

State of Alaska FY2007 Governor's Operating Budget

Department of Transportation/Public Facilities Highways and Aviation Results Delivery Unit Budget Summary

Highways and Aviation Results Delivery Unit

Contribution to Department's Mission

Operate, maintain, safeguard, and control the state's infrastructure system of highways, airports and harbors.

Core Services

- Winter snow and ice control including snow plowing, snow removal, sanding, anti-icing, avalanche control, snow fencing and culvert thawing.
- Summer maintenance including: grading, pothole patching, crack sealing, leveling of heaves and dips, brush clearing, sweeping, dust control, drainage cleaning and repair, fence and guardrail repair, bridge painting and repair, and sign maintenance.
- Road and airport lighting systems maintenance, including: traffic signals, intersection and road illumination, harbor electrical service and lighting, and runway and taxiway lights.
- Roadside litter control and trash removal at rest areas, turnouts and campgrounds.
- Access control to state rights of way for driveways, access roads, signs and utilities.
- Operation of certificated airports in compliance with 14 CFR Part 139.
- Maintenance of federally mandated security at state airports, including access controls, criminal history checks and badging, security fencing, communications, and law enforcement.
- Active avalanche program.

End Results	Strategies to Achieve Results
<p>A: Maintain State owned roads, highways and airports to appropriate department standards.</p> <p><u>Target #1:</u> Improve customer satisfaction by 3% with DOT&PF services. <u>Measure #1:</u> Change in customer satisfaction based on survey of customers.</p> <p><u>Target #2:</u> Keep the statewide average cost per line mile to maintain DOT&PF highways and airports at \$5,223. <u>Measure #2:</u> Statewide average cost per lane mile.</p>	<p>A1: Keep urban highways passable at all times.</p> <p><u>Target #1:</u> Clean up snow and ice from urban highways within 18 hours after end of snow storm. <u>Measure #1:</u> Number of hours after end of storm before urban highways are cleaned up (shoulders and intersections clear and berms pushed back).</p> <p>A2: Ensure regulatory compliance at rural Part 139 airports.</p> <p><u>Target #1:</u> No major violations during annual Part 139 inspections. <u>Measure #1:</u> Number of Part 139 inspection violations.</p> <p>A3: Carry out safe DOT&PF operations.</p> <p><u>Target #1:</u> 10% increase in employees successfully completing required safety training. <u>Measure #1:</u> Percent of employees completing required safety training.</p>

Major Activities to Advance Strategies

- | | |
|--|---|
| <ul style="list-style-type: none"> • Utilize maintenance management system • Increase preventative maintenance • Implement technologies and use of anti-icing chemical for effective anti-icing program | <ul style="list-style-type: none"> • Safety training and compliance monitoring • Develop policies and procedures for accident/incident review, tracking and prevention • Equipment operator training and certification |
|--|---|

Major Activities to Advance Strategies

- Increase usage of anti-icing agents
- Deploy Alaska land mobile radios and receivers

FY2007 Resources Allocated to Achieve Results

FY2007 Results Delivery Unit Budget: \$117,062,700	Personnel:	
	Full time	514
	Part time	89
	Total	603

Performance Measure Detail

A: Result - Maintain State owned roads, highways and airports to appropriate department standards.

Target #1: Improve customer satisfaction by 3% with DOT&PF services.

Measure #1: Change in customer satisfaction based on survey of customers.

