



AASP

Alaska Aviation System Plan



Haines Airport



Phase III

Executive Summary



THE STATE
of **ALASKA**
GOVERNOR MIKE DUNLEAVY

Department of Transportation and Public Facilities

DIVISION OF STATEWIDE AVIATION

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From the desk of the Aviation Planning Chief:

I am pleased to present the Alaska Aviation System Plan (AASP) Executive Summary for Phase III (2020–2026). As a federally funded, continuous planning effort, the AASP evaluates current conditions and responds to emerging needs across Alaska’s aviation system. Phase III focused on modernizing how data is collected, managed, and used, while continuing to support the management of the largest airport system in North America. Key milestones include digitizing the ACIP, creating a comprehensive grant database (1982–present), and implementing a direct FAA data feed for NOTAMs and other datasets.

Another major focus of Phase III involved refining the Capital Improvement and Maintenance Program (CIMP). The program was streamlined to simplify the inspection process, reduce redundancies, and improve consistency in data collection, allowing inspectors to complete assessments more efficiently while producing higher-quality, more actionable information. In parallel, the AASP website evolved into a more robust and accessible platform, offering expanded tools and reporting capabilities that make system data available to both internal staff and external stakeholders. Phase III also produced a series of fact sheets and white papers to better inform decision-makers on key topics related to airport planning, design, weather, and system performance.

Special studies expanded the reach of the AASP beyond traditional planning, including a public-facing video series and an airport resiliency initiative in the Yukon-Kuskokwim Delta, where environmental conditions continue to challenge infrastructure and operations. Over the course of Phase III, substantial investment continued to support Alaska’s aviation system. These investments require thoughtful coordination to ensure that limited resources address the most critical needs across a large and complex system and the AASP plays a central role in guiding these decisions.

I encourage you to explore the AASP website (www.AlaskaASP.com) to access the full Phase III materials, including system data, planning tools, and supporting resources that reflect the ongoing work to strengthen Alaska’s aviation system.

Sincerely,

A handwritten signature in blue ink, appearing to read "Rebecca Douglas".

Rebecca Douglas
Aviation Planning Chief
Statewide Aviation
Alaska Department of Transportation and Public Facilities

“Keep Alaska Moving through service and infrastructure.”

Introduction

The Alaska Aviation System Plan (AASP) is a continuous planning study conducted by the Department of Transportation and Public Facility (DOT&PF) in accordance with guidance from the Federal Aviation Administration (FAA). The Alaska aviation system is the **largest single aviation system in North America**, comprising hundreds of airports spread over an area one-fifth the size of the continental United States. Fewer than 20% of Alaska communities are connected to the contiguous road system, making aviation a vital mode of transportation. Airports support the movement of people and goods, connect remote communities to services in urban centers, and support recreation and tourism. The AASP is a tool used to collect and make accessible systemwide data to support **effective airport and aviation system planning**.

The mission of the AASP is to plan and provide for the safe and efficient movement of people and goods and the delivery of services, through the development, maintenance, operation, and management of Alaska's airport system.

Phase III of the AASP focused on **modernizing planning tools** through database innovation, **improving data quality** by standardizing processes, strengthening decision-making processes by aligning data and workflows, and **addressing emerging challenges** such as climate-driven infrastructure risks, data reliability, and increasing pressure on limited funding. The result is a more resilient, transparent, and actionable system plan that positions Alaska for the next phase of investment and innovation.



In Alaska, airports that serve air carrier aircraft with more than 30 passenger seats must be certified under 14 CFR Part 139.

Phase I

2008–2013
Create



- ▶ Started the continuous system planning model
- ▶ Created the original version of the AASP website
- ▶ Established the first iteration of the Capital Improvement and Maintenance Program (CIMP) and laid the groundwork for the CIMP inspection process that began in Phase II
- ▶ Assessed the economic contribution of the aviation industry to Alaska’s economy
- ▶ Compared the construction and maintenance costs of an expanded road system versus a new airport in the Yukon-Kuskokwim Region
- ▶ Conducted additional studies to evaluate the system, focused on topics like Bypass Mail, Essential Air Service, and rural airport maintenance

