



Alaska Department of Transportation and Public Facilities

2010 Department Overview



June 30, 2011

THE MISSION

of the Department of Transportation and Public Facilities
is to provide for the safe and efficient movement of
people and goods and the delivery of state services.





Table of Contents

Letter from Commissioner Luiken 3

Introduction 4

Challenges in Alaska Transportation 5-7

Long Range Transportation Policy Plan 8

Statewide Transportation Improvement Plan (STIP) 9-11

Budget 12

Divisions and Responsibilities 13

 Statewide Aviation 13

 International Airports 14

 Marine Highway System 15

 Surface Transportation 16

 Transportation Operations 17-18

 Bridge Section 19

 Ports and Harbors 20

 Resource Roads 21

 Transportation Safety 22

 Statewide Systems 23

 Bicycle and Pedestrian Program 24

 Data Services 25

 Buildings and Facilities 26

 Measurement Standards 27

The Road Ahead 28

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June 30, 2011

Dear Fellow Alaskan,

As the Commissioner of the Department of Transportation and Public Facilities, it is my pleasure to present the 2010 Department Overview.


All Alaskans use the state's transportation system, whether they are driving to work, headed for the outdoors, meeting the ferry, or catching a flight at the local airport. We use these transportation systems daily, and often take them for granted, unaware of the effort that happens behind the scenes to keep the systems working.

A safe, reliable, and efficient transport system is an essential building block of social progress and economic prosperity. It supports our ability to harvest and extract resources, process and move them to market, creating crucial base-sector employment. It supports daily commutes to work and access to shopping, schools, and recreation.

We work at DOT every day to earn and maintain the trust of Alaskans. I hope this brief report will illustrate the importance of transportation to the well-being of the state and its residents, provide a glimpse into our work, and demonstrate the commitment we have to the people of the state.

Understanding the many challenges that we face, it is our mission to preserve and improve the transportation system and to provide for the safe and efficient movement of people and goods and the delivery of state services.

Best wishes,

A handwritten signature in dark ink, appearing to read "Marc Luiken". The signature is fluid and cursive, with the first name "Marc" and last name "Luiken" clearly distinguishable.

Commissioner Marc Luiken



Disembarking at Skagway by Peter Metcalfe

Introduction

Alaska's transportation system is a multi-billion dollar endeavor that provides for the safe and efficient movement of goods and people to, from, and within the state. Composed of public — and some private — assets, our transportation infrastructure includes highways and bridges, rural and urban airports, ferry terminals and ports, local docks and harbors, freight and passenger rail, transit systems, and bicycle and pedestrian routes. The more safely, reliably and efficiently the system operates, the better it supports economic vitality, social mobility, and livability.

Department assets include 253 airports, 11 ferries serving 33 ports, 14,800 lane-miles of highway, 788 bridges, and 660 public facilities throughout the state.

2009 figures from the Alaska Department of Labor and Workforce Development show 19,058 direct jobs in transportation (land, air and sea), or approximately 6% of the statewide workforce. Nationally, direct jobs in transportation account for approximately 3% of a state's workforce. These jobs produce over \$1 billion in annual earnings. This underscores the importance of the transportation sector in Alaska's economy, from the scores of rural and coastal communities that depend on air and/or ferry service in lieu of roads, to the role of the International airport system moving freight across the globe.

Transportation-related jobs in Alaska, in businesses such as car dealers, auto parts stores, auto repair shops, gas stations, shipbuilding, vehicle rentals, and road and bridge construction, accounted for over 10,000 jobs in 2009 and over \$450 million in total earnings. Transportation businesses that were among the state's top 100 private sector employers in 2009 included Alaska Airlines, FedEx, UPS, ERA Aviation, PenAir, Royal Highway Tours, Crowley Marine, and Delta Airlines.

A study prepared for the Department by Northern Economics in 2009, using all employment located at airports as a base, and calculating the number of induced and indirect jobs created off-site, estimated that aviation accounts for 47,000 jobs in the state. While no recent, comparable study is available for highway and marine activity, the Northern Economics study underscores the importance of transportation in the state's economy.

As you read this report, look carefully through the highlights for each Section or Division, which portray the scope, diversity and complexity of the Department's work, and are the best example of our aspirations and our efforts. The Department faces challenges too, as you will read in the subsequent section. Knowing those challenges, and understanding how to address them — productively and efficiently — is an important element of the Department's commitment to a safe and efficient transportation system.

Challenges in Alaska Transportation

Numerous challenges, some common to the states and some unique to Alaska, affect the state's ability to deliver transportation facilities and services, and the public's ability to fully use and enjoy them.

Aging Infrastructure

Throughout Alaska, highways and bridges, ferries, rural airports, ports and harbors, are approaching the end of their design life. Four mainline ferries are more than 45 years old, and seven of the eleven vessels in the fleet are more than 30 years old. Approximately one-third of the bridges in the state are past the mid-point of their 75-year design life. Many rural DOT airports require pavement rehabilitation and lighting upgrades. Pavement conditions on the national and state highway systems are rated as fair.

System Development Needs

The Statewide Long Range Transportation Policy Plan estimates the annual cost of addressing the current backlog and future needs of the state's transportation infrastructure at \$1.4 billion per year, roughly twice the amount of funding the state currently spends in its transportation program. Federal funding, which historically has comprised about 80% of the state's annual transportation program, is likely to decline in pace with expected federal budget reductions, including a likely reduction in earmarks.

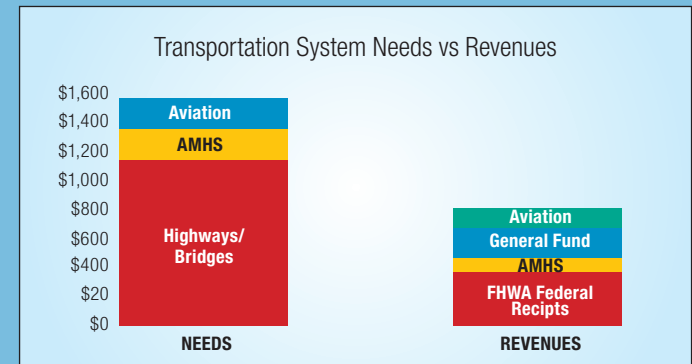
Alaska's transportation infrastructure, while widespread and diverse, is not fully developed, and lacks the redundancy that exists in other states. The Long Range Transportation Policy Plan describes system development, which is a top priority for the Department, as a "work in progress".

Rising Cost of Fuel

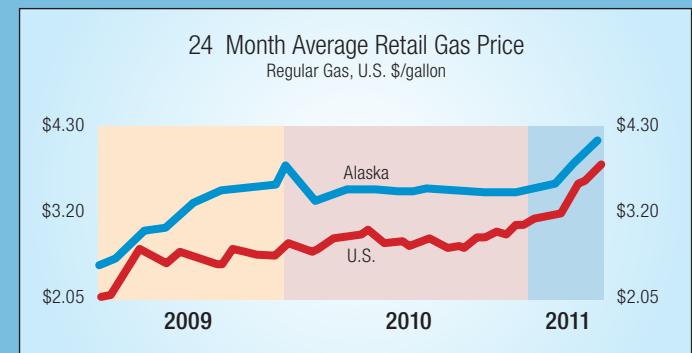
Fuel costs have risen from approximately \$2 per gallon in 2006, to over \$4 per gallon in 2011 (Juneau, May 2011). In communities off the road system, prices are considerably higher. A continued rise in fuel costs drives up operating expenses for the ferry system, public facilities, the equipment fleet that maintains the transportation system, and increases expenses for the traveling public. A continued climb in fuel costs could spur more energy-efficient buildings, alternative fuel vehicles and vehicle fleets, greater reliance on public transportation with an associated reduction in driving, but at the same time result in higher freight and delivery costs, higher travel costs, and other effects.

High Construction Costs

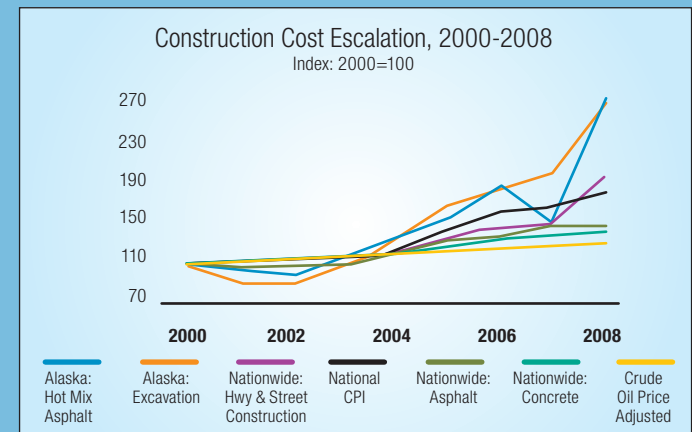
The costs of developing and preserving the transportation system, despite some abatement of commodity and material prices during the recent recession, have increased dramatically over the past ten years. These increases exceed both the inflation rate and national averages. Analysis in the Statewide Long Range Transportation Policy Plan Data Refresh shows that costs for hot mix asphalt and excavation, in particular, have risen considerably, some 80% and 55% respectively since 2002. Coupled with fuel price increases and rising commodity prices, and barring another economic downturn, the cost of construction appears headed upward.



