

**ALASKA STATE LEGISLATURE  
HOUSE TRANSPORTATION STANDING COMMITTEE**

March 18, 2025

1:55 p.m.

**MEMBERS PRESENT**

Representative Ashley Carrick, Co-Chair  
Representative Ted Eischeid, Co-Chair  
Representative Louise Stutes  
Representative Kevin McCabe  
Representative Elexie Moore  
Representative Cathy Tilton  
Representative Genevieve Mina

**MEMBERS ABSENT**

All members present

**COMMITTEE CALENDAR**

PRESENTATION(S) : AVIATION WEATHER SYSTEMS

- HEARD

PRESENTATION(S) : THE EFFECT OF THE AUTOMATED WEATHER OBSERVING  
SYSTEM AND AUTOMATED SURFACE OBSERVATION SYSTEM ON PILOTS

- HEARD

**PREVIOUS COMMITTEE ACTION**

No previous action to record

**WITNESS REGISTER**

TROY LARUE, Operations Manager  
Division of Statewide Aviation  
Department of Transportation and Public Facilities  
Anchorage, Alaska

**POSITION STATEMENT:** Gave a PowerPoint, titled "Aviation Weather  
Systems."

WILL DAY, Executive Director  
Alaska Air Carriers Association  
Anchorage, Alaska

**POSITION STATEMENT:** Co-presented on the Automated Weather Observing System and Automated Surface Observation System in Alaska.

DAN KNESEK, Vice President of Operations  
Grant Aviation;  
Board Member  
Alaska Air Carriers Association  
Anchorage, Alaska

**POSITION STATEMENT:** Co-presented on the Automated Weather Observing System and Automated Surface Observation System in Alaska.

MIKE JONES, PhD, Research Assistant Professor of Economics  
Institute of Social and Economic Research  
University of Alaska Anchorage  
Anchorage, Alaska

**POSITION STATEMENT:** Co-presented on the Automated Weather Observing System and Automated Surface Observation System in Alaska.

#### **ACTION NARRATIVE**

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CO-CHAIR EISCHEID called the House Transportation Standing Committee meeting to order at 1:55 p.m. Representatives Eischeid, Carrick, Moore, and Tilton were present at the call to order. Representatives McCabe, Stutes, and Mina arrived as the meeting was in progress.

#### **PRESENTATION(S): Aviation Weather Systems**

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CO-CHAIR EISCHEID announced that the first order of business would be a presentation on aviation weather systems in the state.

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TROY LARUE, Operations Manager, Division of Statewide Aviation (SWA), Department of Transportation and Public Facilities (DOT&PF), gave a PowerPoint, titled "Aviation Weather Systems" [hard copy included in the committee file]. He expressed the importance of how weather effects aviation in the state. He pointed out the list of SWA's responsibilities, as seen on slide

2. He stated that SWA is responsible for building the capital improvement program. He pointed out the available information in SWA's Alaska Aviation System Plan (AASP). He noted the importance of aviation policy planning, as the state must be compliant with the Federal Aviation Administration (FAA) to receive funding. He discussed the state's new Airport Geographic Information System, noting that this is crucial for data sharing. He pointed out that SWA is addressing the problem of per- and polyfluoroalkyl substances at the state's airports. He also discussed SWA's rural airport safety and security team, remote sensing lab, and statewide airport leasing team.

MR. LARUE moved to slide 3 and discussed the outage problems with the state's Automated Weather Observing System (AWOS) and Automated Surface Observation System (ASOS). He stated that FAA owns AWOS, and the National Weather Service owns ASOS; however, FAA technicians would be responsible for maintaining all the weather stations. He added that weather approval for flights could not be had without functioning weather stations.

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MR. LARUE, in response to a question from Co-Chair Eischeid, expressed the importance of federal funding. He explained that FAA would provide the approval for flying conditions in inclement weather. He noted that federal funding is responsible for the weather instruments.

