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FAASI Roadmap



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Introduction

This FAA Alaska Aviation Safety Initiative (FAASI) roadmap provides a high level outline for how the FAA will move along the recommendations from the FY21 Final Report (<https://www.faa.gov/alaska>). The 11 recommendations can be found in Appendix A. The acronyms used in this roadmap can be found in Appendix B.

In 2021, the FAA initiated FAASI in response to a National Transportation Safety Board (NTSB) recommendation and tasking by FAA Administrator Steve Dickson. The outcome of the 2021 effort is an inventory of existing safety efforts, stakeholder feedback, and 11 recommendations to improve aviation safety in Alaska. The FAA is focusing on meaningful safety enhancements in the near-term and laying the groundwork for mid-term safety enhancements.

The FAA will solicit and incorporate feedback from our stakeholders on the timelines in this roadmap. The roadmap for each recommendation will follow a similar pattern:

- Who (Line Of Business) in the FAA has a primary or support role,
- What the FAA will do,
- How the FAA will implement the recommendation, and
- When the FAA will accomplish the implementation.

Recommendation 1.1: Automated Weather Observing System (AWOS)

Recommendation: Enhance weather reporting capability utilizing the Automated Weather Observing System (AWOS) including:

1. Continue installation and transfer of Airport Improvement Program (AIP) funded AWOS.
2. Examine the root cause of “Service A” outages, associated impacts, and identify mitigations.
3. Consider necessary changes to FAA Joint Order 7900.5 Surface Weather Observing and FAA Order 7930.2 Notices to Air Missions (NOTAM).

Who: This recommendation will be implemented through a collaboration between the Airports Division (ARP) and the Air Traffic Organization (ATO).

1. Installation of AWOS: ARP and ATO Operations Support are the co-leads for this portion. ARP will lead the process with respect to funding and identification of AIP eligible locations. ATO Operations Support will lead and complete the review of the request, siting, security, inspection, and acceptance.
2. Service A Outages: ATO Technical Operations and Mission Support Services will lead this portion with support from the ATO Program Management Organization.

3. Review of FAA Order 7930.2 NOTAM: ATO Mission Support Services Aeronautical Information Services will lead this portion with support from ATO Operations Support.

What: ARP and ATO will implement three changes to enhance weather reporting capability.

1. Installation of AWOS: The FAA will finish the installation of the AIP-funded AWOS systems at airports and continue the transfer process from airport sponsor ownership to the FAA. The FAA will utilize FAA Directive Advisory Circular 170-9A Criteria for Assumption of Ownership of Non-Federal Systems and other guidance as appropriate to complete the installation and transfer.

In accordance with Section 147 of the 2018 FAA Reauthorization Act, ARP will coordinate with the Alaska Department of Transportation & Public Facilities (ADOT&PF) to determine locations for the next round of AWOS system installations. Potential funding sources will be identified including utilizing AIP, Bipartisan Infrastructure Law (BIL), CARES (Coronavirus Aid, Relief, and Economic Security Act), and American Rescue Plan Act (ARPA) funds. After additional locations and resources are identified, ARP will coordinate with ATO and ADOT&PF to ensure proper equipment and processes are in place and establish critical timelines.

To optimize the process for transferring new AWOS systems from airport sponsor ownership to the FAA, ATO will work on acquisition strategies that cover the elements of logistical support for the systems. ATO will complete cyber security authorizations to meet Federal Information Security Management Act (FISMA) and operations requirements.

2. Service A Outages: The FAA will form a team of subject matter experts (SMEs) to examine the root cause of Service A data outages, associated impacts, and identify mitigations. These mitigations could include infrastructure improvement recommendations and improvements in logistics.
3. Review of FAA Order 7930.2 NOTAM: The ATO US NOTAM Governance Team will review language in FAA Order 7930.2 regarding reporting weather system outages for AWOS and Automated Surface Observing Systems (ASOS) to determine if Service A Outages meet NOTAM reporting criteria.

