

Alaska Department of Transportation & Public Facilities Kivalina Airport Relocation Feasibility Study

Spring 2023



The Alaska Department of Transportation and Public Facilities (DOT&PF) and the Federal Aviation Administration (FAA) are conducting a feasibility study for the potential relocation of the existing airport at Kivalina, Alaska, to a safer and more protected location.

Project Background

Kivalina was identified by a Federal Government Accountability Office report as one of 31 environmentally threatened communities in Alaska.

An evacuation road from the Kivalina barrier island, across the Kivalina Lagoon, was recently constructed in 2020 and now provides a safe means for the community to escape to Kisimigiuktuk Hill (K-Hill) during storm surges. Additionally, the evacuation road connects the village with the new school at K-Hill, opened in Fall 2022. Kivalina is evaluating options to relocate or expand their community to a site off the barrier island, to higher ground near K-Hill.

To coordinate with the community's relocation planning efforts, the critical need exists to study the feasibility of maintaining the current airport on the barrier island or constructing a new airport site on the mainland.

What is a Relocation Feasibility Study?

An airport relocation feasibility study examines conditions of an airport, the needs of the community the airport serves, and the potential alternatives for the airport to continue to serve those needs. While not a construction project, it can help guide future project development.

The Kivalina Airport, located on a barrier island between the Chukchi Sea and Kivalina Lagoon, is experiencing severe storms coupled with longer periods of sea ice-free conditions. These can cause erosion with waves often throwing ocean debris onto the runway, impeding safe operations—particularly for medivacs during a storm—and continued erosion threatens long-term viability of the runway.

What is the process?

The first tasks are an airport inventory, needs assessment, and forecast. Additionally, a coastal threat analysis is being developed. Public engagement is taking place to develop multiple airport alternatives. A temporary wind tower is being installed near the new Kivalina school to measure wind data for approximately a year and a half (1.5 years) and allow local students to take part in the science project. In the final stages of the study, the alternatives will be evaluated for cost and feasibility.

What are the alternatives?

There are three main types of alternatives:

- → No Action
- → Reinforce the current airport at its current location
- → Move the airport to the mainland

This study will work with the community to evaluate these alternatives.