Customer Satisfaction

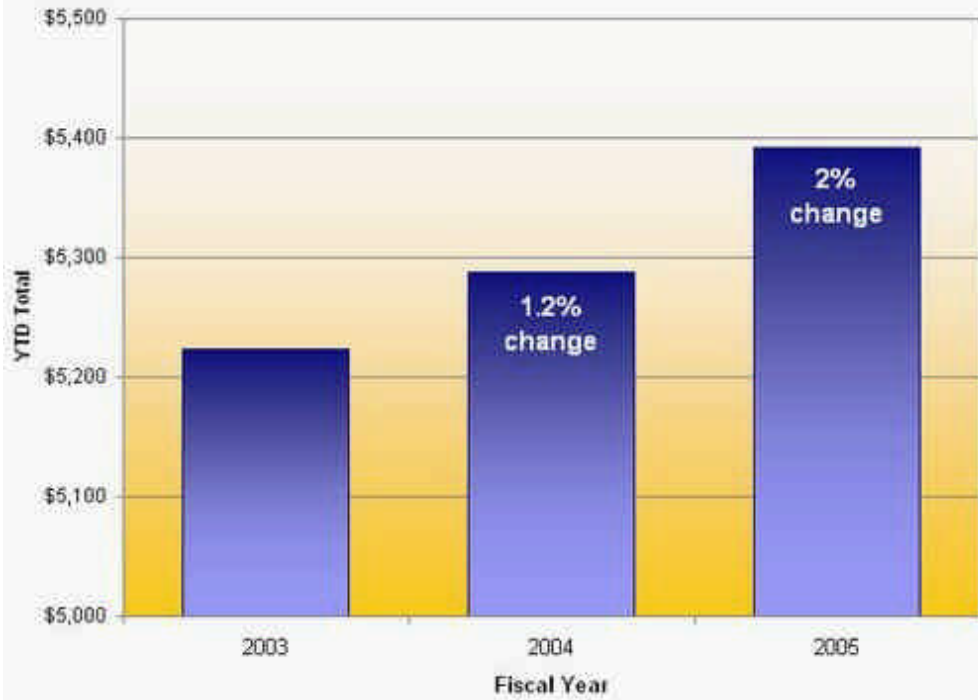
Year	YTD Total	% Change
1998	60%	
2005	79%	31.7%

Analysis of results and challenges: Customer satisfaction with the operation and maintenance of our highways and rural airport system increased significantly between 1998 and 2005. This result may have direct corollary with the maintenance budgets. In 1998, the burgeoning state fiscal problems manifested into flat line budgets that limited our ability to address maintenance problems on the roads and airports. Starting in 2003, the maintenance program began receiving additional funding in both operating and capital programs. These increased funds allowed the department to address some of the long-standing issues that the public had complained about for several years.

Target #2: Keep the statewide average cost per line mile to maintain DOT&PF highways and airports at \$5,223.

Measure #2: Statewide average cost per lane mile.

Statewide average cost per lane mile



Analysis of results and challenges: The costs covered by the maintenance budget include personnel, equipment operation and replacement, utilities, materials, and contracted services. Each of these cost centers continues to rise. Increases in wages and benefits push up the cost for personnel. Emerging economies in around the world are driving up costs for fuel, steel, and raw materials as the law of supply and demand dictates. To maintain a set cost per lane mile in the face of inflation would require us to reduce the number of roads or airports we operate. Local governments have been very hesitant to accept new responsibilities without a long-term commitment of continued funding to cover their costs.

A1: Strategy - Keep urban highways passable at all times.

Target #1: Clean up snow and ice from urban highways within 18 hours after end of snow storm.

Measure #1: Number of hours after end of storm before urban highways are cleaned up (shoulders and intersections clear and berms pushed back).

Average number of hours to clean urban roads

Fiscal Year	YTD Total
FY 2005	15.5

Analysis of results and challenges: Urban highways receive priority snow and ice control service due to the large volume of traffic on these routes. Maintenance managers must ensure that maintenance assets are mobilized to clear these routes with a goal that snow and ice control is completed within 18 hours after a winter storm subsides. A completed winter road provides safe driving conditions and will be either a bare road or a plowed road with an adequate amount of sand applied for traction. Intersections and turn lanes will be cleared of snow in the driving lanes.

This result is an average clean up time for the four large urban centers of the state – Anchorage, Fairbanks, Palmer/Wasilla and Juneau. Individual area clean up times ranged from 22 hours in Fairbanks to just under 8 hours in Juneau. Variables including severity of the snow storms and the amount of secondary roads that must also be plowed factor into how long it takes to clean up the roadsides and intersections. For instance Fairbanks crews do a complete circuit of their Priority One roads first before spreading out to their Priority Two and Three roads. Only after all roads have at least been plowed through will the crews return to do the clean

up. Maintenance manager are challenged to apply enough resources at the right time to deal with the storm without overstressing the capabilities of the operators or over-expending funds. They must address additional needs on non-urban roads, keep crews working safely, and be ready to respond to future storms.

A2: Strategy - Ensure regulatory compliance at rural Part 139 airports.

Target #1: No major violations during annual Part 139 inspections.

Measure #1: Number of Part 139 inspection violations.

Number of major airport violations

Year	YTD Total
2004	0
2005	0

Analysis of results and challenges: State of Alaska rural airports that provide Part 139 service (air carriers with aircraft of over 30 seats) must meet rigid Federal Aviation Administration (FAA) standards to maintain their certificates. FAA inspects each airport annually. Failures to meet FAA standards for airport operations, called "violations", can result in fines or suspension of the airport's certificate. DOT&PF's goal is to maintain the airports at a level of compliance that will ensure no violations occur.