How: ARP and ATO will use a variety of options to implement these changes, including:

1. Installation of AWOS: The FAA and ADOT&PF will continue to collaborate on the installation and FAA takeover of the AIP-funded AWOS locations at Kotlik, Tok Junction, Coldfoot, Nulato, Perryville, Crooked Creek, Tununak, and Akiachak.

ARP will coordinate additional AWOS locations and funding sources with ADOT&PF to initiate the AIP planning process. Upon inclusion in the ARP Capital Improvement Program (CIP) database, ARP will initiate a workgroup with ADOT&PF and ATO.

ATO will develop an action plan for each new AWOS. This action plan will improve scheduling and allow for submitting requests for telecommunications lines, frequency research, and identifying Weather Message Switching Center Replacement (WMSCR) connectivity issues in advance. ATO will submit out-year budget requests for the systems and upgrades to telecommunications, data transfer, and operational budget needs. ATO will also complete system cyber testing.

2. Service A Outages: The FAA will work with a team of subject matter experts to determine the root cause of telecommunication outages. ATO will work with the FAA Logistics Center to improve the spare parts availability for Alaska. ATO will begin stakeholder outreach activities to enhance education and awareness.
3. Review of FAA Order 7930.2 NOTAM: The US NOTAM Governance Team will work with the AWOS/ASOS office to determine if policy on NOTAM criteria requires modification to address Service A outages.

When: The changes will be implemented starting in calendar year 2022 with specific milestones listed below.

1. Installation of AWOS: The AWOS installation will be conducted with the following milestones:
 - Begin coordination with ADOT&PF for additional AWOS locations by February 28, 2022.
 - Complete the installation of the AIP-funded AWOS sites by September 30, 2022.
2. Service A Outages: The FAA will examine the root cause of Service A outages, associated impacts, and identify mitigations by January 31, 2023. ATO will begin the stakeholder outreach activities by November 30, 2022. ATO will work with the telecommunications providers to obtain acceptable levels of service. ATO will coordinate with the FAA Logistics Center to improve spare parts availability by January 31, 2023.
3. Review of FAA Order 7930.2 NOTAM: A determination of the policy criteria will be completed by June 30, 2022. Further actions may be taken at a later date.

Recommendation 1.2: Visual Weather Observation System (VWOS)

Recommendation: Enhance weather reporting capability utilizing the Visual Weather Observation System (VWOS) including:

1. Test and evaluate VWOS capabilities at four Alaskan airports and document the findings in a final report.
2. Develop standards for non-sensor visual-based weather information.

3. Upon successful completion of the evaluation, seek funding for VWOS unit acquisition and installation at airports where AWOS or ASOS units do not exist.
4. Modify FAA-issued Operations Specifications to allow for use of VWOS as requested by aircraft operators.

Who: ATO, Aviation Safety (AVS), and Flight Standards (AFS) will collaborate to implement VWOS capabilities, including:

1. Test and Evaluate VWOS: ATO System Operations and Flight Services will test and evaluate the VWOS capabilities with input from AVS.
2. Develop Standards for Non-sensor Information: AVS and AFS will collaborate to develop standards for the non-sensor visual-based weather information to support gridded weather analysis information currently available from the National Weather Service (NWS).
3. Seek funding for additional VWOS: Upon successful completion of testing and evaluation, ATO Flight Services will seek funding for VWOS.
4. Modify Operations Specifications: FAA-issued Operations Specifications will be modified by AVS and AFS as requested by aircraft operators who intend to utilize VWOS technology to support Instrument Flight Rules (IFR) operations.

