

**State of Alaska
FY2016 Governor Amended Operating
Budget**

**Department of Military and Veterans Affairs
Alaska Aerospace Corporation
Results Delivery Unit Budget Summary**

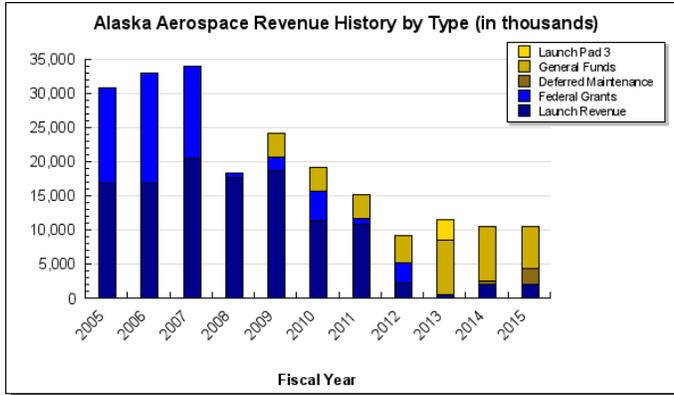
Alaska Aerospace Corporation Results Delivery Unit

Contribution to Department's Mission

Promote aerospace-related economic growth and development and strengthen Alaska's technological infrastructure.

Results

(Additional performance information is available on the web at <https://omb.alaska.gov/results>.)



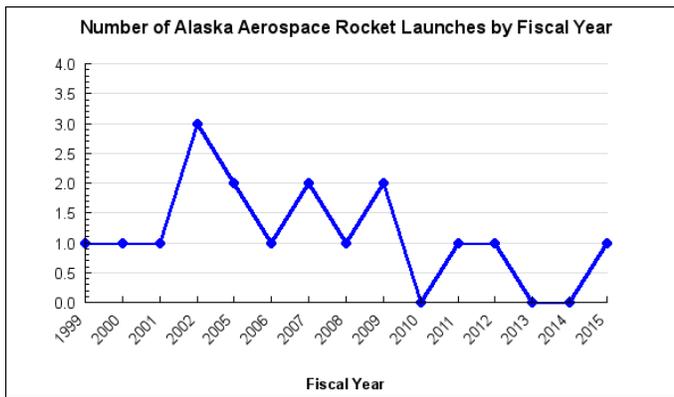
Core Services

- Provide launch facilities and aerospace services in Alaska.

Measures by Core Service

(Additional performance information is available on the web at <https://omb.alaska.gov/results>.)

1. Provide launch facilities and aerospace services in Alaska.



Major RDU Accomplishments in 2014

Throughout the year, Alaska Aerospace Corporation (AAC) successfully provided launch services, promoted economic activity, and advanced the aerospace industry in Alaska. Sustainment funding from the state ensured the Kodiak Launch Complex remained a launch-ready facility staffed by trained and experienced personnel. This investment not only allowed Alaska to remain cost competitive with other state and federal launch facilities but also worked to build:

- a collaborative business relationship between the State of Alaska and its aerospace corporation
- a demonstrated state investment for leveraging federal sustainment dollars and other funding opportunities

- research and development opportunities for diversifying AAC's business portfolio
- an increased interest in Alaska's aerospace industry

In fiscal year (FY) 2014, staff prepared for a scheduled August 2014 (FY2015) launch, executed other existing orbital contracts, improved operational efficiencies, and expanded AAC's business development platform. In late FY2013, AAC entered into a multi-year launch contract with Ducommun Miltec, an aerospace company out of Huntsville, Alabama that delivers innovative solutions, engineering services, prototype development, avionics, satellite design, launch vehicle design, and other space system services. For this contract, AAC provided professional launch services for a flight test of hypersonic technology using the Department of Defense's Advanced Hypersonic Weapon prototype. Work in other contracts included the tracking of the Dragon capsule for Space Exploration Technologies (SpaceX). This is a private rocket manufacturing and launch company that uses AAC's Range Safety and Telemetry System and staff to track its resupply launches to the International Space Station. SpaceX extended its contract with AAC in FY2014 and AAC will continue tracking the Dragon capsule over the next six resupply launches.

The business impacts of AAC's contracts in FY2014 were positive both within the corporation and within Alaska's local economies, most specifically the communities of Kodiak and Sand Point. The contract funded the direct services costs of AAC's twenty-four technical, security, safety, engineering, and maintenance employees who live and work in Kodiak. AAC made procurement actions in preparation for the launch, to over 80 vendors – predominantly Alaskan – in FY2014 for close to \$1 million in needed parts and supplies, services, materials, shipping, and equipment. There were also about 120 Miltec staff and subcontractors who rotated in and out of Kodiak, using local services as they came to work at the launch complex during the mission. Revenue for car rentals alone was \$300,000 for Kodiak agencies in the few months leading up to the launch.

