

# AIRPORTS AND AVIATION ANNUAL REPORT

PREPARED BY THE DIVISION OF STATEWIDE AVIATION



# 2021



# FORWARD BY THE DEPUTY COMMISSIONER JOHN R. BINDER III, A.A.E.

While 2021 had its difficulties, it was proof that Alaskans and our Aviation System are resilient. The international airports are already setting records and on track to not only recover but grow. Ted Stevens Anchorage International (ANC) had more than 4.5 million passengers traverse its terminals -- a increase of 93% over last year. In addition, an outstanding 3.6 million tons of air cargo transited ANC, breaking the record for highest annual cargo volume by 14%. Fairbanks International Airport (FAI) has a record number of passenger seats now available, and is expecting a healthy summer, as two international air carriers return to Fairbanks. Cargo is up by 70% compared to last year at FAI, with opportunities like Amazon Air flying daily flights to Portland.

2021 was also a year of great opportunity for Alaskan Aviation. The passing of the Infrastructure Investment and Jobs Act (IIJA) will provide incredible assistance in updated and maintaining our aviation system. There is about one billion set aside for our airports. Five billion is allocated to the FAA for Next-Gen improvements, and another 5 billion is allocated to the Terminal Improvement Program. The even larger 15 billion will be spread out over five years and be allocated to the Airport Improvement Program (AIP) working out to be about 3 billion additional AIP funds for each year. Essentially doubling the amount in the current 3.3 billion dollar program. We were very pleased to hear that there will be a good window of time to utilize this funding, which will allow DOT&PF to plan the most impactful way to make improvements.

The Federal Aviation Administration (FAA) remains a steadfast partner in promoting safe flying. In 2021, the FAA released the FAA Alaskan Aviation Safety Initiative (FAASI) findings. In cooperation with and including input collected from numerous Alaskan aviators and aviation stakeholders, the five primary recommendations were: installing more automated weather observing systems in key locations, developing a comprehensive Alaska Airspace navigation strategy, continue collaboration with local stakeholders in adding mountain pass information on aeronautical charts, continue to expand ADS-B services, lastly continue safety outreach programs, and look for opportunities to address safety issues from multiple perspectives.

In 2021, Alaska DOT&PF in partnership with the University of Alaska Fairbanks, Alaska Center for Unmanned Aerial Systems Integration (ACUASI) and the FAA, advanced Alaska's position as a premier drone testing and innovation hub. DOT&PF along with other State agencies put drones to work mitigating avalanches, inspecting bridges, monitoring highway material stockpiles, supporting police and emergency management efforts, and numerous other initiatives. Of all the states, Alaska continues to be in the forefront of using drones and integrating drones into airspace.

This year Alaska's airports were open and available for delivery of vital goods, uniting families, and connecting 82% of our communities off the road system to the world. Most of all, they provided jobs, a steady supply chain, and economic resilience in our state during a turbulent time.

While the past years proved difficult on us as individuals, and the aviation system at large. We are happy to count 2021 as a year of great opportunity.



A handwritten signature in blue ink that reads "John R. Binder III".



# ALASKA INTERNATIONAL AIRPORT SYSTEM BUSINESS REPORT CY2021

By: Jodi Gould - AIAS Planning Manager

The AIAS is comprised of Ted Stevens Anchorage International Airport and Fairbanks International Airport. Both are wholly funded by Alaska's largest enterprise fund, the International Airports Revenue Fund (IARF).

The IARF is funded solely by airport users through collections, such as, but not limited to, land rent, building permits, fuel flowage fees, operating permits, tiedown fees, and landing fees. **Zero state general funds and zero state taxes are used to fund the IARF.** Alaska Statute specifies that the IARF is to be used only for operating and maintaining the facilities and infrastructure and for executing capital projects at ANC and FAI (As part of ANC, Lake Hood Seaplane Base is also funded by the IARF). Because the AIAS is a self-propagating, internal system, operating, maintenance, and capital budgets for the AIAS flex as intra-state, interstate, and international air traffic commerce flexes at ANC and FAI. When outside investments are made into the AIAS, and the AIAS grows, Alaska's overall economy benefits. The benefits are realized through jobs at each airport and new or expanded businesses that pay taxes and otherwise contribute economically to the state.

Reliable operational readiness, (e.g., knowing that both airports act as a primary alternate for the other), common contractual terms, and administrative efficiencies of the AIAS is of great value to the airlines. These offerings provide the airlines operational and financial stability and lower costs. Although FAI and ANC have different primary customer bases: ANC specializes in trans-pacific cargo, and FAI specializes as a cargo and passenger hub for northern Alaska communities and tourist destinations; the AIAS brings them together creating a reliable, world-class air cargo and passenger service network in Alaska.

The AIAS Operating Agreement and Terminal Lease--a common contract between the AIAS and the air carriers--and the expanded cargo and recently expanded passenger transfer rights, strengthen each airport's business, thus Alaska's economy.

