Responses to Written Questions Submitted by Honorable Dan Sullivan to Joel Szabat

*Question 1.* Can you assure this committee and my constituents in Alaska that the Department of Transportation recognizes the unique need for EAS in Alaska and will protect and preserve existing EAS in the state of Alaska?

Response. Yes.

*Question 2.* Would you agree that any effort to address costs or efficiency cannot be done in a way that would undermine EAS for the State of Alaska?

Response. Congress has made clear that Alaska has unique transportation needs, and since I joined the Office of Aviation and International Affairs and began overseeing the EAS program, I have become attuned to these needs. While more than one-third of all EAS communities are in Alaska, collectively, those communities represent less than 9% of program costs. The average EAS subsidy in the contiguous 48 states is \$2.9 million annually; only three Alaskan communities have a subsidy over \$1 million. This data suggests that Alaska would not be the place to look to address excessive costs or inefficiencies, if such measures are considered in the future.

*Question 3.* As you consider the best ways to manage the EAS program, will you consult with communities that depend on EAS and the air carriers that serve those communities to ensure that your decision making is well informed about the potential impact and avoiding unintended consequences?

Response. Yes. I have already begun to do so. Since I joined the office in January, I have already spoken to most of the EAS air carriers. I have visited with the EAS communities in South Dakota, Nebraska, Montana, Mississippi, West Virginia, and Virginia. I have joined conference calls with the Pennsylvania, New York, and Maine communities, and spoken to individual communities in Arizona, Hawaii, and Kansas. I am planning a visit to Alaska in October to learn from the communities there. I recognize that each communities and carriers to find ways to make EAS more effective, more efficient, and to avoid unintended consequences.

## Question 4. Instrument Flight Rules

Your assistance working with your colleagues at FAA on the following questions is appreciated:

Following the Radio Technical Commission for Aeronautics (RTCA) publication "FAA Performance Based Navigation (PBN) Enroute Structure," FAA developed a follow on document referred to as AkEnt, that outlines requirements for Alaska's future IFR enroute system. (AkEnt is not available to the public, as it is a document internal to the FAA.) When will FAA disseminate a comprehensive, cohesive, and time lined Alaska solution?

Response. To address this question, the Office of Aviation and International Affairs, which I currently manage, reached out to the FAA for a response.

FAA Response: The FAA is committed to the safety and efficiency of the National Airspace System (NAS). We continually study and evaluate ways to improve the NAS to support the operations, including Alaska's IFR enroute system. We are currently working internally, as well as with stakeholders as needed, to identify issues and potential solutions to address the enroute system in Alaska. At this time, we cannot provide a timeline of the possible solutions; however, we will continue to look for ways to improve the Alaska's airspace and infrastructure.

*Question 5.* To address the IFR navigation solution for Alaska when Global Positioning System (GPS) is unavailable? What will air carriers in Alaska utilize for navigation if a VOR-Minimum Operational Network is not planned?

Response. To address this question, the Office of Aviation and International Affairs, which I currently manage, reached out to the FAA for a response.

FAA Response: Commercial operators seeking to fly under Instrument Flight Rules (IFR) are required by current regulation, e.g. Chapter 14 of the Code of Federal Regulations parts 121 and 135, to be equipped with navigation systems suitable for navigating the aircraft along the route to be flown with the degree of accuracy required for Air Traffic Control. The preponderance of aircraft used for commercial operations in Alaska do not possess any autonomous navigation capability, such as inertial navigation. Therefore, in the absence of a Minimum Operational Network (MON), most Alaska commercial operators would revert to relying on conventional navigational aids or radar vectors for route navigation during periods when GPS is unavailable. No VORs are scheduled to be decommissioned in Alaska under VOR MON. If GPS is out of service, Alaska aviation would be limited to airways/navigation serviced by existing VORs. There would be service volume limitations, because of terrain and distances between VORs. Radar vectors or monitoring could potentially fill in gaps where radar coverage is available.

*Question 6.* What will the standard be for GPS NextGen equipage following the 2020 mandate on ADSB? Will FAA require commercial air operators to equip with Technical Standard Order 145/146 Wide Area Augmentation System GPS and a ground-based legacy Navigational Aid backup? What will the standard be moving forward?

