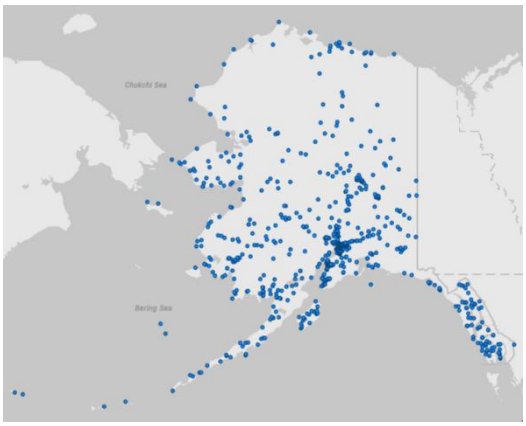
An Avgas Transition for the Last Frontier



Alaskan airports

In February, a group of general aviation industry stakeholders from the Eliminate Aviation Gasoline Lead Emissions (EAGLE) initiative—representing manufacturers, aeronautical service providers, air carriers, and aircraft owners and pilots—visited Alaska to better understand the importance of piston-engine aircraft to remote communities and the intricacies of an unleaded fuel transition in such a vast state.

The EAGLE initiative brings together government and industry partners committed to finding a safe and reliable transition to lead-free aviation fuels for piston-engine aircraft without compromising the safety or economic health of the general aviation industry.

Alaska burns the fourth largest quantity of 100LL by a single state with 8.5 million gallons consumed in 2024, while ranking first in 100LL usage per capita. The state has over 8,000 registered piston-engine aircraft with a wide array of engine types, including a significant commercial fleet that requires high octane avgas.

Piston-engine aircraft are an essential lifeline to Alaska's communities as they provide passenger travel, air freight and mail (which is essentially how most goods are transported), medical services and other important missions to many remote areas throughout the state. Alaskan villages of all sizes are served by small aircraft on highly variable schedules, ranging from as infrequently as once a week to multiple flights per day, seven days a week.

To facilitate a better understanding of these dynamics, the Alaska Air Carriers Association (AACA) arranged a tour of the avgas distribution infrastructure in Bethel, as well as the remote outpost of St. Mary's on the Yukon Delta. Representing EAGLE were Curt Castagna, Karen Huggard, and Juliet Jordan of NATA; Murray Hauling of AOPA; Walter Desrosier of GAMA; and Phil Derner of NBAA. Also joining the tour were Will Day of AACA and representatives from the University of Alaska and the office of Congressman Nick Begich (R-AK). Attendees learned first-hand the distinctive conditions fuel developers must consider as they make progress towards a high-octane unleaded solution. For example, piston-engine aircraft in Alaska provide essential services across vast spans of remote and unpopulated areas without infrastructure for alternate landings, ground services, or rescue—often under extreme weather conditions.

From left: Walt Tague with Crowley Fuels-Alaska, Will Day with AACA, Murray Huling with AOPA, Walter Desrosier with GAMA, Curt Castagna with NATA, Dr. Mike Jones with UAA, Leslie Hajdukovich with Congressman Nick Begich's office, Phil Derner with NBAA, and Karen Huggard with NATA

The remoteness of Alaska and its communities present unique infrastructure challenges that must be considered as part of a transition to unleaded fuel. A network of small airports across the state provides refueling services—most with extremely limited infrastructure and many with only a single tank for avgas. Delivering fuel is also a challenge. Most of the state's 100LL supply is delivered by barge from California, distributed by Crowley, the primary distributor and reseller in Alaska. In meetings with EAGLE representatives, Crowley officials stressed that any fuel they deliver or sell must meet an ASTM specification standard -- a critical factor for the entire aviation industry. (For more information on fuel specification standards see: *Mar 2025: Clearing the Air: How Unleaded Aviation Fuel Is Gaining Approval - Part 3: The Role of Industry Consensus Standards in the Approval and Use of Unleaded Aviation Fuel* at https://flyeagle.org/updates/)

A listening session in Anchorage later in the week brought EAGLE representatives together with over 25 Alaskan stakeholders including air carriers, aircraft owners and pilots, airports, fuel distributors, and local governments. Operators expressed the critical need for transparency in testing and understanding of a fuel's durability and reliability, particularly in real-world experiences involving high-volume commercial operations, in extreme climates, and with limited infrastructure. Stakeholders also expressed concerns about costly engine or fuel system modifications that could adversely affect the cost of essentials services and necessary goods for Alaskan communities.

The Alaskan transition from leaded to unleaded avgas must be seamless, as any disruption to the fuel supply would have catastrophic consequences. Additionally, Alaska's remoteness affects future business planning; investment decisions are made well in advance, often several years ahead, for planning in infrastructure, aircraft modifications, and fleet operations. While unleaded fuels are being developed, tested and certified for use, Alaskans are relying on efforts like the EAGLE initiative to ensure the continued operation and safety of aviation, so critical services are not forgotten.

The time spent touring Alaskan infrastructure and engaging with aviation industry stakeholders left EAGLE with a clear understanding that any potentially viable unleaded replacement fuel will only be practical for use in Alaska once it has undergone comprehensive safety and performance testing—especially in conditions unique to Alaska's fleet and operating environment. The national transition must also account for potential safety risks, increased costs, and operational disruptions that could affect essential services.

The recent engagement in Alaska was enlightening for the EAGLE initiative, highlighting that beyond identifying a viable replacement fuel, many additional factors—unique to the state's

operating environment—must be considered to ensure a safe, reliable, and economically viable transition an unleaded avgas.

EAGLE extends its sincere gratitude to the many partners who made our recent Alaska visit possible and productive. Special thanks to Dan Knesek of Grant Aviation for facilitating critical transportation for the EAGLE team, including flights to and from St. Mary's and ground logistics in Bethel. We are also grateful to Yute Commuter Service and Ryan Air for generously providing vehicles that enabled a thorough tour of St. Mary's. Finally, we appreciate Crowley Fuels for hosting an informative tour of their Bethel facility, offering valuable insight into the unique challenges and infrastructure considerations that will shape Alaska's transition from leaded to unleaded aviation fuel.

Eliminate Aviation Gasoline Lead Emissions (EAGLE) *is a comprehensive government-industry initiative involving the aviation and petroleum industries, U.S. government stakeholders, and a wide range of other constituents and interested parties. Together, they are working toward the transition to lead-free aviation fuels for piston-engine aircraft by the end of 2030, without compromising the safety or economic health of the general aviation industry. To learn more, visit: https://flyEAGLE.org.*