In 2021, the AIAS and its air carriers began to see a slow return of passenger traffic to approximately %80 percent of pre-COVID-19 Pandemic levels. The shortfall in passenger traffic was offset generally by a combination of continued growth in air cargo and federal pandemic relief funds. **ANC is the #2 airport in North America for landed weight cargo.**

Throughout 2021, the AIAS, FAA, and the State worked cooperatively with the employees, airlines, concessionaires, and other tenants to maintain year-round, 24/7 operations, financial solvency, and the health of Alaskans and all airport users. On-airport COVID-19 test and vaccination sites were quickly established, much of the 2021 capital projects program was executed, and personnel vacancies were filled. Both airports continue to collaborate with Department of Environmental Conservation (DEC) to establish acceptable remediation measures for PFAS. Like last year, ANC and FAI saw private investments initiated on land leases.

Looking ahead to 2022, AIAS passenger traffic is expected to be rebound significantly and be possibly above pre-Pandemic levels. Pent up passenger desire to travel, a projected robust cruise travel season, and Alaska being a top vacation destination will all contribute to a positive effect on passenger traffic and, relative to other U.S. airports, may speed the passenger traffic recovery.

Pictured: ANC 1960's



**AIAS Key Contacts:**

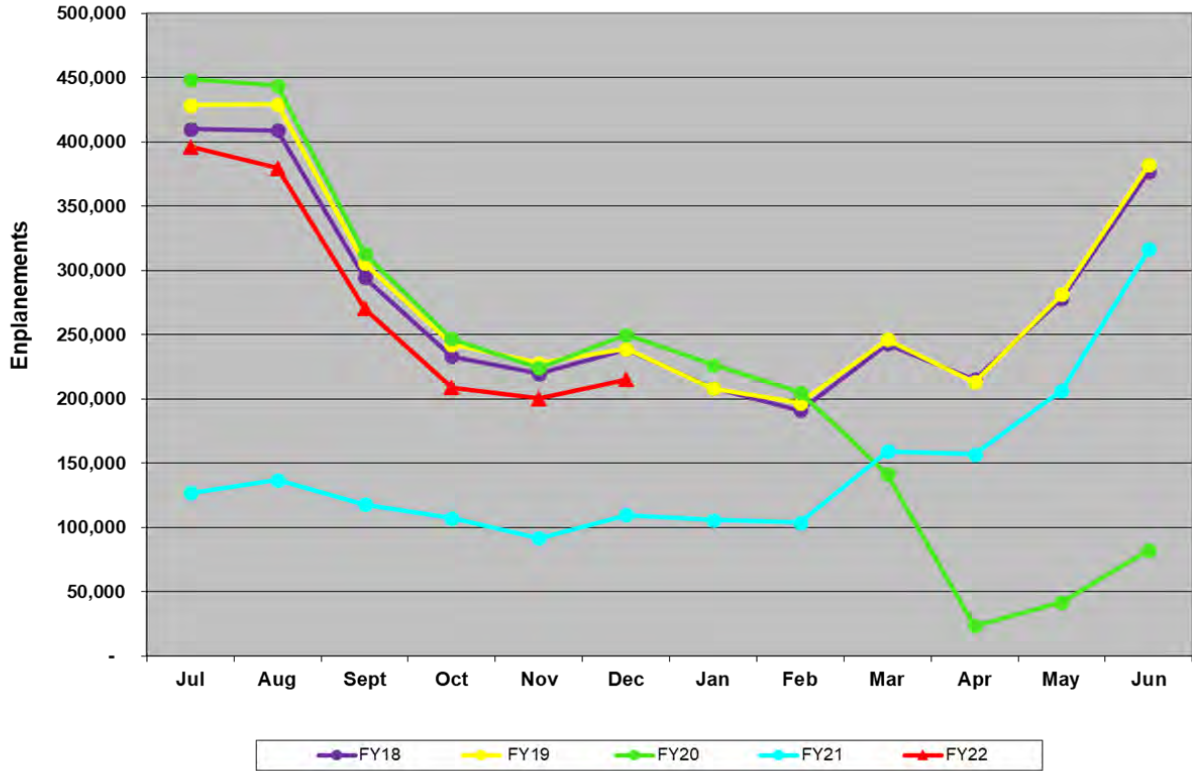
John R. Binder, Deputy Commissioner

[john.binder@alaska.gov](mailto:john.binder@alaska.gov)

