Audit Report

OFFICE OF THE INSPECTOR GENERAL

PLANNING FOR CONVERSION OF AIR NATIONAL GUARD AND AIR FORCE RESERVE AIRCRAFT

Report No. 95-243 June 21, 1995

Department of Defense

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Acronyms

AFR	Air Force Reserve
ANG	Air National Guard

INSPECTOR GENERAL
DEPARTMENT OF DEFENSE
400 ARMY NAVY DRIVE
ARLINGTON, VIRGINIA 22202-2884

June 21, 1995

MEMORANDUM FOR ASSISTANT SECRETARY OF THE AIR FORCE
(FINANCIAL MANAGEMENT AND COMPTROLLER)
CHIEF, NATIONAL GUARD BUREAU

SUBJECT: Audit Report on Planning for Conversion of Air National Guard and Air Force Reserve Aircraft (Report No. 95-243)

This final report is provided for your review and comments. This report is the second in a series of audit reports on planning for conversion of Reserve Components' aircraft. Management comments on the draft report were considered in preparing the final report.

DoD Directive 7650.3 requires that all audit recommendations be resolved promptly. Therefore, we request the Air Force provide additional comments on Recommendations 1a. and 1.c. by August 21, 1995.

If you have questions on this audit, please contact Mr. James L. Koloshey, Program Director, at (703) 604-8961 (DSN 664-8961). Appendix F lists the distribution of the report. Audit team members are listed inside the back cover.

David K. Steensma
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for Auditing

Office of the Inspector General, DoD

Report No. 95-243 **June 21, 1995**
Project No. 4AG-0014.01

PLANNING FOR CONVERSION OF AIR NATIONAL GUARD AND AIR FORCE RESERVE AIRCRAFT

EXECUTIVE SUMMARY

Introduction. This report is the second in a series of audit reports on planning for conversion of Reserve Components' aircraft. The report addresses conversion of Air National Guard and Air Force Reserve aircraft to more modern aircraft resulting from the downsizing of the Active Air Force. Congress has also directed procurement of C-130H aircraft for these Reserve Components.

Objectives. The overall audit objective was to evaluate the adequacy of support planning for aircraft conversions for the Air National Guard and Air Force Reserve.

Audit Results. Units of the Air National Guard and Air Force Reserve were not adequately equipped and trained for conversion to F-16 and KC-135R aircraft. Consequently, the ability of these units to maintain readiness in peacetime and mobilize in wartime will be adversely affected.

We could not quantify the potential monetary benefits from this audit; however, improvements in readiness posture will occur if recommendations are implemented. Appendix D is a summary of potential benefits resulting from audit.

Summary of Recommendations. We recommend that the Air National Guard and Air Force Reserve establish procedures and provide oversight over aircraft conversions to ensure that units converting to other aircraft will be adequately equipped and trained. We also recommend that a lessons-learned data base be maintained for aircraft conversions.

Management Comments. The Commander, Air Force Reserve, who responded for both the Air National Guard and Air Force Reserve, agreed with the finding and recommendations relating to certain aspects of training and the lessons-learned data base and stated both the Air National Guard and Air Force Reserve had taken or planned actions to ensure part-time maintenance personnel were properly trained. He nonconcurred with recommendations relating to oversight and stated current programs ensure units converting to other aircraft were properly equipped and trained. Details on management's comments are in Part II of the report, and the full text of management's comments is in Part IV.

Audit Response. We request the Air Force provide additional comments indicating specifically what programs are in place to ensure units are properly converted and reconsider its position on oversight by August 21, 1995.

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Part I - Introduction

Background

The Air National Guard (ANG) and Air Force Reserve (AFR) comprise the Air Force Reserve Components. The Reserve Components provide all-weather reconnaissance, aerial spraying, strategic interceptor, and tactical reconnaissance and the majority of tactical airlift, air rescue, and aerial refueling. Appendix A provides the ANG and AFR contributions to the total Air Force in FY 1994. In addition to their mobilization roles, ANG and AFR respond to domestic emergencies such as natural disasters and are involved in other humanitarian and counter-drug efforts.

Changes in Aircraft. The number and mix of aircraft in the Reserve Components has changed significantly since FY 1992.

Number of Aircraft. The Reserve Components were assigned 376 (19 percent) fewer aircraft in FY 1994 than in FY 1992, as shown in Table 1.

Table 1. Reserve Component Aircraft

Reserve Components	1992	1994	Change Number	Change Percent
Air National Guard	1,548	1,189	359	(23)
Air Force Reserve	467	450	17	(4)
Total	**2,015**	**1,639**	**376**	**(19)**

Mix of Aircraft. The ANG and AFR have continued to decrease and modernize fighter aircraft and increase the number of refueler aircraft. The Air Force uses the term conversion in referring to replacement of aircraft. F-16C/D and KC-135R aircraft were transferred from the Regular Air Force to replace older A-10, A-7, and F-16A/B aircraft due to continued downsizing of the Regular Air Force. The number of RF-4C aircraft were reduced by disposal of aircraft. Also, Congress directed the Air Force to procure the C-130H aircraft with funds appropriated specifically for the Reserve Components. Appendix B provides the major changes by aircraft category.

Manpower Authorizations. In FY 1994, the ANG and AFR were authorized 199,200 selected reservists who are usually the first to mobilize during a crisis or contingency. Of the 199,200 reservists, 54,000 (27 percent) are full-time and 145,200 (73 percent) are part-time personnel. The full-time reservists are active duty or reserve personnel and include civilian personnel. Since selected reservists are essential to initial wartime missions, they have priority for training to ensure that equipment is maintained at the highest readiness level.

Objectives

The overall audit objective was to determine whether support planning for materiel support and maintenance training was adequate for conversions of aircraft for Reserve Components. We also evaluated management controls related to conversion planning and supportability issues.

Scope and Methodology

We conducted this economy and efficiency audit from July 1994 through February 1995. We performed the audit in accordance with the auditing standards issued by the Comptroller General of the United States, as implemented by the Inspector General, DoD, and included necessary tests of management controls. We evaluated the adequacy of the aircraft conversion planning process and assessed the effectiveness of planning of manpower, personnel, support equipment, and training in support of F-16A/B, F-16C/D, KC-135R, and C-130H aircraft for six Air National Guard units and three Air Force Reserve units. We did not rely on computer-processed data for our audit. Organizations visited and contacted during the audit are listed in Appendix E.

Management Controls

We reviewed the Air National Guard Readiness Center and Air Force Reserve Command implementation of DoD Directive 5010.38, "Internal Management Control Program," April 14, 1987, by reviewing documentation for vulnerability assessments and management control reviews applicable to conversion planning and supportability issues. We determined that existing controls were not effective to ensure that units were properly equipped and trained for aircraft conversions. Reserve Components' management control programs did not address this weakness. We consider the weakness to be a material management control weakness. Implementation of Recommendation 1.c. will assist in correcting the weakness. Copies of the final report will be provided to the senior officials responsible for management controls within the Air National Guard and the Air Force Reserve.

Prior Audits

General Accounting Office Report No. GAO/NSIAD-94-86 (OSD Case No. 9596), "Air Force Fighters: Relying More on Reserve Increases - Need to Know Their Capabilities," May 9, 1994, concluded that Reserves are less capable than Regular forces in terms of aircraft and training. Also, unit readiness ratings do not reflect differences in Regular and Reserve capabilities. The General Accounting Office recommended that unit readiness reporting be adapted to the different capabilities of Regular and Reserve forces. The General Accounting Office referred these issues and recommendations to Congress.

