

**Audit**



**Report**

OFFICE OF THE INSPECTOR GENERAL

**TRANSFER AND EXCHANGE OF  
A NAVY P-3A AIRCRAFT**

Report No. 96-143

June 5, 1996

**Department of Defense**

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



Report No. 96-143

June 5, 1996

**MEMORANDUM FOR ASSISTANT SECRETARY OF THE NAVY (FINANCIAL  
MANAGEMENT AND COMPTROLLER)  
DIRECTOR, DEFENSE LOGISTICS AGENCY  
COMMANDER, AIR FORCE MATERIEL COMMAND**

**SUBJECT: Audit of the Transfer and Exchange of a Navy P-3A Aircraft  
(Project No. 5FJ-5024.01)**

## **Introduction**

We are providing this report for your information and use. This report resulted from our audit of "Controls Over the Reutilization, Transfer, Donation and Sales of Munitions List Items" (Project No. 5FJ-5024), which was requested by the Director, Defense Logistics Agency. This part of the audit focused on the effectiveness of Navy controls over the transfer of a P-3A aircraft from the Aerospace Maintenance and Regeneration Center, Davis-Monthan Air Force Base, Arizona. The P-3A is a large four-engine aircraft used by foreign governments and Federal agencies. The Navy planned to transfer the P-3A aircraft to the Smithsonian Institution (the Smithsonian), Washington, D.C., on December 6, 1995.

## **Audit Results**

The Navy planned to transfer a P-3A aircraft, with usable parts valued at \$1.7 million to \$4.1 million, to the Smithsonian's National Air and Space Museum. The museum, in turn, planned to exchange the P-3A for a historically significant business aircraft valued at \$245,000. As a result of our review, the Navy conducted further research and canceled the transfer. The Navy confirmed that it had current requirements for parts on the P-3A. In addition, the planned exchange was not in the best interest of the Government. Management actions resulted in monetary benefits of \$1.7 million to \$4.1 million (see Enclosure 4).

## **Audit Objective**

The objective of this part of the audit was to determine whether the Navy effectively managed the transfer of reclaimable aircraft to museums.

## **Scope and Methodology**

We reviewed the Navy's reclamation and demilitarization procedures for aircraft stored at Davis-Monthan Air Force Base, Arizona. We assessed whether Navy

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procedures prohibited the release of reclaimable aircraft outside DoD. We determined whether the Navy was following reclamation procedures for a P-3A aircraft, Bureau Number 151360, which it planned to transfer to the Smithsonian.

The Smithsonian planned to exchange the P-3A aircraft for a historically significant business aircraft (a Shrike Commander), and we determined whether the planned exchange was in the Government's best interest. Specifically, we compared the estimated value of reclaimable P-3A parts to the estimated value of the Shrike Commander that the Smithsonian was scheduled to receive. See Enclosure 2 for a photograph of a P-3A Orion aircraft, and Enclosure 3 for a photograph of a Shrike Commander aircraft.

This economy and efficiency audit was conducted from November to December 1995, in accordance with auditing standards issued by the Comptroller General of the United States, as implemented by the Inspector General, DoD. We did not use computer-processed data or statistical sampling procedures for this audit. Enclosure 5 lists the organizations we visited or contacted.

## **Management Controls**

Management control weaknesses permitted the Navy to proceed with the transfer of an aircraft that had valuable parts. During the audit, the Navy terminated the transfer of the aircraft. Therefore, we are not making recommendations in this report. Management controls over transfers and exchanges will be discussed in our overall audit report on "Controls Over the Reutilization, Transfer, Donation and Sales of Munitions List Items."

## **Prior Audits**

No audits have been performed on this subject during the past 5 years.

## **Background**

The Aerospace Maintenance and Regeneration Center reclaims Navy aircraft from storage. The Center is an Air Force Materiel Command activity that provides interservice support for the storage and reclamation of aircraft.

When a Navy aircraft needs to be reclaimed from storage, the Naval Aviation Supply Office sends the requirements to its field activity at the Aerospace Maintenance and Regeneration Center. The field activity arranges for Air Force personnel to remove the parts and assemblies from the excess aircraft. After reclamation is completed, the Naval Aviation Supply Office may authorize transfers to Federal museums for exchange purposes.

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## Discussion

During our audit, the Navy agreed to transfer one of its P-3A aircraft to the Smithsonian. The Smithsonian wanted to exchange the aircraft for a vintage aircraft to be displayed at the National Air and Space Museum. The Smithsonian requested the P-3A aircraft on December 1, 1994, in a letter from the curator of the Aeronautics Department. The letter stated that the P-3A aircraft was needed for collection purposes and that the aircraft needed to be in flyable condition.