MR. LARUE moved to slide 4 and stated that after the 2018 FAA Reauthorization, there were 8 new AWOS funded and built in the state. He pointed out the locations of these systems, as seen on the slide. He stated that these systems had cost around \$2.2 million. He suggested that with new technology the systems would cost around \$200,000.

MR. LARUE, in response to a question from Representative McCabe, stated that all commercial aviation would need weather approval. He noted that for the larger aircraft and the federally certified airports, there would be performance requirements.

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MR. LARUE, on slide 5 and slide 6, discussed the AASP page on DOT&PF's website. He pointed out the link to the Public Airport Comment Map and the FAA's AWOS and ASOS Service Report Dashboard. He noted that the dashboard would show the airport weather systems that are not currently functioning. He added

that this is important for food security in remote Alaska. He moved from slide 7 to slide 8, discussing the AWOS and ASOS outage types. He expressed the opinion that if the state does not have a backup system, AWOS and ASOS would need to be operating correctly. He pointed out the different ways AWOS is transmitted and outage codes.

MR. LARUE, in response to a question from Co-Chair Eischeid, explained that FAA data is difficult to obtain, as this data is not readily available to the public. He stated that DOT&PF has a consultant that produces the data.

MR. LARUE, in response to a question from Co-Chair Carrick on Emmonak's long-term weather service outages, stated that this has a "severely negative impact, especially when it comes to food security." He expressed the opinion that there needs to be change. In response to a follow-up question, he expressed the understanding that Emmonak currently has air service.

REPRESENTATIVE MCCABE noted that certain types of aircraft could still fly into Emmonak.

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MR. LARUE, on slide 9 to slide 12, discussed the 2024 FAA Reauthorization. He noted that Alaska was mentioned 37 times in the reauthorization. Concerning rural airports, he stated that Section 322 in the reauthorization would allow [Boring RC-135] aircraft operators to complete an FAA form for the use of alternative weather systems. He noted that by using this form, communities could purchase commercial weather systems. He explained that commercial weather systems would provide a backup system when the primary weather system is down, and this would allow technicians to be flown in for the repair of the primary system.

MR. LARUE, on the next slide, stated that Section 342 is now named the Don Young Alaska Safety Initiative (DYASI). He noted that several pieces of this section would give relief for Alaska. He stated that 44 percent of all fatal air accidents happen in Alaska. He suggested that the installation of weather instruments would help decrease this percentage. He noted that this section would give the U.S. Congress the ability to report yearly on DYASI. He expressed the opinion that this would hold the reauthorization more accountable. He stated that this section would also prohibit FAA from restricting funding for runway projects in the state. He noted that Section 317 would

establish a Government Accountability Office, which would do a study on the expansion of the FAA Weather Camera Program. He stated that Section 332 concerns the ASOS and AWOS Service Report Dashboard. He argued that FAA needs to be transparent in the future concerning the maintenance of its weather systems.

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MR. LARUE, in response to a question from Representative McCabe concerning the availability of airport-linked weather cameras, explained that DOT&PF is actively working on this addition to its website.

MR. LARUE moved to slide 12 and discussed the Airport Improvement Program (AIP) handbook. He stated that the handbook concerns the funding for Alaska's airports. He stated that Section 733 of the reauthorization requires FAA to update the handbook to account for legislative changes to the program and for the unique circumstances in Alaska. He gave some details on the list of key areas that the handbook addresses.

MR. LARUE, in response to a question from Representative Stutes concerning federal employee layoffs, expressed the understanding that the weather station technicians in the state would not be losing their jobs. He expressed the understanding that aviation engineers have been exempted from the layoffs. He expressed concern for the potential job loss of federal wildlife biologist, as they are essential for wildlife control around airports.

REPRESENTATIVE MCCABE requested clarification on the Visual Slope Indicator (VASI) and the Precision Approach Path Indicator (PAPI).

MR. LARUE stated that these visual light indicators would guide planes on runways.