Air Force Audit Agency Report No. 94061016, "Review of Logistics Support at Aircraft Conversion Locations," December 2, 1994, stated that base supply and maintenance personnel did not make appropriate adjustments to requirements or redistribute or accurately account for spares, repair parts, and support equipment during aircraft conversions due to lack of effective management controls and planning. Management generally concurred with the finding and recommendations for corrective action.

Part II - Finding and Recommendations

Aircraft Conversion Planning

Reserve Components converted to KC-135R aircraft without adequate support equipment and did not always provide required training for maintenance personnel for F-16 and KC-135R aircraft. These conditions were attributed primarily to a lack of formal Reserve Components' procedures for planning and executing these aircraft conversions and a failure of the Reserve Components' headquarters to adequately monitor the conversion planning process. Also, shorter lead time of aircraft conversions further constrained the planning process. Consequently, Reserve Components' ability to maintain readiness in peacetime and to mobilize in wartime will be adversely affected.

Background

Conversion Planning and Mobilization. The Air National Guard Readiness Center and Headquarters, Air Force Reserve, delegated primary responsibility for planning for supportability to converting units while providing some assistance and oversight during the conversion process. The Site Activation Task Force is the headquarters' primary involvement in the conversion planning process.

The Air Force plans to mobilize these units in 30 days or less. Mobilization is the process by which part of or the total Armed Forces are brought to a state of readiness for war or other national emergencies. Mobilization includes assembling personnel, supplies, and materiel and training personnel for active military service.

Air Force Guidance - Support Equipment. Planning policies and procedures for support equipment is in Air Force Manual 67-1, "United States Air Force Supply Manual," volume IV, part I, December 3, 1990. This manual provides that active and reserve units tasked to fulfill similar deployment requirements will be similarly equipped so that the units can be used interchangeably. Tables of allowances provide data on support equipment needed for specific aircraft in peacetime and for mobilization. Mobility equipment authorizations cited in tables of allowances are mandatory. Air Force headquarters must approve exceptions to this policy.

Major commands are required to forecast equipment requirements for aircraft conversions at least 48 months in advance of delivery of first aircraft. Forecasts should be based on applicable tables of allowances and availability of support equipment within the command.

Air Force Guidance - Training. Personnel training is addressed in Air Force Instruction 36-2201, "Developing, Managing, and Conducting Training," July 25, 1994. Unit training supervisors should plan for technical training

associated with assigned personnel based on established training standards. This training is referred to as specialty training and consists of initial skill, upgrade, and proficiency training.

o Initial skill training is basic training required by personnel who are assigned to a new specialty.

o Upgrade training is training provided personnel on-the-job and through correspondence courses for progression of semi-skilled personnel to fully qualified and supervisory skill levels.

o Proficiency training is refresher training needed by fully qualified personnel to retain learned skills associated primarily with critical or difficult tasks.

Aircraft Conversions

We selected six ANG and three AFR units converting to F-16, KC-135R, and C-130H aircraft from the 30 ANG and 7 AFR units scheduled for conversion from FY 1992 through FY 1995, as shown in Table 2.

Table 2. Aircraft Conversions

Flying Units	Fiscal Year Conversion Began
A-7 to F-16A/B	
156 Tactical Fighter Group (ANG)*	1993
A-7 to F-16C/D	
140th Fighter Wing (ANG)	1992
A-10 to F-16C/D	
926th Fighter Group (AFR)	1992
F-16A/B to F-16C/D	
113th Fighter Wing (ANG)*	1994
C-130B to C-130H	
123rd Tactical Air Wing (ANG)	1992
KC-135E to C-130H	
914th Tactical Air Group (AFR)	1993
F-16A/B to KC-135R	
507th Refueler Group (AFR)*	1994

Flying Units	Fiscal Year Conversion Began
KC-135E to KC-135R	
128th Refueler Group (ANG)	1992
RF-4C to KC-135R	
155th Refueler Group (ANG)	1994

* The conversion was not completed by the end of FY 1994.

Conversion Results

The three KC-135R units had critical shortages of mobility support equipment and other materiel support items. The four F-16 and two C-130H units had minimal shortages of materiel support items. Also, part-time maintenance personnel assigned to the four F-16 and the three KC-135R units were not afforded ample opportunity to train for potential mobilization requirements. The two C-130H units had sufficient training opportunity for maintenance personnel because of the units' special missions abroad.

Support Equipment for KC-135 Conversions. Two KC-135R units (507th Refueler Group and 155th Refueler Group) were each authorized 830 items of equipment; the third KC-135R unit (128th Air Refueling Group) was authorized 832 items of equipment for mobilization. Equipment shortages were 388 (47 percent), 267 (32 percent), and 292 (35 percent) of items for these units, respectively. Value of the shortages was $14.3 million. Appendix C lists shortages by line item. Most shortages for the 128th Air Refueling Group (243 of 292 items) resulted because the unit did not requisition or request a waiver to requisition mandatory support equipment as prescribed by Air Force Manual 67-1. Shortages were also attributed to the Air Force decision to discontinue collocating active units' refuelers and bombers, thus increasing requirements for support equipment applicable to refuelers.

This equipment is used to test, troubleshoot, align, or calibrate aircraft systems and components. Examples of support equipment are hand tools; electrical, pnenumatic, and hydraulic power units; towing, hoisting, and fueling devices; voltage, amperage, and measuring devices; aircraft and tractor tow bars; maintenance work stands; test equipment; automated test equipment; and related computer programs and software.

Maintenance Training for F-16 and KC-135R Conversions. Five ANG and two AFR units did not adequately plan for all aspects of maintenance training.

Initial School Training. The conversion of one ANG unit (155th Refueler Group) from RF-4C to KC-135R resulted in reclassification and retraining of 36 aircraft maintenance personnel. The most affected were the

Communications/Navigations and Guidance and Control avionics sections. Seventeen of the 36 reclassified personnel were assigned to these two avionics sections.

These 17 were reassigned from positions in support of RF-4C aircraft and were required to attend technical training school to obtain initial skill qualification; however, 12 of the 17 personnel did not attend technical schools or receive a waiver from attending. These 12 represented 32 percent of the 38 assigned personnel to the avionics sections. The unit did not request a waiver for this training from Air Force headquarters through the ANG Readiness Center as required by Air Force Instruction 36-2201. Also, the unit did not develop a plan for an alternative method to accomplish the training.

Upgrade Training. Four F-16 units and two ANG KC-135R units (128th Air Refueler Group and 155th Refueler Group) did not plan for upgrade training of maintenance personnel. The prescribed period for upgrade training of active personnel is 24 months. Specifically, the units did not define training needs, how training would be accomplished, criteria for certifying accomplishment of training, and milestones for completion of training on an individual basis as required by Air Force Instruction 36-2201. The units relied on the judgment of maintenance supervisors that training was achieved.

Detailed training plans are necessary at least for part-time personnel who have limited opportunity to train in aircraft maintenance. These personnel are only required to train 1 weekend a month and 2 weeks a year; further, most of this time is used for other military training. For example, part-time personnel at one KC-135R unit (155th Refueler Group) spent 60 percent of the time in non-duty functions such as ceremonies, briefings, immunizations, and records review. Also, training of part-time personnel was further constrained at KC-135R units because the maintenance concept is hands-on-equipment, so training will not be done unless aircraft need repair. These units did not have maintenance simulators and mock-ups of aircraft systems and sub-systems for training purposes.