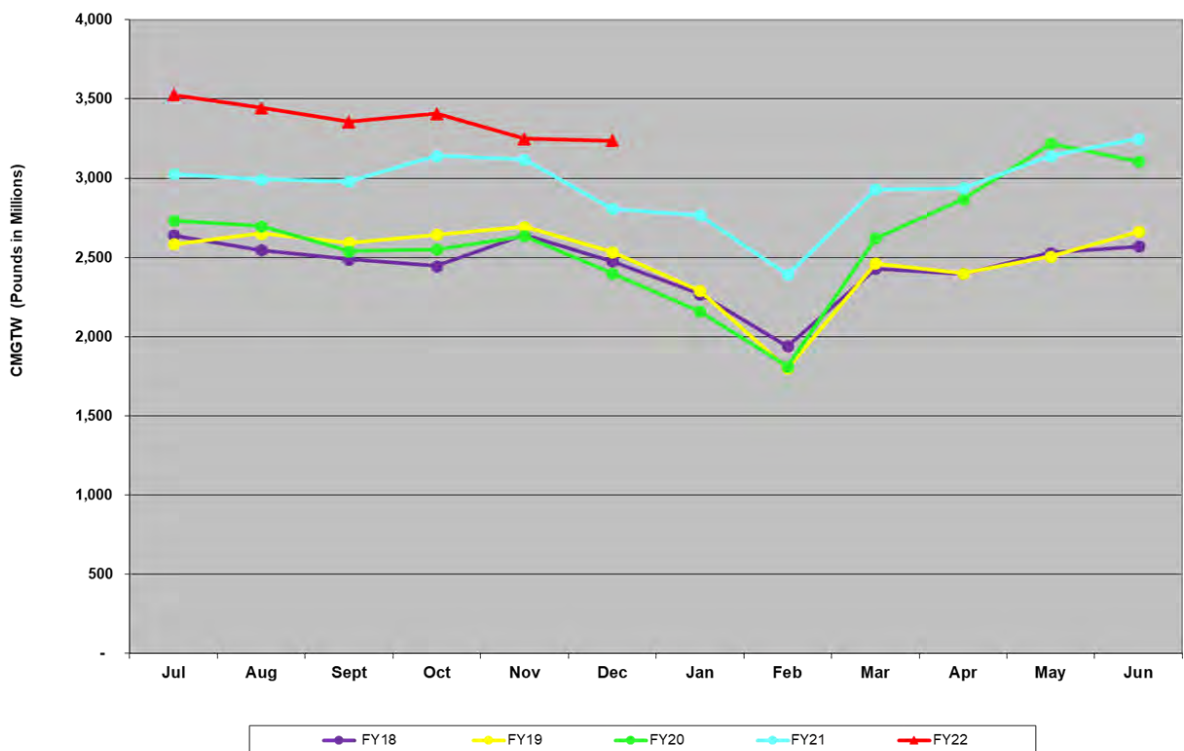
# ALASKA INTERNATIONAL AIRPORT SYSTEM BUSINESS REPORT CY2021



AIAS  
FY18 - FY21 YTD  
Monthly Passenger Enplanements  
As of December 31, 2021



AIAS  
FY18 - FY22 YTD  
Monthly Reported Combined Cargo - Pax CMGTW  
As of December 31, 2021



# TED STEVENS ANCHORAGE INTERNATIONAL AIRPORT (ANC)

By: Megan Peters - Program Coordinator II

## Passenger

In 2021, travelers passed through the Ted Stevens Anchorage International Airport (ANC) in droves. More than 4.5 million people -- 93% more than in 2020, traversed the terminals demonstrating a strong return to regular air travel. The rebound will continue. As of early February, summer seat capacity in the Anchorage market is 6% higher than the pre-pandemic summer of 2019.

The State of Alaska partnered with the tourism industry in 2021 to aggressively market Alaska as a COVID-safe destination. The investment paid off. ANC's international non-stops are returning with flights offered from Air Canada, Icelandair, and Condor. ANC is also welcoming two new international carriers: Eurowings Discover and Flair

## Cargo

ANC handled approximately 3.6 million metric tons of air cargo in 2021, breaking the record for cargo volume, set in 2020, by 14% -- which translate to more than 400,000 metric tons. ANC continues to be a critical hub for the global economy and ANC is teaming up with the private sector to provide the infrastructure necessary to capture transpacific growth.

In late 2021, ANC announced a new shipping method, ANC Pacific Air-to-Sea Service (ANC PASS), to help alleviate bottlenecks in the supply chain. ANC Pass will work by combining ANC's air cargo network and the backhaul capacity of ships servicing the Port of Alaska to the Port of Seattle. ANC PASS provides an opportunity to inject more capacity into the supply chain and allows airlines to better utilize their scarce aircraft. It offers shippers a medium speed/medium cost transpacific options. The complete ANC PASS study can be found at: [www.aedcweb.com/ancpass](http://www.aedcweb.com/ancpass)

## By the Numbers

ANC is within a **9.5-hour flight away from 90%** of the industrial world.

Three runways over **10,600 ft**, with the longest spanning **12,400 ft**.

Operational **24-hours** a day, every day.

