aircraft maintenance checksheets		
37. Prepare Danger tag forms (AF Form 1492)		
38. Prepare Issue/Turn-In Request forms (AF Form 2005)		
39. Prepare Maintenance Data Collection Record forms (AFTO Form 349)		
40. Prepare Naval Aircraft Flight Records forms (OPNAV Form 3760-2)		
41. Prepare Personnel Evaluation and Overall MSEP Points Computation forms (AF Form 2418)		
42. Prepare Quality Deficiency Report (Category II) forms (SF Form 368)		
43. Prepare Reparable Item Processing Tag forms (AFTO Form 350)		
44. Prepare Serviceable Tag-Materiel forms (DD Form 1574)		
45. Prepare Technical Inspection Points Computation forms (AF Form 2417)		
46. Prepare Temporary Issue Receipt forms (AF Form 1297)		
47. Prepare Trainer/AGE Maintenance Record forms (AFTO Form 444)		
48. Prepare Unserviceable (Condemned) Tag-Materiel forms (DD Form 1577)		
49. Research or review aircraft maintenance checksheets		
50. Review or annotate Leave Request/Authorization forms (AF Form 988)		
NOTE: If any task you perform under this duty is not listed, write it on page 47 or 48.		

1. Check tasks you perform now (✓)
2. On the back of the book, write in any unlisted tasks which you do now.
3. In the "Time Spent" column, rate all checked (✓) tasks on time spent in present job.

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F. PERFORMING SUPPLY FUNCTIONS

	Check (✓ IF DONE NOW)	TIME SPENT Present Job (1. Very small amount. 2. Much below average. 3. Below average. 4. Slightly below average 5. About average. 6. Slightly above average 7. Above average. 8. Much above average. 9. Very large amount.)
1. Deliver equipment to precision measuring equipment laboratories (PMEL)		
2. Establish bench stock		
3. Establish priority for requesting parts		
4. Interpret due-in-from-maintenance (DIFM) listings		
5. Inventory bench stock		
6. Inventory tool crib equipment		
7. Inventory war readiness spares kits (WRSK)		
8. Issue or receive tools		
9. Locate part numbers from illustrated parts breakdowns		
10. Maintain supply logs		
11. Order parts by voice communications		
12. Prepare DOD Single Line Item Release/Receipt Document forms (DD Form 1348M)		
13. Prepare quick reference lists for ordering parts		
14. Research quick reference lists for ordering parts		
15. Research supply publications		
16. Review or annotate daily document registers		
17. Sign for parts		
18. Trace location of undelivered parts		
19. Verify identification of parts		
NOTE: If any task you perform under this duty is not listed, write it on page 47 or 48.		

1. Check tasks you perform now (✓).
2. On the back of the book, write in any unlisted tasks which you do now.
3. In the "Time Spent" column, rate all checked (✓) tasks on time spent in present job

AFSC 431X1

G. PERFORMING GENERAL AIRCRAFT MAINTENANCE

	Task	Check (✓ IF DONE NOW)	TIME SPENT Present Job (1. Very small amount. 2. Much below average. 3. Below average. 4. Slightly below average 5. About average. 6. Slightly above average. 7. Above average. 8. Much above average 9. Very large amount.)
1.	Adjust aircraft access doors or hatches		①②③④⑤⑥⑦⑧⑨
2.	Adjust aircraft door linkage or latching mechanisms		①②③④⑤⑥⑦⑧⑨
3.	Adjust air deflector doors		①②③④⑤⑥⑦⑧⑨
4.	Adjust ammunition hoist cables		①②③④⑤⑥⑦⑧⑨
5.	Adjust bomb bay doors		①②③④⑤⑥⑦⑧⑨
6.	Adjust canopy latch mechanisms		①②③④⑤⑥⑦⑧⑨
7.	Adjust crewmember seat locking mechanisms		①②③④⑤⑥⑦⑧⑨
8.	Adjust dragchute system components		①②③④⑤⑥⑦⑧⑨
9.	Apply sealing compounds to aircraft components such as panels or windshields		①②③④⑤⑥⑦⑧⑨
10.	Brighten aircraft surfaces		①②③④⑤⑥⑦⑧⑨
11.	Clean external surfaces of aircraft other than transparent surfaces		①②③④⑤⑥⑦⑧⑨
12.	Clean interior of aircraft such as crew compartments or cargo compartments		①②③④⑤⑥⑦⑧⑨
13.	Clean transparent surfaces such as windshields		①②③④⑤⑥⑦⑧⑨
14.	Drain ARC-96 antenna hydraulic motor spill reserviors		①②③④⑤⑥⑦⑧⑨
15.	Drain water from cockpits		①②③④⑤⑥⑦⑧⑨
16.	Drain water from pitot static systems		①②③④⑤⑥⑦⑧⑨
17.	Energize or deenergize circuit breakers		①②③④⑤⑥⑦⑧⑨
18.	Evaluate performance of new or redesigned tools		①②③④⑤⑥⑦⑧⑨
19.	Evaluate unsatisfactory report (UR) results		①②③④⑤⑥⑦⑧⑨
20.	Identify types of corrosion		①②③④⑤⑥⑦⑧⑨
21.	Inspect aircraft access door hardware		①②③④⑤⑥⑦⑧⑨
22.	Inspect aircraft access doors or hatches		①②③④⑤⑥⑦⑧⑨
23.	Inspect aircraft access door seals		①②③④⑤⑥⑦⑧⑨
24.	Inspect aircraft emergency tools		①②③④⑤⑥⑦⑧⑨

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	1. Check tasks you perform now (✓). 2. On the back of the book, write in any unlisted tasks which you do now. 3. In the "Time Spent" column, rate all checked (✓) tasks on time spent in present job.	Check	TIME SPENT Present Job
	AFSC 431X1 G. PERFORMING GENERAL AIRCRAFT MAINTENANCE (CONTINUED)	✓ IF DONE NOW	1. Very small amount 2. Much below average 3. Below average. 4. Slightly below average 5. About average 6. Slightly above average 7. Above average. 8. Much above average. 9. Very large amount.
25.	Inspect aircraft panels		
26.	Inspect aircraft windows or windshields		
27.	Inspect airframe for structural damage		
28.	Inspect ammunition hoist cables		
29.	Inspect assist-type takeoff (ATO) racks		
30.	Inspect bilge pumps		
31.	Inspect dragchute systems		
32.	Inspect instrument markings		
33.	Inspect life raft stowage		
34.	Inspect portable fire extinguishers		
35.	Inspect relief facilities		
36.	Inspect seats, seatbelts, inertial reels, or shoulder harnesses		
37.	Inspect sextant mounts		
38.	Install or remove life rafts		
39.	Load or unload aircraft explosive cartridges		
40.	Load or unload aircraft munitions		
41.	Load or unload cameras or other pods		
42.	Load or unload cargo		
43.	Lubricate cargo or bomb doors		
44.	Lubricate seat adjustment rails		
45.	Operate expedite vehicles		
46.	Operationally check aircraft doors		
47.	Operationally check aircraft hoists		
48.	Operationally check canopy systems		

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1. Check tasks you perform now (✓).
2. On the back of the book, write in any unlisted tasks which you do now.
3. In the "Time Spent" column, rate all checked (✓) tasks on time spent in present job.

AFSC 431X1

G. PERFORMING GENERAL AIRCRAFT MAINTENANCE (CONTINUED)

	Check ✓ IF DONE NOW	TIME SPENT Present Job (1. Very small amount. 2. Much below average. 3. Below average. 4. Slightly below average. 5. About average. 6. Slightly above average. 7. Above average. 8. Much above average. 9. Very large amount.)
49. Operationally check cargo ramp systems		①②③④⑤⑥⑦⑧⑨
50. Operationally check dragchute system deployment or release mechanisms		①②③④⑤⑥⑦⑧⑨
51. Operationally check seat adjustment systems		①②③④⑤⑥⑦⑧⑨
52. Operationally check sextant mounts		①②③④⑤⑥⑦⑧⑨
53. Perform extended cold weather preflights		①②③④⑤⑥⑦⑧⑨
54. Perform home station checks (HSC)		①②③④⑤⑥⑦⑧⑨
55. Perform maintenance debriefings of crewmembers		①②③④⑤⑥⑦⑧⑨
56. Prepare aircraft for loading or unloading munitions		①②③④⑤⑥⑦⑧⑨
57. Prewarm and set inertial navigation equipment		①②③④⑤⑥⑦⑧⑨
58. Read or interpret aircraft system blueprints		①②③④⑤⑥⑦⑧⑨
59. Read or interpret aircraft system layout drawings		①②③④⑤⑥⑦⑧⑨
60. Read or interpret graphs or charts		①②③④⑤⑥⑦⑧⑨
61. Read or interpret schematics		①②③④⑤⑥⑦⑧⑨
62. Recover or deliver dragchutes		①②③④⑤⑥⑦⑧⑨
63. Remove or replace aircraft access doors or hatches		①②③④⑤⑥⑦⑧⑨
64. Remove or replace aircraft access door hardware such as screws or rivets		①②③④⑤⑥⑦⑧⑨
65. Remove or replace aircraft access door seals		①②③④⑤⑥⑦⑧⑨
66. Remove or replace aircraft access panels		①②③④⑤⑥⑦⑧⑨
67. Remove or replace aircraft panel fasteners		①②③④⑤⑥⑦⑧⑨
68. Remove or replace ammunition hoist cables		①②③④⑤⑥⑦⑧⑨
69. Remove or replace ARC-96 antenna system aircharge bottles		①②③④⑤⑥⑦⑧⑨
70. Remove or replace ARC-96 antenna system cable cutters		①②③④⑤⑥⑦⑧⑨
71. Remove or replace ATO racks		①②③④⑤⑥⑦⑧⑨
72. Remove or replace canopies		①②③④⑤⑥⑦⑧⑨