Phase II

2013–2019
Refine



- ▶ Revised performance measures and created automated scorecards
- ▶ Improved the tracking and prioritization of airport needs through the creation of the digital CIMP airport inspection program
- ▶ Improved and digitized the capital improvement project evaluation and prioritization process (APEB)
- ▶ Created numerous reports and query tools on the internal AASP website to assess system functionality and trends
- ▶ Developed the Rural Aviation Strategic Plan
- ▶ Conducted analyses of the economic contributions of the Rural and International Airport Systems
- ▶ Developed the Seaplane Facilities Plan, which defines classifications and performance measures

Phase III

2020–2026
Modernize



- ▶ Revised AASP classifications and performance measures
- ▶ Improved the CIMP methodology to improve efficiency and accuracy
- ▶ Updated and expanded the centralized airport database and connected to external databases
- ▶ Defined the complete life cycle of a need and developed new need management and tracking processes
- ▶ Created and updated database tools and features on the internal and public website
- ▶ Developed newsletters, fact sheets, white papers, and videos to support outreach and education
- ▶ Conducted a resiliency study focused on western Alaska airports



Public Education & Outreach

The AASP website hosts a **library of content** developed during Phase III, including newsletters, fact sheets, videos, white papers, and more, all of which help tell the story of aviation in Alaska. These materials, combined with attendance at **in-person events**, **surveys**, and an interactive **online comment map** facilitated **two-way communication** between DOT&PF and system stakeholders.

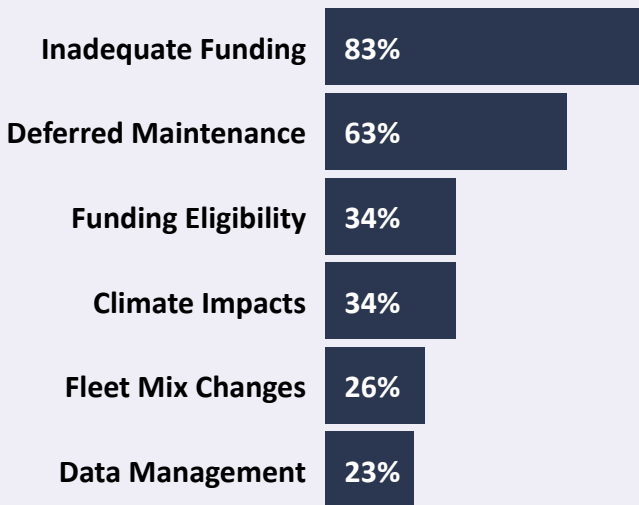
20 Newsletters

15 Fact Sheets

9 White Papers

5 Videos

Most Pressing Issues



The End of Phase III Survey asked respondents to identify the most pressing issues facing the Alaska aviation system. Sufficient funding was a top concern for most respondents.



Alaska's Aviation System: The Lifeline of the Last Frontier



Medevac Operations in Alaska



Alaska DOT&PF Rural Airport Contractors



Alaska DOT&PF Aircraft Rescue and Fire Fighting

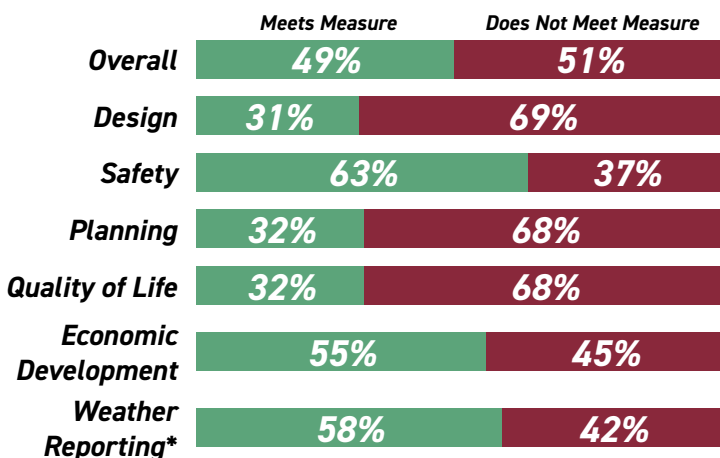


Managing Alaska's Part 139 Airports

Classifications & Performance Measures

Airport classifications and performance measures provide the framework for **understanding airport roles** and **evaluating system health**. Phase III refined these tools to better reflect Alaska's unique geography, reliance on aviation, and mix of on-road and off-road communities. Revised report cards are easier to interpret; use reliable, regularly updated data sources; and support consistent evaluation across the system, **strengthening their usefulness for planning, prioritization, and communication**. Phase IV will reevaluate the performance measures to ensure they accurately reflect performance, and take steps to address areas concern.