Certification of Completed Training. Air Force Instruction 36-2201 requires that evaluators be qualified in like specialties and be third parties, that is, not the trainers. At the 155th Refueler Group, personnel who did not have a similar specialty or had themselves just completed initial skill training were certifying that personnel in the repair and reclamation shop were fully qualified.

Proficiency Training. None of the seven ANG and AFR units formally assessed the need and planned for proficiency training of part-time maintenance personnel. Air Force Regulation 50-23, "Enlisted Specialty Training," July 18, 1990, provides that units should determine critical and infrequently performed maintenance tasks that may require additional training for qualified personnel. Plans should be made to conduct assessments of individual needs for sustainment training in critical and infrequently performed tasks and to provide for required training. Air Force Regulation 50-23 was superseded by Air Force Instruction 36-2201 that discontinued the requirement for assessing and planning for proficiency training. Since personnel have limited opportunity to train, we

believe that each part-time person should be routinely evaluated to determine requirements for proficiency training for critical and infrequently performed tasks.

Conversion Policy

Headquarters Role. Headquarters assistance in the Site Activation Task Force process was not sufficiently comprehensive. Neither the Air National Guard Readiness Center nor the Headquarters, Air Force Reserve, had a formal policy or implementing procedures for determining support equipment and maintenance training requirements. Planning for these support elements was delegated to the seven F-16 and KC-135R converting units. Planning for support equipment and maintenance training was effectively accomplished for the two C-130H conversions by the C-130H Program Office and the converting units.

Support Equipment. Headquarters organizations did not monitor unit compliance with the applicable tables of allowances. Rather these organizations only monitored the status of support equipment requisitioned. At the initial Site Activation Task Force visits, the applicable headquarters organization did not provide the converting units legible and current copies of tables of allowances to determine support equipment requirements. Problems were more severe for the KC-135R aircraft because refuelers were relatively new to the Reserve Components; two of the three units had converted from fighter aircraft.

Maintenance Training. Units were not provided a complete list of required training for positions associated with the conversion aircraft. Also, the headquarters did not monitor unit training to ensure that units planned and executed plans for initial skill, upgrade, and sustainment training. The headquarters did assist the units in obtaining necessary training slots for technical school training and monitored the use of slots by reserve personnel, although the units are responsible for approval and oversight of their training of unit personnel.

Headquarters Involvement. Time to acquire long lead-time material and other support items for converting units could be reduced if the headquarters, rather than conversion units, were primarily responsible for identifying support requirements. This reduction could be accomplished by maintaining lessons-learned data from other aircraft conversions. Also, the headquarters' oversight procedures needed improvement to ensure that units are properly equipped and trained according to Air Force guidance.

Conversion Process. We recognize that ANG and AFR converting units were not provided sufficient time to properly plan support for aircraft conversions. Ideally, the Air Staff should notify ANG and AFR of decisions regarding aircraft conversions for planning purposes about 5 years before delivery of first aircraft so that support equipment and training requirements can be properly determined. However, ANG and AFR headquarters were notified of aircraft

conversions 2 and one-half years or less before delivery of the first aircraft. Since these circumstances appear unlikely to change, ANG and AFR headquarters need to be primarily responsible for support planning.

Impact on the Air Force

Peacetime Operations. Shortages of support equipment limits a Reserve units' capabilities to maintain aircraft for pilot qualification flying, to be available for special operations, and to conduct upgrade and proficiency training. For example, aircraft maintenance for the KC-135R units visited was delayed because units had to borrow support equipment before maintenance could be done. Also, the proficiency of part-time maintenance personnel was limited because maintenance training was not structured to maximize effectiveness of the limited time available for specialty and other military training and constrained by shortages of support equipment.

Wartime Operations. The Air Force may not be able to sustain aerial refueling and strategic movement of fuel. In FY 1994, ANG and AFR contributed 54 percent of the Air Force aerial refuelers. We believe that the shortages of mobility support equipment for the three KC-135R aircraft units may be representative of other Reserve refueling units. In terms of equipment readiness reporting, two units would be rated marginally combat ready and the other unit would not be combat ready. Equipment shortages were not reflected in readiness reports because ANG and AFR were not required to report equipment readiness for refueling units. Designated operating statements for the refueling units' conventional mission were not approved until September 30, 1994. The Air Force was in the process of documenting mobility requirements for spares and supplies.

Deficiencies associated with upgrade and proficiency training will impair the Air Force's ability to mobilize Reserve Components' flying units within 30 days. Approximately 70 percent of the aircraft maintenance personnel are part-time during peacetime, thus do not have ample time to become fully trained.

Future Conversions. Shortages of KC-135R support equipment and inadequate planning for F-16 aircraft maintenance at units visited have been or will be experienced by other units making aircraft conversions due to the support planning deficiencies. By the end of FY 1997, the Air Force plans to retire all A-7 and F-4 aircraft and replace additional F-16A/Bs with F-16C/D aircraft. Also, the Air Force plans to procure 30 additional KC-135R aircraft and transfer another 14 bombers from the Regular Air Force. These aircraft realignments have and will continue to require ANG and AFR fighter units to convert to other types of aircraft. Such conversions will require numerous maintenance personnel to be retrained and support equipment may not be readily available.

Recommendations, Management Comments, and Audit Responses

We recommend that Commander, Air National Guard Readiness Center, and Commander, Air Force Reserve Command:

1. Establish policies for aircraft conversions to provide that:

a. Headquarters organizations determine new support equipment and training requirements for conversion aircraft.

b. Gaining units assess annually the need for proficiency training of part-time maintenance personnel and plan for accomplishing needed training.

c. Headquarters organizations provide oversight for compliance with Air Force Supply Manual 67-1 and Air Force Instruction 36-2201 for support equipment and training plans and Reserve Component implementing regulations.

2. Maintain a lessons-learned data base for use in planning aircraft conversions and make data readily available to units converting to new aircraft.

Department of the Air Force Comments. The Commander, Air Force Reserve, responded for both the Air National Guard and Air Force Reserve. He did not comment on our finding regarding inadequacies in providing support equipment and training for aircraft conversions. He concurred with Recommendations 1.b. and 2. and nonconcurred with Recommendations 1.a. and 1.c. He stated that both ANG and AFR currently use programs in determining new support equipment and training requirements. He also stated that "the recommendations to establish policies for conversions are already implemented in the many conversions we execute". Further, significant improvements have been made in the conversion process since our audit.

Audit Response. The Air Force comments were responsive to Recommendations 1.b. and 2. The basis of nonconcurrence with Recommendations 1.a. and 1.c. is not clear. The Air Force has not identified the published policies or procedures that require ANG and AFR Headquarters to determine new support equipment and training requirements for conversion aircraft. The Headquarters' elements were not formally required to provide oversight for assessing unit compliance with Air Force directives for unit support equipment and training plans. We request the Air Force reconsider its position on Recommendations 1.a. and 1.c. or provide copies of documentation for programs that ANG and AFR Headquarters use for determining new support equipment and training requirements. The Air Force should consider improvements to the Site Activation Task Force process as being responsive to Recommendation 1.c.