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	1. Check tasks you perform now (✓). 2. On the back of the book, write in any unlisted tasks which you do now. 3. In the "Time Spent" column, rate all checked (✓) tasks on time spent in present job.	Check	TIME SPENT Present Job
	AFSC 431X1 G. PERFORMING GENERAL AIRCRAFT MAINTENANCE (CONTINUED)	✓ IF DONE NOW	1. Very small amount. 2. Much below average. 3. Below average. 4. Slightly below average. 5. About average. 6. Slightly above average. 7. Above average. 8. Much above average. 9. Very large amount.
73.	Remove or replace crewmember seatbelts		①②③④⑤⑥⑦⑧⑨
74.	Remove or replace crewmember seat inertial reels		①②③④⑤⑥⑦⑧⑨
75.	Remove or replace crewmember seats		①②③④⑤⑥⑦⑧⑨
76.	Remove or replace crewmember seat locking mechanisms		①②③④⑤⑥⑦⑧⑨
77.	Remove or replace crewmember seat shoulder harnesses		①②③④⑤⑥⑦⑧⑨
78.	Remove or replace dorsal fins		①②③④⑤⑥⑦⑧⑨
79.	Remove or replace dragchute systems		①②③④⑤⑥⑦⑧⑨
80.	Remove or replace electronic countermeasures (ECM) scopes or ECM control panels		①②③④⑤⑥⑦⑧⑨
81.	Remove or replace engine struts or engine pylons		①②③④⑤⑥⑦⑧⑨
82.	Remove or replace flight instruments		①②③④⑤⑥⑦⑧⑨
83.	Remove or replace gun purge doors		①②③④⑤⑥⑦⑧⑨
84.	Remove or replace hatch hardware such as screws or rivets		①②③④⑤⑥⑦⑧⑨
85.	Remove or replace horizontal stabilizer leading edges		①②③④⑤⑥⑦⑧⑨
86.	Remove or replace instrument panels		①②③④⑤⑥⑦⑧⑨
87.	Remove or replace leading edge bleed air ducts		①②③④⑤⑥⑦⑧⑨
88.	Remove or replace photoflash doors		①②③④⑤⑥⑦⑧⑨
89.	Remove or replace pressure seals		①②③④⑤⑥⑦⑧⑨
90.	Remove or replace protective coverings such as pitot tube coverings		①②③④⑤⑥⑦⑧⑨
91.	Remove or replace radome hardware		①②③④⑤⑥⑦⑧⑨
92.	Remove or replace radomes		①②③④⑤⑥⑦⑧⑨
93.	Remove or replace radome seals		①②③④⑤⑥⑦⑧⑨
94.	Remove or replace relief facilities or components		①②③④⑤⑥⑦⑧⑨
95.	Remove or replace safety devices		①②③④⑤⑥⑦⑧⑨
96.	Remove or replace sextant mounts		①②③④⑤⑥⑦⑧⑨

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1. Check tasks you perform now (✓).
2. On the back of the book, write in any unlisted tasks which you do now.
3. In the "Time Spent" column, rate all checked (✓) tasks on time spent in present job.

AFSC 431X1

G. PERFORMING GENERAL AIRCRAFT MAINTENANCE (CONTINUED)

	Check ✓ IF DONE NOW	TIME SPENT Present Job 1. Very small amount. 2. Much below average. 3. Below average. 4. Slightly below average. 5. About average. 6. Slightly above average. 7. Above average. 8. Much above average. 9. Very large amount.
97. Remove or replace troopseats		
98. Remove or replace troopseat hardware such as screws or rivets		
99. Remove or replace troopseat seatbelts		
100. Remove or replace vertical fin leading edges		
101. Remove or replace vertical fins		
102. Remove or replace windows or windshields including nesa glass		
103. Remove or replace wing leading edges		
104. Remove or replace wings or wing tips		
105. Remove, replace, or add ballast		
106. Remove scratches from transparent surfaces		
107. Research technical publications to determine maintenance procedures		
108. Rig life raft release systems		
109. Rig or adjust ram air turbine (RAT) doors		
110. Safety wire aircraft hardware		
111. Service ARC-96 antenna accumulators		
112. Service relief facilities		
113. Straighten aircraft panels or remove small dents		
114. Troubleshoot ammunition hoist cables		
115. Troubleshoot sextant mounts		
116. Visually inspect alignment of aircraft structures		
117. Visually inspect ARC-96 antenna accumulators		
118. Visually inspect ARC-96 antenna dehydrator crystals		
119. Visually inspect ARC-96 antenna drogues		
120. Visually inspect ARC-96 antenna hydraulic motor drain reservoirs		

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	1. Check tasks you perform now (✓). 2. On the back of the book, write in any unlisted tasks which you do now. 3. In the "Time Spent" column, rate all checked (✓) tasks on time spent in present job.	Check	TIME SPENT Present Job
	AFSC 431X1 G. PERFORMING GENERAL AIRCRAFT MAINTENANCE (CONTINUED)	✓ IF DONE NOW	1. Very small amount. 2. Much below average. 3. Below average. 4. Slightly below average. 5. About average. 6. Slightly above average. 7. Above average. 8. Much above average. 9. Very large amount.
	121. Visually inspect ARC-96 antenna inclosures or hydraulic hoses		⓪①②③④⑤⑥⑦⑧⑨
	122. Visually inspect ARC-96 antenna retractable spools		⓪①②③④⑤⑥⑦⑧⑨
	123. Visually inspect ejection seat safety pins		⓪①②③④⑤⑥⑦⑧⑨
	124. Visually inspect ejection systems		⓪①②③④⑤⑥⑦⑧⑨
	125. Visually inspect emergency escape systems		⓪①②③④⑤⑥⑦⑧⑨
	126. Visually inspect first-aid kits for availability		⓪①②③④⑤⑥⑦⑧⑨
	127. Visually inspect survival kits for availability		⓪①②③④⑤⑥⑦⑧⑨
	NOTE: If any task you perform under this duty is not listed, write it on page 47 or 48.		⓪①②③④⑤⑥⑦⑧⑨
			⓪①②③④⑤⑥⑦⑧⑨
			⓪①②③④⑤⑥⑦⑧⑨
	H. PERFORMING GROUND HANDLING OF AIRCRAFT		⓪①②③④⑤⑥⑦⑧⑨
			⓪①②③④⑤⑥⑦⑧⑨
			⓪①②③④⑤⑥⑦⑧⑨
	1. Bleed aircraft hydraulic systems		⓪①②③④⑤⑥⑦⑧⑨
	2. Bleed aircraft pneumatic systems		⓪①②③④⑤⑥⑦⑧⑨
	3. Bleed aircraft thrust augmentation systems		⓪①②③④⑤⑥⑦⑧⑨
	4. Brief aircraft touring teams		⓪①②③④⑤⑥⑦⑧⑨
	5. Brief tow team members		⓪①②③④⑤⑥⑦⑧⑨
	6. Direct fueling or defueling of aircraft		⓪①②③④⑤⑥⑦⑧⑨
	7. Direct jacking of aircraft		⓪①②③④⑤⑥⑦⑧⑨
	8. Drain aircraft engine oil systems		⓪①②③④⑤⑥⑦⑧⑨
	9 Drain aircraft fuel service systems		⓪①②③④⑤⑥⑦⑧⑨
	10. Fold or erect vertical fins		⓪①②③④⑤⑥⑦⑧⑨
	11. Fold or unfold aircraft wings		⓪①②③④⑤⑥⑦⑧⑨

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	1. Check tasks you perform now (✓). 2. On the back of the book, write in any unlisted tasks which you do now. 3. In the "Time Spent" column, rate all checked (✓) tasks on time spent in present job.	Check	TIME SPENT Present Job
	AFSC 431X1 H. PERFORMING GROUND HANDLING OF AIRCRAFT (CONTINUED)	✓ IF DONE NOW	1. Very small amount. 2. Much below average. 3. Below average. 4. Slightly below average. 5. About average. 6. Slightly above average. 7. Above average. 8. Much above average. 9. Very large amount.
12.	Fuel aircraft using hot refueling methods		①②③④⑤⑥⑦⑧⑨
13.	Fuel aircraft using hydrant refueling methods		①②③④⑤⑥⑦⑧⑨
14.	Fuel aircraft using over-wing refueling methods		①②③④⑤⑥⑦⑧⑨
15.	Fuel aircraft using single-point refueling methods		①②③④⑤⑥⑦⑧⑨
16.	Ground aircraft		①②③④⑤⑥⑦⑧⑨
17.	Hangar aircraft		①②③④⑤⑥⑦⑧⑨
18.	Install or remove aircraft decals		①②③④⑤⑥⑦⑧⑨
19.	Interpret North Atlantic Treaty Organization (NATO) aircraft markings		①②③④⑤⑥⑦⑧⑨
20.	Jack aircraft		①②③④⑤⑥⑦⑧⑨
21.	Launch or recover aircraft		①②③④⑤⑥⑦⑧⑨
22.	Level aircraft		①②③④⑤⑥⑦⑧⑨
23.	Lift aircraft by air bags		①②③④⑤⑥⑦⑧⑨
24.	Marshal aircraft		①②③④⑤⑥⑦⑧⑨
25.	Measure ground height of aircraft		①②③④⑤⑥⑦⑧⑨
26.	Moor aircraft by refueling or sandbagging		①②③④⑤⑥⑦⑧⑨
27.	Moor aircraft by tying down		①②③④⑤⑥⑦⑧⑨
28.	Operate aerospace ground equipment (AGE) air conditioning equipment		①②③④⑤⑥⑦⑧⑨
29.	Operate AGE air compressors		①②③④⑤⑥⑦⑧⑨
30.	Operate AGE dollies, slings, or cradles		①②③④⑤⑥⑦⑧⑨
31.	Operate AGE gas turbine compressors		①②③④⑤⑥⑦⑧⑨
32.	Operate AGE ground heaters		①②③④⑤⑥⑦⑧⑨
33.	Operate AGE hydraulic test stands		①②③④⑤⑥⑦⑧⑨
34.	Operate AGE portable generators		①②③④⑤⑥⑦⑧⑨
35.	Operate AGE portable lighting equipment		①②③④⑤⑥⑦⑧⑨

(Continued next page)

1. Check tasks you perform now (✓).
2. On the back of the book, write in any unlisted tasks which you do now.
3. In the "Time Spent" column, rate all checked (✓) tasks on time spent in present job.