Systemwide Performance



*Subset of the Safety category

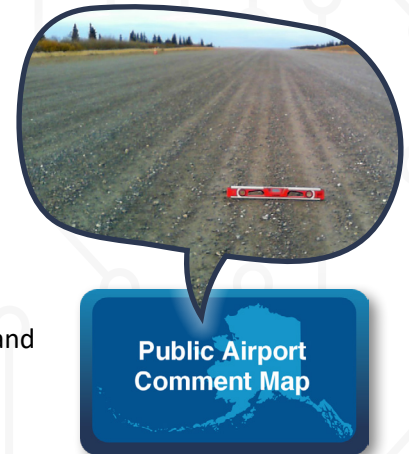
Category	Area of Concern	Phase IV Action
Design	Critical Design Aircraft (All Classifications)	Operational Drivers of Rural Runway Length
Planning	Current CIMP Inspection (All Classifications)	CIMP inspections
Quality of Life	All Measures (Community Off-Road)	Continued tracking of these measures to support community action

Database Innovation

The AASP database is the backbone of the statewide system planning process, allowing DOT&PF to carry out a **modern, dynamic system planning process**. Phase III significantly expanded and improved the database to support inventory management, needs tracking, project development, and public transparency. Enhancements focused on usability, accessibility, data integration, and reporting. New tools, reports, and connections to external databases allow planners to more **easily access current information**; **reduce duplication**, and **support consistent, FAA-compliant planning** across a large and geographically dispersed airport system. A complete rebrand of the AASP made the website more visually appealing and cohesive.

Public Updates

All seven publicly-available reports are new in Phase III, and more inventory items were added to the [Facilities tab](#) (Search AK Airports). A [Public Airport Comment Map](#), [air carrier information](#), and [frequently used links](#) were also added to the public interface to allow users to provide and access information about the system. The digital Airport Capital Improvement Program (ACIP) report and updated Airport Needs Directory were key accomplishments in Phase III that support transparency and allow stakeholders to understand and advocate for airport needs.



Internal Tools

Dozens of new internal features were developed to support planning and analysis of the system and help users navigate the database. Website tabs were created and reorganized to improve usability, reports were developed based on common needs and workflows, and seven connections to external databases were created or updated to ensure the most up-to-date information is available within the AASP interface. Each update required extensive preparation, review, and testing.

New Reports

- ▶ ACIP Project Details
- ▶ AIP Grants
- ▶ NOTAMs
- ▶ Statewide Scorecards
- ▶ Weather Reporting
- ▶ Airport Summary
- ▶ Pavement Condition Index
- ▶ Airport Buildings
- ▶ Airport Equipment
- ▶ Runway Lighting
- ▶ Runway Details
- ▶ Approach Attributes
- ▶ Airport Contacts
- ▶ Municipal/Tribal Contacts
- ▶ Staffed Airport Hours
- ▶ Air Carrier Information
- ▶ OE/AAA
- ▶ Work Code Reports

8
Public Tabs

7
Public Reports

11
Internal Tabs

7
Data Connections

New Reports

- ▶ CIMP Ratings
- ▶ CIMP Deficiencies
- ▶ CIMP Leasing Only

Updated Reports

- ▶ Airport Capital Improvement Plan
- ▶ Airport Needs Directory
- ▶ CIMP Inspections by Date Query
- ▶ Individual Airport Scorecards
- ▶ Query Tool
- ▶ Statistics Reporting



Now Publicly Available!



Voted Most Frequently Used!