Part III - Additional Information

Appendix A. Reserve Components Aircraft Contributions in FY 1994

Aircraft Category	Primary Authorized Aircraft ANG	Primary Authorized Aircraft AFR	Combined Percent of Total Air Force
Weather Reconnaissance	0	10	100
Aerial Spraying	0	8	100
Strategic Interceptor	150	0	100
Tactical Reconnaissance	36	0	100
Tactical Airlift	158	92	65
Air Rescue/Recovery	25	31	64
Aerial Refueling/Strategic Tankers	202	60	54
Tactical Air Support	42	30	45
Tactical Fighter	489	138	40
Strategic Airlift	27	64	27
Special Operations	6	9	11
Support Aircraft	50	0	29
Bombers	4	8	8
Aircraft Totals	**1,189**	**450**	

Appendix B. Major Changes in Reserve Component Aircraft

Aircraft Category Aircraft	1992	1994	Change Number	Percent
Fighter				
A-7	128	0	(128)	(100)
A-10	171	78	(93)	(54)
F-16A/B	528	327	(201)	(38)
F-16C/D	246	309	63	26
Airlift				
C-130A/B/E	153	86	(67)	(44)
C-130H	146	186	40	27
C-141	24	52	28	117
Aerial Refueler				
KC-135R	26	104	78	300
Rescue				
RF-4C	102	36	(66)	(65)
Bomber				
B1B	0	4	4	N/A
B-52H	0	8	8	N/A

Appendix C. Shortages of KC-135R Support Equipment

National Stock No.	Nomenclature	Unit Price	Shortage Number	Extended Price
1730-00-056-1001	TOOL ASSY,ELEVATOR	$602.55	4	$2,410.20
1730-00-294-8883	AINTENANCE PLATFORM, AIRCRAFT	2,480.00	1	2,480.00
1730-00-294-8884	MAINTENANCE PLATFORM, AIRCRAFT	3,220.00	4	12,880.00
1730-00-390-5618	MAINTENANCE PLATFORM, AIRCRAFT	3,000.00	8	24,000.00
1730-00-390-5620	MAINTENANCE PLATFORM, AIRCRAFT	2,987.00	2	5,974.00
1730-00-395-2781	MAINTENANCE PLATFORM, AIRCRAFT	507.04	3	1,521.12
1730-00-419-5129	ADAPTER ASSY,BRAKE	969.79	6	5,818.74
1730-00-508-9791	SUPPORT,STABILIZER	386.25	2	772.50
1730-00-516-2017	JACK,HYDRAULIC,TRIPOD	3,805.85	7	26,640.95
1730-00-529-8231	TRAILER,LIFT,WHEEL	2,842.80	2	5,685.60
1730-00-540-5933	TOWBAR,AIRCRAFT	2,979.79	2	5,959.58
1730-00-554-4829	STAIRCASE,AIRCRAFT BOARDING	13,024.00	1	13,024.00
1730-00-604-1671	ADAPTER,AIR CONDITI	70.00	14	980.00
1730-00-604-1672	LOCK,AIRCRAFT GROUND SAFETY	166.79	46	7,672.34
1730-00-687-9727	SLING,AIRCRAFT MAINTENANCE	1,514.10	1	1,514.10
1730-00-792-5847	ADAPTER ASSY,ENGINE	978.29	2	1,956.58
1730-00-795-4157	ADAPTER,ALTERNATOR	2,154.76	3	6,464.28
1730-00-854-2236	JACK,AIRCRAFT LANDINGGEAR	4,586.47	6	27,518.82
1730-00-965-5744	JACK,AIRCRAFT LANDING GEAR	20,320.00	1	20,320.00
1730-01-037-8459	MAINTENANCE PLATFORM, AIRCRAFT	9,105.20	2	18,210.40
1730-01-049-6162	JACK,AIRCRAFT LANDING GEAR	4,077.77	6	24,466.62
1730-01-115-2927	TANK-PUMPING UNIT, AIRCRAFT LAVAT	3,765.68	1	3,765.68
1730-01-132-0182	HOISTINGUNIT, AIRCRAFT COMPONENT	16,981.45	3	50,944.35
1730-01-135-9203	SLING,AIRCRAFT MAINTENANCE	1,545.00	2	3,090.00
1730-01-140-5856	TOOL,RETENTION,RUDD	604.97	4	2,419.88
1730-01-249-2448	SLING,AIRCRAFT MAINTENANCE	1,326.00	1	1,326.00
1740-00-555-6601	TRAILER,GROUND HANDLING	14,533.30	8	116,266.40

National Stock No.	Nomenclature	Unit Price	Shortage Number	Extended Price
1740-01-127-4954	TRAILER,GROUND HANDLING	37,468.31	5	187,341.55
2330-01-245-9458	TRAILER,TANK	11,480.00	2	22,960.00
2330-01-300-4482	TRAILER,TANK	5,000.00	2	10,000.00
2835-01-213-9272	POWER UNIT, GAS TURBINE ENGINE	357,548.27	22	7,866,061.94
3439-01-068-5358	POWER UNIT,BENCH TO	403.70	1	403.70
3439-01-109-8590	REPAIR CENTER,SOLDE	626.51	1	626.51
3439-01-269-5494	SOLDERING-DESOLDERING STATION	1,500.00	4	6,000.00
3444-00-223-8359	PRESS,ARBOR,HAND OPERATED	320.70	1	320.70
3448-01-249-9437	RIVETING MACHINE, SPINNING TYPE,E	8,800.00	1	8,800.00
3611-00-204-2808	MARKING MACHINE, ELECTRIC WIRE-FL	3,841.62	3	11,524.86
3655-00-540-2733	TRAILER,COMPRESSED GAS CYLINDER	2,116.00	4	8,464.00
3655-00-541-1385	TRAILER,COMPRESSED GAS CYLINDER	5,584.28	4	22,337.12
4110-00-498-4059	FREEZER,MECHANICAL, FOOD	394.70	1	394.70
4120-00-998-6673	AIR CONDITIONER	35,157.12	14	492,199.68
4310-00-289-8249	COMPRESSOR UNIT, RECIPROCATING	11,377.00	2	22,754.00
4310-00-595-3866	COMPRESSOR UNIT, ROTARY	8,187.47	1	8,187.47
4320-00-914-1120	PUMPING UNIT, HYDRAULIC,POWER DRI	6,012.11	5	30,060.55
4320-01-193-6681	PUMPING UNIT, HYDRAULIC,HAND DRIV	1,134.00	1	1,134.00
4520-01-310-1881	HEATER,DUCT TYPE, PORTABLE	4,296.13	20	85,922.60
4910-00-141-8966	LIFT,TRANSMISSION AND DIFFERENTI	945.65	2	1,891.30
4910-00-895-5394	FILLER AND BLEEDER, HYDRAULIC SYS	1,797.38	1	1,797.38
4920-00-019-9262	JACK TESTER ASSY	4,750.00	3	14,250.00
4920-00-084-9034	PLUG ASSY,FUEL LINE	83.95	2	167.90
4920-00-101-8896	TEST SET,VALVE ACTU	10,212.81	4	40,851.24
4920-00-137-6916	HEATER-REPAIR IRON,	325.00	1	325.00
4920-00-169-5799	FIXTURE,AIRCRAFT MAINTENANCE	4,161.51	2	8,323.02
4920-00-169-5800	FIXTURE,AIRCRAFT MAINTENANCE	1,163.00	1	1,163.00
4920-00-175-7844	TEST SET,FLIGHT DIR	27,797.64	1	27,797.64
4920-00-203-2653	HOLDER,VALVE CONTRO	1,901.38	3	5,704.14
4920-00-225-3300	ADAPTER KIT,PITOT-S	6,950.44	6	41,702.64
4920-00-272-5665	TESTER,ANTI-SKID	7,666.29	4	30,665.16
4920-00-274-8456	TEST SET,CONTROL	9,680.00	4	38,720.00