AFSC 431X1

H. PERFORMING GROUND HANDLING OF AIRCRAFT (CONTINUED)

	Check ✓ IF DONE NOW	TIME SPENT Present Job (1. Very small amount. 2. Much below average. 3. Below average. 4. Slightly below average. 5. About average. 6. Slightly above average. 7. Above average. 8. Much above average. 9. Very large amount.)
36. Operate aircraft cockpit controls during towing operations		①②③④⑤⑥⑦⑧⑨
37. Operate aircraft radios		①②③④⑤⑥⑦⑧⑨
38. Operate aircraft wheel movers		①②③④⑤⑥⑦⑧⑨
39. Operate hydraulic servicing carts		①②③④⑤⑥⑦⑧⑨
40. Operate maintenance stands		①②③④⑤⑥⑦⑧⑨
41. Operate tow vehicles		①②③④⑤⑥⑦⑧⑨
42. Operate wing sweeps		①②③④⑤⑥⑦⑧⑨
43. Perform stab droop checks		①②③④⑤⑥⑦⑧⑨
44. Position AGE to aircraft		①②③④⑤⑥⑦⑧⑨
45. Position or remove aircraft chocks		①②③④⑤⑥⑦⑧⑨
46. Prepare recommendations to impound or quarantine aircraft		①②③④⑤⑥⑦⑧⑨
47. Quick check aircraft at end of runways		①②③④⑤⑥⑦⑧⑨
48. Remove disabled aircraft from runways		①②③④⑤⑥⑦⑧⑨
49. Remove, install, or rig dragchutes		①②③④⑤⑥⑦⑧⑨
50. Remove or install external fuel tanks		①②③④⑤⑥⑦⑧⑨
51. Remove snow or ice from aircraft by using AGE		①②③④⑤⑥⑦⑧⑨
52. Remove snow or ice from aircraft manually		①②③④⑤⑥⑦⑧⑨
53. Select cleaning materials for cleaning aircraft interior or exterior surfaces		①②③④⑤⑥⑦⑧⑨
54. Select fuel, oil, or lubricant for aircraft servicing		①②③④⑤⑥⑦⑧⑨
55. Service aircraft alternator or generator drives		①②③④⑤⑥⑦⑧⑨
56. Service aircraft engine oil systems		①②③④⑤⑥⑦⑧⑨
57. Service aircraft hydraulic systems		①②③④⑤⑥⑦⑧⑨
58. Service aircraft oxygen systems with gaseous oxygen		①②③④⑤⑥⑦⑧⑨
59. Service aircraft oxygen systems with liquid oxygen		①②③④⑤⑥⑦⑧⑨

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	1. Check tasks you perform now (✓). 2. On the back of the book, write in any unlisted tasks which you do now. 3. In the "Time Spent" column, rate all checked (✓) tasks on time spent in present job.	Check	TIME SPENT Present Job
	AFSC 431X1 H. PERFORMING GROUND HANDLING OF AIRCRAFT (CONTINUED)	✓ IF DONE NOW	1. Very small amount. 2. Much below average. 3. Below average. 4. Slightly below average. 5. About average. 6. Slightly above average. 7. Above average. 8. Much above average. 9. Very large amount.
60.	Service aircraft thrust augmentation systems		
61.	Service aircraft pneumatic systems		
62.	Service aircraft tires with air		
63.	Service aircraft tires with nitrogen		
64.	Stand cold weather heater watch		
65.	Stand fire guard		
66.	Take engine oil samples for spectrometric oil analysis program (SOAP)		
67.	Walk wings or tails during aircraft towing operations		
68.	Weigh aircraft		
NOTE:	If any task you perform under this duty is not listed, write it on page 47 or 48.		
	I. MAINTAINING LANDING GEAR SYSTEMS		
1.	Adjust aircraft crosswind systems or components		
2.	Adjust landing gear mechanical components		
3.	Adjust landing gear ski systems		
4.	Adjust landing gear steering mechanism components		
5.	Bleed brake assemblies		
6.	Break down tires		
7.	Build up tires		
8.	Clean polished surfaces of struts		
9.	Determine feasibility of retreading aircraft tires		

(Continued next page)

1. Check tasks you perform now (✓)
2. On the back of the book, write in any unlisted tasks which you do now
3. In the "Time Spent" column, rate all checked (✓) tasks on time spent in present job.

AFSC 431X1

I. MAINTAINING LANDING GEAR SYSTEMS (CONTINUED)

	Check ✓ IF DONE NOW	TIME SPENT Present Job 1. Very small amount 2. Much below average. 3. Below average. 4. Slightly below average 5. About average. 6. Slightly above average 7. Above average 8. Much above average. 9. Very large amount
10. Inspect aircraft arresting gear components		
11. Inspect aircraft arresting gear systems		
12. Inspect aircraft crosswind system or components		
13. Inspect aircraft landing gear arresting hooks		
14. Inspect aircraft steering systems		
15. Inspect aircraft wheel assemblies		
16. Inspect anti-skid systems or components		
17. Inspect braking system components		
18. Inspect landing gear electrical components		
19. Inspect landing gear hydraulic components		
20. Inspect landing gear ski systems		
21. Inspect landing gear structural components		
22. Inspect nosewheel steering components		
23. Inspect struts		
24. Inspect wheel bearings		
25. Inspect wheels		
26. Lubricate struts		
27. Lubricate wheel bearings		
28. Operate aircraft kneeling systems		
29. Operationally check aircraft arresting gear systems		
30. Operationally check aircraft crosswind systems or components		
31. Operationally check aircraft kneeling systems		
32. Operationally check aircraft landing gears		
33. Operationally check aircraft landing gear arresting hooks		

(Continued next page)

1. Check tasks you perform now (✓).
2. On the back of the book, write in any unlisted tasks which you do now.
3. In the "Time Spent" column, rate all checked (✓) tasks on time spent in present job.

AFSC 431X1

I. MAINTAINING LANDING GEAR SYSTEMS (CONTINUED)

	Task	Check (✓ IF DONE NOW)	TIME SPENT: Present Job (1. Very small amount. 2. Much below average. 3. Below average. 4. Slightly below average. 5. About average. 6. Slightly above average. 7. Above average. 8. Much above average. 9. Very large amount.)
34.	Operationally check aircraft steering systems		
35.	Operationally check anti-skid systems		
36.	Operationally check brake systems		
37.	Operationally check landing gear indicator systems		
38.	Operationally check landing gear ski systems		
39.	Operationally check nosewheel steering systems or components		
40.	Operationally check tip or outrigger struts		
41.	Remove or replace aircraft arresting gear components		
42.	Remove or replace aircraft arresting gear systems		
43.	Remove or replace aircraft crosswind system components		
44.	Remove or replace aircraft steering system components		
45.	Remove or replace aircraft tire or wheel assemblies		
46.	Remove or replace anti-skid system components		
47.	Remove or replace brake assemblies		
48.	Remove or replace brake assembly components		
49.	Remove or replace components of gear doors		
50.	Remove or replace gear doors		
51.	Remove or replace landing gear electrical system components		
52.	Remove or replace landing gear hydraulic system components		
53.	Remove or replace landing gear ski system components		
54.	Remove or replace landing gear structural components such as metal braces		
55.	Remove or replace landing gears		
56.	Remove or replace shimmy dampers		
57.	Remove or replace struts		

(Continued next page)

	1. Check tasks you perform now (✓). 2. On the back of the book, write in any unlisted tasks which you do now. 3. In the "Time Spent" column, rate all checked (✓) tasks on time spent in present job.	Check	TIME SPENT Present Job
	AFSC 431X1 I. MAINTAINING LANDING GEAR SYSTEMS (CONTINUED)	✓ IF DONE NOW	1. Very small amount. 2. Much below average. 3. Below average. 4. Slightly below average. 5. About average. 6. Slightly above average. 7. Above average. 8. Much above average. 9. Very large amount.
58.	Remove or replace strut components		①②③④⑤⑥⑦⑧⑨
59.	Rig landing gear systems or components		①②③④⑤⑥⑦⑧⑨
60.	Service aircraft landing gear arresting hooks		①②③④⑤⑥⑦⑧⑨
61.	Service aircraft landing gear ski systems		①②③④⑤⑥⑦⑧⑨
62.	Service aircraft leveling cylinders with air		①②③④⑤⑥⑦⑧⑨
63.	Service aircraft leveling cylinders with hydraulic fluid		①②③④⑤⑥⑦⑧⑨
64.	Service brake systems		①②③④⑤⑥⑦⑧⑨
65.	Service snubbers with air		①②③④⑤⑥⑦⑧⑨
66.	Service snubbers with hydraulic fluid		①②③④⑤⑥⑦⑧⑨
67.	Service struts with air		①②③④⑤⑥⑦⑧⑨
68.	Service struts with hydraulic fluids		①②③④⑤⑥⑦⑧⑨
69.	Service struts with nitrogen		①②③④⑤⑥⑦⑧⑨
70.	Troubleshoot aircraft arresting gear systems or components		①②③④⑤⑥⑦⑧⑨
71.	Troubleshoot aircraft brake systems or components		①②③④⑤⑥⑦⑧⑨
72.	Troubleshoot aircraft crosswind system or components		①②③④⑤⑥⑦⑧⑨
73.	Troubleshoot aircraft kneeling systems or components		①②③④⑤⑥⑦⑧⑨
74.	Troubleshoot aircraft landing gear hydraulic systems or components		①②③④⑤⑥⑦⑧⑨
75.	Troubleshoot aircraft landing gear mechanical systems or components		①②③④⑤⑥⑦⑧⑨
76.	Troubleshoot aircraft nosewheel steering systems or components		①②③④⑤⑥⑦⑧⑨
77.	Troubleshoot aircraft steering systems or components other than nosewheel steering systems		①②③④⑤⑥⑦⑧⑨
78.	Troubleshoot anti-skid systems or components		①②③④⑤⑥⑦⑧⑨
79.	Troubleshoot landing gear ski systems or components		①②③④⑤⑥⑦⑧⑨
80.	Troubleshoot tip or outrigger struts		①②③④⑤⑥⑦⑧⑨
NOTE:	If any task you perform under this duty is not listed, write it on page 47 or 48.		①②③④⑤⑥⑦⑧⑨

1. Check tasks you perform now (✓).
2. On the back of the book, write in any unlisted tasks which you do now.
3. In the "Time Spent" column, rate all checked (✓) tasks on time spent in present job.

