

Aircraft and Vessel Repair and Maintenance

FY2007 Request: \$1,778,150

Reference No: 6121

AP/AL: Appropriation
Category: Public Protection
Location: Statewide

Project Type: Renewal and Replacement

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House District: Statewide (HD 1-40)

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Estimated Project Dates: 07/01/2006 - 06/30/2007

Brief Summary and Statement of Need:

The Department of Public Safety annually requests repair and maintenance funds for DPS aircraft and vessels. These assets are crucial tools used to achieve the department's mission.

These funds are for the repair, replacement, and maintenance requirements of this department's aircraft and vessel fleet. For example, funds are used to rebuild vessel and aircraft engines and components when they reach the limits of safe useful life. Large marine diesel engines and aircraft engines may require expert vendors to rebuild them. Many other components of vessels and aircraft must be maintained or replaced routinely to ensure safe operating conditions and to comply with various safety regulations.

Funding:	FY2007	FY2008	FY2009	FY2010	FY2011	FY2012	Total
Gen Fund	\$1,778,150	\$1,300,000	\$1,300,000	\$1,300,000	\$1,300,000	\$1,300,000	\$8,278,150
Total:	\$1,778,150	\$1,300,000	\$1,300,000	\$1,300,000	\$1,300,000	\$1,300,000	\$8,278,150

<input type="checkbox"/> State Match Required	<input type="checkbox"/> One-Time Project	<input type="checkbox"/> Phased - new	<input type="checkbox"/> Phased - underway	<input checked="" type="checkbox"/> On-Going
0% = Minimum State Match % Required		<input type="checkbox"/> Amendment	<input type="checkbox"/> Mental Health Bill	

Operating & Maintenance Costs:

	<u>Amount</u>	<u>Staff</u>
Project Development:	0	0
Ongoing Operating:	0	0
One-Time Startup:	0	0
Totals:	0	0

Additional Information / Prior Funding History:

- Sec 1, Chapter 3, FSSSLA 2005, Page 63, Line 14-15 \$1,800,000
- Sec 1, Ch 159, SLA 2004, \$749,600
- Sec 1, Ch 82, SLA 2003, \$1,652,400
- Sec 1, Ch 1, SLA 2002, \$1,200,000
- Sec 1, Ch 61, SLA 2001, \$900,000; Sec 74(c), Ch 61, SLA 2001, \$300,000
- Sec 1, Ch 135, SLA 2000, \$1,063,780
- Sec 100, Ch 2, SLA 1999, \$975,000.
- Sec 131, Ch 139, SLA 1998, \$1,221,500.
- Sec 82, Ch 100, SLA 1997, \$600,000
- Sec 100, Ch 123, SLA 1996, \$750,000
- Sec 135, Ch 103, SLA 1995, \$750,000
- Sec 10, Ch 4, SLA 1994, \$800,000

Project Description/Justification:

The Department of Public Safety annually requests repair and maintenance funds for the DPS aircraft and vessels. These funds are for the repair, replacement, and maintenance requirements of this department's aircraft and vessel fleet.

AIRCRAFT REPAIRS

This project allows for some of the yearly purchases of equipment needed to replace worn-out or obsolete equipment such as radios, landing gear, etc. It will purchase overhauls and repairs to department aircraft airframes, landing gear, and engines on an annual schedule. This is necessary to ensure the aircraft are airworthy, safe, and dependable.

For the department to carry out its public safety, law enforcement, and search and rescue responsibilities, it is essential that its aircraft are maintained in an airworthy, safe, and dependable condition. A minimum level of flying hours must be maintained to meet the department's enforcement objectives. Without adequate aircraft support, many aspects of the Alaska State Troopers' public safety and wildlife law enforcement efforts would be seriously impaired.

The Aircraft section has maintenance responsibility for DPS aircraft, including maintenance and replacement of engines, propellers, airframes, and electronics. FAA requirements, frequent maintenance, parts replacement, and re-fabrication are required. Adequate funding is essential to maintain a regularly scheduled overhaul and repair cycle for department aircraft. Routine aircraft maintenance is especially critical as the time between airframe overhauls increase. Cessna aircraft and Piper Cubs should receive an overhaul of the airframe every 7 years, especially when operating in a corrosive saltwater environment. In fresh water and inland areas, these airplanes should be overhauled every 14 years or 5,000 hours, whichever comes first. Any corrosion renders the aircraft no longer airworthy by manufacturer's standards and FAA regulations. Overhauling the airframes and landing gear extends the life of the equipment and ensures the safe structural condition of the aircraft.