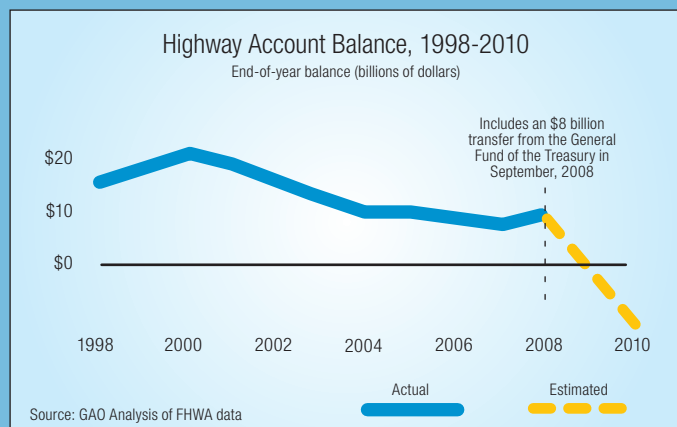
Dye Management: Alaska Long-Range Transportation Policy Plan Data Refresh December 3, 2010



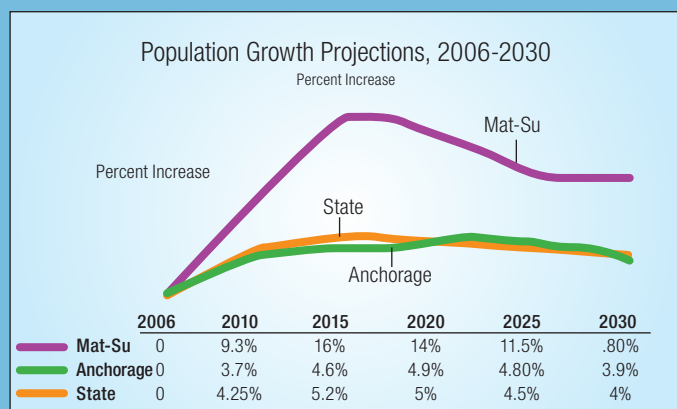
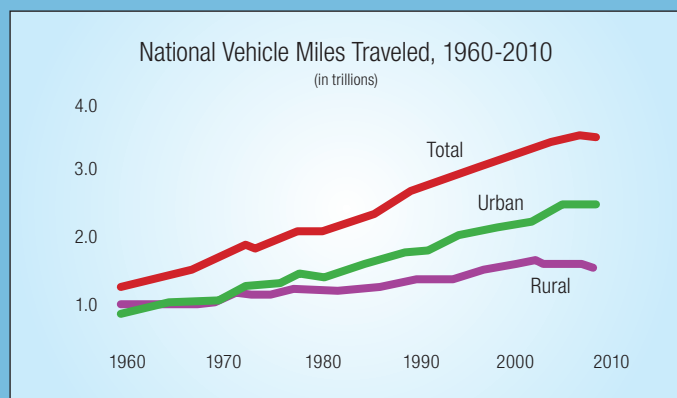
Source: gasbuddy.com



Dye Management: Alaska Long-Range Transportation Policy Plan Data Refresh December 3, 2010



U.S. General Accounting Office Analysis of FHWA Data



Essential Air Service and Bypass Mail

Annual Essential Air Service subsidies totaled \$12,564,599 in May 2010, for 45 mostly rural destinations that otherwise would not receive scheduled air service, or would receive a lower level of service. The program has come under scrutiny during the Congressional budget debate. The Bypass Mail program essentially subsidized mail and freight delivery to rural communities by about \$70 million in 2010. The U.S. Post Office is seeking areas to reduce expenses, and has been examining this program. Reduction or elimination of the subsidy would affect both rural communities and the air carriers that serve them.

Declining Federal Highway Trust Funds

The Federal Highway Trust Fund, the principal source of funding for the nation's highways, no longer earns enough revenue to fund state highway programs. The Trust is funded by the 18.4 cents-per-gallon federal motor fuel tax that has remained flat for seventeen years, losing considerable purchasing power. Additionally, the total number of annual miles driven by American motorists has declined in recent years, and overall vehicle fuel efficiency has improved, leading to reduced fuel purchases. The fund has been depleted in each of the last three federal fiscal years, and the Congress has had to recapitalize it with general funds. In FFY 2008, Congress appropriated \$8.017 billion to replenish the fund; in FFY 2009 Congress appropriated \$7 billion to the fund; and in FFY 2010 Congress appropriated \$14.7 billion to the fund.

Growing Population

Alaska's population has increased by 12% since 2000, and by almost 25% since 1990. Most of this growth has occurred in the urban areas of

Anchorage, the Matanuska-Susitna Borough, Fairbanks and the Kenai Peninsula, while Southeast, Southwest and Western Alaska have had stable or declining populations. It is expected that by the year 2030, the population of the "railbelt" will have experienced considerable growth: the Anchorage bowl area is forecast to grow by 24% and the Matanuska-Susitna Borough by over 70%. The concentration of population growth in the railbelt will continue to create demand for congestion relief, capacity increases, and expanded transit capability.

Demographic Trends

The 2010 census has revealed several notable demographic trends. The population 65 years old and older is likely to increase dramatically over the next decade barring a movement of seniors out of the state. Internal net-migration is occurring from rural areas to urban areas of the railbelt, where population growth is greatest and the population is most concentrated. The Southwest, Northern, Gulf Coast and Southeast regions have shown stable or negative population growth. The statewide school-aged population has declined slightly since 2000.

Environmental Management

The Department has begun a multi-year program to improve the energy efficiency of public buildings, and is examining alternative fuels for the vehicle fleet. The Department attempts to mitigate the physical impacts of development through best management practices; through the protection of wetlands, water quality and drainage; by promoting dust control in rural areas; and by accounting for air quality issues in Anchorage, Fairbanks and Juneau. The Department recognizes that climate change can affect the maintenance and delivery

of transportation and infrastructure services. Issues such as coastal erosion, sea-level rise, increased storm frequencies and intensity, warming temperatures and melting/warming permafrost will continue to pose challenges.

Safety and Security Concerns

The potential for hazards, whether natural or man-made, is taken into account in transportation system planning, development, and management. Managing for potential hazards and increased security has become even more acute for airport operations and those of the Alaska Marine Highway System, adding upward pressure on budgets required just to continue providing the existing level of service.

Personnel Retention and Replacement

Approximately one-third of DOT&PF's workforce is eligible to retire within the next five years. In addition, some key positions have been difficult to recruit and some job classes are experiencing very rapid turnover. With the loss of such a large portion of the workforce, and on-going

recruitment difficulties, the Department is challenged to sustain productivity and ensure that the next generation of employees is ready to manage the state's transportation systems without the establishment of a comprehensive workforce development plan.

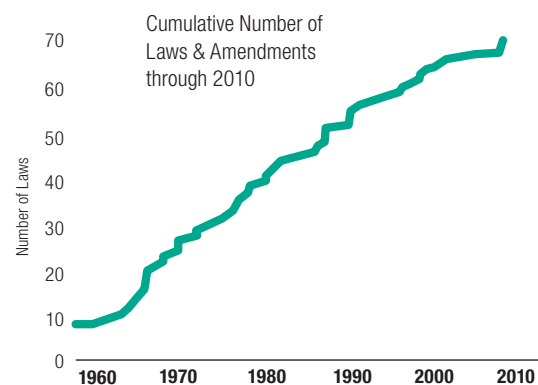
Project Duration

Environmental analysis, historic and cultural resources reviews, maintenance of air quality, and numerous other requirements instituted since the mid-1960s, have added time and expense to project development. As an example, the recently-completed Bragaw Street interchange in Anchorage took less than three years from design to ribbon cutting using state funds. The Department estimates that the same project, using Federal Highway funds, would have taken seven or more years to complete. Necessary reviews and analysis must be retained, but as part of a process in which overall efficiency is improved.

The Growth of Federal Environmental Requirements

Beginning with the enactment of the Land and Water Conservation Fund of 1965, regulatory requirements for federally funded transportation projects began a near exponential growth. The federal project review process now comprises nearly 60 separate acts of Congress and presidential executive orders. It all adds up to significant time and expense before decisions can be reached on project approvals.