Capital Improvement & Maintenance Program



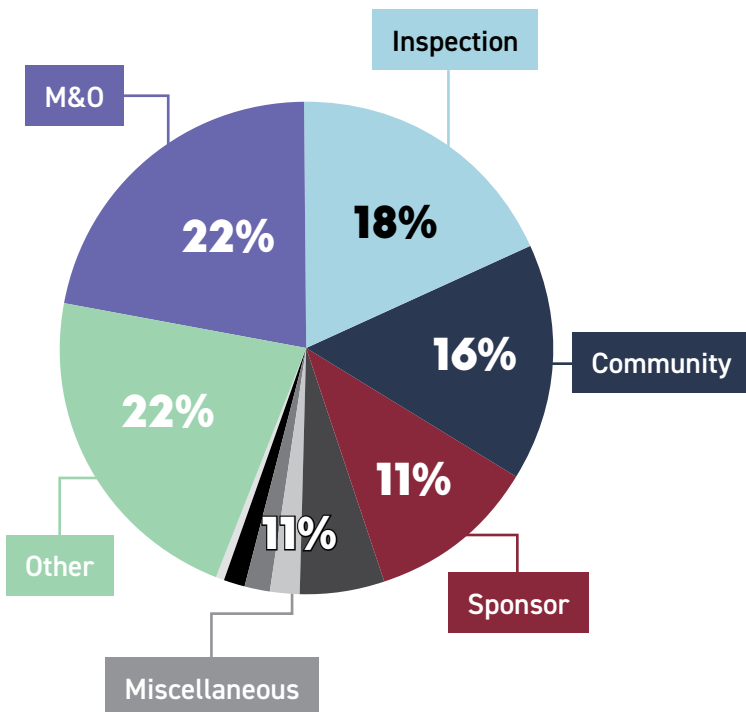
The CIMP is a **standardized process** for assessing airports and supplies information to the Airport Needs List. Phase III updates ensure CIMP inspections produce **consistent, actionable data** that directly supports planning and investment. The CIMP process was refined into four key stages that improve consistency and efficiency.



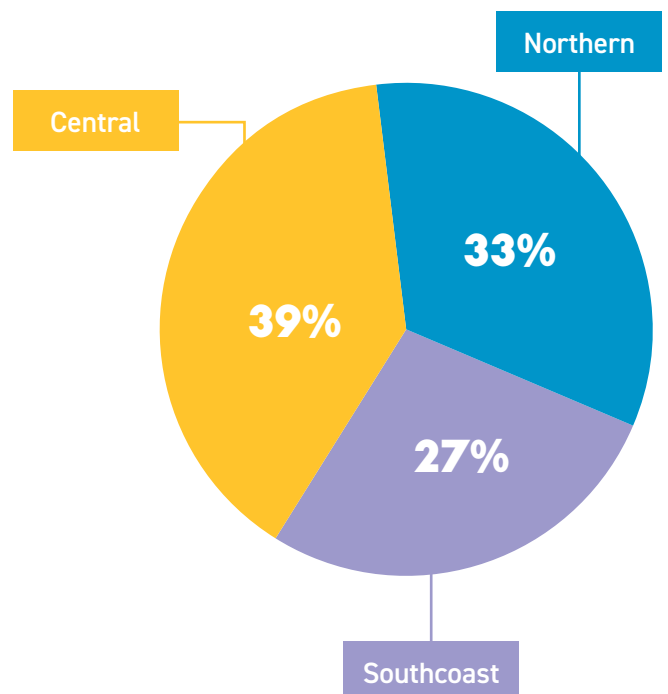
The new application is more user-friendly, the checklists contain 50% fewer questions, and the questions themselves were reworded to be more intuitive, reducing time spent in the field and improving the quality of information recorded through inspections. Inspectors take photos directly through the application, ensuring geotagged visual evidence is uploaded directly to the AASP database when inspections are completed. Updates to the application align with typical on-the-ground workflow to reduce time spent switching between checklists or having to return to the same areas of the airport. Additionally, the application is now available to other public airport sponsors to support effective, efficient inspections across the entire system, not just at DOT&PF airports.

Nearly 20% of needs in the Airport Needs List are identified during inspections, making the CIMP a key component of asset management.