AFSC 431X1

J. MAINTAINING UTILITY SYSTEMS

	Check ✓ IF DONE NOW	TIME SPENT Present Job 1. Very small amount. 2. Much below average. 3. Below average. 4. Slightly below average. 5. About average. 6. Slightly above average. 7. Above average. 8. Much above average. 9. Very large amount.
1. Drain or purge gaseous oxygen systems		⓪①②③④⑤⑥⑦⑧⑨
2. Drain or purge liquid oxygen systems		⓪①②③④⑤⑥⑦⑧⑨
3. Inspect air turbine motors (ATM)		⓪①②③④⑤⑥⑦⑧⑨
4. Inspect aircraft air conditioning system or components		⓪①②③④⑤⑥⑦⑧⑨
5. Inspect aircraft defog ducts		⓪①②③④⑤⑥⑦⑧⑨
6. Inspect aircraft fire suppression systems		⓪①②③④⑤⑥⑦⑧⑨
7. Inspect aircraft gaseous oxygen systems		⓪①②③④⑤⑥⑦⑧⑨
8. Inspect aircraft liquid oxygen indicator systems		⓪①②③④⑤⑥⑦⑧⑨
9. Inspect aircraft liquid oxygen systems or components		⓪①②③④⑤⑥⑦⑧⑨
10. Inspect aircraft mounted air compressors		⓪①②③④⑤⑥⑦⑧⑨
11. Inspect aircraft rain removal ducts		⓪①②③④⑤⑥⑦⑧⑨
12. Inspect aircraft tire deflation systems		⓪①②③④⑤⑥⑦⑧⑨
13. Inspect aircraft windshield washer systems or components		⓪①②③④⑤⑥⑦⑧⑨
14. Inspect aircraft windshield wiper systems or components		⓪①②③④⑤⑥⑦⑧⑨
15. Inspect auxiliary power units (APU) or gas turbine compressors (GTC)		⓪①②③④⑤⑥⑦⑧⑨
16. Inspect de-icing systems or components		⓪①②③④⑤⑥⑦⑧⑨
17. Inspect fire warning or overheat detection systems or components		⓪①②③④⑤⑥⑦⑧⑨
18. Inspect RAT		⓪①②③④⑤⑥⑦⑧⑨
19. Lubricate aircraft windshield wiper systems		⓪①②③④⑤⑥⑦⑧⑨
20. Operate aircraft auxiliary power plants		⓪①②③④⑤⑥⑦⑧⑨
21. Operationally check aircraft liquid oxygen systems or components		⓪①②③④⑤⑥⑦⑧⑨
22. Operationally check aircraft-mounted air compressors		⓪①②③④⑤⑥⑦⑧⑨
23. Operationally check APU or GTC		⓪①②③④⑤⑥⑦⑧⑨
24. Operationally check ATM		⓪①②③④⑤⑥⑦⑧⑨

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	1 Check tasks you perform now (✓). 2 On the back of the book, write in any unlisted tasks which you do now. 3 In the "Time Spent" column, rate all checked (✓) tasks on time spent in present job AFSC 431X1 J. MAINTAINING UTILITY SYSTEMS (CONTINUED)	Check ✓ IF DONE NOW	TIME SPENT Present Job 1. Very small amount. 2. Much below average. 3. Below average. 4. Slightly below average 5. About average. 6. Slightly above average 7. Above average 8. Much above average. 9. Very large amount.
25.	Operationally check air conditioning or pressurization systems		
26.	Operationally check aircraft gaseous oxygen systems or components		
27.	Operationally check bleed air systems		
28.	Operationally check de-icing systems		
29.	Operationally check fire extinguisher systems		
30.	Operationally check fire warning or overheat detection systems		
31.	Operationally check rain removal systems		
32.	Operationally check RAT		
33.	Remove or replace aircraft air conditioning ducts		
34.	Remove or replace aircraft ATM cooling system components		
35.	Remove or replace aircraft de-icing systems or components		
36.	Remove or replace aircraft washer systems or components		
37.	Remove or replace defog system mechanical switches		
38.	Remove or replace oxygen converters		
39.	Remove or replace oxygen regulators		
40.	Service aircraft air conditioning systems		
41.	Service aircraft fire suppression systems		
42.	Service aircraft-mounted air compressors		
43.	Service aircraft windshield washer systems		
44.	Service aircraft with drinking water		
45.	Service auxiliary power plants		
46.	Troubleshoot aircraft air conditioning or pressurization systems or components		
47.	Troubleshoot aircraft de-icing systems		
48.	Troubleshoot aircraft gaseous oxygen systems or components		

(Continued next page)

	1. Check tasks you perform now (✓). 2. On the back of the book, write in any untasked tasks which you do now. 3. In the "Time Spent" column, rate all checked (✓) tasks on time spent in present job.	Check	TIME SPENT Present Job
	AFSC 431X1 J. MAINTAINING UTILITY SYSTEMS (CONTINUED)	✓ IF DONE NOW	1. Very small amount. 2. Much below average. 3. Below average. 4. Slightly below average. 5. About average. 6. Slightly above average. 7. Above average. 8. Much above average. 9. Very large amount.
49.	Troubleshoot aircraft liquid oxygen systems or components		⓪①②③④⑤⑥⑦⑧⑨
50.	Troubleshoot aircraft windshield wiper systems		⓪①②③④⑤⑥⑦⑧⑨
NOTE:	If any task you perform under this duty is not listed, write it on page 47 or 48.		⓪①②③④⑤⑥⑦⑧⑨
			⓪①②③④⑤⑥⑦⑧⑨
			⓪①②③④⑤⑥⑦⑧⑨
	K. MAINTAINING FLIGHT CONTROL SYSTEMS		⓪①②③④⑤⑥⑦⑧⑨
			⓪①②③④⑤⑥⑦⑧⑨
			⓪①②③④⑤⑥⑦⑧⑨
1.	Adjust aircraft pitch trim		⓪①②③④⑤⑥⑦⑧⑨
2.	Adjust flight control stops		⓪①②③④⑤⑥⑦⑧⑨
3.	Adjust installed flight control adjustable tabs		⓪①②③④⑤⑥⑦⑧⑨
4.	Adjust installed flight control fixed tabs		⓪①②③④⑤⑥⑦⑧⑨
5.	Adjust or replace regulators on flight control balance panels		⓪①②③④⑤⑥⑦⑧⑨
6.	Adjust travel of aircraft trim actuators		⓪①②③④⑤⑥⑦⑧⑨
7.	Align or adjust aircraft control surface stops		⓪①②③④⑤⑥⑦⑧⑨
8.	Check control surface travel using protractors, templates, or rigging devices		⓪①②③④⑤⑥⑦⑧⑨
9.	Inspect all-weather landing systems		⓪①②③④⑤⑥⑦⑧⑨
10.	Inspect artificial feel system components		⓪①②③④⑤⑥⑦⑧⑨
11.	Inspect autopilot system or components		⓪①②③④⑤⑥⑦⑧⑨
12.	Inspect boost engage locks		⓪①②③④⑤⑥⑦⑧⑨
13.	Inspect boundary layer control (BLC) ducts		⓪①②③④⑤⑥⑦⑧⑨
14.	Inspect BLC valves		⓪①②③④⑤⑥⑦⑧⑨
15.	Inspect electrical flight control systems		⓪①②③④⑤⑥⑦⑧⑨
16.	Inspect flight control surfaces		⓪①②③④⑤⑥⑦⑧⑨

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	1. Check tasks you perform now (✓). 2. On the back of the book, write in any unlisted tasks which you do now. 3. In the "Time Spent" column rate all checked (✓) tasks on time spent in present job	Check	TIME SPENT Present Job
	AFSC 431X1 K. MAINTAINING FLIGHT CONTROL SYSTEMS (CONTINUED)	✓ IF DONE NOW	1. Very small amount. 2. Much below average. 3. Below average. 4. Slightly below average. 5. About average. 6. Slightly above average. 7. Above average. 8. Much above average. 9. Very large amount.
17.	Inspect hydraulic boost flight control systems		
18.	Inspect hydraulic flight control systems		
19.	Inspect in-flight refueling control surfaces		
20.	Inspect internal lock mechanism for flight control systems		
21.	Inspect manual flight control systems or components		
22.	Inspect spoiler or speed brake control systems		
23.	Inspect static dischargers		
24.	Inspect wing sweep systems		
25.	Lubricate flight control systems		
26.	Measure force feel of sticks or columns		
27.	Operationally check aileron, rudder, or elevator systems		
28.	Operationally check aileron, rudder, stabilizer, or elevator trim systems		
29.	Operationally check all-weather landing systems		
30.	Operationally check autopilot systems		
31.	Operationally check BLC systems		
32.	Operationally check feel systems		
33.	Operationally check flight control hydraulic power packages		
34.	Operationally check inflight refueling boom ruddervators		
35.	Operationally check trim actuators		
36.	Operationally check wing flaps		
37.	Operationally check wing sweep systems		
38.	Operationally check wing slat systems		
39.	Remove or install aircraft rig boards or protractors		
40.	Remove or replace ailerons, rudders, or elevators		

(Continued next page)

1. Check tasks you perform now (✓).
2. On the back of the book, write in any unlisted tasks which you do now.
3. In the "Time Spent" column, rate all checked (✓) tasks on time spent in present job.

AFSC 431X1

K. MAINTAINING FLIGHT CONTROL SYSTEMS (CONTINUED)

	Check ✓ if DONE NOW	TIME SPENT Present Job 1. Very small amount. 2. Much below average. 3. Below average. 4. Slightly below average. 5. About average. 6. Slightly above average. 7. Above average. 8. Much above average. 9. Very large amount.
41. Remove or replace artificial feel system components		⓪①②③④⑤⑥⑦⑧⑨
42. Remove or replace BLC linkage		⓪①②③④⑤⑥⑦⑧⑨
43. Remove or replace flaps		⓪①②③④⑤⑥⑦⑧⑨
44. Remove or replace gust dampers		⓪①②③④⑤⑥⑦⑧⑨
45. Remove or replace hydraulic boost flight control system components		⓪①②③④⑤⑥⑦⑧⑨
46. Remove or replace manual flight control system components		⓪①②③④⑤⑥⑦⑧⑨
47. Remove or replace primary flight control surfaces		⓪①②③④⑤⑥⑦⑧⑨
48. Remove or replace slats		⓪①②③④⑤⑥⑦⑧⑨
49. Remove or replace spoiler or speed brake control systems		⓪①②③④⑤⑥⑦⑧⑨
50. Remove or replace static dischargers		⓪①②③④⑤⑥⑦⑧⑨
51. Remove or replace surface position indicators (SPI)		⓪①②③④⑤⑥⑦⑧⑨
52. Remove or replace trailing edges of wings		⓪①②③④⑤⑥⑦⑧⑨
53. Remove or replace trim motors		⓪①②③④⑤⑥⑦⑧⑨
54. Remove or replace wing sweep actuators		⓪①②③④⑤⑥⑦⑧⑨
55. Rig autopilot servos		⓪①②③④⑤⑥⑦⑧⑨
56. Rig BLC systems		⓪①②③④⑤⑥⑦⑧⑨
57. Rig flaps		⓪①②③④⑤⑥⑦⑧⑨
58. Rig or adjust hydraulic boost flight control system components		⓪①②③④⑤⑥⑦⑧⑨
59. Rig or adjust lock mechanisms for flight control systems		⓪①②③④⑤⑥⑦⑧⑨
60. Rig slats		⓪①②③④⑤⑥⑦⑧⑨
61. Rig spoiler or speed brake control systems		⓪①②③④⑤⑥⑦⑧⑨
62. Service gust dampers		⓪①②③④⑤⑥⑦⑧⑨
63. Service or lubricate flight control system components		⓪①②③④⑤⑥⑦⑧⑨
64. Troubleshoot electrical flight control systems		⓪①②③④⑤⑥⑦⑧⑨

(Continued next page)

1. Check tasks you perform now (✓)
2. On the back of the book, write in any unlisted tasks which you do now.
3. In the "Time Spent" column, rate all checked (✓) tasks on time spent in present job.