In contrast, state-funded transportation projects are generally completed, from design to ribbon cutting, in less than half the time and at much less expense than a federally-funded project. State of Alaska regulations require rigorous environmental compliance, but the process of review is more efficient and productive.



Klondike Highway by Peter Marcallo



Unloading mail at Hooper Bay by Rich Sewell, DOT&PF



The Long Range Transportation Policy Plan

In 2008, the Department adopted Let's Get Moving 2030, the Long Range Transportation Policy Plan. The eight guiding policies of the Plan, set forth below, provide a template for strategies, investments, and decisions regarding the maintenance, preservation, development and use of the transportation system.

System Development

Develop the multimodal transportation system to provide safe, cost-effective and energy-efficient accessibility, and mobility for people and freight. Establish statewide strategic priorities for transportation system development funding.

System Preservation

Apply best management practices to preserve the existing transportation system. Increase public understanding of the Department's responsibilities as the owner of highways, airports, harbors and vessels.

System Management and Operations

Ensure the efficient management and operation of the transportation system. Use technology and Intelligent Transportation Systems where cost-effective to ensure the efficient operation of the transportation system, accessibility, and customer service.

Good Government

Use public involvement and performance monitoring to provide openness, transparency, and accountability.

Economic Development

Use regional, tribal, and local transportation plans, and other planning documents, to identify system development needs that address growth in travel demand, support economic development, and identify funding strategies.

Safety

Incorporate system maintenance, hazard elimination, and emergency preparedness planning and response as elements of the Department's responsibility for safety.

Security

Work with state and federal agencies to provide a secure transportation system and emergency preparedness for all modes.

Environment and Quality of Life

Preserve the integrity of Alaska's ecosystems and natural beauty; limit the negative impacts and enhance the positive attributes—environmental, social, economic, and human health—of an efficient transportation system.

Support energy conservation, specifically the consumption of fossil fuels.

The Statewide Transportation Improvement Plan (STIP)

The state's four-year program for transportation system preservation and development, STIP includes interstate, state and some local highways, bridges, ferries and other forms of public transportation, but does not include airports or non-ferry-related ports and harbors.

STIP

Federal statutes (23 USC 135) require that in order to use Federal transportation funding, the state must develop a STIP. It must be fiscally constrained to reflect reasonably expected funding. Most of Alaska's surface transportation program falls under federal program requirements and funding levels because of the state's substantial use of federal highway funds. Federal funding for STIP projects remain estimates until after approval of the federal budget around October 1 of each year.

The state's four-year program for transportation system preservation and development, STIP includes interstate, state and some local highways, bridges, ferries and other forms of public transportation, but does not include airports or non-ferry-related ports and harbors. It covers all system improvements for which partial or full federal funding is approved and that are expected to take place during the four-year duration of the STIP.

STIP Spending Categories

Congress, through the Federal Highway Administration and the Federal Transit Administration, provides funding to Alaska transportation projects and programs through more than sixty different program categories. These funds are organized within the following DOT&PF spending categories in the STIP. The categories are in the descending order of their historic levels of funding.

National Highway System (NHS) — the system of highest priority highways and ferry links that connect the state's population centers with economic centers, border crossings, public transit facilities, airports, and port facilities. Congress, in 1995, designated in law all of the routes that make up the NHS. Ferries and ferry terminals are included with either the Alaska Highway System or the NHS, as appropriate. The Department uses these funds for pavement preservation, building more capacity and relieving congestion, installing safety improvements such as lighting and guardrails, improving air quality and a variety of other tasks focused on system preservation, expansion and safety.

Community Transportation Program (CTP) — creates partnerships with local governments, tribes, and other parties to build projects serving local and



Egan Expressway, Juneau, by Peter Metcalfe



regional needs including economic development related projects. The CTP provides funds for local transit projects, Intelligent Transportation Systems (see the section on ‘Data Services’), and local road and street projects in remote, rural and urban communities.

Mandatory Programs — these fund categories are restricted to specific uses required by Federal Highway Administration and include:

- ▶ Transportation planning, research and data programs, that develop the Long Range Transportation Policy Plan, the STIP, and keep relevant statistics about the transportation system.
- ▶ Bridge inspection and rehabilitation including replacement of structurally deficient bridges (see the 2010 Alaska Bridge Report).
- ▶ The Highway Safety Improvement Program that seeks to reduce traffic fatalities and serious injuries on all public roads through the installation of highway safety improvements.
- ▶ The Safe Routes to Schools program that identifies and develops separated bike and pedestrian access for school children.
- ▶ Projects that improve air quality such as transit bus replacement, vehicle inspection and maintenance program improvements, adding traffic signal coordination capabilities, as well as paving for dust control, constructing park and share lots, and encouraging ride sharing.

- ▶ Civil rights program funding that supports Alaska DOT&PF’s policy to ensure that no person be excluded from participation, or be denied benefits, based on race, religion, color, gender, age, marital status, ability, or national origin.
- ▶ Funds earmarked by Congress for specific projects.

Alaska Highway System (AHS) — includes state highways, roads and ferry links that are not part of the National Highway System (see above) but are still important to the state because they link cities with economic centers, recreational areas, and span the distances between cities. The Department has established AHS routes by regulation. DOT&PF uses funds for the Alaska Highway System essentially for the same purposes as funds for the National Highway System, with the focus on preservation, expansion and safety.

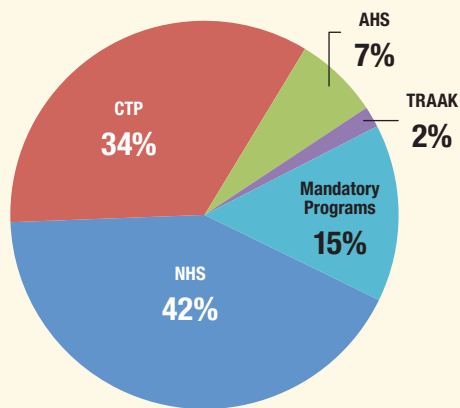
Trails and Recreational Access for Alaska (TRAAK) — includes the development of bike and pedestrian paths and trails, landscaping, historic preservation, highway waysides and associated interpretive signage, access to recreational facilities, and similar improvements.

Project Selection

The Department is guided by the policies of the Long Range Transportation Plan, the Transportation Improvement Plans (TIPs) prepared by Anchorage and Fairbanks, as well as transportation plans developed by other municipalities, DOT&PF regional offices, tribes, transit agencies, other state and federal offices. Project selection is also influenced by attainment of clean air goals and attention to underserved populations.

Through a public process, the Department nominates projects on the National Highway System and the Alaska Highway System based on the need to upgrade sections that are below standards, accomplish initial hard surfacing or pavement rehabilitation, and provide safety improvements or capacity increases. The Department requests project nominations from the public for projects in the Community Transportation Program and the Trails and Recreation Access for Alaskans (TRAAK) program.

Distribution of Funds in the STIP



Division of Program Development, DOT&PF

A project qualifies under the Community Transportation Program if it is a local road, a transit development, or uses technology to improve traffic flow or safety. A project qualifies under TRAAK if it improves access to recreational facilities, provides trails and pathways for transportation (bike and pedestrian paths), or provides scenic and interpretive improvements along highways. A Project Evaluation Board reviews, scores and ranks proposed projects based on established criteria.

STIP projects do not always proceed on schedule, so in order to maximize the state's ability to use its federal spending authority, projects not ready to advance at a critical time yield their place in the schedule to other projects that are ready to go. Such changes require amendments to the STIP using procedures established in state and federal law and, except for minor or administrative changes, require a public notice and comment period. The Department maintains a list of amendments and administrative modifications to the STIP, both pending and final, on its Internet web pages. When an amendment or modification is proposed and then approved, it links to the STIP webpage. See:

www.dot.alaska.gov/stip



Trans-Alaska Pipeline, Fairbanks, by Peter Metcalfe



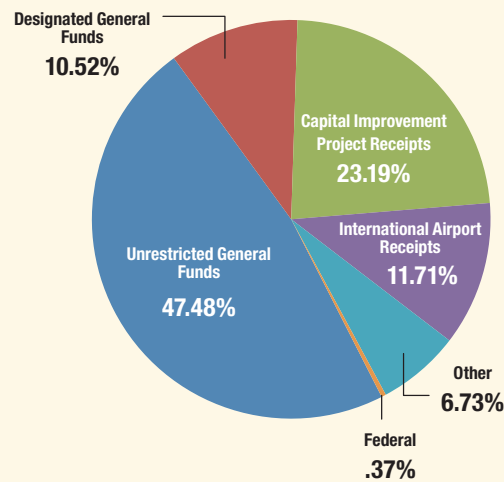
Denali Highway roadside by Peter Metcalfe

Budget

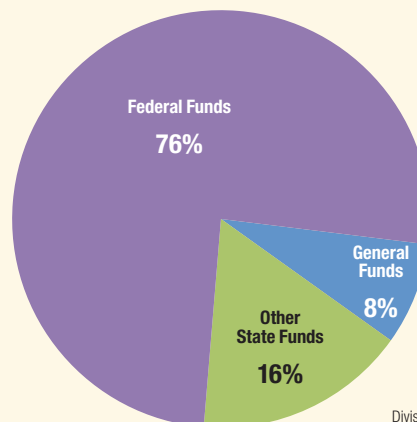
The Division of Administrative Services provides administrative infrastructure, oversight, and expertise in the areas of budget, finance, procurement, information technology standards and policies, cost allocation plans, human resource management, collection of federal and other revenue, and web site development and maintenance.