Origination of Needs



Current Needs in Each Region

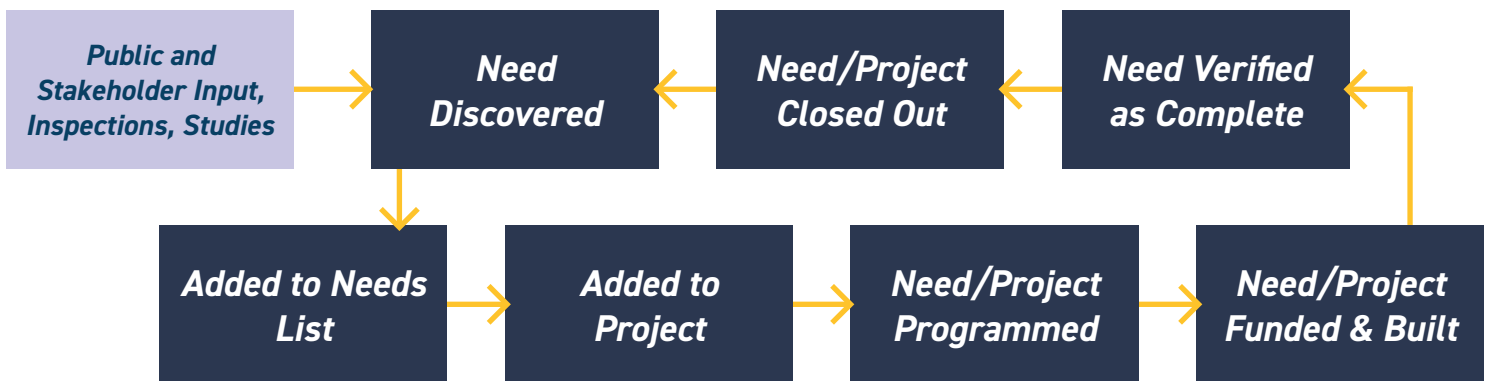


Inventory & Needs

The airport inventory and Needs List are foundational elements of system planning. Phase III strengthened these tools by improving data accuracy, standardizing processes, and expanding automated data connections to reduce manual updates and improve reliability.

A “need” is an improvement, repair, or replacement of critical elements at an airport, such as installing airfield lighting, resurfacing a runway, or replacing an aging grader.

Updates clarified how needs are identified, documented, prioritized, and tracked over time. The refined Needs List distinguishes between capital, maintenance, and community economic development needs and supports a full lifecycle approach from identification through project closeout, providing DOT&PF with a more transparent, consistent basis for decision-making.



The updated Airport Needs Directory is easier to read and more user-friendly. It also clearly shows Community and Economic Development Needs—those that are important to the community but ineligible for AIP funding—ensuring stakeholders can effectively use the contents to advocate for additional needs and apply for funding.

Community Economic Development Needs

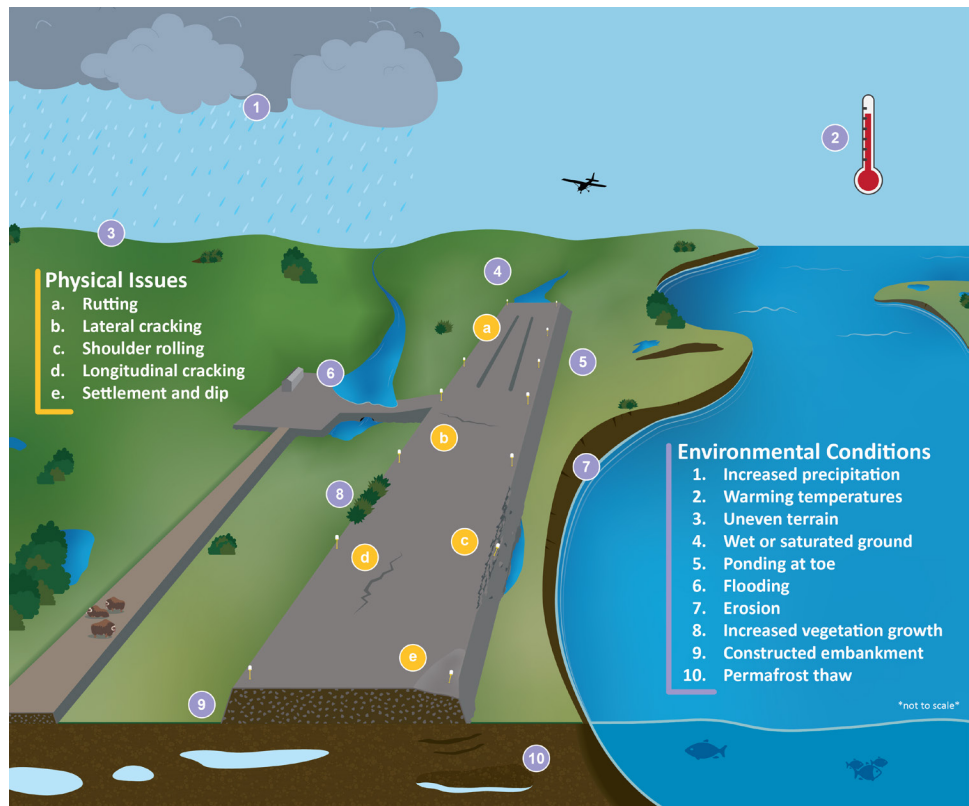
Community Economic Development Needs	Need Origination
Construct Passenger Shelter	Community
Construct Toilet Facilities	Community
Construct Tea-Cozies	Community

