



Testimony of Captain Gary Beck
Vice President, Flight Operations
Alaska Airlines

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Subcommittee on Aviation
Committee on Transportation and
Infrastructure
United States House of Representatives

NextGen: Area Navigation
(RNAV)/Required Navigation
Performance (RNP)

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Chairman Costello, Ranking Member Petri, and Members of the Subcommittee: My name is Gary Beck. I am the Vice President of Flight Operations for Alaska Airlines. I came to Alaska Airlines from Delta Airlines, where I served as senior vice president of flight operations, captain and chief pilot. I am pleased to testify today on behalf of the Air Transport Association and offer Alaska Airlines' unique experience with and perspective on Required Navigation Performance (RNP) technology. My testimony today will focus on three key points:

I. RNP is proven technology.

Alaska Airlines has a relatively long history with RNP technology, having pioneered its use during the mid-1990s to improve the safety and reliability of our flights operating in and out of Juneau, Alaska, an airport known for its bad weather and challenging, mountainous terrain. The first RNP-guided flight path was used by Alaska Airlines to land in Juneau, Alaska, in 1996. As many of you know, RNP enables aircraft to fly more direct routes with pinpoint accuracy and reduces diversions due to weather by using onboard navigation technology and the Global Positioning System satellite network. It improves safety and reliability in all weather conditions and reduces reliance on ground-based navigation aids. You could say that the rough terrain and equally rough weather in the state of Alaska gave the company the business case to invest early in innovative technology that could help us more reliably and safely serve communities throughout the state. In so doing, our corporate leaders then took a risk in being the first major U.S. air carrier to invest in RNP, an unproven technology at that time. We believe that risk was one worth taking: Today we are the only major domestic air carrier with a completely RNP-equipped fleet and fully trained crews. In addition to RNP, our all-Boeing 737 fleet is also 100 percent equipped with other modern safety technology, including the Heads-up Guidance System, which allows take-offs and landings at the lowest minimum weather conditions certified by the FAA, as well as the Runway Awareness and Advisory System (RAAS) – a key tool in alleviating runway incursions. Alaska is the first U.S. passenger carrier to install RAAS on all of its aircraft.

Since that first RNP flight into Juneau in the mid-1990s, Alaska Airlines has launched RNP procedures, in partnership and with the approval of the FAA, in Palm Springs, San Francisco, Portland, Oregon, and cities throughout the state of Alaska. Alaska Airlines was also the first carrier to use RNP precision technology to land aircraft at Reagan

National Airport right here in Washington, D.C., having worked with FAA after 9/11 on the development of the Reagan procedures. Recognizing the safety and environmental advantages of RNP approaches and landings, the FAA worked diligently to make the RNP procedures publicly available to all airlines that operate at Reagan National. In total, Alaska Airlines currently has RNP approaches available to us at 23 airports throughout our system, nine of which we developed, with the coordination and approval of the FAA. In another “first” on the RNP front, last December, the FAA approved Alaska Airlines to become the first U.S. commercial air carrier to conduct its own RNP flight validation, laying the groundwork for faster procedure approvals.

II. RNP saves time, fuel and emissions.

The numbers speak for themselves. For example, in 2008, Alaska Airlines used RNP procedures 12,308 times; 1,774 of those were “saves.” A “save” is defined as an operation that would not have been completed if RNP were not available; in other words, the flight would either have been canceled or diverted. In so doing, we saved 1.5 million gallons of fuel, which equates to a savings of approximately 17,000 metric tons of Co2 emissions. In addition, we realized a savings of \$17 million in operating costs.

III. RNP is a key tool in the “NextGen” modernization effort.

The original purpose of RNP was to provide guidance to runways with NavAids and to reduce minimums. However, RNP is now taking a new path. As part of the NextGen effort, the same technology can and should also be used to enhance capacity and create more efficient approach and departure paths. In order for the operational and environmental benefits of these more efficient paths to be realized, the FAA must implement new standards and procedures that enable the technology to be fully utilized. For example, the FAA must develop new, reduced separation standards that take advantage of RNP’s technological capabilities.

At Sea-Tac airport, in Seattle, Alaska Airlines is leading an effort, in partnership with the FAA, the Boeing Company, the Port of Seattle and Southwest Airlines, to use RNP in just this way – to create more efficient approach paths that will reduce flight path length and, in turn, reduce time in the air, fuel consumption, emissions and noise. This Sea-Tac project is leading edge on the RNP front, in that it involves the use of RNP in complex airspace, requiring air traffic to be sequenced and spaced at altitude, as

opposed to in the terminal airspace. We are currently working closely with the FAA to address all the challenges that come with implementing this sort of cutting-edge use of RNP. This project directly furthers the FAA's NextGen mission: The lessons learned from and benefits of the Sea-Tac project can be replicated at major airports across the country. The benefits are impressive: Carriers equipped to fly these procedures at Sea-Tac will save more than 2 million gallons of fuel per year, which equates to an annual savings of 22,400 metric tons of Co2 emissions. The airline industry and the FAA should be leveraging the use of existing technology as much as possible to create airspace efficiencies and reduce aviation's impact on the environment. That really is the mission of "NextGen." And RNP is a key tool in the execution of that mission. Alaska Airlines is proud to continue our history of technological innovation in our use of RNP at Sea-Tac. We look forward to replicating the benefits of this project for all equipped users at airports across the country.

That concludes my oral testimony. I am pleased to answer any questions from the Committee.