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K. MAINTAINING FLIGHT CONTROL SYSTEMS (CONTINUED)

	Check ✓ IF DONE NOW	TIME SPENT Present Job (1. Very small amount. 2. Much below average. 3. Below average. 4. Slightly below average. 5. About average. 6. Slightly above average. 7. Above average. 8. Much above average. 9. Very large amount.)
65. Troubleshoot hydraulic flight control systems		
66. Troubleshoot manual flight control systems		
NOTE: If any task you perform under this duty is not listed, write it on page 47 or 48.		
L. MAINTAINING PNEUDRAULIC SYSTEMS		
1. Adjust tail bumpers		
2. Adjust tail hooks		
3. Inspect camera pneumatic systems		
4. Inspect canopy open or close valves		
5. Inspect cargo door hydraulic systems		
6. Inspect emergency or normal flap extensions		
7. Inspect emergency or normal gear extensions		
8. Inspect hydraulic system accumulators		
9. Inspect hydraulic system actuators		
10. Inspect hydraulic system dehydrators		
11. Inspect hydraulic system dryers		
12. Inspect hydraulic system filters		
13. Inspect hydraulic system motors		
14. Inspect hydraulic system power packages		
15. Inspect hydraulic system pumps		
16. Inspect hydraulic system reservoirs		

(Continued next page)

1. Check tasks you perform now (✓).
2. On the back of the book, write in any unlisted tasks which you do now.
3. In the "Time Spent" column, rate all checked (✓) tasks on time spent in present job.

AFSC 431X1

L. MAINTAINING PNEUDRAULIC SYSTEMS (CONTINUED)

	Check ✓ IF DONE NOW	TIME SPENT Present Job 1. Very small amount. 2. Much below average. 3. Below average. 4. Slightly below average. 5. About average. 6. Slightly above average. 7. Above average. 8. Much above average. 9. Very large amount.
17. Inspect hydraulic system reservoirs sight gages		⓪①②③④⑤⑥⑦⑧⑨
18. Inspect hydraulic system tubing or lines		⓪①②③④⑤⑥⑦⑧⑨
19. Inspect hydraulic system valves		⓪①②③④⑤⑥⑦⑧⑨
20. Inspect photoflash doors		⓪①②③④⑤⑥⑦⑧⑨
21. Inspect pneumatic actuators		⓪①②③④⑤⑥⑦⑧⑨
22. Inspect pneumatic ducts		⓪①②③④⑤⑥⑦⑧⑨
23. Inspect pneumatic escape spoiler door systems		⓪①②③④⑤⑥⑦⑧⑨
24. Inspect pneumatic relief valves		⓪①②③④⑤⑥⑦⑧⑨
25. Inspect pneumatic system air bottles		⓪①②③④⑤⑥⑦⑧⑨
26. Inspect pneumatic system air compressors		⓪①②③④⑤⑥⑦⑧⑨
27. Inspect pneumatic system check valves		⓪①②③④⑤⑥⑦⑧⑨
28. Inspect pneumatic system tubing or lines		⓪①②③④⑤⑥⑦⑧⑨
29. Inspect tail bumpers		⓪①②③④⑤⑥⑦⑧⑨
30. Inspect tail hooks		⓪①②③④⑤⑥⑦⑧⑨
31. Operationally check emergency or normal flap extensions		⓪①②③④⑤⑥⑦⑧⑨
32. Operationally check emergency or normal gear extensions		⓪①②③④⑤⑥⑦⑧⑨
33. Operationally check hydraulic actuators		⓪①②③④⑤⑥⑦⑧⑨
34. Operationally check hydraulic filters		⓪①②③④⑤⑥⑦⑧⑨
35. Operationally check hydraulic power packages		⓪①②③④⑤⑥⑦⑧⑨
36. Operationally check hydraulic pumps		⓪①②③④⑤⑥⑦⑧⑨
37. Operationally check hydraulic valves		⓪①②③④⑤⑥⑦⑧⑨
38. Remove or replace accumulator pressure gauges		⓪①②③④⑤⑥⑦⑧⑨
39. Remove or replace chemical dryers		⓪①②③④⑤⑥⑦⑧⑨
40. Remove or replace dehydrators		⓪①②③④⑤⑥⑦⑧⑨

(Continued next page)

1. Check tasks you perform now (✓).
2. On the back of the book, write in any unlisted tasks which you do now.
3. In the "Time Spent" column, rate all checked (✓) tasks on time spent in present job.

AFSC 431X1

L. MAINTAINING PNEUDRAULIC SYSTEMS (CONTINUED)

	Check ✓ IF DONE NOW	TIME SPENT Present Job (1. Very small amount. 2. Much below average. 3. Below average. 4. Slightly below average. 5. About average. 6. Slightly above average. 7. Above average. 8. Much above average. 9. Very large amount.)
41. Remove or replace hydraulic reservoir sight gauges		①②③④⑤⑥⑦⑧⑨
42. Remove or replace hydraulic system accumulators		①②③④⑤⑥⑦⑧⑨
43. Remove or replace hydraulic system filters		①②③④⑤⑥⑦⑧⑨
44. Remove or replace pneumatic system accumulators		①②③④⑤⑥⑦⑧⑨
45. Remove or replace schrader valves		①②③④⑤⑥⑦⑧⑨
46. Remove or replace tail bumpers		①②③④⑤⑥⑦⑧⑨
47. Remove or replace tail hooks		①②③④⑤⑥⑦⑧⑨
48. Remo[illegible] replace turbine-driven hydraulic packs		①②③④⑤⑥⑦⑧⑨
49. R[illegible] open or close valves		①②③④⑤⑥⑦⑧⑨
50. [illegible]djust gun purge doors		①②③④⑤⑥⑦⑧⑨
51. Rig or adjust photoflash doors		①②③④⑤⑥⑦⑧⑨
52. Rig or adjust RAT doors		①②③④⑤⑥⑦⑧⑨
53. Rig tail hooks		①②③④⑤⑥⑦⑧⑨
54. Service pneudraulic systems or components		①②③④⑤⑥⑦⑧⑨
55. Service tail bumpers		①②③④⑤⑥⑦⑧⑨
56. Service tail hooks		①②③④⑤⑥⑦⑧⑨
57. Troubleshoot hydraulic systems		①②③④⑤⑥⑦⑧⑨
58. Troubleshoot pneumatic systems		①②③④⑤⑥⑦⑧⑨
NOTE: If any task you perform under this duty is not listed, write it on page 47 or 48.		①②③④⑤⑥⑦⑧⑨
		①②③④⑤⑥⑦⑧⑨
		①②③④⑤⑥⑦⑧⑨
		①②③④⑤⑥⑦⑧⑨
		①②③④⑤⑥⑦⑧⑨
		①②③④⑤⑥⑦⑧⑨

1. Check tasks you perform now (✓).
2. On the back of the book, write in any unlisted tasks which you do now.
3. In the "Time Spent" column, rate all checked (✓) tasks on time spent in present job.

AFSC 431X1

M. MAINTAINING ELECTRICAL SYSTEMS

	Check (✓ IF DONE NOW)	TIME SPENT Present Job (1. Very small amount. 2. Much below average. 3. Below average. 4. Slightly below average. 5. About average. 6. Slightly above average. 7. Above average. 8. Much above average. 9. Very large amount.)
1. Adjust microswitches		
2. Clean battery terminals or connectors		
3. Inspect aircraft alternators or generators		
4. Inspect aircraft battery vent systems		
5. Inspect aircraft external lights		
6. Inspect aircraft external power receptacles		
7. Inspect aircraft internal lights		
8. Inspect aircraft inverters		
9. Inspect aircraft lead-acid batteries		
10. Inspect aircraft-mounted switches		
11. Inspect aircraft nickel-cadmium batteries		
12. Inspect aircraft warning systems		
13. Inspect aircraft wiring or connectors		
14. Inspect fuse or circuit breaker panels		
15. Operationally check aircraft external lights		
16. Operationally check aircraft generator systems		
17. Operationally check aircraft-installed batteries		
18. Operationally check aircraft-installed warning systems		
19. Operationally check aircraft internal lights		
20. Operationally check aircraft inverters		
21. Operationally check air-driven generators or alternators		
22. Operationally check engine-driven generators or alternators		
23. Operationally check microswitches		
24. Operationally check pilot director systems		

(Continued next page)

	1. Check tasks you perform now (✓). 2. On the back of the book, write in any unlisted tasks which you do now. 3. In the "Time Spent" column, rate all checked (✓) tasks on time spent in present job	Check	TIME SPENT Present Job
	AFSC 431X1 M. MAINTAINING ELECTRICAL SYSTEMS (CONTINUED)	✓ IF DONE NOW	1. Very small amount. 2. Much below average. 3. Below average. 4. Slightly below average. 5. About average. 6. Slightly above average. 7. Above average 8. Much above average. 9. Very large amount.
25.	Operationally check transformer rectifiers		
26.	Perform continuity checks of aircraft engine magnetic plugs		
27.	Perform continuity checks of aircraft start systems		
28.	Remove or replace aircraft light lenses		
29.	Remove or replace aircraft-mounted batteries		
30.	Remove or replace aircraft-mounted fuses		
31.	Remove or replace aircraft-mounted light bulbs		
32.	Remove or replace pilot director indicator (PDI) doors		
33.	Remove or replace PDI reflectors		
34.	Service aircraft batteries		
35.	Service aircraft battery sump jars		
36.	Service aircraft battery vent systems		
37.	Test aircraft batteries		
38.	Troubleshoot aircraft-installed warning systems		
39.	Troubleshoot external lighting systems		
40.	Troubleshoot internal lighting systems		
NOTE:	If any task you perform under this duty is not listed, write it on page 47 or 48.		
	N. MAINTAINING FUEL SYSTEMS		
1.	Clean fuel filters		
2.	Cover connections of removed external fuel tanks such as cannon plugs		

(Continued next page)

1. Check tasks you perform now (✓).
2. On the back of the book, write in any unlisted tasks which you do now.
3. In the "Time Spent" column, rate all checked (✓) tasks on time spent in present job.