Additional Identified Needs**

Additional Identified Needs**	Funding	Estimated Cost	Priority	Need Origination
Airport Master Plan	AIP	\$113,800	Short	Inspection
Apply Dust Palliative	AIP	\$32,458	Short	Inspection
Minor Gravel Resurfacing	AIP	\$347,781	Short	Other
Rehabilitate Signs	AIP	\$58,799	Mid	Other
Rehabilitate Runway	AIP	\$4,710,396	Mid	Other
Rehabilitate Runway Lighting	AIP	\$226,800	Short	Inspection
Rehabilitate Taxiway	AIP	\$58,799	Mid	Other

Resiliency Study

Phase III included a focused study of airport resiliency in western Alaska, where climate-related impacts pose increasing risks to airport infrastructure and operations. The study evaluated **physical, environmental, and operational conditions** at multiple airports to identify common challenges and contributing factors, with consideration for location type (riverine, coastal, or inland). An assessment of performance measures and funding noted that, on average, riverine and coastal airports that met the Primary Runway Condition measure **received more AIP grant funding** and spent less on operational expenses than airports in those locations that did not meet the measure. Conversely, inland airports that met the measure had **significantly higher operational expenses** than inland airports that did not meet the measure.



Common physical issues and environmental conditions in Western Alaska.

Findings highlight the importance of **early intervention, realistic design and construction practices, and improved documentation** of lessons learned. Top recommendations from the study include:

1. Monitor and repair damage early.
2. Prevent embankment settlement.
3. Evaluate dust palliatives.
4. Update drainage structure standards and guidance.
5. Plan for field conditions.
6. Update runway expansion standards and guidance.
7. Improve project closeout procedures.

52% of US gravel runways are in Alaska...

...but there is no standard procedure for gravel runway surface inspections.

Alaska is warming at least two times faster than the rest of the US...

...which is associated with faster vegetation growth, more frequent and severe storms, and warmer ground temperatures.

75% of study airports are underlain by permafrost...

...and the permafrost is melting, causing structural and surface problems in runway embankments.

Phase IV Recommendations

Phase III implemented 19 of the 31 recommendations from Phase II; an additional 6 recommendations were addressed outside the project.



Data Gaps

Up-to-date, comprehensive data is necessary for holistic system planning. Phase IV will include studies, report development, and other efforts to fill in data gaps that were identified in the previous phases. Activities will include an analysis of gravel runways, development of new grant and project management tools, creation of standard methodologies for operational counts and activity forecasts, and more.