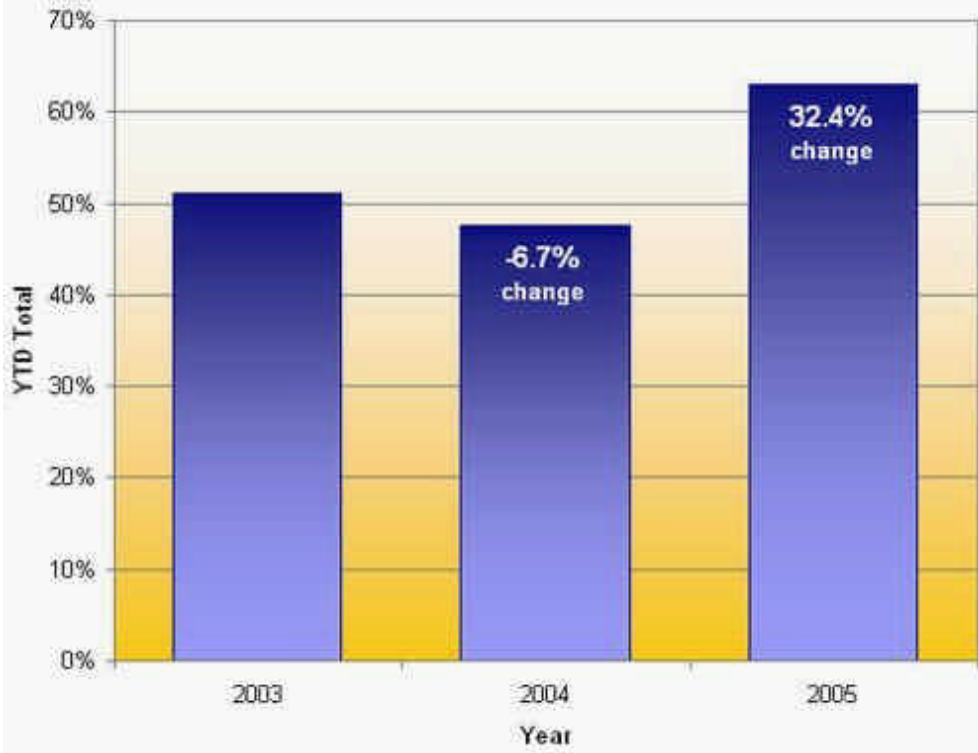
We continue to be successful in meeting this goal. Maintaining this level of service requires skillful management of airport maintenance assets and extensive training of airport maintenance crews. Costs of airport maintenance continue to rise as FAA regulatory requirements increase.

A3: Strategy - Carry out safe DOT&PF operations.

Target #1: 10% increase in employees successfully completing required safety training.

Measure #1: Percent of employees completing required safety training.

Percentage of employees completing safety training



Analysis of results and challenges: Highway and airport maintenance duties are inherently dangerous.

OSHA and State OSH have established numerous training requirements to help ensure that maintenance workers stay safe. Meeting numerous and changing training requirements is challenging for managers who have limited time and resources. It is difficult to provide complete and regular safety training to a workforce that is spread out across the state in 70 different locations and that has to meet its regular workload obligations. It is our goal to incrementally increase the training level of maintenance workers while still providing a full level of service on our highways and airports. Required safety training, as identified in the department's safety manual, is being implemented over a 5-year period. Through additional safety training, we expect a reduction in work related injuries and workers compensation claims.

Over the last year, the department has continued to emphasize safety. Additional training and consultation was provided through the department's cadre of safety officers. This is reflected in the increase percentage of employees receiving training.