AFSC 431X1

N. MAINTAINING FUEL SYSTEMS (CONTINUED)

	Check ✓ IF DONE NOW	TIME SPENT Present Job (1. Very small amount. 2. Much below average. 3. Below average. 4. Slightly below average. 5. About average. 6. Slightly above average. 7. Above average. 8. Much above average. 9. Very large amount.)
3. Defuel aircraft using over-wing methods		① ② ③ ④ ⑤ ⑥ ⑦ ⑧ ⑨
4. Defuel aircraft using single-point methods		① ② ③ ④ ⑤ ⑥ ⑦ ⑧ ⑨
5. Drain fuel sumps		① ② ③ ④ ⑤ ⑥ ⑦ ⑧ ⑨
6. Dry drain fuel tanks		① ② ③ ④ ⑤ ⑥ ⑦ ⑧ ⑨
7. Inspect bladder-type cavity drains		① ② ③ ④ ⑤ ⑥ ⑦ ⑧ ⑨
8. Inspect bladder-type internal visible fuel transfer pumps		① ② ③ ④ ⑤ ⑥ ⑦ ⑧ ⑨
9. Inspect external fuel system components such as cannon plugs, locking mechanisms, valves, or lines		① ② ③ ④ ⑤ ⑥ ⑦ ⑧ ⑨
10. Inspect in-flight refueling system receptacles		① ② ③ ④ ⑤ ⑥ ⑦ ⑧ ⑨
11. Inspect integral-type cavity drains		① ② ③ ④ ⑤ ⑥ ⑦ ⑧ ⑨
12. Inspect integral-type internal visible fuel transfer pumps		① ② ③ ④ ⑤ ⑥ ⑦ ⑧ ⑨
13. Lubricate in-flight refueling system receptacles		① ② ③ ④ ⑤ ⑥ ⑦ ⑧ ⑨
14. Operationally check boost pumps		① ② ③ ④ ⑤ ⑥ ⑦ ⑧ ⑨
15. Operationally check external fuel tanks		① ② ③ ④ ⑤ ⑥ ⑦ ⑧ ⑨
16. Operationally check fuel control panels		① ② ③ ④ ⑤ ⑥ ⑦ ⑧ ⑨
17. Operationally check fuel crossfeed systems		① ② ③ ④ ⑤ ⑥ ⑦ ⑧ ⑨
18. Operationally check fuel dump systems		① ② ③ ④ ⑤ ⑥ ⑦ ⑧ ⑨
19. Operationally check fuel valves		① ② ③ ④ ⑤ ⑥ ⑦ ⑧ ⑨
20. Operationally check in-flight refueling system receptacles		① ② ③ ④ ⑤ ⑥ ⑦ ⑧ ⑨
21. Operationally check refuel or defuel manifold drainage systems		① ② ③ ④ ⑤ ⑥ ⑦ ⑧ ⑨
22. Operationally check tank feed systems		① ② ③ ④ ⑤ ⑥ ⑦ ⑧ ⑨
23. Operationally check tank pressure systems		① ② ③ ④ ⑤ ⑥ ⑦ ⑧ ⑨
24. Operationally check transfer pumps		① ② ③ ④ ⑤ ⑥ ⑦ ⑧ ⑨
25. Perform ground operational checks of tanker inflight refueling systems		① ② ③ ④ ⑤ ⑥ ⑦ ⑧ ⑨
26. Perform leak or pressure checks of aircraft fuel systems		① ② ③ ④ ⑤ ⑥ ⑦ ⑧ ⑨

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1. Check tasks you perform now (✓).
2. On the back of the book, write in any unlisted tasks which you do now.
3. In the "Time Spent" column, rate all checked (✓) tasks on time spent in present job.

AFSC 431X1

N. MAINTAINING FUEL SYSTEMS (Continued)

	Check ✓ IF DONE NOW	TIME SPENT Present Job 1. Very small amount. 2. Much below average. 3. Below average. 4. Slightly below average. 5. About average. 6. Slightly above average. 7. Above average. 8. Much above average. 9. Very large amount.
27. Pick up or return external fuel tanks from or to storage areas		①②③④⑤⑥⑦⑧⑨
28. Prepare aircraft for fuel cell maintenance		①②③④⑤⑥⑦⑧⑨
29. Preserve or depreserve fuel systems		①②③④⑤⑥⑦⑧⑨
30. Remove or install Benson auxilary fuel tanks		①②③④⑤⑥⑦⑧⑨
31. Remove or install external fuel tanks		①②③④⑤⑥⑦⑧⑨
32. Remove or install Benson fuselage tanks		①②③④⑤⑥⑦⑧⑨
33. Remove or replace bladder-type fuel drain valves		①②③④⑤⑥⑦⑧⑨
34. Remove or replace distilled water lines, valves, or filters		①②③④⑤⑥⑦⑧⑨
35. Remove or replace distilled water pumps		①②③④⑤⑥⑦⑧⑨
36. Remove or replace fuel booster pumps		①②③④⑤⑥⑦⑧⑨
37. Remove or replace fuel cell fire suppression material, such as foam		①②③④⑤⑥⑦⑧⑨
38. Remove or replace fuel drain valves		①②③④⑤⑥⑦⑧⑨
39. Remove or replace fuel filters		①②③④⑤⑥⑦⑧⑨
40. Remove or replace refueling booms		①②③④⑤⑥⑦⑧⑨
41. Remove or replace single-point fuel receptacles		①②③④⑤⑥⑦⑧⑨
42. Remove or replace stand pipes or seals on external fuel tanks		①②③④⑤⑥⑦⑧⑨
43. Service aircraft distilled water systems		①②③④⑤⑥⑦⑧⑨
44. Transfer fuel within aircraft		①②③④⑤⑥⑦⑧⑨
45. Troubleshoot fuel crossfeed systems		①②③④⑤⑥⑦⑧⑨
46. Troubleshoot tank feed systems		①②③④⑤⑥⑦⑧⑨
47. Troubleshoot tank pressure systems		①②③④⑤⑥⑦⑧⑨
*48. Troubleshoot transfer pumps		①②③④⑤⑥⑦⑧⑨
49. Visually inspect fuel vent outlets		①②③④⑤⑥⑦⑧⑨
50. Visually inspect single-point receptacles		①②③④⑤⑥⑦⑧⑨

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	1. Check tasks you perform now (✓). 2. On the back of the book, write in any unlisted tasks which you do now. 3. In the "Time Spent" column, rate all checked (✓) tasks on time spent in present job.	Check	TIME SPENT Present Job
	AFSC 431X1 N. MAINTAINING FUEL SYSTEMS (CONTINUED)	✓ IF DONE NOW	1. Very small amount. 2. Much below average. 3. Below average. 4. Slightly below average. 5. About average. 6. Slightly above average. 7. Above average. 8. Much above average. 9. Very large amount.
	51. Visually inspect surge tanks or vent boxes		
	NOTE: If any task you perform under this duty is not listed, write it on page 47 or 48.		
	O. MAINTAINING NONPOWERED AEROSPACE GROUND EQUIPMENT (AGE)		
	1. Conduct corrosion inspections of nonpowered AGE		
	2. Deliver hydraulic servicing carts to hydraulic shop for calibration		
	3. Deliver nonpowered AGE to field maintenance for maintenance or testing		
	4. Deliver tow bars to nondestructive inspection (NDI) shop for periodic inspections		
	5. Inspect ground engine run-up screens		
	6. Lubricate nonpowered AGE		
	7. Locate leaks or malfunctions of nonpowered AGE		
	8. Maintain facility mounted hoists		
	9. Maintain portable hoists		
	10. Maintain or store warning signs such as "danger aircraft on jacks"		
	11. Maintain waste oil or contaminated fuel bowsers		
	12. Operationally check gaseous oxygen carts		
	13. Operationally check hydraulic servicing carts		
	14. Operationally check LOX carts		
	15. Operationally check nitrogen carts		
	16. Operationally check oil servicing carts		
	17. Overhaul aircraft jacks		

(Continued next page)

1. Check tasks you perform now (✓).
2. On the back of the book, write in any unlisted tasks which you do now.
3. In the "Time Spent" column, rate all checked (✓) tasks on time spent in present job.

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0. MAINTAINING NONPOWERED AEROSPACE GROUND EQUIPMENT (AGE) (CONTINUED)

	Check ✓ IF DONE NOW	TIME SPENT Present Job 1. Very small amount. 2. Much below average. 3. Below average. 4. Slightly below average. 5. About average. 6. Slightly above average. 7. Above average. 8. Much above average. 9. Very large amount.
18. Overhaul hydraulic servicing carts		
19. Overhaul maintenance stands		
20. Overhaul towing equipment other than vehicles		
21. Paint nonpowered AGE		
22. Perform minor maintenance on aircraft engine intake screens such as replacing rivets or straightening parts		
23. Perform minor maintenance on nonpowered LOX carts such as tightening screws or bolts		
24. Perform periodic inspections of nonpowered AGE		
25. Place in or remove from storage ground engine run-up screens		
26. Post or remove aircraft warning signs such as "danger aircraft on jacks"		
27. Remove or replace nonpowered AGE gauges or hardware		
28. Service gaseous oxygen carts		
29. Service hydraulic servicing carts		
30. Service jacks		
31. Service LOX carts		
32. Service maintenance stands		
33. Service nitrogen carts		
34. Service oil servicing carts		
35. Store powered aircraft support equipment		
36. Tow nonpowered AGE		
NOTE: If any task you perform under this duty is not listed, write it on page 47 or 48.		