What: These changes to enhance weather reporting capability by utilizing VWOS will be conducted by:

1. Test and Evaluate VWOS: The FAA will continue the testing and evaluation of VWOS capabilities at four locations in Alaska. The four locations are Palmer, Healy River, Tatitlek, and Eek. Upon completion of the testing, the FAA will document the findings in a final report.
2. Develop Standards for Non-sensor Information: The FAA has developed standards for air carrier use during testing and validation of the VWOS and will develop standards for non-sensor visual-based weather information to support gridded weather analysis information currently available from the NWS.
3. Seek Funding for Additional VWOS: To be determined after testing and evaluation.
4. Modify Operations Specifications: Once VWOS capabilities are approved, aircraft operators intending to utilize VWOS technology to support IFR operations will be required to submit a program for acceptance to their FAA Principal Operations Inspector. The Inspector will evaluate the request and will grant a modification of the FAA-issued Operations Specifications as appropriate.

How: A variety of options will be used to implement these changes, including:

1. Test and Evaluate VWOS: The FAA will test and evaluate VWOS capabilities at four airports and will summarize the findings in a report. The report will identify potential next steps on whether the FAA will implement VWOS capabilities.
2. Develop Standards for Non-sensor Information: Standards will be developed following current research that is being performed.
3. Seek Funding for Additional VWOS: To be determined after testing and evaluation.
4. Modify Operations Specifications: FAA Principal Operations Inspectors will work with aircraft operators to update the Operations Specifications as appropriate depending on the outcome of the VWOS test and evaluation.

When: The changes will be implemented starting in calendar year 2022 with specific milestones listed below.

1. Test and Evaluate VWOS: The testing and evaluation of the VWOS capabilities at four airports will be completed by April 30, 2022. The report summarizing the findings of the test will be completed by September 30, 2022.
2. Develop Standards for Non-sensor Information: Standards will be developed following current research that is being performed.
3. Seek Funding for Additional VWOS: To be determined after testing and evaluation are complete.
4. Modify Operations Specifications: The milestones for modifying aircraft operator Operations Specifications will be established after additional VWOS funding has been identified.

Recommendation 2.1: Evaluate Operator Authorization Requirements

Recommendation: Evaluate and clarify aircraft operator authorization and eligibility requirements for commercial aircraft operations under IFR. Update the policy and guidance related to equipment requirements for commercial operators when using GPS for navigation.

Who: Flight Standards Service (AFS) will lead an internal process to collaborate across LOBs to examine the current navigation policy and equipage requirements as it relates to GPS. The collaborations will include the Alaskan Regional Management Team (RMT).

What: The FAA will review and evaluate current GPS navigation policy to include regulatory requirements, equipment requirements, guidance, and associated authorization framework. The review and evaluation will determine if updates are required to clarify and align operational and equipment requirements for commercial operators using GPS for navigation.

How: A team of FAA subject matter experts (SMEs) from applicable LOBs will be assembled to conduct the review. This review will focus on inconsistencies, areas requiring clarification, and opportunities for improving navigation policy.

Using existing safety risk management principles and processes, the FAA will analyze and review any new recommendations identified by the team of SMEs. This analysis will include not only potential policy guidance updates, but also possible recommendations and updates to the associated authorization framework.

Proposed updates identified by the FAA review team will be coordinated across LOBs to provide additional clarity and transparency. Updates will be published in applicable FAA documents.

When: Beginning in FY22, a team of SMEs will be assembled to initiate a review of the navigation policy and associated requirements. Members of the Flight Standards Leadership Team will provide routine updates to the RMT. The updates will include information on milestones.

Recommendation 2.2: Establish and Chart Communications Gaps on Published Routes

Recommendation: Evaluate potential policy change permitting communication gaps on routes where communication capability is the determining factor for the minimum enroute altitude.

Who: The Flight Technologies and Procedures Division and Aeronautical Information Services (ATO) will evaluate the current policy.

What: The Alaska T-Route working group consists of FAA employees and external stakeholders. The FAA will use the Alaska T-Route working group to identify geographic areas of consideration for establishing communications gaps on published routes. Once the routes are identified, the FAA will follow the waiver and approval process to assist in determining the communication gaps and publishing updated T-Routes.

