

SENATE JOINT RESOLUTION NO. 20

IN THE LEGISLATURE OF THE STATE OF ALASKA

THIRTY-THIRD LEGISLATURE - SECOND SESSION

BY THE SENATE COMMUNITY AND REGIONAL AFFAIRS COMMITTEE

Introduced: 4/3/24

Referred: Community and Regional Affairs

A RESOLUTION

1 **Urging the United States Congress to address outages of Automated Weather Observing**
2 **System stations and Automated Surface Observing System stations occurring in the**
3 **state.**

4 **BE IT RESOLVED BY THE LEGISLATURE OF THE STATE OF ALASKA:**

5 **WHEREAS** the Federal Aviation Administration operates and controls Automated
6 Weather Observing System (AWOS) stations; and

7 **WHEREAS** the National Weather Service, the Federal Aviation Administration, and
8 the United States Department of Defense cooperatively operate and control the Automated
9 Surface Observing System (ASOS) program; and

10 **WHEREAS** there are 109 AWOS stations and 44 ASOS stations in the state; and

11 **WHEREAS** ASOS stations were created more recently than AWOS stations; and

12 **WHEREAS**, of the multiple types of AWOS stations, the state uses primarily AWOS-
13 3 and AWOS-3PT stations; and

14 **WHEREAS** six AWOS stations in the state are private facilities, owned and
15 maintained by third parties; and

1 **WHEREAS** the three primary functions of AWOS and ASOS stations are to create
2 valid weather observations, broadcast weather observations for a range of approximately 25
3 miles, and send the data out along landlines on Service A systems, so people can access the
4 data by way of a computer desktop or telephone; and

5 **WHEREAS**, because of the state's unique geography, the role of aviation
6 infrastructure and the performance of AWOS and ASOS stations is critical to the citizens of
7 the state, especially those living in rural communities; and

8 **WHEREAS** the state Department of Transportation and Public Facilities reports that
9 82 percent of communities in the state are not connected to the main road system, and citizens
10 of the state rely heavily or exclusively on aviation to connect with supply chains for food,
11 cargo, medicines, and critical care services; and

12 **WHEREAS**, because of the state's extreme weather and remoteness, aviation
13 infrastructure must be robust and must incorporate redundancies to reduce the functional
14 effects of outages; and

15 **WHEREAS** many state and federal agencies, including the National Weather Service
16 and the United States Department of Defense, rely on AWOS and ASOS stations to certify
17 weather data for inclusion in critical forecasting models and national climate records; and

18 **WHEREAS** accurate and reliable weather data is crucial to maintain aviation safety;
19 and

20 **WHEREAS**, from 2015 to 2023, 6.6 percent of all aviation accidents and 4.1 percent
21 of all fatal aviation accidents recorded by the National Transportation Safety Board occurred
22 in the state, even though the population of the state makes up only 0.2 percent of the
23 population of the United States; and

24 **WHEREAS**, in 2021, ProPublica and Unalaska public radio station KUCB analyzed
25 the number of deaths in the United States resulting from small aircraft crashes and found that,
26 since 2016, 42 percent of these crashes occurred in the state, compared to 26 percent in the
27 early 2000s; and

28 **WHEREAS**, according to Federal Aviation Administration outage logs, on an average
29 day in 2023, about one out of every three AWOS and ASOS stations was experiencing some
30 level of outage; and

31 **WHEREAS**, from 2019 through 2023, approximately 59 percent of all AWOS and

1 ASOS stations had a full outage and 77 percent of all AWOS and ASOS stations had a
2 reduced-service outage; and

3 **WHEREAS**, from 2019 through 2023, full outages of AWOS and ASOS stations
4 required a median of approximately 3.3 days to resolve; 10 percent of full outages were
5 unresolved for more than 25 days, and five stations had full outages that remained unresolved
6 for more than 154 days; and

7 **WHEREAS**, from 2019 through 2023, reduced-service outages of AWOS and ASOS
8 stations required a median of approximately 4.4 days to resolve; 10 percent of reduced-service
9 outages were unresolved for more than 54 days, and five stations had reduced-service outages
10 that remained unresolved for more than 637 days; and