Approximately **18,500 airport and community jobs directly related to airport operations**

## 2<sup>nd</sup> in North America

for landed cargo weight, per Airports Council International

## 4<sup>th</sup> in the world

for landed cargo weight, per Airports Council International

# ANC



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2  
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# FAIRBANKS INTERNATIONAL AIRPORT (FAI)

**By:** Melissa Stepovich - Project Specialist

As Alaska's second busiest passenger airport, Fairbanks International Airport (FAI) serves as a gateway to Interior Alaska, providing critical air service to more than 80 communities and remote locations in Interior and Northern Alaska that rely upon airfreight, mail, medical transport and commuter services.

FAI replaced two aging escalators in the terminal, as it was becoming more difficult to get replacement parts for the old escalator models, resulting in increasing maintenance costs and longer out-of-services times. The new escalators have more available parts, will require less repairs, and are more energy efficient.

FAI repaved Runway 2R/20L, changing the length from 6,501' to 4,510' and the width from 100' to 75' in order to correct deteriorating pavement and reduce maintenance costs. The FAA nav aids were relocated, several taxiways were shifted and repaved, and a gate was added across Taxiway B and Float Pond Road to eliminate unauthorized access to the west side of the airfield.

Typically, FAI supports a wide array of aviation activities, ranging from recreational flyers to transcontinental flights. FAI has a robust general aviation community, with high levels of commercial and private activity. Wrights Air Service and Warbelows have scheduled daily flights serving remote areas of Alaska with mail, passenger, and charters to and from the North Slope. FAI opened 14 GA lots, designated Block 99, near the Mitchell Expressway for lease. Wright Air, South Koyukuk and Arctic Sands (Omni) have expanded their premises to include additional space for operations. Bureau of Land Management (BLM) has leased Block 108 for a fire base.

2021 marked the return of international and domestic cargo activity to FAI with Amazon Air operating daily flights to Portland and several new itinerant cargo carriers such as High Fly, Volga Dnepr, Spice Jet and Maleth stopping for service and to refuel. Cargo is up approximately 70%.

The summer of 2021 brought a record number of seats into the Fairbanks market with schedule increases from both Alaska Airlines and Delta Air Lines. United Airlines returned to FAI and the along with new carriers American Airlines and Sun Country Airlines. While passenger numbers (sold seats) fell slightly short of pre-pandemic levels, FAI considered the summer of 2021 to be a very successful season especially given the lack of cruise traffic.

FAI is expecting a healthy summer season in 2022 with the return of cruise traffic and international flights from both Air North and Condor Airlines.

In this ever changing aviation environment, here's to 2021 and a hope for increased passenger levels, additional flights and the return of tour operations for FAI. Our motto for the New Year is fly high, fly safe and fly often.

Key Contact: Angie Spear, Airport Manager  
[Angie.Spear@alaska.gov](mailto:Angie.Spear@alaska.gov)



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# THE LARGEST AVIATION SYSTEM IN NORTH AMERICA



Alaska's 663,300 square miles of land and 2,427,971 square miles of airspace are served by

**9127**

Active  
Pilots

**8713**

Registered  
Aircraft

**761**

Landing  
Areas

**109**

Seaplane  
Bases

**309**

Certified Air  
Carriers

**8072**

Unmanned  
Aerial Systems



# ALASKA AVIATION SYSTEM PLAN (AASP)

**By:** Rebecca Douglas, CM - Transportation Planner

With more than 700 FAA registered airports, Alaska has the largest and most unique aviation system in North America. The Alaska Aviation System Plan, or AASP, identifies needed airport improvements, sets funding priorities, proposes aviation policy, documents the existing system, and provides support for special studies and updates. The AASP website includes a comprehensive aviation database and information on facilities across Alaska's airport system.

Phase III of the AASP was in full swing in 2021, with the project initiating in mid-2020. The project includes tasks that assist in planning Alaska's vast and diverse airport system, with a long range vision ensuring the safe, effective, and efficient operation of Alaska's 235 state-owned rural airports and 2 international airports. The plan is funded through annual AIP grants, allowing Alaska DOT&PF to address relevant aviation issues as they arise as well as guide future planning of the airport system through planning, design, maintenance and operation of our airports. The AASP addresses many challenges in the Last Frontier and lays the foundation for our vision to lead the nation in rural aviation reliability, service, and safety management by 2030.

Multiple studies and plan documents are available on the AASP website ([www.alaskaasp.com](http://www.alaskaasp.com)) detailing work from 2008-2022.