How: The FAA will use the Alaska T-Route working group to identify geographic areas of consideration for establishing communications gaps on published routes. The Flight Procedures Team will conduct a feasibility analysis of the routes identified to assist in determining the communication gaps. The Flight Procedures Team will collaborate with the Alaska T-Route working group on the proposed altitudes for each identified route.

A waiver will be initiated using existing safety risk management principles for the identified routes. The FAA will consider mitigations that can be implemented to ensure an equivalent level of safety for flight in areas where communications gaps are proposed. Aeronautical Information Services will submit the procedures and waivers to Flight Inspection for evaluation.

Upon completion of the flight inspection, Aeronautical Information Services will submit the procedures to Flight Standards for review and possible approval at the Procedures Review Board

(Flight Standards Safety Management System). Once approved, the FAA will chart communications gaps on the published T-Routes.

When: Western Flight Procedures Team will begin collaboration with Flight Standards on potential waivers beginning in June 2022. Publication of the T-Routes will depend on the review and approval process.

Recommendation 2.3: GPS Backup Resiliency

Recommendation: Develop strategies to address GPS backup resiliency in Alaska.

Who: ATO Program Management Organization, Enterprise Services, and Navigation Programs with input from AVS.

What: Develop a GPS resiliency plan for Alaska navigation accounting for potential loss or interference of GPS or WAAS signals.

How: Develop strategies for mitigating the loss of integrity of GPS navigation across the various geographic areas of Alaska. Factors that will be considered in the strategies include:

- Plans for retention and long-term support for conventional navigation aids (NAVAIDs),
- Threat to GPS signal,
- Availability of safe landing sites,
- Use of various ground-based NAVAIDs,
- Assess accident locations and causes related to navigation from NTSB and other accident sources, and
- Current and planned ground-based and satellite-based NAVAIDs and infrastructure.

The GPS resiliency concept will be coordinated with military and civil users and revised as appropriate. Alaska-located conventional NAVAIDs will be included in the appropriate navigation programs for funding, implementation, and long-term support.

When: The initial draft plan will be submitted by September 30, 2022 and will be updated periodically as ATO Enterprise Services Navigation Programs plans evolve.

Recommendation 2.4: T-Route Development

Recommendation: Continue the development of T-routes as a replacement for Low Frequency/Medium Frequency (LF/MF) and other conventional airways.

Who: ATO Mission Support Services Western Service Center Flight Procedures Team will work together to implement this recommendation.

What: The Flight Procedures Team is working to add or revise 56 T-Routes to replace the LF/MF airway structure. Of the 45 obsolete LF/MF airways, 31 will be cancelled. The remaining airways and dependent instrument approach procedures will be amended to allow the

decommissioning of 51 of 59 Alaska Non-Directional Beacons (NDBs). At the request of the Department of Defense, eight NDBs and 14 LF/MF airways will remain.

How: New and amended Performance Based Navigation (PBN) T-Routes are currently near the end of Phase 2 of the implementation process. The proposed NDB cancellations are currently being evaluated to determine which routes can be feasibly divested.

When: T-Route replacements will start to be developed beginning February 2022. T-Route replacements will be published in phases along the following timeline:

- September 8, 2022 – 20 replacements will be published
- November 3, 2022 – 15 replacements will be published
- December 29, 2022 – 15 replacements will be published
- February 23, 2023 – 6 replacements will be published

NDB cancellations are expected to start the validation and prioritization process in March 2022. The approach procedure projects are in the pre-planning phase and do not currently have an estimated timeframe for completion.

Recommendation 3.1: Mountain Pass Working Group Initiative

Recommendation: Continue the Mountain Pass Working Group initiative and partnership with the Aircraft Owners and Pilots Association (AOPA) aimed at verifying existing mountain pass information and adding additional mountain passes to the Alaska Visual Flight Rules (VFR) sectional charts.

Who: ATO Mission Support Services, Aeronautical Information Services, and Visual Charting Team will lead the Mountain Pass Working Group.