Appendix C. Shortages of KC-135R Support Equipment

National Stock No.	Nomenclature	Unit Price	Shortage Number	Extended Price
4920-00-304-7198	DETECTOR,MAGNETIC,S	1,678.00	2	3,356.00
4920-00-346-7340	PIN ASSEMBLY,TEST	80.03	2	160.06
4920-00-349-0206	TESTER,COMPASS SYST	1,905.50	1	1,905.50
4920-00-398-3274	FITTING ASSY,NOZZLE	437.75	1	437.75
4920-00-446-7954	ADAPTER,CONTROL	148.00	2	296.00
4920-00-490-2217	GAGE ASSEMBLY,PRESS	1,734.00	2	3,468.00
4920-00-490-2566	ADAPTER,TEST,FLIGHT	2,500.00	1	2,500.00
4920-00-532-2200	COVER PLATE,FUEL CE	80.95	4	323.80
4920-00-532-2207	COVER PLATE,FUEL CE	336.50	1	336.50
4920-00-532-2208	COVER PLATE,FUEL CE	190.55	2	381.10
4920-00-532-2214	COVER PLATE,FUEL CE	302.20	2	604.40
4920-00-534-8148	COVER PLATE,FUEL CE	179.63	3	538.89
4920-00-543-7930	TESTER,LEAKAGE,MANI	2,399.90	1	2,399.90
4920-00-545-2475	TEST SET,CONTROL	4,100.00	4	16,400.00
4920-00-545-2479	FIXTURE,AIRCRAFT MAINTENANCE	198.66	3	595.98
4920-00-561-5973	TESTER ASSY,BOOM,RE	3,126.05	5	15,630.25
4920-00-589-3534	JIG,PRESSURE,ADJUST	539.72	2	1,079.44
4920-00-591-2426	PLATES,FUEL CELL CO	244.11	3	732.33
4920-00-604-1789	PLATE,SEAL	91.77	2	138.54
4920-00-605-3969	PROTRACTOR	1,864.71	1	1,864.71
4920-00-621-2752	GUIDE ASSY,CYLINDER	418.08	3	1,254.24
4920-00-623-2798	STAND,ASSY,PROTRACT	103.51	1	103.51
4920-00-631-6600	PLUG ASSEMBLY,SEAL	484.37	3	1,453.11
4920-00-632-0072	PLUG ASSEMBLY,SEAL	38.68	5	193.40
4920-00-632-0075	PLUG ASSEMBLY,SEAL	2,325.74	4	9,302.96
4920-00-691-2963	TEST PLATE ASSY,SUR	64.81	2	29.62
4920-00-705-0178	RING ASSY,SEAL INST	1,023.66	2	2,407.32
4920-00-715-4520	DOOR ASSEMBLY,TANK	1,958.66	1	1,958.66
4920-00-759-3395	ADAPTER KIT,CABIN T	3,550.00	4	14,200.00
4920-00-873-3965	CABLE ASSY,SPECIAL	161.70	1	161.70
4920-00-931-1457	TEST SET,FLIGHT CONTROL SYSTEM	39,051.00	2	78,102.00
4920-00-966-8019	GAGE AND ADAPTER AS	719.92	2	1,439.84
4920-01-006-4918	TESTER,PROBE NOZZLE	5,550.00	10	55,500.00
4920-01-010-6648	PROTRACTOR,RUDDER	840.76	4	3,363.04
4920-01-010-6649	PROTRACTOR AND SCAL	2,825.63	5	14,128.15
4920-01-084-5015	PRESSURIZING KIT,AN	705.81	4	2,823.24
4920-01-092-5685	PROTRACTOR ASSEMBLY	662.14	3	1,986.42
4920-01-108-4068	TEST SET,ELECTRONIC SYSTEMS	4,000.00	2	8,000.00
4920-01-112-4950	INDICATOR SET,COMBU	1,520.00	1	1,520.00
4920-01-127-4675	TEST SET,ALTIMETER	39,315.66	4	157,262.64
4920-01-134-0932	TESTER,ELECTROMAGNE	22,615.00	5	113,075.00
4920-01-134-4389	CORE,MOTOR DRIVE,EN	4,602.60	5	23,013.00
4920-01-134-4473	TEST SET,INERTIAL N	21,500.00	1	21,500.00
4920-01-138-6820	YOKE,SETTING	1,366.06	2	2,732.12
4920-01-139-3428	BASEPLATE,REMOVAL,I	5,112.60	2	10,225.20
4920-01-140-1608	TEST STATION, ELECTRICAL-ELECTRON	35,000.00	5	175,000.00

National Stock No.	Nomenclature	Unit Price	Shortage Number	Extended Price
4920-01-140-5997	TEST SET,FLIGHT CONTROL SYSTEM	109,799.93	1	109,799.93
4920-01-140-8324	TEST SET,AUXILIARY	85,232.50	8	681,860.00
4920-01-145-5022	TEST SET,REMOTE CON	4,109.70	3	12,329.10
4920-01-146-1462	SUPPORT,MOBILE,ACCE	8,386.00	1	8,386.00
4920-01-146-1464	FIXTURE,AIRCRAFT MAINTENANCE	810.98	4	3,243.92
4920-01-146-4940	FIXTURE,AIRCRAFT MAINTENANCE	2,160.32	4	8,641.28
4920-01-147-7687	TURNBUCKLE,ACCESSOR	1,459.51	3	4,378.53
4920-01-154-8792	DATA COLLECTION UNI	18,840.00	2	37,680.00
4920-01-157-1522	SUPPORT RIG,VARIABL	113.30	6	679.80
4920-01-157-5897	COVER,BLEED PORT	25.88	3	77.64
4920-01-158-5846	LEVER EXTRACTOR,ACC	1,486.88	1	1,486.88
4920-01-161-7489	TEST SET,CONTROL	124,400.31	3	373,200.93
4920-01-168-5168	ADAPTER,LOCKING ENG	724.60	2	1,449.20
4920-01-183-3039	UNIVERSAL,BOOM NOZZ	60,218.33	5	301,091.65
4920-01-186-5820	AERIAL REFUEL COUPL	42,368.76	3	127,106.28
4920-01-218-6069	FIXTURE,AIRCRAFT MAINTENANCE	1,236.00	4	4,944.00
4920-01-224-2148	LEAK SET TEST ACCES	4,062.12	2	8,124.24
4920-01-224-2149	ADAPTER,DRAIN OIL T	480.00	2	960.00
4920-01-228-7399	ADAPTER,TEST	11,259.00	1	11,259.00
4920-01-233-0924	BREAKOUT KIT,INTEGR	7,210.00	3	21,630.00
4920-01-245-5135	VIBRATION SENSOR,TU	7,366.00	5	36,830.00
4920-01-251-1728	TEST SET,POWER MANA	25,536.79	3	76,610.37
4920-01-260-8213	ADAPTER,TEST	4,131.33	2	8,262.66
4920-01-277-7759	FIXTURE,AIRCRAFT MAINTENANCE	5,653.99	4	22,615.96
4920-01-303-3781	TEST SET,FLIGHT CONTROL SYSTEM	1,000.00	2	2,000.00
4920-01-328-3419	ELECTRONIC GROUP,CA	59,000.00	3	177,000.00
4920-01-331-6767	CALIBRATOR,MAGNETIC	20,000.00	3	60,000.00
4920-01-381-6808	POWER SUPPLY-TEST SET	16,800.00	6	100,800.00
4930-01-287-3170	LUBRICATING UNIT, AIR PRIMED,PORT	1,946.70	4	7,786.80
5120-00-066-7818	WRENCH ASSEMBLY,SPA	257.50	6	1,545.00
5120-00-097-5456	WRENCH,SPANNER,HOOK	55.62	8	444.96
5120-00-213-9478	WRENCH ASSEMBLY,HOO	32.96	8	263.68
5120-00-348-4847	PULLER,MECHANICAL	719.76	1	719.76
5120-00-394-4976	WRENCH,SPANNER	195.65	5	978.25
5120-00-395-8564	WRENCH,SPANNER	181.27	5	906.35
5120-00-398-3639	SOCKET,SOCKET WRENCH	87.55	7	612.85
5120-00-410-1090	WRENCH,TORQUE	149.86	1	149.86
5120-00-506-8274	WRENCH,SPANNER	401.00	5	2,005.00
5120-00-516-4703	SOCKET,WRENCH, FACE SPANNER	146.50	2	293.00
5120-00-525-6968	WRENCH,SPANNER	285.00	3	855.00
5120-00-562-3150	COVER PLATE ASSY,TA	84.54	10	845.40
5120-00-571-3572	WRENCH ASSY,PINION	186.85	3	560.55