CIMP Application

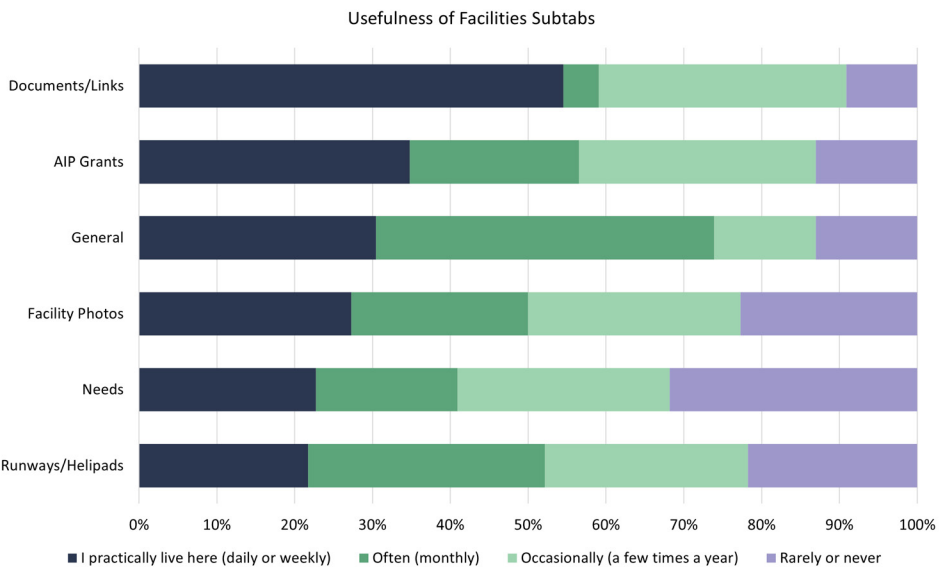
Phase III included major revisions to the CIMP application, including making it more intuitive and incorporating the updated inspection questions and checklists. Phase IV will focus on improving photo management within the application.



Database Innovation

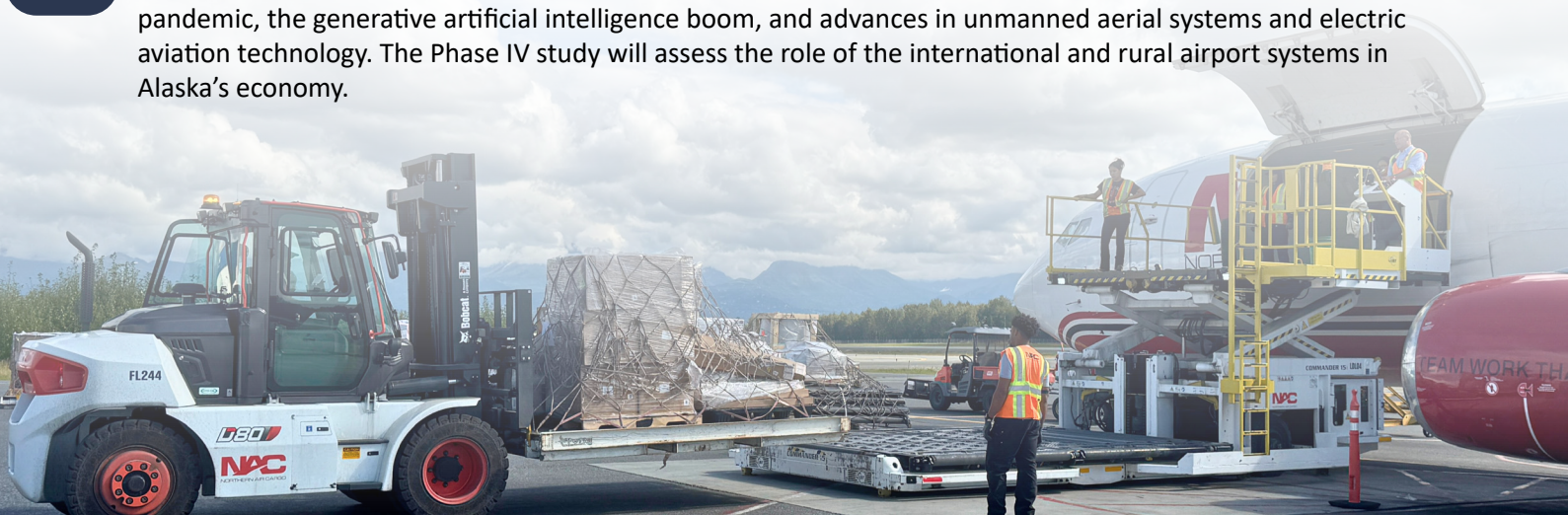
The data and reports available through the AASP website support system planning, transparency, and effective decision-making. The End of Phase III Survey showed that many users access the website on a daily basis.