Key RDU Challenges

- Protecting Alaska's investment in its transportation infrastructure continues to be a key concern. The State's investments in roads, harbors, and airports are eroding each year due to insufficient maintenance. As the transportation infrastructure continues to age, M&O is faced with an ever-increasing list of deferred maintenance work. Other demands include increases in the cost of labor, materials, electricity, and fuel; cost of maintaining new infrastructure such as airport taxiways and lighting systems and highway traffic signals; and finally, the increasing burden of new laws and regulations. The Maintenance and Operations (M&O) budget has not kept up with these increased demands and is inadequate to sustain basic preventative maintenance of our roads and airports. Our list of deferred maintenance items currently exceeds \$250 million. Adequate and stable funding is mandatory to properly maintain our infrastructure and provide a suitable level of service to the public.
- Transportation security is a major issue following the events of September 11, 2001 and continued acts of international terrorism. Requirements for security have changed to comply with the Transportation Security Administration's (TSA) mandated emergency amendments to airport, road, and bridge security programs regulations. Personnel perform mandated functions such as security management, inspection, law enforcement, access control, and perimeter patrols, and administrative functions. Considerable costs continue to be incurred to provide security fences, lighting equipment, access controls and additional security vehicles. All persons who require unescorted access to aircraft secure areas now must have a fingerprint-based criminal history records check. TSA is now inspecting all state airports multiple times a year and requires immediate reaction to any discrepancies found. This places a large burden on the existing staff to coordinate and follow up with TSA. Additional staff is needed to intercede with TSA regulators and inspectors.
- Increased costs have been offset slightly through increased productivity and other efficiencies. They are offset largely by increased reliance on capital funds. General Funds for capital improvements have dwindled in recent years to insignificant levels. Highways and Aviation has made maximum use of federal highway funding to achieve improvements in road surfaces (chip sealing), which decreases maintenance costs for the short term. These funds are limited to specific maintenance activities such as asphalt and bridge repair and are not available for routine activities such as guardrail repair or snow and ice control. Operating costs, however, have continued to increase and still outweigh the sum of our cost reducing efforts, the infusion of capital funds, and our operating revenues.
- The Highways and Aviation (H&A) workforce is aging and nearing retirement. Within the next four years over 30% of the H&A foreman, equipment operators and mechanics will be eligible for retirement. This is the front wave of baby boomers whose departure from the work force will leave a significant gap. There are not sufficient skilled employees within our ranks to fill these vacancies. Recruitment for these positions may also become a problem. Other states are currently unable to hire skilled personnel to fill their needs. The department previously had various grades of operators and mechanics from heavy duty to light duty and laborers. This allowed employees a natural progression as they acquired skills. In the past, lower level positions were deleted to retain higher skilled operators and mechanics. The State must be proactive in planning for departure of skilled workforce so the level of service on our transportation system is not adversely impacted.
- The department must replace the maintenance stations at East Fork and Nome that were deemed unsafe due to structural deficiencies. Temporary facilities are being used, however they are expensive to operate and are insufficient for properly maintaining equipment. Construction of the Chandalar and Willow stations will begin using initial funding allocated by the legislature. Each building project will be constructed in phases as funding becomes available.

Significant Changes in Results to be Delivered in FY2007

Funds are included in this budget request to cover the increasing costs of fuel, utilities, materials, employee benefits,

and maintaining new lane miles. Analysis of total impact on service levels has not yet been determined. Prior to FY2006, the budget for Highways and Aviation has been flat-funded for the past 20 years at approximately \$80+M. The increased funding for the extremely important Dalton Highway will be used to resurface portions of the road and increase the level of service in grading and snow removal activities.