Appendix C. Shortages of KC-135R Support Equipment

National Stock No.	Nomenclature	Unit Price	Shortage Number	Extended Price
5120-00-587-4932	SOCKET,WRENCH, FACE SPANNER	544.55	3	1,633.65
5120-00-594-0177	PULLER,MECHANICAL	1,234.30	2	2,468.60
5120-00-594-0178	PULLER,MECHANICAL	1,112.26	4	4,449.04
5120-00-596-4261	SOCKET,SOCKET WRENCH	402.23	4	1,608.92
5120-00-596-4460	SOCKET,SOCKET WRENCH	265.70	5	1,328.50
5120-00-600-2656	WRENCH,VALVE TEST S	552.08	5	2,760.40
5120-00-601-1161	WRENCH,SPANNER	592.25	3	1,776.75
5120-00-603-5644	WRENCH ASSY,AIR CON	309.00	3	927.00
5120-00-607-6857	WRENCH ASSY,FUEL DR	283.21	5	1,416.05
5120-00-612-9873	ADAPTER,TORQUE	985.00	2	1,970.00
5120-00-675-0862	WRENCH,SPANNER	297.08	3	891.24
5120-00-759-0117	WRENCH,HOOK	366.70	4	1,466.80
5120-00-911-6494	WRENCH ASSEMBLY SL0	340.89	3	1,022.67
5120-00-912-0932	WRENCH HOOK SPANNER	307.66	3	922.98
5120-00-987-7239	INSERTER,ELECTRICAL CONTACT	66.18	2	132.36
5120-01-033-1508	REFLANGING TOOL,AIR	1,834.50	4	7,338.00
5120-01-136-3719	WRENCH,SPANNER	569.33	4	2,277.32
5120-01-146-2377	PULLER,MECHANICAL	233.53	2	467.06
5120-01-147-2032	PULLER,MECHANICAL	455.38	3	1,366.14
5120-01-148-0487	PULLER,SPECIAL PURP	750.00	5	3,750.00
5120-01-212-9410	INSERTER,SEAL	1,648.00	4	6,592.00
5120-01-263-8757	CRIMPING TOOL, TERMINAL,HAND	100.00	3	300.00
5120-01-267-8683	TOOL,TENSION	484.10	4	1,936.40
5120-01-320-1495	ADAPTER,TORQUE WRENCH	985.99	2	1,971.98
5180-01-331-7319	TUBE REPAIR KIT,AIR	30,920.60	1	30,920.60
5180-01-349-6015	TOOL KIT,AIRCRAFT MAINTENANCE	5,029.64	4	20,118.56
5210-01-278-8006	PROTRACTOR,MECHANICS, BEVEL	441.87	9	3,976.83
5210-01-325-5059	PROTRACTOR,DIGITAL	762.30	11	8,385.30
5220-00-701-4765	GAGE ASSY,OLEO GLAN	231.24	4	924.96
5220-01-148-0497	GAGE	374.00	4	1,496.00
5280-01-169-6547	INSPECTION KIT,PITO	2,718.00	3	8,154.00
5340-01-149-8924	LEVER,LOCK-RELEASE	2,183.60	12	26,203.20
5821-01-011-8505	FIELD SUBSYSTEM,COM	10,000.00	1	10,000.00
5821-01-086-6243	RADIO SET	4,000.00	1	4,000.00
5821-01-104-0363	RADIO SET	20,000.00	1	20,000.00
5826-00-188-3851	BENCH SET,860F1	3,500.00	1	3,500.00
5826-00-411-5132	BENCH SET,51V4	1,665.00	2	3,330.00
5826-00-411-5133	BENCH SET,51R6	2,270.00	1	2,270.00
5826-00-481-5190	BENCH SET,51Z3-4	1,100.00	1	1,100.00
5826-00-883-5790	BENCH SET,ANARN32	1,000.00	1	1,000.00
5826-00-884-0895	BENCH SET ANARA25	1,500.00	1	1,500.00
5826-00-884-0901	BENCH SET ANAPN69	2,700.00	1	2,700.00
5831-00-116-6501	INTERCOMMUNICATION SET	2,090.00	2	4,180.00

National Stock No.	Nomenclature	Unit Price	Shortage Number	Extended Price
5841-01-053-5763	RADAR SET	35,850.00	1	35,850.00
5841-01-087-6331	RADAR SET	64,485.21	1	64,485.21
5895-00-115-7812	TRANSPONDER SET	3,813.00	1	3,813.00
5985-00-538-7328	DUMMY LOAD, ELECTRICAL	271.25	2	542.50
5998-00-149-9427	EXTENDER CARD, ELECTRONIC TEST	196.10	1	196.10
6110-01-027-0004	DISTRIBUTION BOX	937.30	3	2,811.90
6115-01-102-8148	GENERATOR SET, GASOLINE ENGINE	3,002.55	2	6,005.10
6115-01-155-2340	GENERATOR SET, DIESEL ENGINE,TRAI	29,162.39	9	262,461.51
6130-00-507-7493	CHARGER,BATTERY	2,450.00	2	4,900.00
6130-01-104-9429	POWER SUPPLY	2,348.40	1	2,348.40
6130-01-108-5668	CHARGER,BATTERY	5,352.91	2	10,705.82
6130-01-154-3084	CONVERTER,FREQUENCY, STATIC	5,000.00	1	5,000.00
6130-01-237-1621	POWER SUPPLY	22,192.00	5	110,960.00
6150-00-565-6949	CABLE ASSEMBLY, SPECIAL PURPOSE,E	636.54	4	2,546.16
6150-00-565-6950	CABLE ASSEMBLY, SPECIAL PURPOSE,E	318.42	5	1,592.10
6150-00-906-3834	CABLE ASSEMBLY SET, ELECTRICAL	17,510.00	1	17,510.00
6150-01-135-6058	CABLE ASSEMBLY SET, ELECTRICAL	2,410.20	4	9,640.80
6150-01-161-4766	CABLE ASSEMBLY, SPECIAL PURPOSE,E	1,371.96	4	5,487.84
6150-01-178-2621	CABLE ASSEMBLY, SPECIAL PURPOSE,E	695.76	5	3,478.80
6150-01-178-7581	CABLE ASSEMBLY, SPECIAL PURPOSE,E	635.63	5	3,178.15
6150-01-181-1206	CABLE ASSEMBLY SET, ELECTRICAL	1,439.00	5	7,195.00
6230-01-224-0938	FLOODLIGHT SET, ELECTRIC	12,000.00	4	48,000.00
6605-00-032-6306	CALIBRATOR,COMPASS	4,160.00	1	4,160.00
6605-00-463-1869	BENCH SET,TEST	1,000.00	1	1,000.00
6605-00-463-1874	BENCH SET,TEST	1,500.00	1	1,500.00
6625-00-005-1233	MULTIMETER	174.10	2	348.20
6625-00-041-0095	GENERATOR,PULSE	4,720.00	1	4,720.00
6625-00-044-6952	TEST SET,RECTIFIER	8,638.61	4	34,554.44
6625-00-224-2267	VOLTMETER	1,385.35	1	1,385.35
6625-00-250-5873	TUNING PROBE,OSCILL	55.57	2	111.14
6625-00-298-9651	TEST SET,RADAR	10,000.00	1	10,000.00
6625-00-342-1711	GENERATOR,SIGNAL	1,647.00	1	1,647.00
6625-00-350-6841	TEST SET,RECEIVER-T	15,079.00	1	15,079.00
6625-00-416-0152	TEST SET,TACTICAL A	12,060.00	3	36,180.00
6625-00-460-8525	ADAPTER,TEST	1,542.75	2	3,085.50
6625-00-480-0950	RESISTOR,DECADE	1,499.00	5	7,495.00