## **Key AASP accomplishments in 2021 include:**

- Updated Public Involvement Plan, two fact sheets and three newsletters
- Continued expansion of the plan website and database
- 1982 - 2021 AIP grant module created
- Revised aviation performance measures and airport classification review
- Needs planning workgroup (to improve airport need development process)
- Initiation of the Capital Improvement and Maintenance Program (CIMP) work group
- CAT-III airport inventory update and planning in the Alaska System Security project, with site visits to eight airports
- Thirty-five (35) Capital Improvement & Maintenance Program (CIMP) inspections across the state
- Completion of the Rural Airport Lighting project
- Completion of the aviation portion of the Northwest Area Transportation Plan



Multiple tasks continue year-to-year within the AASP, such as program expansion, work groups with multiple stakeholders and implementation of plan goals, objectives, and recommendations. Public involvement is a critical component of the AASP and especially during the shift to virtual meetings and collaborations. This includes both interagency and public coordination, special studies addressing upcoming pertinent issues, development of web-based information systems and tools, work groups, and periodic assessment of the AASP's performance measures and goals.

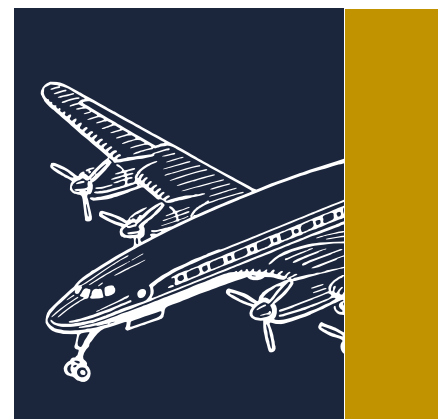
Other tasks on the horizon for Phase III of the plan include:

- Additional aviation related fact sheets on a variety of topics
- Resiliency study analyzing coastal airports
- Updating airport data across Alaska's inventory
- Expansion of the AASP website to include new airport information and data connections
- CIMP inspection application and process update

Ongoing special studies under the AASP:

- Alaska System Security Study
- Upper Tanana Airport Planning Study
- Rural Airport Obstruction Planning and Analysis

The story of Alaskan aviation should be told to as many people, organizations, and agencies as possible; and be told often. The AASP is a vital tool to tell that story as well as assist those working to make Alaska aviation stronger, safer, and more efficient now and in the future.



For more information on any past or ongoing AASP tasks, please contact Project Manager Rebecca Douglas at [rebecca.douglas@alaska.gov](mailto:rebecca.douglas@alaska.gov)



# PFAS INVESTIGATIONS CONTINUE ACROSS THE STATE

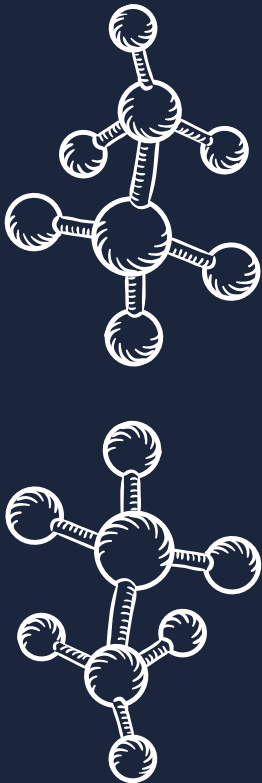
**By:** Sammy Cummings, C.M. - PFAS Program Manager

In 2000, the primary U.S. producer of perfluorooctanesulfonic acid (PFOS) and perfluorooctanoic acid (PFOA) announced that it would begin phasing these chemical compounds out of production. Per - and polyfluoroalkyl substances, commonly referred to as PFAS or PFCs, are a class of thousands of chemicals from which PFOS and PFOA derive. PFAS are commonly found in consumer products that resist fire, stains, grease, and water. PFAS have been a subject of interest worldwide specifically in the aviation industry due to the historic use of PFAS containing firefighting foams, also known as Aqueous Film Forming Foam (AFFF). The FAA has specific Aircraft Rescue and Firefighting (ARFF) requirements for Part 139 certified airports mandating airports to stock and use AFFF in training and emergency events.

In October 2017 FAI received initial sampling results indicating the presence of PFOS and PFOA near its fire training pit that prompted multiple well search and sampling events. In July 2018 the DOT&PF received results from samples taken at the Gustavus Airport indicating the same fate as FAI. Since then the department expanded its investigation. To view the PFAS work that was performed in late 2018 through January 2022 by DOT&PF, visit <https://dot.alaska.gov/airportwater/>