Phase IV will continue to expand the database and improve user experience by adding search functions and GIS modules, offering database training, and updating existing features.



Economic Impact Study

The most recent analysis of aviation's impact on Alaska's economy was completed before the COVID-19 pandemic, the generative artificial intelligence boom, and advances in unmanned aerial systems and electric aviation technology. The Phase IV study will assess the role of the international and rural airport systems in Alaska's economy.





Operational Drivers of Rural Runway Length

Phase IV will explore what factors drive runway length requirements in rural Alaska, including fuel deliveries, cargo flights, medevac operations, and prolonged periods of darkness to identify which airports may need runway extensions to better serve their communities. Planning-level cost estimates for constructing and maintaining longer runways will help DOT&PF understand the full cost of adequately maintaining the system.



Close the Loop Assessment

Close the Loop was a key accomplishment of Phase III, including defining the lifecycle of a need and building a new project closeout procedure. Phase IV will assess how Close the Loop updates integrate with the system plan processes and database as a whole and identify areas for improvement.



System Gaps

Phase IV will address system planning gaps identified in Phase III, which will include creating a comprehensive process to track corrective action plans relating to Letters of Correction, Letters of Investigation, and the leasing program, and developing a systematic methodology to identify, mitigate, and remove obstructions in airport approaches. Phase IV will also continue to improve existing processes and leverage new data and technology to make the AASP more proactive and efficient.

Key Takeaways



The aviation system is a crucial part of the Alaskan way of life, and the AASP supports the activities that keep the system safe for all users—from the people who rely on medevac flights to the 1 in 70 Alaskans with pilot’s licenses to the air carriers who move 550 pounds of cargo per capita by air within the state.



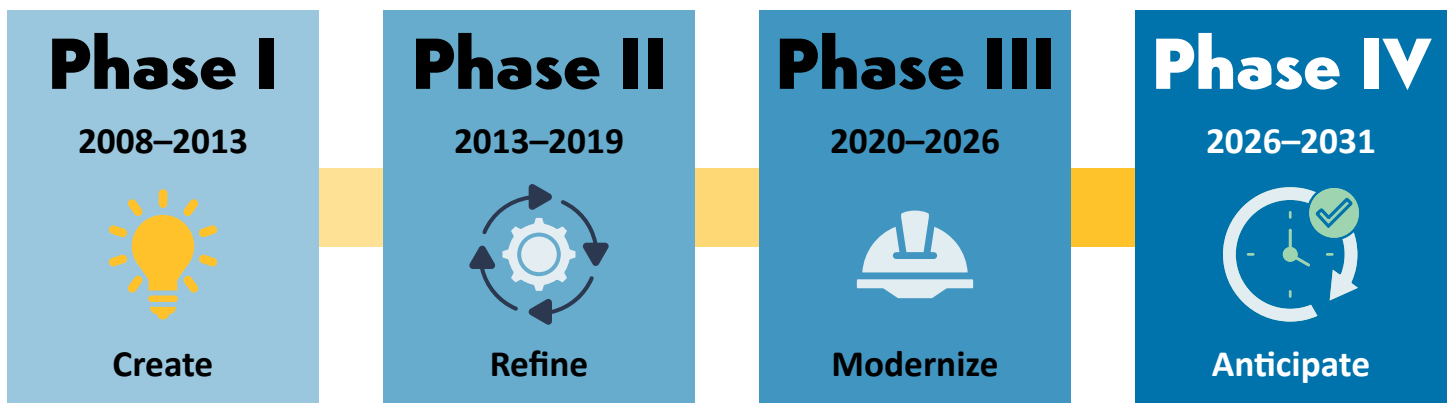
Major successes included defining the complete lifecycle of a need, expanding the database and reporting options, and making the CIMP inspection process more efficient and intuitive.



Feedback from aviation system users indicate that weather reporting, approaches, and airspace obstructions are hot topics that should be monitored during Phase IV.

Next Steps

Phase I created the basis of the continuous planning process, Phase II refined and digitized the plan, and Phase III implemented the suggestions of the previous phases to build tools and reports that support system planning. Phase IV will build on the previous phases to anticipate needs and changes that impact the system.





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