Appendix C. Shortages of KC-135R Support Equipment

National Stock No.	Nomenclature	Unit Price	Shortage Number	Extended Price
6625-00-488-4039	VOLTMETER	3,750.00	4	15,000.00
6625-00-516-8334	TESTER,THERMAL SWIT	927.00	3	2,781.00
6625-00-572-1011	GENERATOR,SIGNAL	120.00	4	480.00
6625-00-583-6489	TEST SET,RADIO	8,961.00	1	8,961.00
6625-00-643-1785	TEST SET,INSULATION BREAKDOWN	454.00	1	454.00
6625-00-657-3635	SHUNT,INSTRUMENT, MULTIRANGE	810.00	1	810.00
6625-00-724-4111	VOLTMETER	525.30	2	1,050.60
6625-00-725-8423	MULTIMETER	465.00	2	930.00
6625-00-821-9932	AMMETER	813.08	4	3,252.32
6625-01-017-4718	TEST SET,RADIO FREQUENCY POWER	151.41	1	151.41
6625-01-018-8583	GENERATOR,SIGNAL	14,110.00	2	28,220.00
6625-01-031-0720	COUNTER,ELECTRONIC, DIGITAL READO	983.85	2	1,967.70
6625-01-037-5344	RAMP TEST SET	5,021.00	5	25,105.00
6625-01-044-1889	OSCILLOSCOPE	4,315.70	3	12,947.10
6625-01-058-9564	TEST SET, SEMICONDUCTOR DEVICE	368.61	1	368.61
6625-01-064-3555	TEST SET,RADIO FREQUENCY POWER	425.96	1	425.96
6625-01-068-8121	PLUG-IN UNIT, ELECTRONIC TEST EQU	1,040.00	3	3,120.00
6625-01-071-0214	TEST SET,INSULATION BREAKDOWN	2,191.65	2	4,383.30
6625-01-076-3416	TEST SET,IFF	4,270.00	3	12,810.00
6625-01-079-1762	MULTIMETER	244.00	4	976.00
6625-01-079-5749	TEST SET,RADIO BEACON	63,525.25	3	190,575.75
6625-01-080-9666	TEST SET,SYNCHRO	1,845.00	1	1,845.00
6625-01-085-4729	TEST SET,ELECTRICAL POWER	3,000.00	2	6,000.00
6625-01-096-0426	VOLTMETER	3,080.00	1	3,080.00
6625-01-097-6010	ANALYZER,SPECTRUM	15,188.54	4	60,754.16
6625-01-105-9589	TEST SET,RADIO	9,287.51	2	18,575.02
6625-01-118-9477	TEST SET,LOAD BANK	18,437.00	1	18,437.00
6625-01-119-7023	OHMMETER	4,264.20	1	4,264.20
6625-01-147-6182	MULTIMETER	243.45	2	486.90
6625-01-155-6441	TEST SET,BATTERY	1,767.48	1	1,767.48
6625-01-157-2246	MULTIMETER	342.61	6	2,055.66
6625-01-247-4204	TEST SET,MULTIPLEXE	17,458.50	3	52,375.50
6625-01-251-8946	TEST SET,ELECTRONIC SYSTEMS	13,622.05	1	13,622.05
6625-01-252-7046	TEST SET,ELECTRONIC CIRCUIT PLUG	18,176.92	5	90,884.60
6625-01-259-9187	TEST SET,ELECTRONIC SYSTEMS	7,900.00	2	15,800.00
6625-01-262-6452	TEST SET,TRANSPONDER SET	9,600.00	2	19,200.00
6625-01-263-9953	WATTMETER	438.21	1	438.21

National Stock No.	Nomenclature	Unit Price	Shortage Number	Extended Price
6625-01-296-4463	OHMMETER	2,000.00	4	8,000.00
6625-01-307-0512	TEST SET,RADAR	138,300.00	1	138,300.00
6625-01-338-3849	COUPLER,TEST SET	3,986.10	3	11,958.30
6635-00-187-8845	TENSIOMETER,DIAL INDICATING	601.09	5	3,005.45
6635-00-508-2700	TENSIOMETER,DIAL INDICATING	755.75	6	4,534.50
6635-00-527-6507	TENSIOMETER,DIAL INDICATING	754.94	2	1,509.88
6635-00-530-1128	TENSIOMETER,DIAL INDICATING	416.50	4	1,666.00
6635-00-530-1129	TENSIOMETER,DIAL INDICATING	508.61	9	4,577.49
6635-00-530-1130	TENSIOMETER,DIAL INDICATING	754.94	2	1,509.88
6635-00-557-3237	TESTER,SPRING RESILIENCY	463.50	2	927.00
6635-00-578-5285	TESTER,SPRING RESILIENCY	328.00	3	984.00
6635-00-578-5286	TESTER,SPRING RESILIENCY	429.82	3	1,289.46
6635-01-357-6647	BALANCING MACHINE, DYNAMIC-STATIC	42,173.35	4	168,693.40
6665-00-255-1386	TEST KIT	115.52	2	231.04
6665-01-208-3311	INDICATOR,COMBUSTIBLE GAS,PORTAB	400.00	2	800.00
6680-00-139-8287	METER,AIR VELOCITY	1,024.85	1	1,024.85
6685-00-115-9602	INDICATOR,VACUUM	801.00	2	1,602.00
6685-00-693-5009	TESTER,PRESSURE GAGE	3,569.65	2	7,139.30
6685-00-867-1502	TEST SET,PRESSURE	1,069.00	4	4,276.00
6685-01-094-0540	TESTER,TEMPERATURE	11,124.00	2	22,248.00
6695-00-805-3652	GAGE,TORQUE	680.93	3	2,042.79
7910-00-526-1959	CLEANER,VACUUM, ELECTRIC	1,617.56	1	1,617.56
7910-00-530-6260	CLEANER,VACUUM, ELECTRIC	159.84	2	319.68
Totals			**947**	**$14,314,341.53**

Appendix D. Summary of Potential Benefits Resulting From Audit

Recommendation Reference	Description of Benefit	Amount and/or Type of Benefit
1.a.	Economy and Efficiency. Expedites the process of defining materiel support requirements for aircraft conversions.	Nonmonetary.
1.b.	Economy and Efficiency. Ensures that maintenance training requirements are properly assessed and planned for aircraft conversions.	Nonmonetary.
1.c.	Management Controls. Provides needed oversight of units' planning of support equipment and maintenance training for aircraft conversions.	Nonmonetary.
2.	Program Results. Allows units to plan better support for aircraft conversions.	Nonmonetary.