What: The Visual Charting Team will continue to participate in the semi-annual meetings. An action plan was developed to update the existing mountain pass inventory and identify an ongoing workflow to add additional passes as required.

How: The Visual Charting Team is working with the Western Service Center, AOPA, and the United States Geological Survey (USGS) to capture and complete the existing inventory of mountain pass information. The collaboration is verifying the location, elevation, and naming conventions applied to the Alaska sectional charts.

When: The Alaskan Mountain Pass Working Group continues to meet on a semi-annual basis to confirm success and assist elsewhere with its expertise. The Alaska Sectional Charts were completed on October 7, 2021. The Naqsrulugiaq Pass will be added to the Point Barrow and Fairbanks VFR Sectionals effective March 24, 2022.

Recommendation 3.2: Aeronautical Charting Meetings

Recommendation: Aeronautical Charting Meetings (ACM) will ensure adequate focus is placed on Alaska specific charting needs that may be different than the contiguous United States.

Who: ATO Mission Support Services, Aeronautical Information Services, and Charting Products Integration Team will lead the changes to the ACMs.

What: Meetings are held biannually to identify issues concerning safety and usefulness of aeronautical charts and flight information products.

How: The ACM agenda will have a designated time to address Alaska charting issues. Meeting times will be adjusted to more optimally match west coast and Alaskan time zones.

When: The next scheduled ACM is April 25 – 28, 2022.

Recommendation 4.1: Education and Outreach of ADS-B Out Equipage

Recommendation: Continue education and outreach related to the benefits of ADS-B Out equipage within certain airspace in Alaska. Outreach will focus on the safety enhancing benefits of aircraft position notification and display for users within all airspace.

Who: Flight Standards will lead the efforts with an emphasis on utilizing the FAA Safety Team (FAASTeam) in Alaska.

What: Outreach will consist of a multifaceted information campaign utilizing posters, presentations, brochures, e-mails, and accident case studies that promote and educate operators on the use and benefits of ADS-B.

How: Flight Standards will maintain an outreach plan, in harmony with the FAASTeam National Performance Plan, which identifies opportunities for the FAA to collaborate with the stakeholders on ADS-B Out equipage. The FAASTeam in Alaska will partner with stakeholders to conduct the outreach meetings. Flight Standards will review the outreach plan and add new events as identified. The below events are a part of the outreach plan.

- Spring Air Safety Meeting
- Great Alaskan Aviation Gathering
- Quarterly Safety Meetings
- Individual outreach with the public, including complaint investigation
- RSAT (Runway Safety Action Team) meetings
- Bethel Work Group meetings
- Pre and Post-season Air Tour meetings
- Occasional Alaska Airmen meetings
- Air Carrier briefings as requested

When: Flight Standards will meet quarterly to review and update the outreach plan. The FAAS Team will attend meetings and conduct outreach on ADS-B equipage as meetings occur.

Recommendation 4.2: ADS-B Services

Recommendation: Continue to deploy ADS-B services for non-implemented service volumes in a manner that will provide coverage along major air routes in Alaska.

Who: ATO Program Management Organization and Surveillance Services

What: The FAA completed a business case for expanding ADS-B services in Alaska and identified five ADS-B service volumes (SVs) which were not implemented in the original Surveillance and Broadcast Services Capstone Plan. The ADS-B Service Expansion Project will increase the number of SVs in Alaska from nine to fourteen.

How: Initial FAA Joint Resources Council (JRC) approval of the Alaska ADS-B Service Expansion Project was obtained in September 2021. This approval provides incremental funding for the ADS-B Service Expansion Project and enables a preliminary service expansion and site coverage assessment. After completion of the preliminary service expansion and site coverage assessment, five additional ADS-B ground-based transceivers (GBT) will be installed.

When: Final approval of the Alaska ADS-B Service Expansion Project, including the larger ADS-B Enhancements Package is expected in summer 2022. Final approval will provide the funding to begin ADS-B GBT installations at the identified locations.

The preliminary service expansion and site coverage assessment will be completed in September 2022. Completion of the GBT installations will occur in calendar year 2023.