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MR. LARUE moved to slide 13 and discussed the environmental effects on airports in the state. He emphasized the impact of climate change on airports and weather forecasting. With the increase of freezing rain and ice events, he expressed the opinion that better weather forecasting and modelling would be needed. He noted that the state needs better access to the available technology. He pointed out that chemical and deicing programs are being reviewed, and methods for stabilizing airport

surfaces are being looked at, especially concerning permafrost and embankments. He expressed appreciation to the committee.

**PRESENTATION(S): The Effect of the Automated Weather Observing System and Automated Surface Observation System on Pilots**

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CO-CHAIR EISCHEID announced that the final order of business would be a presentation on the Automated Weather Observing System and the Automated Surface Observation System.

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WILL DAY, Executive Director, Alaska Air Carriers Association (AACCA), co-presented on the Automated Weather Observing System (AWOS) and the Automated Surface Observation System (ASOS) [presentation not included in the committee file]. He introduced himself, stating that he would be advocating on behalf of the air carrier community. He indicated that AACCA is a nonprofit trade association, and it was established in Alaska in 1966. He stated that AACCA's mission would be to ensure the perpetual prosperity of Alaska's commercial aviation industry. He noted that AWOS and ASOS outages would be addressed in the presentation.

MR. DAY spoke about Alaska's reliance on the aviation industry, as 82 percent of communities in the state are disconnected from the road system. He stated that 65 communities rely on the Essential Air Service (EAS), with aviation providing the primary method of intercommunal transportation. This includes access to groceries, supplies, mail, and health care. He discussed the history of aviation, noting that because of technology, flying is safer than it has been in the past. He expressed the importance of weather and observation systems in aviation.

MR. DAY pointed out that historically there have been three major risks for pilots in Alaska. He stated that the first risk was vertigo while flying in clouds, which is known as Instrument Meteorological Conditions (IMC). He explained that this is when conditions prevent visual flying, creating the risk of crashing into obscure terrain. He stated that the development of technology has proven to be crucial while flying in IMC. He stated that getting lost and then running out of gas has been the second major risk for pilots flying in Alaska. He discussed how pilots could be blown off course by headwinds and

crosswinds. He stated that global positioning systems would give pilots a constant awareness of their precise locations. He stated that the third major problem with aviation in the state has been icing. He explained that as ice accumulates on aircraft, it prevents their ability to lift. He added that this could cause a plane to fall out of the sky. He noted that now there is technology to address this problem; however, this is often not suitable for smaller aircraft because of the weight and cost of the technology. He stated that modern pilots use weather radar, forecasts, weather cameras, and automated weather and surface observation systems to detect icing conditions and minimize unexpected encounters.

REPRESENTATIVE STUTES questioned the implications of a reduction in EAS in Alaska.

MR. DAY responded that when there is not enough financial incentive for an air carrier to provide transportation and freight to a community, the federal government would subsidize this service. He stated that 65 communities in the state would be affected by the loss of EAS. These communities would lose access to air travel and services, such as mail and groceries.

REPRESENTATIVE MCCABE questioned whether this service is funded through the U.S. Postal Service.

MR. DAY deferred to Dan Knesek.

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DAN KNESEK, Vice President of Operations, Grant Aviation; Board Member, Alaska Air Carriers Association, in response to the question from Representative McCabe, he stated that 17 different communities in the state are subsidized by EAS, which is funded through the U.S. Department of Transportation.

MR. KNESEK co-presented on AWOS and ASOS. He stated that Grant Aviation services over 60 communities, including Emmonak, the Aleutian Islands, and the Pribilof Islands. He noted that less than half of these communities have an AWOS or ASOS weather station. He stated that these stations allow for real weather information prior to the departure of flights carrying passengers and freight. He stated that these flights fly under the Federal Aviation Administration's (FAA's) visual flight rules (VFR) and instrument flight rules (IFR). He noted that aircraft that fly under VFR would especially rely on AWOS or ASOS for weather trends, including wind data. He stated that

accidents are more prone to happen in airports that do not have AWOS or ASOS. He noted that in airports without these systems an agent on the ground would provide a weather estimate.