SOURCES OF FUNDS

FY 2010 Operating Budget Actuals
\$536,099,800

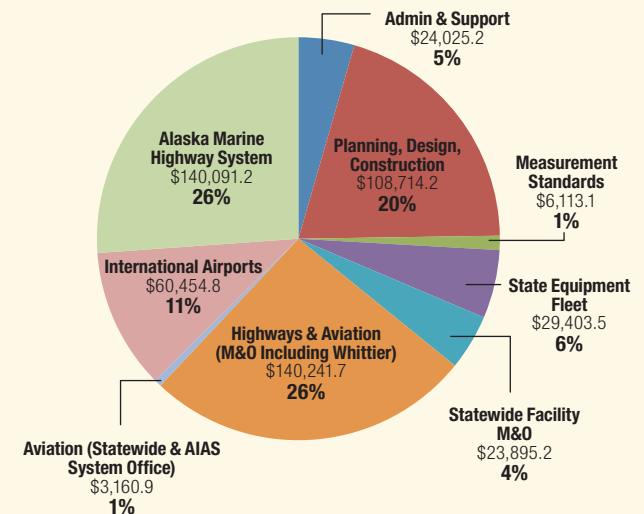


FY 2010 Capital Budget Authorized
\$823,876,700

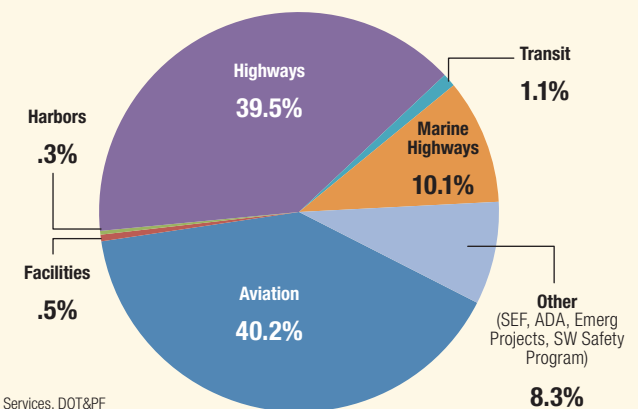


USES OF FUNDS

FY 2010 Operating Budget
by Program Area



FY 2010 Capital Budget
by Functional Program Area



Division of Administrative Services, DOT&PF

Divisions and Responsibilities

STATEWIDE AVIATION

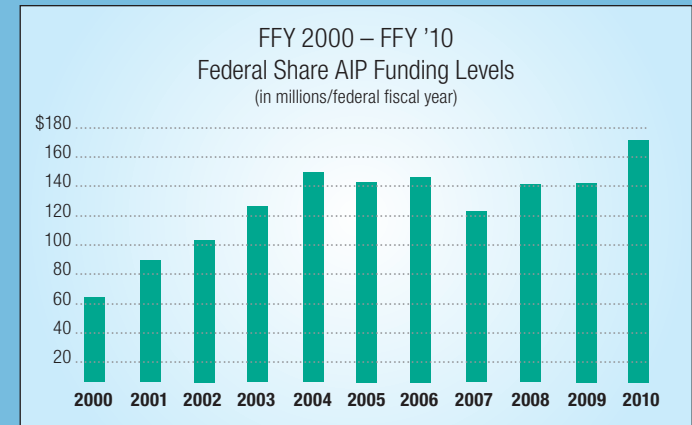
The Alaska Department of Transportation & Public Facilities (DOT&PF) operates 253 rural airports, which provide the primary means of access to 82% of Alaska's communities. The Division of Statewide Aviation prepares policies, procedures, and programs to plan, develop, improve, operate, and manage DOT&PF's Rural Airport System, as well as policies related to aviation issues.

Duties

- ▶ Partner with the Federal Aviation Administration, Alaska's Congressional Delegation, Alaska legislators, Alaska's Aviation Advisory Board, the DOT&PF Regional functional groups, aviation stakeholders, municipal airports, and other agencies, to address airport and aviation related policy issues.
- ▶ Coordinate the airport capital project evaluation process, develop a multi-year airport capital improvement program and execute FAA Airport Improvement Program grants for DOT&PF's rural airport system.
- ▶ Develop and implement airport property management regulations and policies.
- ▶ Develop and administer property management and contractual agreements for land-use activities at the rural airports.
- ▶ Improve airport and flight safety through collaboration with FAA and other aviation stakeholders, using planning, training and research.

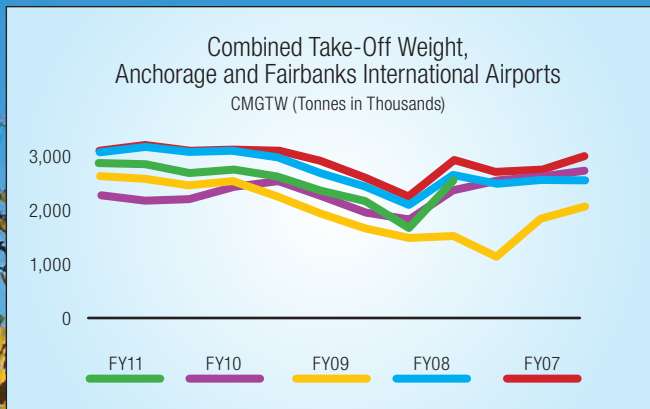
Highlights

- ▶ Developed and communicated information and policies for statewide aviation concerns that include Congressional FAA reauthorization bill, essential air service program, use of 100 octane low-lead fuel, US Postal Service bypass mail hub changes, and oxygen transport restrictions by aircraft.
- ▶ Decreased the number of airports that were closed due to seasonally soft runway conditions or other issues from 23 to eight between 2004 and 2010. Huslia and Kongiganak airports were improved in 2010 to eliminate seasonal closures.
- ▶ Funded projects in 2010 to provide 24-hour medical evacuation capability in Akiachak, Akutan, Chefornek, Kipnuk, and Kongiganak. The Kongiganak project is completed.
- ▶ In federal fiscal year 2010, worked with the FAA to execute 28 Airport Improvement Program (AIP) grants for a total of approximately \$176.7 million. This was a 26% increase above the average annual funding level for the preceding seven years. Executed eight airport projects using American Reinvestment and Recovery Act funds.



Alaska DOT&PF Airports and Aviation, Statewide Aviation data

- ▶ Implemented new statewide Rural Airport System lease/rental rates on January 1, 2011. The additional revenue generated will help offset the maintenance and operations expenses, as well as help meet the FAA grant assurance regarding self-sustainability.



John Parrot, Anchorage International Airport

INTERNATIONAL AIRPORTS

The Alaska International Airport System is composed of the Ted Stevens Anchorage International Airport and the Fairbanks International Airport. The State of Alaska joined these airports into an enterprise fund in 1961 and has operated them as an integrated system ever since. They serve as the primary airports in Alaska for both international and regional passenger and cargo traffic.

Duties

- ▶ Maintain compliance with multiple regulations from the Transportation Safety Administration, Environmental Protection Agency, Federal Aviation Administration, and other agencies.
- ▶ Provide safe and efficient infrastructure for the transportation of passengers and cargo to, from, and throughout Alaska by coordinating with air carriers and regulatory agencies, as well as other airports and the Department of Defense.
- ▶ Provide and maintain facilities that provide a high level of customer service for airport customers.
- ▶ Provide and maintain general aviation facilities and services in support of aircraft owners and pilots.
- ▶ Coordinate with local communities and airport interests in an open and transparent manner on long-term plans, economic development, and airport impacts.

Highlights

- ▶ Anchorage International is a multi-year winner of the Air Cargo Excellence award as rated by air cargo carrier customers.
- ▶ Anchorage International is a multi-year winner of the Balchen-Post award for outstanding snow removal.
- ▶ Anchorage International ranks fifth in the world among airports for cargo throughput.
- ▶ The international airport system has implemented 'cutting edge' technology to enhance aviation safety and improve operational efficiency.
- ▶ Anchorage and Fairbanks recently completed major terminal and airfield facility projects on time and within budget.
- ▶ The international airport system recently secured Federal Department of Transportation exemption authority for cargo transfer, which enhances Alaska's attractiveness as a world class cargo airport system.