Recommendation 5.1: Safety Outreach Collaboration

Recommendation: Continue safety programs already underway and seek to maximize opportunities for program integration.

Who: The Regional Administrator (RA) will lead an internal process to increase safety collaboration across FAA LOBs. The expected outcome of this collaboration is enhanced external engagement. The RA will engage the RMT for the internal collaboration.

What: The RA will implement two changes within the Alaskan Region to increase safety outreach collaboration.

1. **Expanded Participation in Existing Programs:** The RA will encourage expanded FAA participation in existing Alaska focused safety programs. The FAA currently sponsors or participates in numerous programs such as Runway Safety Action Team (RSAT) meetings, the Aviation Safety Action Program (ASAP), the Bethel Work Group, Aeronautical Charting Meetings (ACM), and the AOPA sponsored Mountain Pass

Working Group. The RA will work with the RMT to ensure these existing programs are supported.

2. Increase External Stakeholder Collaboration: The RA will evaluate the opportunity to increase safety outreach collaboration by combining existing safety efforts currently in place by AVS, ATO, and ARP to make the programs more efficient and meaningful for stakeholders.

How: The RA will use a variety of options to implement these changes, including:

1. Expanded Participation in Existing Programs: The RA will advocate for increased LOB participation in all FAA safety meetings. The RA will attend RSATs, air tour operator safety meetings, and other meetings as appropriate. RMT members will communicate upcoming events at the regularly scheduled RMT meetings and will include the events on the Alaskan Region aviation events list.
2. Increase External Stakeholder Collaboration: Many of the safety programs in Alaska are a collaboration between the FAA and the stakeholders. The RA will encourage stakeholder participation in existing FAA safety programs by increasing communication of upcoming events at the FAA Alaska Industry Council and Alaska Aviation Coordination Council meetings. The Alaskan Region aviation event list is a publicly available document and is distributed via e-mail. The RA will make this document more accessible by posting it to the FAASI website.

The RA will use the Alaskan Region aviation event list to identify opportunities to combine existing safety efforts to make them more efficient and meaningful for stakeholders. One opportunity is to expand the RSAT to include information about the Alaska Chart Supplement update initiative.

Using the success of the Bethel Users meetings, the RA will continue to explore expanded collaboration opportunities. The Bethel Users meeting started out addressing near mid-air events in and around Bethel. The users requested the FAA continue the regular meetings with an expanded scope to include runway safety, local air traffic and traffic patterns, Class D airspace requirements, and accident analysis.

When: The RA will implement the two changes starting in calendar year 2022. The changes will continue beyond 2022.

1. Expanded Participation in Existing Programs: Beginning in March 2022, the RA will address the RMT on a monthly basis to identify upcoming events and encourage wider participation across the LOBs.
2. Increase External Stakeholder Collaboration: Beginning in April 2022, the RA will use the bimonthly FAA Alaska Industry Council meetings hosted by the FAA and the bimonthly Alaska Aviation Coordination Council meetings hosted by the stakeholders as an opportunity to communicate upcoming events. The RA will post the Alaskan Region

aviation event list to the FAASI website by April 2022 and will update the list on a monthly basis.

The RA will continually consider opportunities to combine safety efforts for efficiency and to make them more meaningful. An update on the opportunities identified in FY22 will be included in the year end FY22 Progress Report.

Appendix A: Recommendations

Recommendation 1: Weather Reporting Enhancements (AWOS/VWOS)

One of the primary focal points of FAASI is the requirement for additional and enhanced weather reporting capability via ground-based systems such as AWOS and VWOS.

Recommendation 1.1: Automated Weather Observing System (AWOS)

Continue FAA focus on new-installation AWOS units at airports for which the airport sponsor requests unit acquisition, installation, and FAA certification with funding under the Airport Improvement Program. Consistent with Section 147 of the FAA Reauthorization Act of 2018, complete each of the initial eight AWOS unit transfers at Alaskan airports (Kotlik, Tok Junction, Coldfoot, Nulato, Perryville, Crooked Creek, Tununak, and Akiachak) to the FAA by October 2022. Optimize the process to transfer AWOS units from airport sponsor ownership to the FAA, enabling seamless completion of the same in a more timely manner.

