

**Aircraft and Vessel Repair and Maintenance**

**FY2010 Request: \$1,500,000**

**Reference No: 6121**

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

**Project Type:** Renewal and Replacement

**Contact:** Dan Spencer, Director, Administrative Services

**House District:** Statewide (HD 1-40)

**Contact Phone:** (907)465-5488

**Estimated Project Dates:** 07/01/2009 - 06/30/2011

**Brief Summary and Statement of Need:**

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

These funds are for the repair 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.

<b>Funding:</b>	<b>FY2010</b>	<b>FY2011</b>	<b>FY2012</b>	<b>FY2013</b>	<b>FY2014</b>	<b>FY2015</b>	<b>Total</b>
Gen Fund	\$1,500,000	\$1,500,000	\$1,500,000	\$1,500,000	\$1,500,000	\$1,500,000	\$9,000,000
<b>Total:</b>	<b>\$1,500,000</b>	<b>\$1,500,000</b>	<b>\$1,500,000</b>	<b>\$1,500,000</b>	<b>\$1,500,000</b>	<b>\$1,500,000</b>	<b>\$9,000,000</b>

<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
<b>Totals:</b>	<b>0</b>	<b>0</b>

**Additional Information / Prior Funding History:**

- Ch 29, SLA 2008, P 73, L 31-32 \$1,000.0
- Ch 30, SLA 2007, P 101, L 19-20 \$900.0
- Ch 82, SLA 2006, P 81, L 6-7 \$1,300.0
- Ch 3, FSSSLA 2005, P 63, L 14-15 \$1,800.0
- Ch 159, SLA 2004, P 32, L 7-8 \$749.6
- Ch 82, SLA 2003, P 32, L 30-31 \$1,652.4
- Ch 1, SSSLA 2002, P 44, L 27-28 \$1,200.0
- Ch 61, SSSLA 2001, P23, L 11-12 \$900.0; Sec 74(c), Ch 61, SLA 2001, \$300.0
- Ch 135, SLA 2000, P 18, L 12-13 \$1,063.8
- Ch 2, SLA 1999, \$975.0
- Ch 139, SLA 1998, \$1,221.5
- Ch 100, SLA 1997, \$600.0
- Ch 123, SLA 1996, \$750.0

**Project Description/Justification:**

The Department of Public Safety (DPS) annually requests repair and maintenance funds for the department's aircraft and vessels. These funds are for these repair and maintenance requirements.

**AIRCRAFT REPAIRS**

This project allows for the annual purchase of equipment needed to replace some of the 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 be 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 must be met. 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 seven 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 FY2010 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 the patrol emphasis for the smaller vessels is taking on expanded roles, including increased patrols relating to federal marine enforcement and homeland security concerns. All vessels are used for commercial fisheries enforcement, sport fish and big game hunting 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 Kotzebue Sound, in all weather

and sea conditions. To patrol these fisheries in safe and dependable vessels, the DPS must provide a planned, scheduled maintenance program. The increasing demand in operations also affects 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.

The 26-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. The main engines of the *P/V Woldstad* are nearing the end of their useful life and need to be replaced, as repair parts for the old engines have to be manufactured at extreme high cost. New engines will be nearly 25 percent more fuel efficient and scheduled maintenance costs will also be drastically reduced. The complex and outdated shaft and hydraulic propeller system (CPP) must be replaced with conventional shafts and propellers at this time, as routine repairs are becoming exorbitant. Sufficient funding must be available to maintain the vessels on a regular schedule. The Dutch Harbor based 156' *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 84' *P/V Enforcer* is the newest large member of the fleet.

**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

PA18 Super Cub rebuild engine	\$207,900
Eurocopter rotor blade replacement & parts	\$98,000
Super Cub (airframes, wings & cylinders)	\$115,200
Shop equipment (fuel storage tank, engine cylinders, borescope tool, wing jacks, & paint booth upgrades (OSHA requirement)	\$78,900
Total aircraft request	\$500,000

VESSEL REPAIRS

<i>P/V Woldstad</i> (shipyard: replace mains/shaft, paint & repairs)	\$900,000
Regular and emergency repairs & maintenance	\$100,000
Total vessel request	\$1,000,000