MARINE HIGHWAY SYSTEM

The mission of the Alaska Marine Highway System is to provide safe, reliable, and efficient transportation of people, goods, and vehicles between communities in Alaska, Canada, and the "Lower 48," while providing opportunities to develop and maintain a reasonable standard of living and high quality of life, including social, education, and health needs.

Duties

Operate a fleet of eleven ships including five mainline ferries, two high-speed ferries, and four feeder ferries that serve 31 ports in Alaska, one port in Prince Rupert, Canada, and one port in Bellingham, Washington.

Highlights

- ▶ Provided reliable transportation with consistent schedules and the earliest possible schedule release date, achieved a high percentage of on-time arrivals and departures (90% in 2010), and rated consistently high in customer satisfaction (97.5% in 2010).
 - ▶ Experienced increased ridership in the shoulder seasons (spring and fall) and overall during 2010.
 - ▶ Successfully implemented new service offerings to Gustavus for the summer of 2011.
 - ▶ Installed fuel-efficiency infrastructure on M/V's Tustumena, Aurora, Columbia, Kennicott, and Matanuska, reducing annual fuel consumption by 12%.
- ▶ Grew online reservations from virtually none in 2002 to a record high of 33% of all reservation made in 2010. Design of a new reservation system is underway to make online reservations even more user-friendly to customers, and complementary to AMHS marketing efforts.
 - ▶ Safely transported over 325,000 passengers and 110,000 vehicles, which helped support communities, sustain rural economies, and promote independent traveler tourism.



Alaska Marine Highway System

M/V Taku, Lynn Canal, by Peter Metcalfe



SURFACE TRANSPORTATION

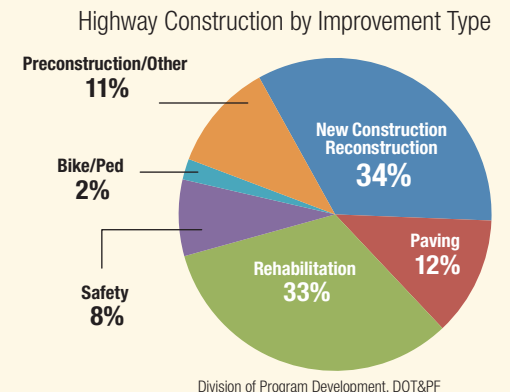
The Surface Transportation Section manages the public transportation funds entrusted to the Department. This oversight ensures that the Department delivers projects consistent with State and Federal laws and regulations, and is eligible to receive State and Federal funding.

Duties

- ▶ The Statewide Transportation Improvement Program (STIP) team manages the Department's STIP and its associated revisions, issues notices for public comment, and finalizes and submits the STIP for approval by the Federal government. A project with federal funding must be listed in an approved STIP before it can be funded.
- ▶ The Capital Budget Team works with DOT&PF's Administrative Division and the STIP team to identify and submit projects for the Department's Capital Budget request that is submitted to the Alaska State Legislature annually. The Department is required to receive legislative authority to receive and expend State and Federal funding; without it, projects cannot begin.
- ▶ The Federal-Aid Team manages the Federal-Aid contracts that are signed by the Department's agent and FHWA to ensure that projects are eligible to receive Federal funds. To be eligible to receive federal funding a project must have a Federal-Aid contract in place before project work can start.

Highlights

- ▶ In Federal Fiscal Year 2010, the STIP team created and received approval for the 2010 – 2013 STIP and processed thirteen subsequent revisions.
- ▶ In State Fiscal Year 2010, the Capital Budget Team submitted requests for \$849,400,000 in Federal legislative authority and \$238,800,000 in State legislative authority. This authority ties directly to funded projects in the STIP. The 2010-2013 STIP, for example, funds approximately 260 regional and statewide projects and programs.
- ▶ In Federal Fiscal Year 2010, the Federal-Aid team created and processed 774 Federal-Aid project agreement and modification transactions. A Project Agreement is an official Federal Highway Administration document that authorizes a highway project to proceed.



TRANSPORTATION OPERATIONS

The development, maintenance, and preservation of transportation facilities and improvements comprise the overall work of the Department. Design, construction, and maintenance of the system occurs through the Department's three regions.

Duties

- ▶ Design and construct transportation projects. Maintain, preserve, and rehabilitate 14,800 centerline miles of highway and 788 bridges on the national and Alaska highway systems; operate and maintain 253 rural airports serving 82% of the state's communities; operate and maintain eleven ferry vessels and twenty ferry terminal facilities across 3,500 miles of coast between Bellingham, Washington and Dutch Harbor.
- ▶ Maintain 84 maintenance stations and a dispersed fleet of maintenance vehicles and heavy equipment to perform routine and emergency maintenance.

Highlights

- ▶ Northern Region maintenance crews chip-sealed 110 lane-miles of paved roads and highways, and crack-sealed an additional 386,000 linear feet of road surface. Crews brushed 3,525 lane-miles of road, highway, and bike path, repaired 20 bridges, re-striped 4,680 lane-miles of highway, and installed, replaced or fixed 4,526 linear feet of guardrail. Crews also performed widening, re-ditching, grade raises, and gravel re-surfacing on 66 miles of roadways; and replaced 85 small diameter culverts in 2010.

- ▶ Northern Region completed construction and reconstruction of \$70 million in transportation infrastructure improvements including Alaska Highway mile post (MP) 1267-1314, Parks Highway MP 351-356, Van Horn Road Rehabilitation, Point Hope Evacuation Road, and Yukon River Bridge, and American Recovery and Reinvestment Act projects in Kotzebue, Tok and Valdez.
- ▶ Northern Region completed \$58.2 million in runway, taxiway, lighting, environmental, and safety improvements at Unalakleet Airport, Cordova Airport, Lake Louise Airport, Nome Airport, as well as security and access improvements funded by the American Recovery and Reinvestment Act at Fairbanks International Airport.
- ▶ Central Region maintenance crews crack-sealed 782 lane-miles of highway, and made major pavement repairs throughout the region using 2010 supplemental funding; improved drainage on 58 miles of roadway; repaired 16 bridges; performed surface maintenance at 21 rural airports, and responded to two catastrophic events (Kodiak rain event and Kuskokwim River flooding) that were subsequently declared federal emergencies.

Highlights

Northern Region

- ▶ Chip sealed 110 lane-miles of paved roads
- ▶ 386,000 linear feet of crack-seal
- ▶ Brushed 3,225 lane-miles of highway/bike path
- ▶ Re-striped 4,680 lane-miles of highway
- ▶ Upgraded 4,525 feet of guardrail
- ▶ Completed \$70 million in road projects
- ▶ Completed \$58.2 in airport projects

Central Region

- ▶ Crack-sealed 782 lane-miles of highway
- ▶ Improved drainage on 58 miles of road
- ▶ Repaired 16 bridges
- ▶ Surface maintenance of 21 rural imports
- ▶ Responded to catastrophic events
- ▶ Prepared 27 highway projects worth \$150.9 million
- ▶ Prepared 11 aviation projects worth \$120 million

Southeast Region

- ▶ Ditching & brush clearing of 660 lane-miles
- ▶ Chip sealed 31 lane-miles of road
- ▶ Crack sealed 9,200 feet of road
- ▶ Re-ditched 176 miles of highway
- ▶ Striped 370 miles of paved highway
- ▶ Completed 20 projects worth \$82 million



Waterfront construction, Kodiak, Alaska. By Peter Menckel.

- ▶ Central Region delivered bid-ready designs and contract documents for 27 highway projects totaling \$150.9 million. This included four projects all or partially funded from the American Recovery and Reinvestment Act of 2009 (ARRA). \$27.0 million in ARRA-funded highway projects include: reconstruction of the Old Glenn Highway from South Birchwood Loop to Peters Creek; reconstruction of Wood River Road in Dillingham, resurfacing of Jewel Lake Road from Dimond Blvd to 63rd Avenue; and extension of continuous lighting on the Glenn Highway from South Birchwood to Eklutna.
- ▶ Central Region delivered bid-ready designs and contract documents for 11 aviation projects totaling \$120.3 million. Major improvements at rural airports included Dillingham Terminal Apron and Taxiway reconstruction, relocation of the Kipnuk Airport and the Chefornak Airport, improvements to the Kongiganak Airport, and awarding of the design/build contract to construct an airport for the community of Akutan. The American Recovery and Reinvestment Act funded \$9.7 million toward construction of a new airport in Ouzinkie.
- ▶ Southeast Region maintenance crews completed brush cutting and ditching on 660 lane-miles of highway and bike path in Hoonah, Juneau, Klawock, Petersburg, Wrangell and Gustavus. Southeast crews chip-sealed 31.2 lane-miles of paved highway and crack-sealed an additional 9,210 feet of pavement in Juneau, Ketchikan, Prince of Wales Island and Petersburg. Crews also re-ditched 176 miles of highway and applied 312 tons of cold patch to highways throughout the region. Paint striping crews striped 370 miles of paved highway, as well as paint striping at three airports. Crews replaced culverts in Haines and Juneau.
- ▶ Southeast Region received almost \$82 million in construction authority in Federal Fiscal Year 2010. The Region completed twenty projects including runway safety area improvements at the Petersburg airport; highway paving and reconstruction projects in Ketchikan, Juneau, Prince of Wales Island, Hoonah, and Sitka; boardwalk improvements in Pelican and Elfin Cove; construction of a Ketchikan airport ferry; a major ferry terminal upgrade in Hoonah; and several projects funded wholly or in part by the American Recovery and Reinvestment Act, including the Gustavus Causeway, highway improvements in Haines and rehabilitation of the Tongass Street viaducts in Ketchikan.
- ▶ The DOT&PF equipment fleet comprises over 3,500 vehicles and pieces of support equipment (welders, generators, etc.) including almost 1,100 pieces of heavy equipment such as loaders, graders, and 350 heavy-duty trucks. Maintenance equipment operates out of 84 maintenance stations located in every region of the state.