Major RDU Accomplishments in 2005

- Repaired road and highways by: applying chip seal, hot mix, or high float asphalt.; applying crack sealant; and repairing various components bridges; and cutting brush.
- Resurfaced 40 miles of the Dalton Highway with gravel.
- Paved 5 roads within the Mat-Su Borough with the "Gravel to Black" program. Transferred ownership and maintenance responsibility of 2 of these roads to the MatSu Borough.
- Continued administration of Adopt-a-Highway program with volunteer groups participating in clean up of selected segments of highways. A policies and procedures manual for Adopt-a-Highway programs is currently being developed.
- Provided emergency repairs at numerous locations, including: Haines Highway river erosion, Indian River Bridge (Sitka), Zimovia Highway bank erosion (Wrangell), and Alsak Road (Yakutat).
- Assisted in extensive forest fire control efforts by providing labor and equipment.
- Performed extensive ditching and brushing on roads and airports.
- Deployed the Maintenance Management System in all regions. This will allow the department to better plan for maintenance work and track costs of activities. All station foremen have been trained on use of the Maintenance Management System.
- Entered into partnership with Department of Labor & Workforce Development (DLWD) to improve workplace safety in DOT&PF facilities. This sister agency partnership will allow the department to consult with the state Occupational Safety and Health office and be proactive in improving facility safety.
- Completed major repairs to state dock and float system in Gustavus and installed two new hardstands on airport apron to accommodate increasing heavy aircraft parking needs.
- Completed emergency repair of slide on Salmon River Road in Hyder.
- Completed major improvement of Herbert River Truck Trail and transferred road to City and Borough of Juneau.
- Purchased 10 portable dynamic, remote controlled message boards for deployment throughout Central and Northern Regions for improved traffic safety.
- Established 12 aggregate crushing contracts for over 103,000 cubic yards of material stockpiles in the Northern Region for current and future surface repairs by federal and state projects.
- Contracted the erosion repairs to the Nome-Council Road in the Safety Sound area, which was the result of storm damage in October of 2004. This included reconstruction of embankment, grade raise and armoring embankment with rip rap.
- Contracted the construction of two miles of roadway as a detour for the Emmonak Airport/Clinic Road, which was destroyed in May 2005 flooding.
- Prepared 2,000 cubic yards of crushed surfacing material for Tatitlek airport, and graded, shaped and compacted 72 acres of runway and taxiway surfaces at 13 airports. Applied dust palliative (Permazyme and EK-36) on airport runways at 3 airports, which covered almost 13 acres of runway surfaces.
- Implemented fee-based tie down system for assigned parking at 17 airports.
- Accomplished the installation and implementation of satellite dishes for 33 remote maintenance station computers, in order to bring their internet connectivity up to a serviceable level for daily intra-district data communication.
- Contracted the installation of over 1,400 milepost signs, and more than 200 other (Scenic Byway, 511, and Buckle-Up) signs for modernization of the National Highway System signage along the contiguous highway system.

Contact Information

Contact: Frank Richards, State Maintenance and Operations Engineer
Phone: (907) 465-3906
Fax: (907) 586-8365
E-mail: Frank_Richards@dot.state.ak.us

Highways and Aviation RDU Financial Summary by Component

All dollars shown in thousands

	FY2005 Actuals				FY2006 Management Plan				FY2007 Governor			
	General Funds	Federal Funds	Other Funds	Total Funds	General Funds	Federal Funds	Other Funds	Total Funds	General Funds	Federal Funds	Other Funds	Total Funds
Formula Expenditures	None.											
Non-Formula Expenditures												
Central Highways and Aviation	30,396.3	332.8	3,683.0	34,412.1	31,636.2	483.4	5,635.6	37,755.2	37,583.9	509.7	3,906.0	41,999.6
Northern Highways & Aviation	41,752.0	397.9	5,323.8	47,473.7	46,958.6	535.2	6,429.1	53,922.9	51,169.7	563.1	6,614.3	58,347.1
Southeast Highways & Aviation	9,361.7	14.5	1,391.6	10,767.8	10,096.2	15.0	1,660.8	11,772.0	11,127.6	0.0	1,728.2	12,855.8
Whittier Access and Tunnel	100.0	0.0	3,591.6	3,691.6	100.0	0.0	3,754.0	3,854.0	100.0	0.0	3,760.2	3,860.2
Adak Airport	0.0	646.0	0.0	646.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Totals	81,610.0	1,391.2	13,990.0	96,991.2	88,791.0	1,033.6	17,479.5	107,304.1	99,981.2	1,072.8	16,008.7	117,062.7

**Highways and Aviation
Summary of RDU Budget Changes by Component
From FY2006 Management Plan to FY2007 Governor**

All dollars shown in thousands

	<u>General Funds</u>	<u>Federal Funds</u>	<u>Other Funds</u>	<u>Total Funds</u>
FY2006 Management Plan	88,791.0	1,033.6	17,479.5	107,304.1
Adjustments which will continue current level of service:				
-Central Highways and Aviation	1,402.3	22.2	-1,753.5	-329.0
-Northern Highways & Aviation	925.0	23.6	44.6	993.2
-Southeast Highways & Aviation	271.4	0.0	57.4	328.8
-Whittier Access and Tunnel	0.0	0.0	5.3	5.3
Proposed budget decreases:				
-Southeast Highways & Aviation	0.0	-15.0	0.0	-15.0
Proposed budget increases:				
-Central Highways and Aviation	4,545.4	4.1	23.9	4,573.4
-Northern Highways & Aviation	3,286.1	4.3	140.6	3,431.0
-Southeast Highways & Aviation	760.0	0.0	10.0	770.0
-Whittier Access and Tunnel	0.0	0.0	0.9	0.9
FY2007 Governor	99,981.2	1,072.8	16,008.7	117,062.7