11 **WHEREAS**, from 2019 through 2023, approximately 47 percent of outages were
12 caused by equipment-related failures, 44 percent of outages were caused by
13 telecommunications-related failures, five percent of outages were caused by prime or standby
14 power failures, and five percent of outages were related to another type of failure; and

15 **WHEREAS** station outages occur more frequently in AWOS stations than in ASOS
16 stations; and

17 **WHEREAS** AWOS stations are older than ASOS stations, were designed before
18 satellite communications systems existed, and still rely on landlines for transporting data
19 through Service A systems; and

20 **WHEREAS**, when Service A systems are not working, dispatchers and pilots cannot
21 check the weather at a destination before an aircraft departs, which means that, in many cases,
22 pilots and carriers cannot adhere to rules set by the Federal Aviation Administration; and

23 **WHEREAS** commercial carriers in the state report many canceled flights because of
24 AWOS and ASOS station outages; and

25 **WHEREAS** AWOS and ASOS station outages disrupt the critical flow of goods and
26 passengers, create risks to human life and health in medical emergencies, delay essential
27 medication delivery, and negatively affect the provision of perishable foods to communities;

28 **BE IT RESOLVED** that the Alaska State Legislature calls on the United States
29 Congress to include language in the Federal Aviation Administration Reauthorization Act to
30 address AWOS and ASOS station outages occurring in the state and specifically to

31 (1) require the Federal Aviation Administration to ensure the reliability of

1 AWOS and ASOS stations or other approved weather system technologies used at airports;

2 (2) require the Federal Aviation Administration to take actions necessary to
3 restore the full functionality and connectivity of weather station equipment and the associated
4 telecommunications systems;

5 (3) require the Federal Aviation Administration to publish on a publicly
6 available Internet website a dashboard with ASOS and AWOS real-time status updates;

7 (4) require the Federal Aviation Administration to include communications
8 outages in its Notices to Air Missions;

9 (5) require the Federal Aviation Administration and the National Weather
10 Service to improve AWOS and ASOS spare part availability;

11 (3) authorize the Federal Aviation Administration to, by regulation, provide
12 for telecommunications redundancy via low-Earth orbit satellite Internet connectivity, or other
13 approved weather technology, on all AWOS and ASOS stations in the state, as a backup to
14 landline connectivity;

15 (4) authorize the Federal Aviation Administration to, by regulation, approve
16 commercially available, aviation-specific weather reporting systems that could be installed at
17 lower cost and used as backups or as replacements;

18 (5) establish, by regulation, an AWOS and ASOS team specifically for the
19 state, dedicated to keeping weather systems in the state operational; and

20 (6) allow the Federal Aviation Administration to, by regulation, authorize the
21 state Department of Transportation and Public Facilities to maintain AWOS and ASOS
22 stations or other weather system technology; and be it

23 **FURTHER RESOLVED** that the Alaska State Legislature urges the Federal Aviation
24 Administration and the National Weather Service to work with Senators Lisa Murkowski and
25 Dan Sullivan and Representative Mary Peltola to address, in the Federal Aviation
26 Administration Reauthorization Act, the AWOS and ASOS station outages occurring in the
27 state; and be it

28 **FURTHER RESOLVED** that the Alaska State Legislature urges the Federal Aviation
29 Administration and the National Weather Service to work with the state Department of
30 Transportation and Public Facilities to address the AWOS and ASOS station outages
31 occurring in the state; and be it

1 **FURTHER RESOLVED** that the Alaska State Legislature urges the Federal Aviation
2 Administration to adopt regulations that address the AWOS and ASOS station outages
3 occurring in the state in a manner that accounts for the size, weather, and remoteness of the
4 state, reliance of the state on aviation, and other unique challenges of the state; and be it

5 **FURTHER RESOLVED** that the Alaska State Legislature urges the Federal Aviation
6 Administration to include the initiatives in this resolution in the Alaska Aviation Safety
7 Initiative, which is an effort designed to identify improvements and investments as part of a
8 comprehensive approach to improving aviation safety in the state.

9 **COPIES** of this resolution shall be sent to the Honorable Lisa Murkowski and the
10 Honorable Dan Sullivan, U.S. Senators, and the Honorable Mary Peltola, U.S. Representative,
11 members of the Alaska delegation in Congress.