BRIDGE SECTION

The bridge section is a statewide unit located at Juneau Headquarters. The section provides structural and hydraulic design services and consulting oversight for new bridge construction and bridge rehabilitation, and provides bridge management services for public bridges owned by other state and local agencies.

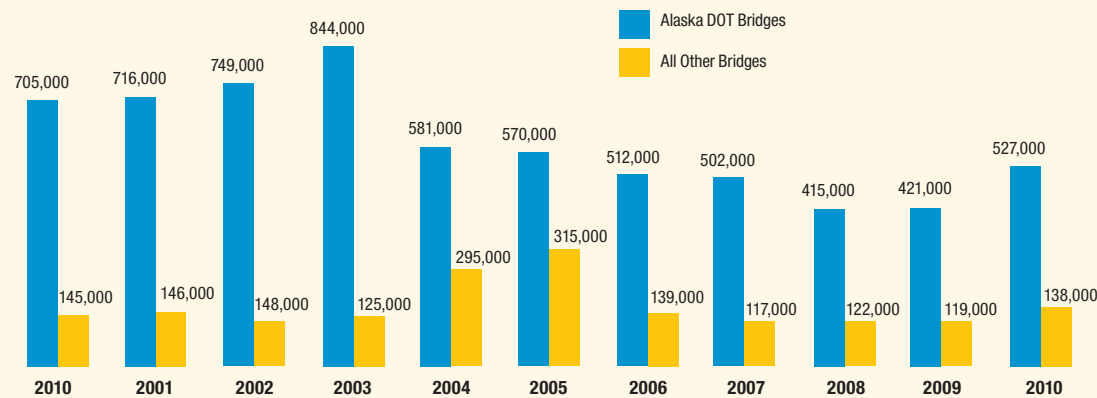
Duties

- ▶ Design services include: structural and hydraulic design for bridge replacement, rehabilitation and damage repair projects; review of consultant designs; construction engineering support.
- ▶ Bridge management services include routine, fracture-critical damage, and special bridge inspections; oversight of consultant bridge inspections; load rating bridges and evaluating bridge overload permit requests.
- ▶ Other services include: review and update of bridge construction specifications; inspection of minor DOT&PF-owned highway structures and high-tower light poles

Highlights

- ▶ The deck area square footage of structurally deficient bridges has shown a downward trend since 2003.
- ▶ Awarded bids for rehabilitation, inspection, replacement and seismic retrofit of nine bridges in 2010.
- ▶ Currently providing on-going construction support or construction completion for sixteen bridges including replacement of the Tanana River truss near Tok and the Gakona River truss on the Tok Cut-Off Highway.

Deck Area Square Footage of Structurally Deficient Bridges 2000-2010
Square Feet (rounded to nearest thousand)



2010 Alaska Bridge Report, DOT&PF

Juneau-Douglas Bridge by Peter Metcalfe; inset photo by Jeff Durfee, DOT&PF





PORTS AND HARBORS

The Harbor Program Development is a new component under Design & Construction. Previously, the Harbor Program was budgeted under Statewide Design & Environmental Services.

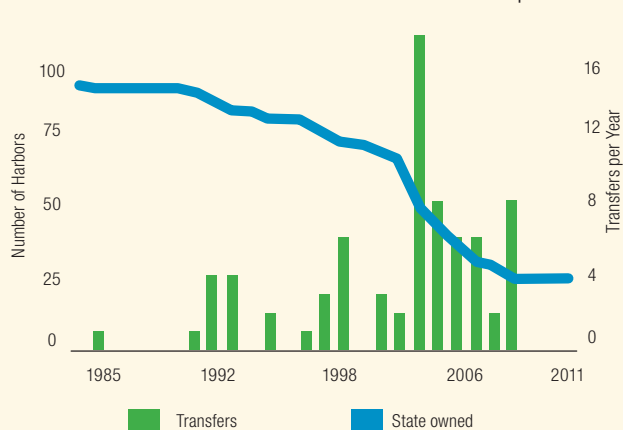
Duties

- ▶ Provide a broad range of services associated with harbor and coastal engineering issues across the state, mainly concerning shore protection issues for the design of highways, airports, and harbors.
- ▶ Assist coastal Alaskan communities with harbor and erosion issues.
- ▶ Manage 25 department-owned harbor facilities
- ▶ Provide state financial assistance to local government harbor projects through three programs: the U.S. Army Corps of Engineer match program; the Municipal Harbor Facility grant program (AS 29.60.800); and the Community Harbor Deferred Maintenance and Transfer program (AS 35.10.120), subject to Alaska Legislative approval.

Highlights

- ▶ Managed the Municipal Harbor Facility Grant Program by ranking applications and issuing grants from earlier appropriations. Received seven applications for FY11 and eleven applications for FY12. Six grants have been completed.
- ▶ Received Bureau of Indian Affairs stimulus funding for a harbor study at Mertarvik, as part of relocating the Newtok community, which is suffering from coastal erosion and climate change.
- ▶ Funded Hyder Harbor Rehabilitation construction project, totaling \$600,000 in work.
- ▶ Performed 24 routine harbor and 17 seaplane inspections by state personnel.
- ▶ Completed the St. Paul Harbor project, a \$19.4 million project partially funded by the department's Corps of Engineer matching funds projects. The Alaska Legislature appropriated \$9,564,000 to the department for this project.
- ▶ Since 2000, transferred 52 harbors to local ownership.

Transfer of State Harbors to Local Ownership



Ports and Harbors Section, DOT&PF

RESOURCE ROADS

Resource Roads works jointly with state agencies, resource developers, and other interested entities including boroughs, and regional and village Native corporations, to develop surface transportation in Alaska. The development model anticipates analysis and implementation of Public-Private Partnerships to assist project funding as situations warrant.

Duties

- ▶ Identifies resource development projects that require the construction of road access.
- ▶ Works with resource developers to set up Public-Private Partnership proposals.
- ▶ Categorizes projects based on a broad range of criteria including jobs and benefits to Alaskan communities.
- ▶ Develops a project recommendation list based on ranking criteria that is then presented to the administration and legislature for financial support.

Highlights

- ▶ Advanced Foothills West Transportation Access (road to Umiat) from planning effort into formal EIS process.
- ▶ Continued baseline investigations on Western Alaska Access (road to Nome) project.
- ▶ Continued baseline investigations on Ambler mining district road project.

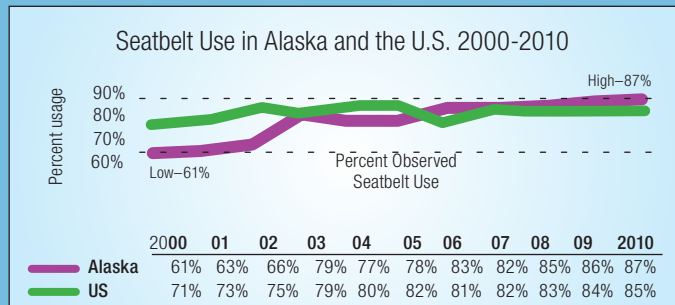
Current Roads to Resources Projects



Office of the Commissioner, DOT&PF

Kensington Mine, Berners Bay, by Peter Metcalfe

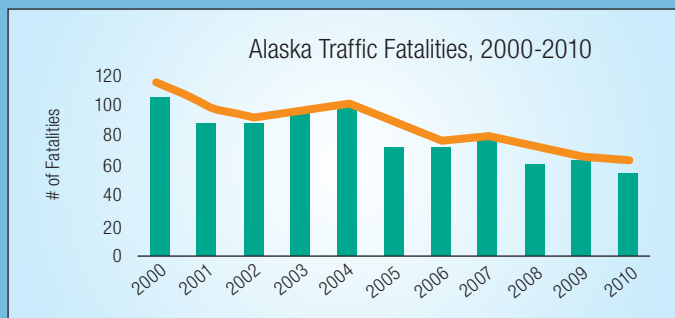




Alaska Highway Safety Office, DOT&PF

Highway Safety Partners

- ▶ Alaska Motorcycle Safety Advisory Committee
- ▶ The Department of Labor's Safety Advisory Council
- ▶ The Strategic Highway Safety Plan Coordinating Committee
- ▶ The Alaska Traffic Records Coordinating Committee and
- ▶ The Alaska Designated Safety Corridor Review Team



Alaska Highway Safety Office, DOT&PF

TRANSPORTATION SAFETY

The Alaska Highway Safety Office (AHSO) administers federal and state funding, and works with government, private and non-profit partners to organize, plan, and implement programs that have helped reduce Alaska's traffic fatality rate per million miles traveled from 1.98 in 2003 to 1.30 in 2009, a reduction of 34% in six years.