For the Miltec launch, AAC stationed an RSTS in Sand Point, Alaska to serve as the launch's off-axis location. The Range Safety and Telemetry System is a rocket tracking system that uses Global Positioning Satellite (GPS) technology to track and verify that a rocket flight remains within the prescribed boundaries after launch or, in the case of an errant rocket, safely terminates the flight. In Sand Point, AAC signed a Memorandum of Understanding (MOU) with the Aleutians East Borough School District agreeing to purchase local goods and services for the operation of the RSTS and to also use local labor and contractors as was cost effective. AAC worked to supplement the school district's STEM (Science, Technology, Engineering and Math) curriculum by involving local teachers and students in its operations and also hosted a public information meeting to discuss community impacts of AAC's work. In the preparation and execution of the launch, teams of up to six staff and subcontractors remained in Sand Point using the state ferry system and local vendors to transport equipment and provide services under the launch contract.

AAC has made great strides in its work to ensure Alaska remains competitive in the national arena for federal launch contracts. The corporation partnered with the Virginia Commercial Space Flight Authority to build bipartisan congressional support in developing federal policy changes and program requirements that enhance the use of state spaceports by government and commercial sectors. Senators Lisa Murkowski and Mark Begich successfully inserted language into the FY2015 National Defense Authorization Act stating that the federal government should consider and use state spaceports that provide cost-effective capabilities and meet federal requirements. This language recognizes state spaceports as part of the national space system and dictates a baseline of \$10 million in federal sustainment funds be placed in the Air Force budget to ensure spaceports like AAC are available on stand-by for federal launches.

In FY2014, AAC worked to diversify its business portfolio in ways that fully utilized the scope and breadth of its unique mission, infrastructure, location, and employee skillsets. AAC provided balloon launch support to Space Data Corporation as the company tested its technology in Alaska. Space Data Corporation provides emergency communication systems for use by military and emergency services teams. Their technology establishes data communication capabilities in a short period of time by launching a communication repeater off a high-altitude industrial weather balloon, thus negating the need to launch a satellite or erect a new satellite tower for communication capabilities. The result is a temporary coverage circle of over 400 miles, an important capability in rural and remote areas of Alaska. Also, AAC submitted a proposal to the National Oceanic and Atmospheric Administration (NOAA) demonstrating AAC's capability in providing affordable upper-air observations and effective weather data collection that NOAA and the National Weather Service needs and uses for weather forecasting, model verifications, and disaster mitigation.

Other accomplishments in FY2014 include the successful execution of deferred maintenance projects in the capital budget including repairs to the overhead crane system, lift equipment, and Heating, Ventilating, and Air Conditioning (HVAC) systems; progress of environmental assessments and engineering work for Launch Pad 3; an update to AAC's *Invitation to Space* and *Technical Introduction to the Kodiak Launch Complex*; and the completion of annual facility certifications, including its third five-year Federal Aviation Administration (FAA) Commercial Space Transportation license renewal.

As AAC continues to diversify its business line and help define Alaska as an aerospace state, the corporation is seeing that the state as a whole is attracting more aerospace business. For example, Alaska was selected by the FAA as one of six unmanned aerial system (UAS) test site operators to evaluate operational procedures and help develop regulations. The University of Alaska Fairbanks is to be the lead partner for Alaska's test site region, which includes Alaska, Hawaii, Oregon, Washington and the ocean waters contiguous to those states. This venture demonstrates an exciting opportunity and potential of UAS in the state, and AAC supports and anticipates business growth such as this as Alaska's aerospace capabilities are realized.

Key RDU Challenges

AAC experienced a launch failure during its August 2014 (FY2015) launch. The Mission Flight Control Officer (MFCO) triggered the flight termination system shortly after liftoff of the rocket and its payload. The resulting explosion caused damage to several AAC facilities, especially those in the lower launch pad area. AAC is currently working with federal and state agencies to complete a loss assessment and anticipates it will be ready to resume full launch services in early FY2016.

AAC's facilities were built in the mid-1990s and provide the infrastructure to launch most types of solid fuel "small-lift" or suborbital rockets. Currently, AAC can launch from Kodiak a rocket that can weigh about 180,000 pounds (90 tons), be 80 feet (8 stories) tall, have 427,000 pounds of thrust, and place up to 4,000 pounds into low Earth orbit. The age of the launch complex's facilities, systems, and heavy equipment is now reaching 20 years. Attracting more customers not only requires upgrades and maintenance of existing infrastructure but also an expansion of infrastructure to meet current technology, standards, and demand. AAC has been prioritizing and targeting deferred maintenance needs in coordination with the Department of Military and Veterans' Affairs and is working to reduce its list of deferred maintenance and renewal projects. AAC is also continuing to work with the state to increase its launch capacity to include "medium-lift" rockets, which weigh up to 1,000,000 pounds (500 tons), are 180 feet (18 stories) tall, and can lift satellites in excess of 4,000 pounds into orbit.