## The following highlighted work was completed from January 2021 through December 2021:

- Concluded an 18 month pilot study of liquid activated carbon injections, PlumeStop, at FAI. A report was authored by Regenesys and Shannon & Wilson, Inc. outlining the success of the study. The department is currently reviewing its success to understand how it could be implemented at other sites.
- In partnership with DEC, the southcoast Gustavus Runway Rehabilitation project team and Statewide Aviation the department performed Site Characterization of the Gustavus runway. Sampling the asphalt materials allowed the department to gain an understanding as to how PFAS can impact airport runways and how to safely manage potentially contaminated materials. This effort was conducted in real-time during an active project which aided in its success and early completion. As a result, asphalt sampling was also conducted during the Nome runway project.
- Conducted quarterly and annual sampling events at Gustavus, Dillingham, King Salmon, Iliamna and Yakutat airports.
- Conducted initial well search and sampling efforts at the Homer airport.
- Performed site characterization work at the Dillingham, Gustavus, King Salmon and Homer airports.
- Performed various PFAS sampling during construction projects in Gustavus, Kodiak, Bethel, Nome and Cordova.
- Conducted feasibility studies in Dillingham, Yakutat and King Salmon to identify and select long-term solutions. DOT&PF through the Division of Risk Management has begun the implementation process in Gustavus and Dillingham.
- Exploratory well drilling took place to identify a viable community well to supplement rain catchment cisterns in Gustavus. Two wells were identified.
- The DOT&PF PFAS Program Manager was invited to participate on a panel for the Transportation Research Board, Airport Cooperative Research Program to create an airport PFAS guidebook. A contractor was selected and the research phase of the guidebook began.
- Identified and formed a consortium and applied for an FAA environmental grant to perform additional PFAS sampling at airports in Alaska.
- Participated in multiple nationwide PFAS, AFFF and ARFF working groups; and presented case studies in a virtual format in subject areas of community relations as well as project management.



As a reminder PFAS sampling has taken place at the following airports: Fairbanks, Gustavus, Valdez, Cordova, Dillingham, King Salmon, Yakutat, Anchorage, Aniak, Iliamna, Nome, Homer, Kodiak and Bethel. DOT&PF has sampled approximately 519 private water supply wells near state-owned airports with approximately 141 above actionable levels requiring a short and long-term solution.

# MAJOR AIRPORT CONSTRUCTION COMPLETED IN 2021

## General Upgrades

**\$5,268,820**

Installed automated Weather Observation Systems at Nulato, Kotlik, Coldfoot, and Tok Junction Airports

## Aniak

**\$38,997,351**

Relocated the runway approximately 260 feet south of its current location per the 2006 ALP Ultimate phase

## Bethel

**\$6,661,781.40**

Repaired portions of RW 1R-19L to correct depressions, replaced affected edge lighting, as well as replaced and repaved structural sections in affected areas.

## Kasigluk

**\$8,037,380**

Resurfaced the runway, taxiway, safety areas, and apron. Also replaced the airport lighting system, wind cone, and rotating beacon. Lastly, constructed a snow removal equipment building.

## Toksook Bay

**\$16,465,729**

Rehabilitated the runway, taxiway, apron, and access road. Widened the runway from 60 feet to 75 feet. Replaced the airfield lighting, relocated visual aids, replaced drainage culverts and constructed new, unheated single-bay snow removal equipment building.

## Ketchikan

**\$1,807,604**

Replaced and upgraded access controls, and gates to meet 40 CFR 1542 requirements. Replaced existing fence where needed.

## Petersburg

**\$2,163,738**

Replaced and upgraded access controls, and gates to meet 40 CFR 1542 requirements. Replaced existing fence where needed.

## South Naknek

**\$7,991,130**

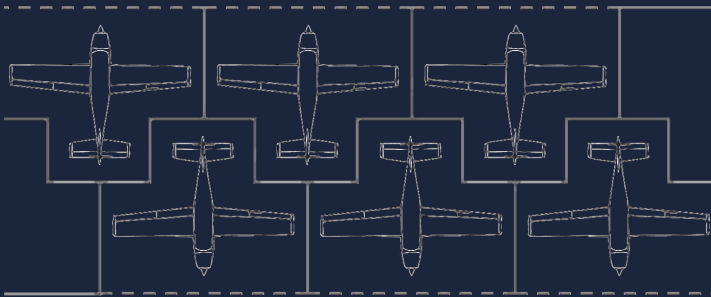
Resurfaced both runways with new gravel material. Extended the runway safety area, corrected drainage deficiencies and replaced visual approach aids as well as runway lighting.



# STATEWIDE AVIATION LEASING

Statewide Aviation leases property to the general public and government agencies at rural airports owned by the State of Alaska. The leasing program manages lands at our 235 rural airports. The statewide tiedown program has spaces available for rent at various airports, for up to date information on availability, please visit

<https://dot.alaska.gov/stwdav/leasing.shtml>



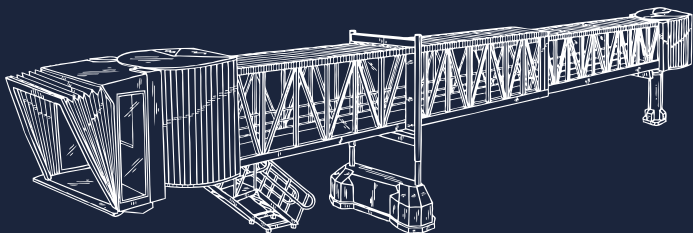
e-Leasing – is the on-line system for processing applications for leases, building permits, land-use permits, mobile fuel dispensing permits, and aircraft tiedown permits at airports owned by the State of Alaska.