Stakeholder feedback also expressed concern about the FAA's timely acknowledgment and repair of existing FAA-owned AWOS/ASOS units which experience frequent service outages, including associated surface communication outages. FAA should conduct a study to examine the root cause of "Service A" outages and associated impacts and identify alternative mitigations which could include infrastructure improvement recommendations, alternate notification procedures, and/or the issuance of NOTAMs advising of outages. FAA should consider any necessary changes to FAA Joint Order 7900.5 Surface Weather Observing and FAA Order 7930.2 Notices to Air Missions (NOTAM).

Recommendation 1.2: Visual Weather Observation System (VWOS)

Continue testing and evaluating VWOS systems at four Alaskan airports (Palmer, Healy River, Tatitlek, and Eek) with the goal of completion by August 2022. FAA has developed standards for air carrier use during testing and validation of the VWOS units and will develop standards for non-sensor visual-based weather information to support gridded weather analysis information currently available from the National Weather Service.

Upon successful completion of the evaluation, the FAA seek funding for VWOS unit acquisition and installation at airports throughout the state of Alaska where AWOS and/or ASOS units do not exist. Aircraft operators intending to utilize VWOS technology to support IFR operations are required to submit a program for acceptance to their FAA Principal Operations Inspector to grant modification of FAA-issued Operations Specifications.

Recommendation 2: Navigation Strategy Development

Collaboration with Stakeholders prompted a significant amount of discussion related to development of an Alaska airspace navigation strategy, associated policy for lower-altitude operations, and plans for GPS resiliency. Specific points of reference centered on equipment

requirements when using GPS for navigation and optimizing/enabling lower-altitude direct flight paths.

Recommendation 2.1: Evaluate Operator Authorization Requirements

The FAA evaluate and clarify aircraft operator authorization and eligibility requirements for commercial aircraft operations under Instrument Flight Rules. Specifically, FAA should update the policy and guidance related to equipment requirements for commercial operators when using GPS for navigation.

Recommendation 2.2: Establish and Chart Communications Gaps on Published Routes

The FAA evaluate a potential policy change permitting communication gaps on routes where communication capability is the determining factor for the minimum enroute altitude. This would allow flexibility for aircraft operators with performance limitations or icing concerns while still maintaining acceptable terrain and obstacle clearance.

Recommendation 2.3: GPS Backup Resiliency

The FAA develop strategies to address GPS backup resiliency in Alaska. These strategies may include plans for retention and long-term support for conventional navigation aids.

Recommendation 2.4: T-Route Development

The FAA continue the development of T-routes as a replacement for Low Frequency/Medium Frequency (LF/MF) and other conventional airways by 2025.

Recommendation 3: Aeronautical Charting

The importance of accurate and relevant aeronautical charting, given the extent of topographical and geographical challenges in Alaska, was discussed intently during the FAASI process.

Recommendation 3.1: Mountain Pass Working Group Initiative

The FAA continue the Mountain Pass Working Group initiative and partnership with the Aircraft Owners and Pilots Association aimed at verifying existing mountain pass information and adding additional mountain passes to the Alaska VFR sectional charts as coordinated through the Service Center and as information becomes available.

Recommendation 3.2: Aeronautical Charting Meetings

Aeronautical Charting Meetings (ACM) are held bi-annually to identify issues concerning safety and usefulness of aeronautical charts and flight information products/services. To ensure adequate focus is placed on this initiative, FAA should ensure time is reserved at every future meeting to specifically address Alaska-specific charting needs that may be different than the continental United States.