DoD Manual 4160.21-M, "Defense Reutilization and Marketing Manual," March 1990, requires Military Departments to reclaim and use excess aircraft parts before approving transfers. However, on March 15, 1995, the Naval Aviation Supply Office had approved the transfer of a P-3A aircraft, Bureau Number 151360, to the National Air and Space Museum without reclaiming usable parts. The Navy had agreed to transfer the aircraft without reclaiming required parts in order to keep it in flyable condition. During our November 1995 visit to the Naval Aviation Supply Office's field activity at the Aerospace Maintenance and Regeneration Center, we learned that the field activity was modifying the reclamation requirements for the P-3A aircraft. The requirements were being modified to prevent the reclamation of 124 parts (see Enclosure 1) with a replacement value of \$4.8 million. Navy personnel said that removing the 124 parts would have made the aircraft unflyable.

## Reasonableness of Exchange

After analyzing the value of the 124 parts that the Navy planned to leave on the P-3A aircraft, we concluded that transferring the aircraft to the National Air and Space Museum and allowing the museum to exchange the P-3A aircraft for an exhibition aircraft was not in the Government's best interest. The aircraft contained parts that the Navy needed, and the exchange would result in a net loss to the Government.

Museum personnel informed the Naval Aviation Supply Office that they planned to exchange the P-3A aircraft for an exhibition aircraft valued at \$245,000. The replacement value of the required parts on the P-3A aircraft is \$4.8 million (see Enclosure 1), and the market value of the parts would depend on their current condition.

Since the Navy agreed to provide the museum with a P-3A aircraft in flyable condition, the 124 parts also needed to be in usable condition. We concluded that the parts were worth \$1.7 to \$4.1 million. We calculated this range by subtracting repair costs of 15 to 65 percent for the used parts, in accordance with disposal criteria.

The Navy needed some of the P-3A parts immediately. For example, reclamation procedures that required the removal of the four propellers (National Stock Number 1610-00-887-1944) were ignored in order to keep the aircraft in operable condition. The propellers have a replacement value of \$175,000 each, for a total of \$700,000 (the P-3A has four propellers). Navy

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personnel told us that the Navy had a critical need for the propellers to help alleviate supply shortages in its active P-3 inventory. The Naval Aviation Supply Office had requirements for 446 propellers for the P-3A aircraft.

## **Actions Taken**

During the audit, we met with personnel in the Naval Aviation Supply Office to discuss the cost-effectiveness of exchanging the P-3A aircraft. As a result, on December 1, 1995, the Navy canceled the transfer of the P-3A aircraft to the National Air and Space Museum. Therefore, we are not making any recommendations in this report. In our overall audit report on "Controls Over the Reutilization, Transfer, Donation, and Sales of Munitions List Items," we will make recommendations to correct management control weaknesses over DoD transfers and exchanges of equipment.

## **Management Comments**

We provided a draft report to management on March 22, 1996. Because this report contains no findings or recommendations, written comments were not required, and none were received. Therefore, we are publishing this report in final form.

We appreciate the courtesies extended to the audit staff. Questions on the audit should be directed to Mr. James Kornides, Audit Program Director, or Mr. Stuart Dunnett, Audit Project Manager, at (614) 751-1400. See Enclosure 6 for the report distribution. The audit team members are listed inside the back cover.