	1. Check tasks you perform now (✓). 2. On the back of the book, write in any unlisted tasks which you do now. 3. In the "Time Spent" column, rate all checked (✓) tasks on time spent in present job.	Check	TIME SPENT Present Job
	AFSC 431X1 P. MAINTAINING 780 EQUIPMENT	✓ IF DONE NOW	1. Very small amount. 2. Much below average. 3. Below average. 4. Slightly below average. 5. About average. 6. Slightly above average. 7. Above average. 8. Much above average. 9. Very large amount.
1.	Apply corrosion control compounds such as paints		
2.	Assign classification to stored 780 equipment		
3.	Coordinate with base activities on missing 780 equipment		
4.	Coordinate with base packing and shipping on methods of packing 780 equipment		
5.	Coordinate with shipper on transportation of 780 equipment		
6.	Coordinate with supply on initial issue of 780 equipment		
7.	Cover 780 equipment		
8.	Crate or uncrate 780 equipment		
9.	Draft correspondence or messages to locate missing 780 equipment		
10.	Ground external fuel tanks in storage		
11.	Inspect cargo loading traverser systems		
12.	Inspect due dates on 780 equipment status tags		
13.	Inspect external stores		
14.	Inspect 780 equipment for serviceability		
15.	Inventory 780 equipment		
16.	Lubricate 780 equipment		
17.	Operate cargo loading traverser systems		
18.	Operationally check cargo-loading traverser systems		
19.	Perform minor maintenance of 780 equipment such as tighten bolts		
20.	Pick up or deliver 780 equipment		
21.	Remove corrosion from 780 equipment		
22.	Remove or install cargo-loading traverser systems		
23.	Research inventory master guides		
24.	Review or annotate government bills of lading (GBL)		

(Continued next page)

1. Check tasks you perform now (✓).
2. On the back of the book, write in any unlisted tasks which you do now.
3. In the "Time Spent" column, rate all checked (✓) tasks on time spent in present job.

AFSC 431X1

P. MAINTAINING 780 EQUIPMENT (CONTINUED)

	Check ✓ IF DONE NOW	TIME SPENT Present Job (1. Very small amount. 2. Much below average. 3. Below average. 4. Slightly below average. 5. About average. 6. Slightly above average. 7. Above average. 8. Much above average. 9. Very large amount.)
25. Select packing materials or methods for 780 equipment		
26. Trace missing 780 equipment by voice communications		
NOTE: If any task you perform under this duty is not listed, write it on page 47 or 48.		
Q. PERFORMING GENERAL ENGINE MAINTENANCE		
1. Adjust engine fuel controls		
2. Adjust engine oil pressure		
3. Adjust variramp air induction systems		
4. Clean cartridge-type starters		
5. Clean engine air intake ducts		
6. Clean engine oil filters		
7. Inspect afterburner (AB) eyelids		
8. Inspect afterburner areas		
9. Inspect air inlet areas		
10. Inspect belmouth air induction system components		
11. Inspect bleed valves		
12. Inspect bleed valve actuators		
13. Inspect bleed valve governors		
14. Inspect blow-in, sucker, or flipper doors		
15. Inspect cartridge-type starters		
16. Inspect engine accessories, such as fuel pumps, hydraulic pumps, or constant speed drives (CSD)		

(Continued next page)

	1. Check tasks you perform now (✓). 2. On the back of the book, write in any unlisted tasks which you do now 3. In the "Time Spent" column, rate all checked (✓) tasks on time spent in present job.	Check	TIME SPENT Present Job
	AFSC 431X1 Q. PERFORMING GENERAL ENGINE MAINTENANCE (CONTINUED)	✓ IF DONE NOW	1. Very small amount. 2. Much below average. 3. Below average 4. Slightly below average 5. About average 6. Slightly above average 7. Above average. 8. Much above average. 9. Very large amount
17.	Inspect engine air lines or fittings		
18.	Inspect engine compressor blades		
19.	Inspect engine firewalls		
20.	Inspect engine fuel controls		
21.	Inspect engine fuel filters		
22.	Inspect engine indicators or instruments		
23.	Inspect engine oil coolers		
24.	Inspect engine oil cooler inlets		
25.	Inspect engine oil filters		
26.	Inspect engine oil lines or fittings		
27.	Inspect engine quick-disconnect lines		
28.	Inspect engine throttle system components		
29.	Inspect engine turbine stator blades		
30.	Inspect engine vortex systems		
31.	Inspect or clean cartridge-type starter breech caps		
32.	Inspect pneumatic starters		
33.	Inspect pneumatic water injection pumps or brackets		
34.	Inspect pressurization or dump valve screens		
35.	Inspect propellers		
36.	Inspect spike air induction systems		
37.	Inspect thrust reverser systems		
38.	Inspect translating cowl induction systems		
39.	Inspect variramp air induction systems		
40.	Inspect visible engine mounts or attach points		

(Continued next page)

	1. Check tasks you perform now (✓). 2. On the back of the book, write in any unlisted tasks which you do now. 3. In the "Time Spent" column, rate all checked (✓) tasks on time spent in present job. AFSC 431X1 Q. PERFORMING GENERAL ENGINE MAINTENANCE (CONTINUED)	Check ✓ IF DONE NOW	TIME SPENT Present Job 1. Very small amount. 2. Much below average. 3. Below average. 4. Slightly below average. 5. About average. 6. Slightly above average. 7. Above average. 8. Much above average. 9. Very large amount.
41.	Operationally check belmouth air induction systems		
42.	Operationally check engine ignition systems		
43.	Operationally check engine throttle systems		
44.	Operationally check spike air induction systems		
45.	Operationally check variramp air induction systems		
46.	Perform engine exhaust gas temperature spread tests		
47.	Perform operational checks of AB eyelids		
48.	Perform operational checks of oil cooler doors or flaps		
49.	Perform operational checks of pneumatic starters		
50.	Perform operational checks of propeller control systems		
51.	Perform operational checks of thrust reverser systems		
52.	Perform operator maintenance on aircraft-installed auxiliary power plants		
53.	Perform pressure checks of fuel manifolds		
54.	Perform visual inspections of water injection systems		
55.	Remove or install starter cartridges		
56.	Remove or replace auxiliary power plant components		
57.	Remove or replace belmouth air induction system components		
58.	Remove or replace blow-in, sucker, or flipper doors		
59.	Remove or replace engine cowlings		
60.	Remove or replace engine-driven generators or alternators		
61.	Remove or replace engine oil coolers		
62.	Remove or replace engine oil filters		
63.	Remove or replace engine oil lines		
64.	Remove or replace engine nose domes		

(Continued next page)

1. Check tasks you perform now (✓).
2. On the back of the book, write in any unlisted tasks which you do now.
3. In the "Time Spent" column, rate all checked (✓) tasks on time spent in present job.

AFSC 431X1

Q. PERFORMING GENERAL ENGINE MAINTENANCE (CONTINUED)

	Check (✓ IF DONE NOW)	TIME SPENT Present Job (1. Very small amount. 2. Much below average. 3. Below average. 4. Slightly below average. 5. About average. 6. Slightly above average. 7. Above average. 8. Much above average. 9. Very large amount.)
65. Remove or replace igniter plugs		
66. Remove or replace propellers		
67. Remove or replace spike air induction system components		
68. Remove or replace throttle system components		
69. Remove or replace thrust augmentation system components		
70. Remove or replace thrust reverser system components		
71. Remove or replace translating cowl induction system components		
72. Remove or replace variramp air induction systems		
73. Remove or replace water regulators		
74. Rig belmouth air induction system components		
75. Rig engine throttle systems		
76. Rig spike air induction system components		
77. Rig translating cowl induction systems		
78. Rig variramp air induction system components		
79. Service pneumatic starters with oil		
80. Troubleshoot belmouth air induction system components		
81. Troubleshoot engine throttle systems		
82. Troubleshoot variramp air induction system components		
NOTE: If any task you perform under this duty is not listed, write it on page 47 or 48.		

	1. Check tasks you perform now (✓). 2. On the back of the book, write in any unlisted tasks which you do now. 3. In the "Time Spent" column, rate all checked (✓) tasks on time spent in present job. AFSC 431X1 R. MAINTAINING RECIPROCATING ENGINES	Check ✓ IF DONE NOW	TIME SPENT Present Job 1. Very small amount. 2. Much below average. 3. Below average. 4. Slightly below average. 5. About average. 6. Slightly above average. 7. Above average. 8. Much above average. 9. Very large amount.
1.	Adjust reciprocating engine cowl flaps		
2.	Inspect reciprocating engine accessory cases		
3.	Inspect reciprocating engine carburetor air inlets		
4.	Inspect reciprocating engine carburetor linkages		
5.	Inspect reciprocating engine cylinder fins		
6.	Inspect reciprocating engine cylinder heads		
7.	Inspect reciprocating engine exhaust manifolds		
8.	Inspect reciprocating engine ignition harnesses		
9.	Inspect reciprocating engine magnetos		
10.	Inspect reciprocating engine oil breather stand pipes		
11.	Inspect reciprocating engine propeller governor regulators		
12.	Perform operational checks of cowl flaps		
13.	Perform wet run test of anti-detonant injection (ADI) systems		
14.	Remove or replace ADI system components		
15.	Remove or replace carburetors		
16.	Remove or replace magnetos		
17.	Remove or replace reciprocating engine carburetor screens		
18.	Remove or replace reciprocating engines		
19.	Remove or replace reciprocating engine spark plugs		
20.	Remove or replace turbo superchargers		
21.	Run up or operate reciprocating engines		
22.	Service ADI systems		
23.	Service reciprocating engine propeller governor regulators		
24.	Troubleshoot malfunctions within reciprocating engine fuel flow or carburetor systems		

(Continued next page)

	1. Check tasks you perform now (✓). 2. On the back of the book, write in any unlisted tasks which you do now. 3. In the "Time Spent" column, rate all checked (✓) tasks on time spent in present job.	Check	TIME SPENT Present Job
	AFSC 431X1 R. MAINTAINING RECIPROCATING ENGINES (CONTINUED)	✓ IF DONE NOW	1. Very small amount. 2. Much below average. 3. Below average. 4. Slightly below average. 5. About average. 6. Slightly above average. 7. Above average. 8. Much above average. 9. Very large amount.
	25. Troubleshoot reciprocating engine ignition systems		
	26. Troubleshoot reciprocating engine oil pressure systems		
	NOTE: If any task you perform under this duty is not listed, write it on page 47 or 48		
	S. MAINTAINING TURBO-PROPELLER ENGINES		
	1. Adjust temperature datum (TD) valves		
	2. Adjust TD amplifiers		
	3. Adjust turbo-prop engine gear box oil pressure		
	4. Inspect turbo-prop rear scavenge oil pumps		
	5. Monitor or operate turbo-prop engines		
	6. Perform turbo-prop engine dry trim		
	7. Perform turbo-prop engine wet trim		
	8. Remove or replace turbo-prop engines		
	9. Rig turbo-prop engine fuel coordinators		
	10. Rig turbo-prop propellers		
	11. Service turbo-prop propellers		
	NOTE: If any task you perform under this duty is not listed, write it on page 47 or 48.		