Duties

- ▶ Develop, implement, and evaluate a statewide strategic highway safety planning process that includes all elements of safety—education, enforcement engineering and evaluation, and involves all highway safety partners. In 2003, the AHSO administered approximately \$7.5 million in grant funds to 47 grant programs, while it currently manages over \$17 million in grant funds to more than 160 grant programs.
- ▶ Develop partnerships with various state and local agencies to assure that highway safety data is collected and analyzed, then made available to partners and to the public for strategic planning. Highway Safety Partners are listed at left.
- ▶ Coordinate with highway safety partners to encourage statewide participation on national highway safety initiatives such as Click It or Ticket, Drunk Driving, and Over the Limit: Under Arrest. These enforcement and media campaigns have contributed to increased seatbelt usage from 78.4% in 2005 to 86.8% in 2010, and decreased unbelted fatalities from 22 in 2005 to 12 in 2009.
- ▶ Collect, code, and analyze the data for all fatal motor vehicle crashes in the state for the Fatality Analysis Reporting System (FARS), in the National Highway Traffic Safety Administration (NHTSA). This data is used by Federal, State, and local agencies, as well as organizations and corporations to effectively

design and implement crash reduction programs, identify highway design problems and take corrective actions, adopt highway and traffic safety legislation, design safer automobiles, develop strategies for reducing collisions with animals, and allocating grant money among many other uses.

Highlights

- ▶ Alaska's motor vehicle traffic fatality count steadily declined from 101 in 2004 to 64 in 2009.
- ▶ The number of alcohol related traffic fatalities declined from 35 in 2007 to 27 in 2008 and 26 in 2009.
- ▶ The number of unbelted traffic fatalities sharply declined from 31 in 2007 to 24 in 2008 and 12 in 2009.
- ▶ Between September 30, 2000, and September 30, 2010, fatal and major injury crashes on the four designated Safety Corridors declined by 48%.

STATEWIDE SYSTEMS

Transit, Scenic Byways, Safe Routes to Schools, Statewide Transportation Plan

The Statewide Systems Section manages the development of the Statewide Long Range Transportation Plan and delivers grant funding and assistance to communities and organizations around the state in support of public and community transportation, Alaska Scenic Byways, and Alaska Safe Routes to School.

Duties

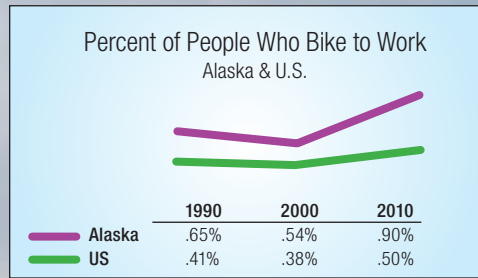
- ▶ Conducts statewide transportation planning and related analytical studies to produce the Alaska Statewide Long Range Transportation Plan;
- ▶ Delivers grant funding and guidance to public transportation agencies and community transportation providers around the state; and
- ▶ Partners with federal and state agencies, coalitions and community organizations to identify, improve, and enhance transportation options for Alaskans through the Alaska Safe Routes to School and Alaska Scenic Byways grant programs.

Highlights

- ▶ Completed refresh of data elements through 2009 for the 2008 Statewide Long Range Transportation Plan (Let's Get Moving 2030), affirming strategies and actions recommended in 2008.
- ▶ Produced Governor's Coordinated Transportation Task Force Recommendations Report.
- ▶ Engaged over 25 Alaskan communities in development of Safe Routes to School programs and projects.
- ▶ Prince of Wales Island Road System designated as a State Scenic Byway in 2010.
- ▶ Purchased 31 vans, seven buses and three service vehicles for eight local transit agencies, and partially funded the Juneau Downtown Transit Center, using funds from the American Reinvestment and Recovery Act (ARRA).



Juneau Downtown Transit Center by Peter Metcalfe



Bike and Pedestrian Program, DOT&PF

BIKE & PEDESTRIAN PROGRAM

The Bicycle/Pedestrian Program provides technical assistance to DOT&PF and local government planners, designers and program managers to improve facilities for Alaskans who walk or bike; and with government, private and non-profit partners to organize, plan, and implement statewide bicycle and pedestrian transportation safety programs.

Duties

- ▶ Provide technical assistance to project managers and engineers, local governments and the public to improve pedestrian and bicycle facilities and safety;
- ▶ Enhance the public's use and enjoyment of the surface transportation system through improvements to the roadways and surrounding environment; and
- ▶ Partner with law enforcement, safety advocates and others to promote bicycle and pedestrian transportation safety through the "Four E's": education, enforcement, engineering, and emergency response.

Highlights

- ▶ Alaska consistently ranks first in the nation in the proportion of adult workers who walk to work. The U.S. Census Bureau's 2005-2009 American Community Survey shows that over 8% of Alaskan commuters walk to work, nearly three times the national average of 2.86%.
- ▶ The proportion of Alaskan workers who bike to work continues to increase according to the American Community Survey data. In 1990, Alaska ranked 14th in the nation in the proportion of commuters who biked to work; the latest data shows Alaska now ranks 6th, a rate that is nearly double the national average.
- ▶ Alaska's rate of bicycle and pedestrian fatalities is among the lowest in the nation, according to the 2010 Benchmarking Report by the Alliance for Biking and Walking. Nevertheless, with pedestrians and bicyclists making up more than 14% of all traffic fatalities, there is still much room for improvement.
- ▶ The Department obligated \$11,166,442 in federal fiscal year 2010 for bicycle and pedestrian improvements and facilities.

DATA SERVICES

Transportation Data Services (TDS) staff manage the Department's Intelligent Transportation Systems (ITS) program whose goal is to improve the safety, efficiency, convenience, and security for highway and marine modes of travel. The two most prominent ITS applications are the 511 traveler information system (511.alaska.gov) and the Road Weather Information System (roadweather.alaska.gov). These two real-time information systems disseminate critical roadway information to assist in travel decisions and Department winter weather maintenance decisions. TDS also provides highway crash information for highway safety improvements and injury prevention strategies.

Duties

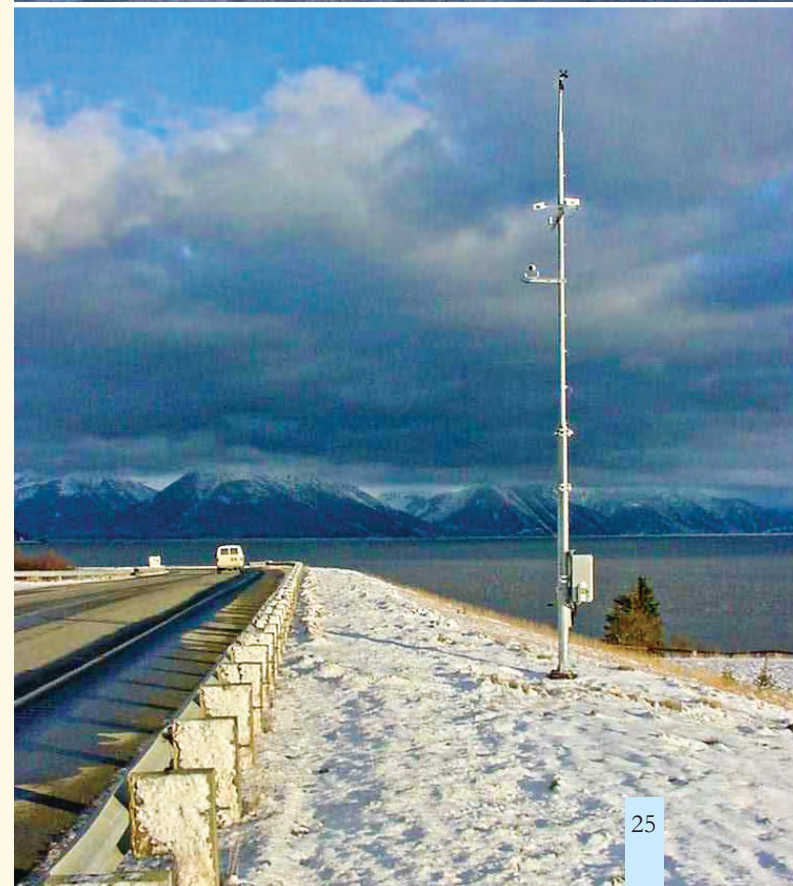
- ▶ Provide road network and feature information for the public through the Department's Highway Data Port web application.
- ▶ Provide roadway, traffic, and crash data to traffic engineers and transportation planners to prioritize highway safety improvement projects and programs.
- ▶ Develop multi-agency strategic plans that address highway safety statewide, i.e., Strategic Highway Safety Plan.