Response. To address this question, the Office of Aviation and International Affairs, which I currently manage, reached out to the FAA for a response.

FAA Response: Following the 2020 mandate for ADS-B, GPS will remain the standard both for performance based navigation (PBN) and ADS-B. PBN and ADS-B are both fundamental elements of NextGen. Both underpin FAA plans to improve the efficiency of air traffic management through time based and trajectory based flow management. ADS-B will remain the principal means of aircraft surveillance.

While the Wide Area Augmentation System (WAAS) will continue to provide access for many pilots to the vast majority of the country's runways, there are no plans, nor any pending rule-making initiatives, that would require any operators to be equipped with Technical Standard Order (TSO) 145 or 146 GPS equipment.

Commercial operators are now required, by regulation, e.g. 14 CFR part 121

§ 121.349, to be equipped with two approved independent navigation systems suitable for navigating the airplane along the route to be flown with the degree of accuracy required for ATC. Operators flying under Part 135 face similar requirements. Given that the FAA intends to maintain a minimum ground-based navigation infrastructure as a back-up to GPS, commercial operators will need to maintain some equipment capability to use ground-based navigation as a back-up.

*Question 7.* When will FAA develop and adopt a plan on whether to convert colored (Non-Directional Beacon based) airways to T-Routes (GPS based), NDB physical locations to GPS waypoints, and amend requirements for mountainous regions and the remaining recommendations contained within the FAA PBN Enroute Structure for Alaska?

Response. To address this question, the Office of Aviation and International Affairs, which I currently manage, reached out to the FAA for a response.

FAA Response: The FAA has initiated a detailed assessment of feasibility for all 92 recommendations in the 2017 RTCA Recommendations for the Performance Based Navigation (PBN) Route System report. Included in the TacticalOperations Committee report are the 23 Alaska-specific Low Altitude recommendations. We anticipate this activity will be completed by the end of CY2018. Subsequent to completion of this assessment, the FAA will evaluate resource requirements and prioritization of the recommendations in relation to all other National Airspace System (NAS) needs.

The FAA 2016 PBN NAS Navigation Strategy en route plan identifies efforts in the near term (2016 -2020) to begin the transition to an improved PBN-based route structure. The focus in the en route domain is to shift to a PBN-based service environment, and to increase the agility with which these services can be provided to balance emerging operator and systemwide needs.

In the midterm (2021-2025) en route environment, the FAA will focus on continuing efforts to provide additional PBN routes and point-to-point navigation where operationally beneficial, and will remove most conventional ATS routes. Commitments include replacing conventional Jet routes with Q-routes where route structure continues to be needed, implementing T-routes where beneficial, and eliminating Victor airways, except where needed in mountainous regions and areas without radar coverage.

Responses to Written Questions Submitted by Honorable Deb Fischer to Joel Szabat

*Question.* The Essential Air Service (EAS) program is critical for airports in Nebraska, especially those that have experienced service disruptions. I have repeatedly objected to cuts to EAS support in Nebraska. Will you commit to maintaining the EAS program, recognizing that airports experiencing service disruptions may need this support to improve their air service?

Response. In April, I visited EAS communities in South Dakota, Montana and Nebraska. In Scottsbluff, I invited all of Nebraska's EAS communities to an open conversation. I met with airport officials and leaders from six of the seven communities to learn from them firsthand the importance of EAS. From the local leaders, I have learned that reliable service, multiple daily flights, and, where possible, interline agreements with carriers at hub airports, are the keys to successful EAS. Passengers are driven away by repeated service disruptions. When a carrier unexpectedly stops serving a community, it can take 90 days or more to resume service with a replacement carrier. If confirmed, I will do all in my power to mitigate or eliminate service disruptions, to improve the value of EAS to the communities it serves.

The Office of Aviation and International Affairs has the statutory responsibility to advocate for the aviation industry. If confirmed, I will ensure that senior officials in the Department and in the Administration are aware of the importance of EAS to rural communities, and how the EAS program ties to President Trump's rural initiatives.