VESSEL REPAIRS

This project allows for some of the needed repairs, conversions, servicing, and maintenance for department vessels to ensure their safe and dependable operations during FY2007 and beyond. Routine preventative and annually scheduled maintenance for vessels of all sizes is necessary and cost efficient. As the operational life of some of the vessels is extended, maintenance becomes critical to the safety of the vessels and the crew. This project also allows for the purchase of equipment needed to replace worn out or obsolete equipment such as marine radios, global positioning systems, outboard engines, etc. This is necessary to ensure that DPS vessels are seaworthy, safe, dependable, and meet the needs of the public safety mission.

Alaska's fisheries are changing and patrol emphasis for the region's smaller vessels are taking on new roles, including increased patrols relating to federal marine enforcement and homeland security concerns. All vessels are used for commercial fisheries enforcement and other trooper duties including search and rescue missions. Many of the larger vessels patrol the high seas all year, from Southeast Alaska to the Gulf of Alaska to the Bering Sea, in all weather and sea conditions. To patrol these fisheries in safe and dependable vessels, the department needs to provide a planned, scheduled maintenance program. The increasing demand in operations also impacts small vessel maintenance needs.

Maintaining the fleet is an ongoing process requiring the department to forecast needs based on prudent mariner practices, equipment manufacturer recommendations, and normal wear and tear. Deferred projects are weighed against newer concerns to determine the final priority listing for needed maintenance.

Of the 18 vessels 25' and larger, five vessels are 10 years or older with one being over 22 years in age. The 23-year-old 121' *P/V Woldstad*, based in Kodiak, is the oldest in the fleet and has the most diverse patrol area. As the age of a vessel increases, so do maintenance and repair costs and the frequency of breakdowns. Sufficient funding must be available to maintain the vessels on a regular schedule.

The 156' Dutch Harbor based *P/V Stimson* is the largest vessel in the fleet and the only enforcement vessel in its class. It requires substantial maintenance to maintain its systems. The Ketchikan based *P/V Enforcer* is the newest large member of the fleet. The department took delivery of the *P/V Courage*, the 33' replacement vessel for Sitka, in December 2005.

DOCUMENTATION OF ESTIMATED CAPITAL COSTS

The information below is based on projected maintenance needs at the time this document was written. Changing circumstances, equipment failure, etc., may result in reallocation of funds within the aircraft and vessel fleet as needed.

AIRCRAFT REPAIRS

1. Propeller overhaul – Caravan 70715	\$20,300	
2. Engine overhaul PT6 – Caravan 70715	\$200,000	
3. C-185 rebuilds – one aircraft		\$43,190
4. PA-18 rebuilds – three aircraft	\$103,500	
5. Global Positioning System (GPS) fleet standardization (C-185, PA18)	\$27,695	
6. Anti-Noise Reduction headsets for aircraft fleet (50)	\$15,000	
7. Night Vision Goggle (NVG) – one	\$15,000	
8. R44 helicopter engine	\$29,500	
9. R44 helicopter overhaul	\$184,000	
10. C-185 engine	\$26,760	
11. Two sets of wheel-skis	\$33,450	
12. One Eurocopter ASTAR helicopter spare rotor blade	\$45,955	
AIRCRAFT REPAIR / OVERHAUL TOTAL	\$744,350	

VESSEL REPAIRS

Southwestern Vessels:

1. <i>P/V Stimson</i> (safety inspections, engine & generator overhaul, paint, & parts)	\$120,400
2. <i>P/V Woldstad</i> (shipyard, safety inspections, radar, power block modifications)	\$556,000
3. <i>P/V Camai</i> (safety inspections, paint, generator overhaul, & parts)	\$57,600
4. Medium-sized vessels (annual maintenance, outboard replacements, etc.)	\$36,500

Southeast Vessels:

1. <i>P/V Enforcer</i> (safety inspections, water-maker, parts, ALMR radio)	\$45,800
2. Medium-sized vessels (maintenance, outboard replacements, parts)	\$57,500

Regional Medium-Sized Vessels:

1. Northern (safety inspections, outboard replacements, parts, motor maintenance)	\$28,500
2. Kenai/Prince William Sound (safety inspections, outboards, motor maintenance)	\$37,500
3. Mat-Su (safety inspections, motor maintenance, parts)	\$6,500

Contract Obligations:

1. Maintenance/marine architect contract & emergency	\$87,500
VESSEL OVERHAUL/REPAIRS TOTAL	\$1,033,800

TOTAL CIP COSTS \$1,778,150