AAC has followed through with its commitment to the state to incrementally reduce its general fund Operations and Sustainment requests. AAC decreased its general fund operating request by \$2 million in both FY2015 and FY2016, totaling a fifty percent reduction of the original appropriation. To manage this reduction, in FY2016 AAC is reducing its personal services by ten Position Control Numbers (PCNs), or twenty-two percent of AAC's total PCNs in the budget. These positions were either long-time vacant or recently vacant due to attrition. The small remaining team at AAC is committed to maintaining current operations and taking on the increased workload resulting from multiple active pursuits.

Significant Changes in Results to be Delivered in FY2016

Starting January 1, 2015, the Kodiak Launch Complex will become the Pacific Spaceport Complex – Alaska. This rebranding indicates AAC's greater vision for making new domestic and international sales in the Pacific region and capturing launch business that is currently being done elsewhere. AAC signed an MOU with the Hawaii Office of Aerospace Development in early FY2014 to allow AAC to present a pan-Pacific approach while aligning with Hawaii's aerospace program.

AAC anticipates an increase in its commercial launch capacity to include smaller rocket launches from Kodiak, as well rockets with medium class payloads. AAC held an industry day in Kodiak in September 2014 (FY2015) to showcase its facilities and future vision for the site. Several interested companies from around the globe participated in this event. Concurrently, AAC issued a request for proposals for companies interested in investing in infrastructure improvements to bring medium-lift capacity to Alaska in partnership with the State of Alaska. This will result in an increased launch capacity to include medium-lift commercial launches, or those capable of placing payloads heavier than 4,000 pounds into a 1,000-kilometer sun-synchronous orbit.

In FY2016, AAC will have established a new business in geospatial data and satellite imaging sales for Alaska. This provides new non-launch revenue that generates a diversified income stream for the corporation. AAC is also aggressively pursuing international business opportunities, especially in the commercial satellite area, to bring back a portion of the U.S. commercial satellite launch business that is currently conducted overseas. AAC has been reaching out to other countries that have small, solid fuel rockets to introduce them to the capabilities of the Pacific Spaceport Complex – Alaska and the use of AAC for polar launches.

Contact Information
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**Alaska Aerospace Corporation
RDU Financial Summary by Component**

All dollars shown in thousands

	FY2014 Actuals				FY2015 Management Plan				FY2016 Governor Amended			
	UGF+DGF Funds	Other Funds	Federal Funds	Total Funds	UGF+DGF Funds	Other Funds	Federal Funds	Total Funds	UGF+DGF Funds	Other Funds	Federal Funds	Total Funds
Formula Expenditures None.												
Non-Formula Expenditures AK Aerospace Corp	3,914.0	463.3	0.0	4,377.3	2,460.5	1,602.1	0.0	4,062.6	0.0	1,608.3	3,005.0	4,613.3
AAC Facilities Maintenance	4,215.2	1,267.4	10.1	5,492.7	3,623.8	2,439.1	0.0	6,062.9	0.0	2,463.0	0.0	2,463.0
Totals	8,129.2	1,730.7	10.1	9,870.0	6,084.3	4,041.2	0.0	10,125.5	0.0	4,071.3	3,005.0	7,076.3

Alaska Aerospace Corporation
Summary of RDU Budget Changes by Component
From FY2015 Management Plan to FY2016 Governor Amended

All dollars shown in thousands

	<u>Unrestricted Gen (UGF)</u>	<u>Designated Gen (DGF)</u>	<u>Other Funds</u>	<u>Federal Funds</u>	<u>Total Funds</u>
FY2015 Management Plan	6,084.3	0.0	4,041.2	0.0	10,125.5
One-time items:					
-AK Aerospace Corp	-2,460.5	0.0	0.0	0.0	-2,460.5
-AAC Facilities Maintenance	-3,623.8	0.0	0.0	0.0	-3,623.8
Adjustments which continue current level of service:					
-AK Aerospace Corp	1,510.2	0.0	6.2	3,005.0	4,521.4
-AAC Facilities Maintenance	2,664.8	0.0	23.9	0.0	2,688.7
Proposed budget decreases:					
-AK Aerospace Corp	-1,510.2	0.0	0.0	0.0	-1,510.2
-AAC Facilities Maintenance	-2,664.8	0.0	0.0	0.0	-2,664.8
FY2016 Governor Amended	0.0	0.0	4,071.3	3,005.0	7,076.3