Information on leasing regulations, leasing property, tiedown documents, concession fee report forms, and more is available on the e-Leasing webpage

# CERTIFICATE OF COMPLIANCE

Alaska Statute 02.40.020 requires a Certificate of Compliance of Air Carriers operating in Alaska. The Department issues a certificate upon application and presentation of proof of financial responsibility, compliance with FAA requirements and current liability insurance. Statewide Aviation administers the Certificate of Compliance and issues it to air carriers. For more information contact

[dylan.blankenship@alaska.gov](mailto:dylan.blankenship@alaska.gov)



# AVIATION ADVISORY BOARD

The Aviation Advisory Board held three virtual meetings in 2021, as well as an in person meeting at the Kenai ARFF Facility. The board was established in 2003 to advise and provide recommendations to the DOT&PF Commissioner on public policy related to the department's exercise of its aviation functions. This year the board welcomed a new member, Adam White.

Lee Ryan serves as chairman of the board and can be contacted at [dot.aviationadvisory@alaska.gov](mailto:dot.aviationadvisory@alaska.gov)

**Board members and the user groups they represent, are as follows:**

Jim Dodson  
*North Star Borough*

Gideon Garcia  
*All Cargo Air Carrier*

Steve Strait  
*Municipality of Anchorage*

Bob Hajdukovich  
*Alaska Air Carriers Association*

Frank Neitz  
*Unorganized Borough*

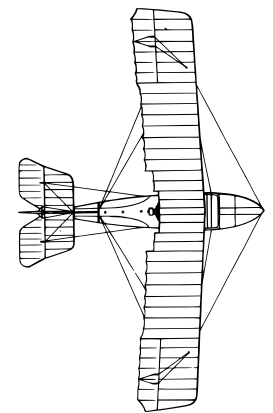
Dennis Parris  
*Non-Airline Tenants, Anchorage*

Marilyn Romano  
*Alaska International Airport System Operating Agreement  
Signatory Airlines*

Mike Reeve  
*Public*

Mike Stedman  
*Regional Air Carriers*

Adam White  
*Statewide organizations of pilots, aircraft owners, and other  
aviation supporters*



More information on the Board including meeting minutes and resolutions are available at:

[dot.alaska.gov/stwdav/AAB.shtml](https://dot.alaska.gov/stwdav/AAB.shtml)

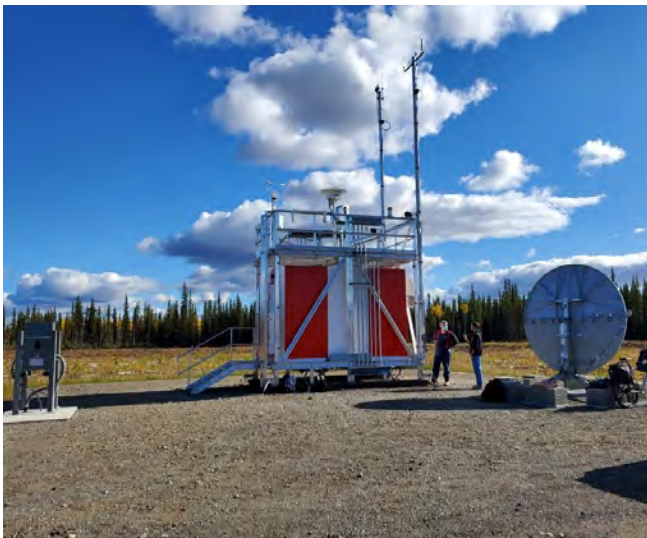
# FAA ALASKAN AVIATION SAFETY INITIATIVE FINDINGS

An excerpt from [www.faa.gov](http://www.faa.gov)

The FAA released recommendations on how to increase aviation safety in Alaska after a yearlong, sweeping examination of safety issues specific to the challenges of flying in Alaska, where more than 80% of its communities are accessible only by air.

Among the recommendations are: increasing and improving weather data reporting and forecasting, expanding satellite-based Automatic Dependent Surveillance-Broadcast (ADS-B) air-traffic control coverage to more areas, and improving navigation charting. The FAA will now begin developing a roadmap for implementing the recommendations in the near- and mid-term, focusing on initiatives with the greatest safety benefits.

“Alaska depends on aviation more than any other state, and we are committed to doing everything possible to make flying safer,” said FAA Administrator Steve Dickson. “We teamed up with the flying community and together developed this comprehensive blueprint for our safety work going forward.”