Robert J. Lieberman  
Assistant Inspector General  
for Auditing

Enclosures

## List of Reclaimable P-3A Parts

Name of Part	National Stock Number	Quantity in Each		Extended Value	Quantity Required
		P-3A	Unit Price		
Access Door	1560-01-079-8754	1	\$ 9,744.50	\$ 9,744.50	14
Access Door	1560-01-091-9748	1	13,502.77	13,502.77	7
Actuator	1680-00-070-4812	1	609.30	609.30	75
Actuator	1680-00-887-1911	4	1,136.00	4,544.00	61
Afterbody	1310-00-332-3851	4	19,074.96	76,299.84	263
Aileron	1560-00-192-0168	1	63,839.97	63,839.97	5
Aileron	1560-00-491-7494	4	37,481.31	149,925.24	8
Aileron Trim	1560-00-927-4094	1	8,858.27	8,858.27	15
Air Speed Indicator	6610-00-929-1614	1	1,127.66	1,127.66	32
Air Valve	1660-00-822-2314	4	1,319.72	5,278.88	205
Air Inlet Lip	1560-00-083-5914	4	35,940.14	143,760.56	57
Altimeter Encoder	6610-00-134-5325	1	1,230.00	1,230.00	312
Altimeter Encoder	6610-01-176-9314	1	1,230.00	1,230.00	11
Angle Transmitter	6610-00-719-6882	1	1,739.78	1,739.78	654
Antenna	5985-00-805-5690	1	2,212.26	2,212.26	11
Arm/Control Panel	1095-01-119-1554	1	16,661.25	16,661.25	5
Booster	1650-00-148-7563	1	82,000.00	82,000.00	42
Booster	1650-00-148-7568	1	141,054.00	141,054.00	17
Brake Valve	1630-00-887-1916	1	4,440.00	4,440.00	57
Brake Valve	1630-00-887-4268	1	11,762.95	11,762.95	81
Brake Valve	1630-00-887-4276	4	2,250.00	9,000.00	69
Bulkhead	1610-00-690-3731	4	1,377.00	5,508.00	31
Butterfly Valve	4810-00-106-7401	4	3,415.00	13,660.00	923
Butterfly Valve	4810-01-152-5662	4	6,350.00	25,400.00	258
Cabin Valves	1660-00-818-7701	2	3,080.00	6,160.00	110
Cable	1680-00-887-1967	1	940.79	940.79	121
Cable	1680-00-887-1968	1	1,157.00	1,157.00	57
Compass Adaptor	6605-00-992-8630	1	7,494.00	7,494.00	95
Converter Signal	5895-01-303-3250	1	57,340.00	57,340.00	2
Cowl Assembly	1560-00-887-4403	4	7,537.00	30,148.00	30
Cowl Assembly	1560-00-887-4408	4	19,907.29	79,629.16	67
Cowling	1560-01-216-8114	4	62,220.00	248,880.00	21
De-icer	1660-00-887-1913	1	6,030.00	6,030.00	143
Directional Valve	1650-00-019-6127	1	21,147.00	21,147.00	40
Disk Brake	1630-00-927-1773	4	4,410.00	17,640.00	578
Door	1560-00-901-3316	1	40,816.78	40,816.78	4
Door Assembly	1560-00-887-4369	2	18,027.14	36,054.28	71
Door Assembly	1560-00-887-4370	2	28,241.58	56,483.16	5
Drag Strut	1620-00-821-5265	1	8,795.28	8,795.28	10
Drag Link	1620-00-887-4427	2	1,571.61	3,143.22	3
Dynafoal Mount	2995-00-758-8047	4	2,590.00	10,360.00	374
Dynafoal Mount	2995-00-887-1962	4	3,413.97	13,655.88	480
Dynafoal Mount	2995-00-887-1963	8	5,397.22	43,177.76	177
Dynafoal Mount	2995-00-887-1965	8	2,978.12	23,824.96	402