	1. Check tasks you perform now (✓). 2. On the back of the book, write in any unlisted tasks which you do now. 3. In the "Time Spent" column, rate all checked (✓) tasks on time spent in present job.	Check	TIME SPENT Present Job
	AFSC 431X1	✓ IF DONE NOW	1. Very small amount. 2. Much below average. 3. Below average. 4. Slightly below average. 5. About average. 6. Slightly above average. 7. Above average. 8. Much above average. 9. Very large amount.
	T. MAINTAINING TURBO-JET ENGINES		
1.	Install or remove fan stoppers		
2.	Monitor or operate turbo-jet engines		
3.	Operationally check turbo-jet starter centrifugal switches		
4.	Perform turbo-jet FOD inspections		
5.	Perform turbo-jet engine dry trim		
6.	Perform turbo-jet engine wet trim		
7.	Remove or replace turbo-jet engines		
NOTE:	If any task you perform under this duty is not listed, write it on page 47 or 48.		
	U. MAINTAINING TOW TARGETS		
1.	Annotate aircraft placards		
2.	Assemble tow targets		
3.	Attach targets to tow cables		
4.	Clean tow reel cable cutters		
5.	Control cable cutter cartridges		
6.	Cut tow cables		
7.	Inspect rewind stands		
8.	Inspect tow reels		
9.	Inspect tow target bridle components		
10.	Inspect tow target bridle cables		
11.	Inspect tow target bridles		

(Continued next page)

1. Check tasks you perform now (✓).
2. On the back of the book, write in any unlisted tasks which you do now.
3. In the "Time Spent" column, rate all checked (✓) tasks on time spent in present job.

AFSC 431X1

U. MAINTAINING TOW TARGETS (CONTINUED)

	Check ✓ IF DONE NOW	TIME SPENT Present Job (1. Very small amount. 2. Much below average. 3. Below average. 4. Slightly below average. 5. About average. 6. Slightly above average. 7. Above average. 8. Much above average. 9. Very large amount.)
12. Inspect tow target cable reels		①②③④⑤⑥⑦⑧⑨
13. Inspect tow target wings		①②③④⑤⑥⑦⑧⑨
14. Inspect uploaded tow targets		①②③④⑤⑥⑦⑧⑨
15. Install or remove cable cutter cartridges		①②③④⑤⑥⑦⑧⑨
16. Isolate malfunctions within tow reel logic modules		①②③④⑤⑥⑦⑧⑨
17. Isolate malfunctions within tow reel units		①②③④⑤⑥⑦⑧⑨
18. Load or unload tow reels		①②③④⑤⑥⑦⑧⑨
19. Load or download tow targets		①②③④⑤⑥⑦⑧⑨
20. Load tow reel spool cables		①②③④⑤⑥⑦⑧⑨
21. Lubricate rewind stands		①②③④⑤⑥⑦⑧⑨
22. Measure tow target wings for warpage		①②③④⑤⑥⑦⑧⑨
23. Observe target impact areas from airborne aircraft		①②③④⑤⑥⑦⑧⑨
24. Operate rewind stands		①②③④⑤⑥⑦⑧⑨
25. Operate tow reels in flight		①②③④⑤⑥⑦⑧⑨
26. Operate tow target cable cutters in flight		①②③④⑤⑥⑦⑧⑨
27. Operationally check tow reels		①②③④⑤⑥⑦⑧⑨
28. Package cable cutter cartridges		①②③④⑤⑥⑦⑧⑨
29. Paint tow targets		①②③④⑤⑥⑦⑧⑨
30. Patch tow target wings		①②③④⑤⑥⑦⑧⑨
31. Perform aircrew preflight inspections of tow target systems		①②③④⑤⑥⑦⑧⑨
32. Perform balance checks of tow targets		①②③④⑤⑥⑦⑧⑨
33. Perform maintenance preflight inspections of tow target systems		①②③④⑤⑥⑦⑧⑨
34. Perform stray voltage checks on cable cutter mechanisms		①②③④⑤⑥⑦⑧⑨
35. Record tow target scoring data		①②③④⑤⑥⑦⑧⑨

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	1. Check tasks you perform now (✓). 2. On the back of the book, write in any unlisted tasks which you do now. 3. In the "Time Spent" column, rate all checked (✓) tasks on time spent in present job. AFSC 431X1	Check	TIME SPENT Present Job
	U. MAINTAINING TOW TARGETS (CONTINUED)	✓ IF DONE NOW	1. Very small amount. 2. Much below average. 3. Below average. 4. Slightly below average. 5. About average. 6. Slightly above average. 7. Above average. 8. Much above average. 9. Very large amount.
36.	Remove or replace rewind stand components		①②③④⑤⑥⑦⑧⑨
37.	Remove or replace tow reel components		①②③④⑤⑥⑦⑧⑨
38.	Rewind cable onto tow spools		①②③④⑤⑥⑦⑧⑨
39.	Secure cables to spools		①②③④⑤⑥⑦⑧⑨
40.	Set up or operate electrical test sets (A/E 37T-18)		①②③④⑤⑥⑦⑧⑨
41.	Splice tow cables		①②③④⑤⑥⑦⑧⑨
42.	Store cable cutter cartridges		①②③④⑤⑥⑦⑧⑨
43.	Store or inventory tow targets		①②③④⑤⑥⑦⑧⑨
44.	Swage swaging sleeves		①②③④⑤⑥⑦⑧⑨
45.	Test target bridle hook locks		①②③④⑤⑥⑦⑧⑨
46.	Test tow reel electrical systems		①②③④⑤⑥⑦⑧⑨
47.	Tighten sway braces		①②③④⑤⑥⑦⑧⑨
48.	Transport cable cutter cartridges		①②③④⑤⑥⑦⑧⑨
49.	Troubleshoot aircraft-installed tow reels		①②③④⑤⑥⑦⑧⑨
50.	Troubleshoot rewind stands		①②③④⑤⑥⑦⑧⑨
51.	Unpack tow target assemblies		①②③④⑤⑥⑦⑧⑨
NOTE:	If any task you perform under this duty is not listed, write it on page 47 or 48.		①②③④⑤⑥⑦⑧⑨
			①②③④⑤⑥⑦⑧⑨
			①②③④⑤⑥⑦⑧⑨
	V. MAINTAINING AERIAL DELIVERY SYSTEMS		①②③④⑤⑥⑦⑧⑨
			①②③④⑤⑥⑦⑧⑨
			①②③④⑤⑥⑦⑧⑨
1.	Adjust overhead delivery system (ODS) or components		①②③④⑤⑥⑦⑧⑨
2.	Adjust 463L aerial delivery system or components		①②③④⑤⑥⑦⑧⑨

(Continued next page)

	1. Check tasks you perform now (✓). 2. On the back of the book, write in any unlisted tasks which you do now. 3. In the "Time Spent" column, rate all checked (✓) tasks on time spent in present job.	Check	TIME SPENT Present Job
	AFSC 431X1 V. MAINTAINING AERIAL DELIVERY SYSTEMS (CONTINUED)	✓ IF DONE NOW	1. Very small amount. 2. Much below average. 3. Below average. 4. Slightly below average. 5. About average. 6. Slightly above average. 7. Above average. 8. Much above average. 9. Very large amount.
3.	Inspect aerial delivery bomb racks or components		
4.	Inspect ODS		
5.	Inspect 463L aerial delivery equipment		
6.	Operationally check aerial delivery bomb racks		
7.	Operationally check ODS		
8.	Operationally check 463L aerial delivery equipment		
9.	Perform operational checks of installed aerial delivery equipment other than 463L		
10.	Perform operational checks of installed 463L aerial delivery equipment		
11.	Remove or replace aerial delivery bomb racks or components		
12.	Remove or replace aerial delivery systems other than 463L		
13.	Remove or replace ODS components		
14.	Remove or replace 463L aerial delivery system components		
15.	Remove or replace 463L aerial delivery system minor hardware		
16.	Remove or replace 463L aerial delivery systems		
17.	Troubleshoot aerial delivery bomb racks		
18.	Troubleshoot installed aerial delivery systems other than 463L		
19.	Troubleshoot installed 463L aerial delivery equipment		
NOTE:	If any task you perform under this duty is not listed, write it on page 47 or 48.		
	W. MAINTAINING INFLIGHT REFUELING (IFR) SYSTEMS		
1.	Inspect inflight refueling booms		

(Continued next page)

	1. Check tasks you perform now (✓). 2. On the back of the book, write in any unlisted tasks which you do now. 3. In the "Time Spent" column, rate all checked (✓) tasks on time spent in present job.	Check	TIME SPENT Present Job
	AFSC 431X1 W. MAINTAINING INFLIGHT REFUELING (IFR) SYSTEMS (CONTINUED)	✓ IF DONE NOW	1. Very small amount. 2. Much below average. 3. Below average. 4. Slightly below average. 5. About average. 6. Slightly above average. 7. Above average. 8. Much above average. 9. Very large amount.
	2. Inspect inflight refueling doors		
	3. Inspect inflight refueling pod assemblies		
	4. Inspect inflight refueling pod hose assemblies		
	5. Operationally check inflight refueling boom sighting windows		
	6. Operationally check inflight refueling door lights		
	7. Remove or replace inflight refueling boom drogues		
	8. Remove or replace inflight refueling boom drogue components		
	9. Remove or replace inflight refueling door light bulbs		
	10. Remove or replace inflight refueling hoses		
	11. Remove or replace inflight refueling pods		
	12. Rig inflight refueling doors		
	13. Service inflight refueling pod accumulators		
	14. Troubleshoot inflight refueling pod systems		
	15. Visually inspect inflight refueling boom drogues		
	NOTE: If any task you perform under this duty is not listed, write it on page 47 or 48.		
	RETURN TO PAGE xii AND FOLLOW PROCEDURE B.		
	WHEN YOU HAVE COMPLETED ALL RATINGS IN "TIME SPENT CURRENT JOB" COLUMN, PAGES 1-46, YOU WILL HAVE COMPLETED THIS USAF JOB INVENTORY, AND YOU MAY TURN THIS BOOKLET IN TO YOUR OCCUPATIONAL SURVEY CONTROL OFFICER.		

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