Appendix E. Organizations Visited or Contacted

Office of the Secretary of Defense

Assistant Secretary of Defense (Reserve Affairs), Washington, DC
National Committee for Employer Support of the Guard and Reserve, Arlington, VA

Department of the Air Force

Assistant Secretary of the Air Force (Manpower, Reserve Affairs), Washington, DC
Deputy Chief of Staff for Plans and Operations, Washington, DC
Air Combat Command, Langley Air Force Base, VA
National Guard Bureau, Washington, DC Air Mobility Command, Scott Air Force Base, IL
Air National Guard Readiness Center, Andrews Air Force Base, MD
113th Fighter Wing, Washington DC
123rd Tactical Air Wing, Louisville, KY
140th Fighter Wing, Buckley Air National Guard Base, CO
128th Air Refueler Group, Milwaukee, WS
155th Refueler Group, Lincoln, NE
156th Tactical Fighter Group, San Juan, PR
Chief of the Air Force Reserve, Washington, DC
Air Force Reserve, Warner Robins Air Force Base, GA
507th Refueler Group, Tinker Air Force Base, TX
914th Tactical Air Group, Niagara Falls, NY
926th Fighter Group, New Orleans Naval Air Station, LA

Non-Defense Organizations

Reserve Officer Association, Washington, DC
National Guard Association of the United States, Washington, DC

Appendix F. Report Distribution

Office of the Secretary of Defense

Under Secretary of Defense (Comptroller)
  Deputy Chief Financial Officer
  Deputy Under Secretary of Defense(Comptroller/Program/Budget)
Assistant Secretary of Defense (Reserve Affairs)
Assistant to the Secretary of Defense (Public Affairs)
Director, Defense Logistics Studies Information Exchange

Department of the Army

Auditor General, Department of the Army

Department of the Navy

Comptroller of the Navy

Department of the Air Force

Assistant Secretary of the Air Force (Financial Management and Comptroller)
Auditor General, Department of the Air Force

Defense Agencies

Director, Defense Contract Audit Agency
Director, Defense Logisitics Agency
Director, National Security Agency
  Inspector General, National Security Agency
Inspector General, Central Imagery Office

Non-Defense Organizations

Office of Management and Budget
Technical Information Center, National Security and International Affairs Division, General Accounting Office

Chairman and ranking minority member of each of the following congressional committees and subcommittees:
  Senate Committee on Appropriations

Non-Defense Organizations (Con't)

Senate Committee on Governmental Affairs
Senate Subcommittee on Defense, Committee on Appropriations
Senate Committee on Armed Services
House Committee on Appropriations
House Subcommittee on National Security, Committee on Appropriations
House Committee on Government Reform and Oversight
House Subcommittee on National Security, International Affairs, and Criminal Justice, Committee on Government Reform and Oversight
House Committee on National Security

Part IV - Management Comments

Department of the Air Force Comments

DEPARTMENT OF THE AIR FORCE
HEADQUARTERS UNITED STATES AIR FORCE
WASHINGTON DC

25 MAY 1995

MEMORANDUM FOR ASSISTANT INSPECTOR GENERAL FOR AUDITING, OFFICE OF THE INSPECTOR GENERAL, DEPARTMENT OF DEFENSE

FROM: HQ USAF/RE
1150 Air Force Pentagon
Washington DC 20330-1150

SUBJECT: Planning for Conversion of Air National Guard and Air Force Reserve Aircraft, March 28, 1995, DoD (IG) report number -- 4AG-0014.01

This is in reply to your request for Air Reserve Component (Air Force Reserve and Air National Guard Readiness Center) comments on the subject report.

We (AFR and ANG) appreciate the opportunity to review your draft audit report. We agree that the conversion process may have room for improvement, but have some concerns about the audit results.

The recommendations to establish policies for conversions are already implemented in the many conversions we execute. Many of the problems cited in your report deal with perceived inadequacies of the units' equipment and training. These are related to late public announcements of conversions that precipitate from restrictions brought on by BRAC, political, and the decision making process in general, and cannot be remedied with the introduction of the recommended programs. The commands have been very successful in funding adequate measures to work around the shortfalls in equipment and attain necessary training for their people in spite of the short reaction times. Regulations quoted in the audit report recommend a 48 month notice to conversion, and your report suggests that it would be ideal to have a five year lead time. Whereas this may be optimal for planning and execution purposes, given the current planning and programming environment, it's not realistic. Recent conversions have had less than a 12 month notice, and in the case of the 507th Air Refueling Wing at Tinker AFB, OK, AFRES had approximately a three month notice. Adequate preparation time is essential to a successful conversion; not only for equipment and training purposes but also for MILCON programming. Late facilities are a major problem not covered in this audit.

The lack of timely decisions also causes problems for HQ AMC and HQ AFMC, the suppliers of the aircraft support equipment, as they can't react in a timely manner. The problem is magnified by the limited number of resources. The active duty equipment numbers are sized for a larger PAA (Primary Assigned Aircraft) unit than we are implementing, and there is a corresponding economy of size. This is lost when the equipment is divided up into smaller parcels at multiple locations, even though there is a net reduction in force structure.

All units, with few exceptions maintained combat ready status when not in conversion status, and there have been no Initial Operational Capability (IOC) dates missed due to failure of the SATAF process. One exception, the 156 Fighter Group, was a result of late facilities and manpower shortages in critical maintenance shops, not a lack of training or equipment.

We concur, in part with the statements within "Conversion Policy, Headquarters Role, Headquarters assistance in the SATAF process was not sufficiently comprehensive." The ANGRC SATAF teams often do not contain representatives from all the necessary agencies. Representatives from the gaining major commands are essential to the conversion process, and in most cases, the major commands were not able to adequately support the ANG SATAF efforts. On some occasions, ANG functional offices were unable to fully staff SATAFs because of conflicting requirements. Significant improvements have been made in this area since the conversions cited in the report. As a further improvement, in addition to the normal two SATAFs, a Staff Assistance Visit (SAV) conducted by the ANGRC staff three to four months into the conversion would be helpful to address problems that arise after the SATAFs. The ANGRC will evaluate the need for a SAV for converting units and expanding the SATAF team size to provide more assistance to converting units.

We non-concur with recommendation 1.a., and 1.c. Both headquarters organizations currently use programs that determine new support equipment and training requirements for conversion aircraft.

We concur with recommendation 1.b. An ANG program that streamlines and lends greater accountability to the training process is in development. The projected completion date is 30 July 1995. Action is complete for AFRES.

We concur with recommendation 2. A lessons-learned data base for use in planning aircraft conversions and making data readily available to units converting to new aircraft has merit in both commands. AFRES will be exploring ways to initiate this in future conversions. The estimated date of completion for this is April 1996. Action is complete for ANG.

The commands, and the units are at the end of the whip. The responsibility unfairly falls upon them to make up the distance when there are time and equipment shortages. The people at the ARC headquarters and units are professional and do everything within their capabilities to make the conversions come together and execute safely with limited resources. The senior leadership acknowledges these limitations and are striving to improve the process through better planning and a more static force structure.

ROBERT A. McINTOSH, Maj Gen, USAF
Commander, Air Force Reserve

Audit Team Members

This report was prepared by the Acquisition Management Directorate, Office of the Assistant Inspector General for Auditing, Department of Defense.

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