## List of Reclaimable P-3A Parts

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<u>Name of Part</u>	<u>National Stock Number</u>	<u>Quantity in Each P-3A</u>	<u>Unit Price</u>	<u>Extended Value</u>	<u>Quantity Required</u>
Elevator Tab	1560-00-887-4380	1	\$ 9,801.71	\$ 9,801.71	95
Elevator Tab	1560-00-887-4381	1	11,663.07	11,663.07	95
Elevator Trim	1560-00-981-1705	1	8,058.69	8,058.69	114
Elevator Trim	1560-00-981-1706	1	9,584.89	9,584.89	102
Engine Inlet	1560-01-170-8316	4	56,097.00	224,388.00	30
Engine Mounts	2995-00-858-0378	4	2,830.00	11,320.00	177
Fire Container	1680-00-918-1600	4	5,755.39	23,021.56	138
Float Valve	2915-00-887-1907	2	1,840.00	3,680.00	62
Fuel Valve	2910-00-019-6128	1	10,921.00	10,921.00	15
Fuel Valve	2915-00-566-0334	6	10,359.24	62,155.44	615
Fuel Valve Assembly	2915-00-887-1904	9	3,210.00	28,890.00	221
Fuel Valve	2915-00-818-7798	4	1,620.00	6,480.00	9
Gear Door Assembly	1560-00-887-4373	1	12,203.46	12,203.46	14
Gear Door Assembly	1560-00-887-4374	1	8,460.80	8,460.80	6
Generator	6115-01-053-7272	4	13,000.00	52,000.00	1,490
Heat Exchanger	1660-00-909-4310	1	25,650.00	25,650.00	179
Heater	2935-00-566-0337	4	12,475.00	49,900.00	249
Hot Air Valve	2995-00-822-3053	4	14,007.45	56,029.80	294
Hydraulic Motor-Pump	4320-01-044-0522	3	21,737.00	65,211.00	405
Hydraulic Booster	1650-00-148-7566	1	132,504.00	132,504.00	5
Hydraulic Servovalve	1650-00-788-5465	3	3,200.00	9,600.00	109
Hydraulic Motor	1650-00-130-6961	1	5,354.00	5,354.00	17
Hydraulic Motor	1650-00-887-1903	2	4,376.00	8,752.00	23
Hydraulic Elevator	1650-00-004-9767	1	128,000.00	128,000.00	3
Horizontal Leading Edge	1560-00-871-9046	1	31,232.71	31,232.71	64
Horizontal Leading Edge	1560-00-871-9047	1	59,703.00	59,703.00	76
Horizontal Leading Edge	1560-00-872-1619	1	29,317.91	29,317.91	57
Horizontal Leading Edge	1560-00-872-1620	1	22,763.11	22,763.11	83
Landing Gear	1620-01-272-7968	2	160,080.00	160,080.00	1
Leading Edge	1560-00-089-7136	1	38,457.95	38,457.95	26
Leading Edge	1560-00-891-8832	1	19,857.90	19,857.90	3
Light Assembly	6220-00-858-0915	2	3,510.00	7,020.00	94
Lubricating Cooler	2935-00-887-1969	2	1,732.00	3,464.00	431
Lubricating Cooler	2935-01-170-8286	4	12,000.00	48,000.00	129
Lubricating Tank	2840-00-883-2743	1	5,399.41	5,399.41	128
Manifold	4730-00-929-8868	1	13,842.32	13,842.32	39
Manifold	4730-01-022-8690	1	11,130.19	11,130.19	78
Nose Valve	1620-00-019-6125	1	43,200.00	43,200.00	67
Outer Leading Edge	1560-00-621-4319	1	16,020.93	16,020.93	3
Panel Assembly	1560-00-887-4399	4	12,123.80	48,495.20	23
Panel Clock	6645-00-076-3050	1	753.47	753.47	1,962
Propeller Spinner	1610-00-887-0119	4	15,076.07	60,304.28	803

## List of Reclaimable P-3A Parts

<u>Name of Part</u>	<u>National Stock Number</u>	<u>Quantity in Each P-3A</u>	<u>Unit Price</u>	<u>Extended Value</u>	<u>Quantity Required</u>
Propeller	1610-00-887-1944	4	\$175,000.00	\$700,000.00	446
Propeller Control	1610-00-868-8836	4	45,351.71	181,406.84	297
Propeller Spinners	1610-00-176-3258	4	8,781.89	35,127.56	475
Pumping Element	2915-00-887-1915	6	2,680.00	16,080.00	156
Rate Gyroswitch	6615-00-880-5033	1	2,829.00	2,829.00	136
Rate Indicator	6685-00-887-9302	1	4,842.00	4,842.00	33
Receiver-Transmitter	5621-01-203-3480	1	27,450.00	27,450.00	516
Retractable Landing Gear	1620-00-179-6510	2	81,330.00	162,660.00	186
Rim Wheel	1630-01-115-1715	4	4,237.25	16,949.00	881
Sequential Timer	6645-00-887-0122	1	3,220.50	3,220.50	7
Servovalve	1650-00-800-2549	3	4,723.40	14,170.20	18
Servovalve	1650-00-815-7331	1	10,820.00	10,820.00	21
Servovalve	1650-00-887-4278	1	7,871.92	7,871.92	48
Servovalve	1650-00-124-1579	3	4,168.00	12,504.00	31
Shock Strut	1620-01-272-7941	1	150,290.00	150,290.00	1
Starter	2995-00-045-3447	4	20,037.00	80,148.00	1,180
Strut Assembly	1620-00-867-1279	1	99,550.00	99,550.00	93
Synchrophaser	1610-01-226-2721	1	25,700.00	25,700.00	148
Tail Cone	1560-00-431-8810	1	3,275.90	3,275.90	29
Tailpipe	1560-00-821-4082	1	10,432.00	10,432.00	14
Tailpipe	1560-00-821-4091	2	7,760.00	15,520.00	20
Tailpipe Cover	1560-00-887-4368	2	5,822.07	11,644.14	8
Tailpipe Door	1560-00-887-4377	2	25,865.00	51,730.00	133
Tank Unit	6680-00-319-1710	1	654.00	654.00	13
Tank Unit	6680-00-319-1723	4	3,750.00	15,000.00	276
Temporary Programmer	1660-00-077-1833	2	2,635.16	5,270.32	14
Tires	2620-00-061-4108	2	166.00	332.00	5,005
Tires	2620-00-731-7441	4	194.47	777.88	29
Tires	2620-00-928-4502	4	407.00	1,628.00	11,137
Torque Indicator	6620-01-063-9054	4	2,305.00	9,220.00	1,095
Transfer Valve	6615-00-566-0331	1	18,220.00	18,220.00	79
Trim Indicator	6615-00-888-9956	1	3,410.00	3,410.00	4
Vaneaxial Fan	4140-00-887-6787	1	657.80	657.80	7
Valve	2915-00-019-6126	2	11,146.73	22,293.46	6
Vent Valve	2995-00-822-3059	4	5,636.00	22,544.00	184
Water Pump	1680-00-888-3687	1	2,527.50	2,527.50	166
Wheel Landing Gear	1630-00-075-1976	2	3,193.55	6,387.10	1,154
Windshield Motor	1680-00-070-5994	1	12,500.00	12,500.00	14
<b>Total Value</b>				<b>\$4,854,582.42</b>	