Highlights

- ▶ The Department's Intelligent Transportation System (ITS) applications improve traveler safety and efficiency. These include 45 Road Weather Information System (RWIS) cameras at 51 sites, 67 temperature data probes for seasonal weight restriction, 10 portable message boards for emergency operations, and 100 traffic counters for estimating the annual average daily traffic.
- ▶ 511 is an internet and telephone service to help travelers access driving conditions, roadwork, closures, and National Weather Service forecasts. The new generation 511 Traveler Information system launched in March 2010, and received 64,720 visits during the year. Visit 511 at <http://511.alaska.gov/alaska511/mappingcomponent>.
- ▶ www.roadweather.alaska.gov incorporates the DOT road weather cameras, atmospheric weather, road surface temperatures, links to cameras from other agencies such as the Federal Aviation Administration (FAA) and temperature profiles used for implementing and removing seasonal weight restrictions.



Snowplow on the Seward Highway by Aneta Synan; below, Bird Point RWIS tower off the Seward Highway by Terry Onslow.



BUILDINGS AND FACILITIES

Statewide Public Facilities provides project management for the design and construction of buildings for the State of Alaska. Projects range in scope from remodeling of existing facilities to construction of new buildings.

Duties

- ▶ Prepare project scoping and preliminary estimates.
- ▶ Solicit, select, negotiate, and award professional services agreements with design consultants; the review designs
- ▶ Solicit and award construction contracts; provide construction contract administration oversight

Highlights

- ▶ Awarded construction contract for the new Alaska Scientific Crime Detection Laboratory.
- ▶ Achieved substantial completion of the Avtec- Alaska Culinary Academy in Seward by August 2010.
- ▶ Awarded the preconstruction services agreement for a Construction Manager/General Contractor for the State Library-Archive-Museum project.
- ▶ Achieved substantial completion of a new Detention Unit at McLaughlin Youth Center.
- ▶ Initiated an effort to complete energy efficiency retrofits of 25% of all state public facilities over 10,000 square feet by January 1, 2020.



Alaska State Museum by Peter Metcalfe; Alaska Culinary Academy by Joel St. Aubin, DOT&PF

MEASUREMENT STANDARDS AND COMMERCIAL VEHICLE ENFORCEMENT

The Division of Measurement Standards and Commercial Vehicle Enforcement assures confidence and equitable trade, enhances motoring public safety and protects public infrastructure through regulation of commercial vehicle weight and safety.

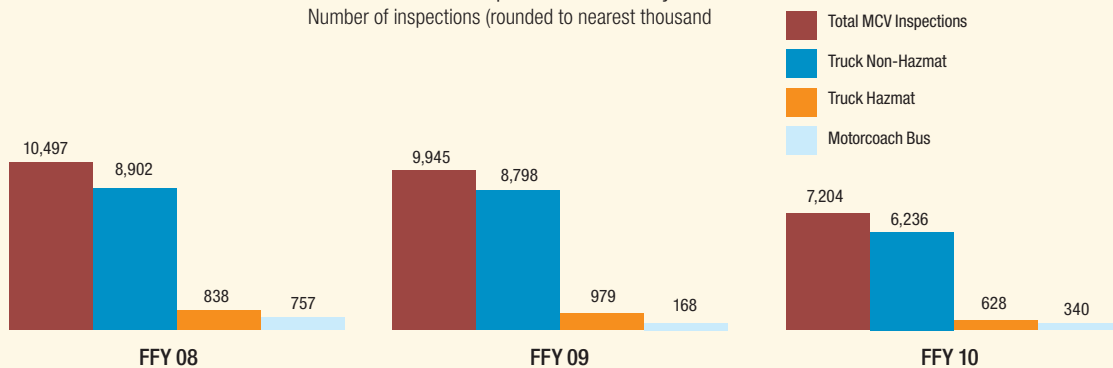
Duties

- ▶ Issued 18,409 oversize, overweight, and oversize/overweight Commercial Motor Vehicle (CMV) permits between July 1, 2009 and June 30, 2010.
- ▶ Conducted 7,805 inspections in 2010 resulting in 370 violations for size and 332 violations for weight. A total of 1043 citations were issued as a result of the inspections.
- ▶ Provided commercial motor vehicle outreach and safety enforcement activities with other enforcement agencies. The Division conducted 36 education and outreach sessions in FY2010.

Highlights

- ▶ Despite a 20% temporary staff reduction in 2010, the Division increased the number of inspections of weighing and measuring devices and price verification evaluations.
- ▶ Chief of Weights & Measures will serve as President of the Western Weights & Measures Association for the 2012 calendar year.
- ▶ Violations are down from 1,545 in fiscal year 2009, to 1,043 in fiscal year 2010, which translates to a 32.5% decrease. The Division works closely with many state and federal Weights and Measures jurisdictions including the Federal Aviation Administration and the National Marine Fisheries Service. The Metrology lab performs calibrations for all in-state law enforcement agencies.

Alaska CMV Inspections Summary
Number of inspections (rounded to nearest thousand)



Division of Measurement Standards and Commercial Vehicle Enforcement, DOT&PF

Downtown Juneau tour bus assembly lot by Peter Metcalfe



VI. The Road Ahead

Alaska faces a host of existing conditions and emerging challenges to meet the transportation needs of its citizens and industries. Adequate funding for transportation programs and the state's vast geography, difficult environmental conditions and low population density are well known. Several emerging trends also raise concern. These include anticipated reductions in the federal budget, the absence of a state-funded transportation program, expanded transportation routes, and rural community investment.

The federal budget situation is dynamic, and it appears possible that the state match rate could be raised, while federal funding could be reduced. Federal transportation policy could make a significant shift, from construction of new highway capacity to projects that focus on livability, sustainability, and reduced atmospheric emissions. This emerging policy advocates for a very different set of priorities – emphasizing transit, walking, biking, and infill development for existing communities over expanding the system to connect more communities and aid economic development, both critical Alaska issues.

A second concern is the lack of a state-funded transportation program that can address large, multi-year goals. Currently, state funding for transportation varies annually with appropriations from the general fund. Typically, only smaller and generally local projects are built. Major projects can be initiated, but are not always completed if they outlast the tenures of their legislative and executive branch sponsors. As a result, the state has completed few big transportation projects in recent years.

Expanding transportation routes and facilities is one key to ensuring continued job creation and economic vitality. With oil production approaching new lows each year, the state must work to expand production, both to ensure the oil pipeline is viable, and to have adequate funding for state government. Opening new roads to prospective oil producing regions, industrial and precious metals deposits, and coal and natural gas producing areas represents an opportunity. Now, much of this valuable resource wealth lies stranded due to the lack of transportation options.

Finally, Alaska's villages are facing tough times. Residents are challenged by a high cost of living

and the absence of living-wage jobs, particularly in communities beyond the road system. These conditions lead to social ills and threaten the economic practicality of remote communities. Long distance extensions of the state highway system to serve remote communities are being requested, as are shorter roads that would link nearby communities and enable shared use of infrastructure such as airports, landfills, schools and power plants.

As the year unfolds, we at DOT&PF intend to work on new approaches to meet the state's transportation needs. These include the use of Industrial Use Highway fees as a primary source of funding for resource roads; proposed restoration of the Local Service Roads and Trails program to better meet community needs; and defining the most cost effective inter-community road links using a new "community cluster" analysis tool the Department has developed. These and other ideas will better enable us to fulfill the charge in Alaska Statute 19.05.125 to link cities and communities and otherwise improve the economic and general welfare of the people of the state.



Petersburg Airport Improvements by Steve Melke - DOT & PF



Silvertip Camp paving crew by Drew Moisinger - DOT & PF



Glenn Highway paving by Terry Barber - DOT & PF



Inspecting road damage on the Richardson Highway by Mike Coffey - DOT & PF



Alaska Department of Transportation and Public Facilities
2010 Department Overview