## 5 PRIMARY RECOMMENDATIONS

- Install Automated Weather Observing Systems (AWOS) at airports that don't have them and where the systems would have the biggest safety benefit, and continue testing a new technology called Visual Weather Observation System (VWOS).
- Develop a comprehensive Alaska airspace navigation strategy, including creating lower-altitude flight routes and improving GPS backup systems.
- Continue a collaborative working group initiative in partnership with the Aircraft Owners and Pilots Association that's verifying and adding mountain pass information on aeronautical charts, and continue to hold FAA bi-annual charting meetings, allocating time for Alaska-specific discussions.
- Continue efforts to expand ADS-B services to areas that don't have it, and continue outreach efforts to encourage operators to equip their aircraft with ADS-B.
- Continue existing safety outreach programs and look for new opportunities where different FAA divisions could work together to address safety issues from multiple perspectives.

The FAA has developed a roadmap to identify the resources necessary to implement it and will now seek aviation stakeholder feedback on the roadmap through May 2022. You can view more at <https://www.faa.gov/alaska/faasi-roadmap>. The FAA will continue those initiatives already underway and will begin to incorporate aspects of the new initiatives by summer 2022. A progress report will be submitted to stakeholders by September 30, 2022.

# UNMANNED AERIAL SYSTEMS, THE ALASKA MAPPING CHALLENGE

As most aviators know a poor runway can endanger the most advanced aircraft with the most experienced pilot. A vital inspection takes place frequently to ensure our Alaskan runways are safe for operation. However, with 235 airports spread out over 663,300 square miles of land this proves to be quite a challenge. One creative solution to such a task is using UAS. On August 25th, 2021 in the town of Nenana, the Alaska Mapping Challenge sought to see if drones could assist DOT&PF employees in this daunting task.

It started with an open invite to from the DOT&PF, Division of Statewide Aviation and UAF ACUASI to UAS providers. The challenge was a simple one, demonstrate practical application of UAS in airport operations. The result was extremely promising.

UAS Provider, Silent Falcon answered the challenge by demonstrating its ability to capture high resolution imagery and process it with the help of AI/machine learning to inspect and calculate Pavement Condition Index (PCI).

What did that look like?

A whopping **1600% boost in imagery resolution**, from 50 centimeter or better imagery all the way down to 2 millimeter images. Silent Falcon 3D captured the entire airfield in a fraction of the time as a traditional inspection.

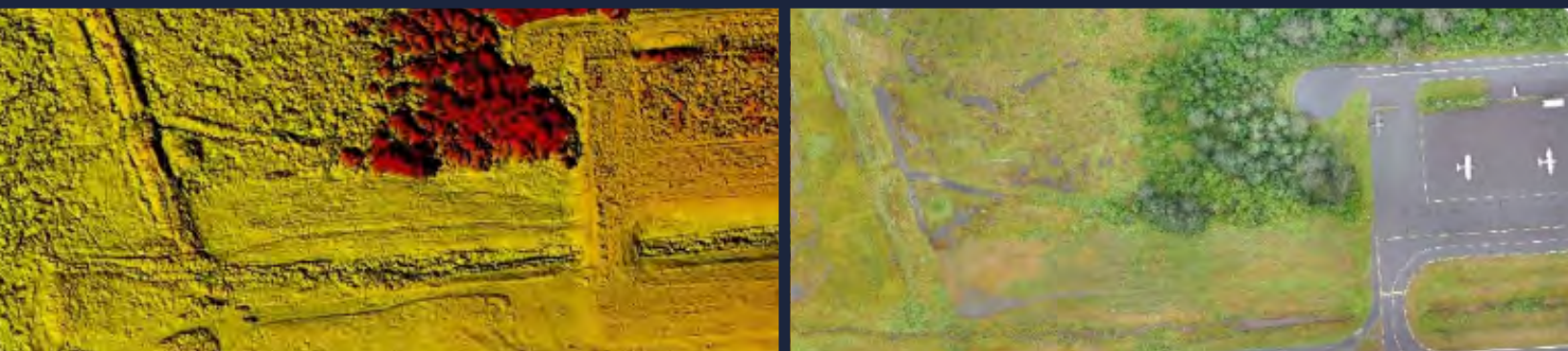
And when compared the next day at UAF, the results were on-par with the traditional ground inspection results. Silent Falcon showed a PCI of **69.82**, the Ground Inspection, **65** PCI.



This could have a massive impact for Alaskan Airports, with the ability for one person to create a digital twin of multiple airports across the state without having to leave their office.

Currently the team is evaluating at numerous airports. With the following being completed in 2021: Nenana, Seward (pictured), Dillingham, Bethel, Cordova, and Yakutat.

Looking into the future DOT&PF is working with UAS Industry, and the FAA to approve the use of remote sensing technologies, in order to increase the amount of runways inspected each year.





**MAINTENANCE  
& OPERATIONS**

**Conf** **MAY**  
**3<sup>RD</sup>-5<sup>TH</sup>**

**ALL THINGS AVIATION  
ALL THINGS HIGHWAY  
ALL LANDING IN ONE PLACE**

**SPONSOR NOW**