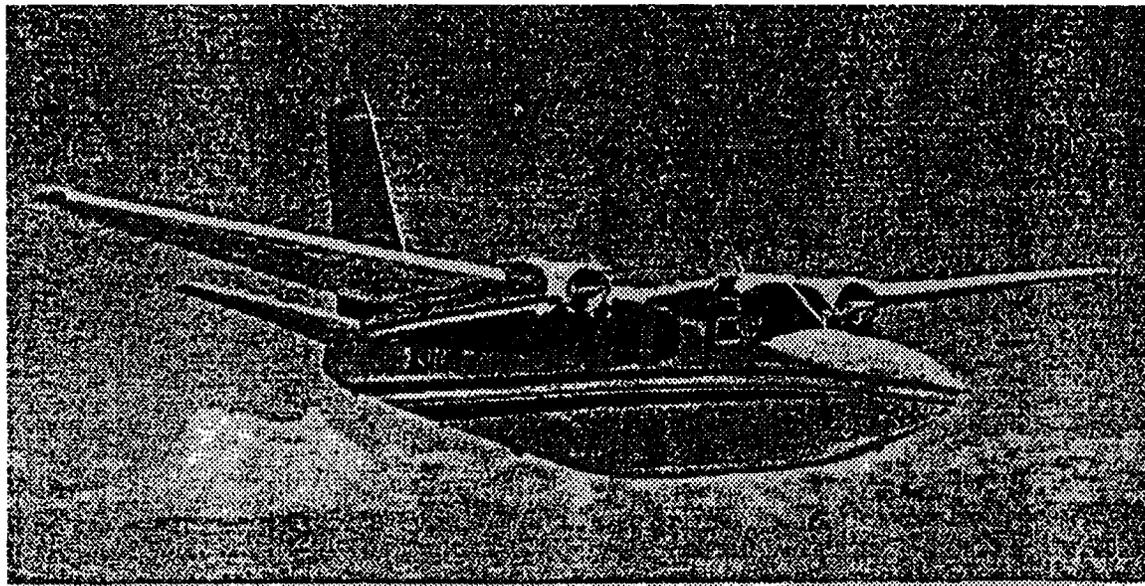
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**P-3A Orion**



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## Shrike Commander



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## Summary of Potential Benefits Resulting From Audit

Recommendation Reference	Description of Benefit	Amount and/or Type of Benefit
None.	Economy and efficiency. Use existing assets to satisfy current requirements for P-3A aircraft.	Monetary. \$1.7 to \$4.1 million in funds put to better use (Appropriation 17X4930).

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## **Organizations Visited or Contacted**

### **Office of the Secretary of Defense**

Deputy Under Secretary of Defense (Logistics)

### **Department of the Navy**

Naval Aviation Supply Office, Philadelphia, PA  
Naval Aviation Supply Office Detachment, Field Support Office, Davis-Monthan  
Air Force Base, AZ

### **Department of the Air Force**

Aerospace Maintenance and Regeneration Center, Davis-Monthan Air Force Base, AZ

### **Other Defense Organizations**

Defense Logistics Agency  
Defense Reutilization and Marketing Office, Davis-Monthan Air Force Base, AZ

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Smithsonian Institution, Washington, DC

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## **Audit Team Members**

This report was prepared by the Finance and Accounting Directorate, Office of the Assistant Inspector General for Auditing, DoD.

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