Recommendation 4: Surveillance

Stakeholder discussions and FAASI internal conversations often revolved around the need for additional air traffic surveillance capability, particularly given the number of recent aircraft incidents, accidents, and near mid-air collisions in Alaska. ADS-B equipage and coverage was a frequent topic.

Recommendation 4.1: Education and Outreach of ADS-B Out Equipage

The FAA continue education and outreach with Stakeholders related to the requirement for equipage of ADS-B Out within certain airspace in Alaska, with a focus on the safety-enhancing benefits of aircraft position notification/display for users within all airspace. Indeed, a large number of Alaska operators have independently equipped with ADS-B Out and In or were participants in the FAA Capstone upgrade program which replaced first-generation equipment on approximately 400 aircraft with rule-compliant equipment. And, the extensive usage of it demonstrates the positive safety impact not only in airspace for which ADS-B is required, but also where the system is not required.

Recommendation 4.2: ADS-B Services

The FAA continue its efforts to deploy ADS-B services for the five non-implemented service volumes in a manner that will provide coverage along major air routes in Alaska.

Recommendation 5: Safety Outreach

The FAASI team and Stakeholders both repeatedly recognized the value of safety programs and, importantly, the opportunity to conduct them jointly while realizing the resultant synergistic value.

Recommendation 5.1: Safety Outreach Collaboration

The FAA continue the various safety programs already underway and seek to maximize adjacent opportunities for program integration. For example, FAA sponsors and/or participates in numerous programs such as Runway Safety Action Team meetings, the Aviation Safety Action Program, and Alaska-specific working groups including the Bethel Work Group and the AOPA-sponsored Mountain Pass Working Group. There are opportunities for FAA LOBs to conduct safety outreach efforts jointly among each other and via these program initiatives to address an entire realm of operational and environmental safety requirements and best practices. One such opportunity may exist at the Bethel Airport (BET). The FAA should explore combining efforts between AVS, ATO, and ARP utilizing the BET as a pilot program that addresses runway safety, local air traffic and traffic pattern safety, Class D airspace requirements, and accident/incident analysis and discussion utilizing a shared set of safety data. FAA-derived data and subject matter expert presentation material would become even more meaningful and would be more apt to be cohesively delivered in prospective multi-meeting settings.

Appendix B: Acronyms

ACM – Aeronautical Charting Meetings
ADOT&PF – Alaska Department of Transportation & Public Facilities
ADS-B – Automatic Dependent Surveillance Broadcast
AFS – Flight Standards
AIP – Airport Improvement Program
AOPA – Aircraft Owners and Pilots Association
ARP – FAA Airports Division
ARPA – American Rescue Plan Act
ASAP – Aviation Safety Action Program
ASOS – Automated Surface Observing Systems
ATO – FAA Air Traffic Organization
AVS – FAA Aviation Safety
AWOS – Automated Weather Observing System
BIL – Bipartisan Infrastructure Law
CARES – Coronavirus Aid, Relief, and Economic Security Act
CIP – Capital Improvement Program
FAA – Federal Aviation Administration
FAASI – FAA Alaska Aviation Safety Initiative
FAASTeam – FAA Safety Team
FISMA – Federal Information Security Management Act
FY – Fiscal Year
GBT – Ground-Based Transceivers
GPS – Global Positioning System
IFR – Instrument Flights Rules
JRC – FAA Joint Resources Council
LF/MF – Low Frequency/Medium Frequency Airways
LOB – Line Of Business
NAVAIDs – Navigation Aids
NDBs – Non-Directional Beacons
NOTAM – Notices to Air Missions
NTSB – National Transportation Safety Board
NWS – National Weather Service
PBN – Performance Based Navigations
RA – Alaskan Region Regional Administrator
RMT – Alaskan Regional Management Team
RSAT – Runway Safety Action Team
SME – Subject Matter Expert
SV – Service Volume
USGS – United States Geological Survey
VFR – Visual Flight Rules
VWOS – Visual Weather Observation System
WAAS – Wide Area Augmentation System
WMSCR – Weather Message Switching Center Replacement