MR. KNESEK noted that Grant Aviation serves many rural communities with inclement weather. He stated that if a community does not have AWOS, ASOS, or IFR, a flight cannot depart if the weather ceiling is less than 1,000 feet or less than 3 miles of visibility at the destination. He pointed out that many of the weather stations in remote Alaska are becoming antiquated and data cannot be transported. He discussed some ways to work around this; however, more than half of the weather stations are not working adequately. He pointed out that there are commercial weather stations available for purchase, but they are not FAA certified as an approved weather source. He stated that Grant Aviation is working with the FAA regulations so some of these commercial systems could be used. He discussed an example of using a test commercial system for FAA approval.

MR. KNESEK, in response to a question from Representative Stutes, explained that Federal Aviation Regulations have specific weather reporting requirements for different types of commercial air carrier operations. He noted that smaller aircraft would have different departure rules. He discussed the problems with air service in Emmonak and the connecting communities.

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MIKE JONES, PhD, Research Assistant Professor of Economics, Institute of Social and Economic Research, University of Alaska Anchorage, co-presented on ASOS and AWOS. He stated that currently his work concerns rural Alaska and its dependency on the aviation supply chain and the impacts of outages. He noted the funding for his research, which involves the integration of drones in the aviation infrastructure. He pointed out that per year around 400 million pounds of cargo is moved within the state, and he noted that this is high compared to other states. He stated that AWAS and ASOS are critical in enabling this transport.

DR. JONES described his interest in researching the effects of weather systems on aviation and how weather systems effect the delivery of food and services within remote Alaska. He listed the many agencies and organizations that are familiar with the problems concerning AWAS and ASOS outages in remote Alaska. He noted that vast amounts of information have been gathered on the

effects of outages in the 150-plus weather stations in the state. He noted that in 2023, 50 percent of these stations had some level of daily outages. He spoke to the average length of time of these outages, with three-to-four days being the average. He noted the maximums and minimums in these statistics, with the maximum outages being years. He expressed the opinion that FAA and those working with these weather systems are not to blame, and he expressed the hope that appropriations for these systems would be made from the current FAA Reauthorization bill.

DR. JONES expressed the importance of delivering perishable goods in remote Alaska. He discussed the general model of the effects of a weather system outage in a village, which would limit IFR flights. These delays would then result in a backlog of flights containing perishable goods in remote airports. He explained that these goods would need to be stored within recommended temperature ranges; however, storage space in these airports would be very limited. He continued, noting that this backlog could push into the larger airports in the state. He remarked that these problems are complex, as an outage in one area would create a consequence in another area. He stated that a system-wide solution would be needed.

DR. JONES discussed the comprehensive data provided by commercial companies on spoilage during transit, which is called "non-sellable on arrival." He stated that in 2022, around 360,000 servings of fruits and vegetables arrived spoiled at storage facilities. He discussed the detailed analysis that is being done on this spoilage. He noted that the cost of food spoilage in remote Alaska has totaled millions of dollars over the past five years. He commented on the essential vitamins lost in the food spoilage.

DR. JONES discussed specific foods and the percentages of each lost during transport in rural Alaska. He discussed the severity of this problem during the winter holidays. He explained that food shipments would be ramped up during this time, which coincides with more severe weather conditions. He pointed out that the Alaska Food Protection Task Force recommends ASOS and AWOS be more reliable. He stated that this also concerns the transport of medications. He expressed concern, as the delay of a medical air evacuation could result in death.

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MR. DAY advised the committee that reliable, FAA-approved weather observation systems are critical to ensure aviation safety in Alaska. He stated that these systems are the keystones that allow pilots to take full advantage of modern aviation safety infrastructure. He emphasized that this is critical for the safety and wellbeing of Alaska residents.

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CO-CHAIR EISCHEID thanked the presenters, and he gave closing comments.

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#### **ADJOURNMENT**

There being no further business before the committee, the House Transportation Standing Committee meeting was adjourned at 2:57 p.m.