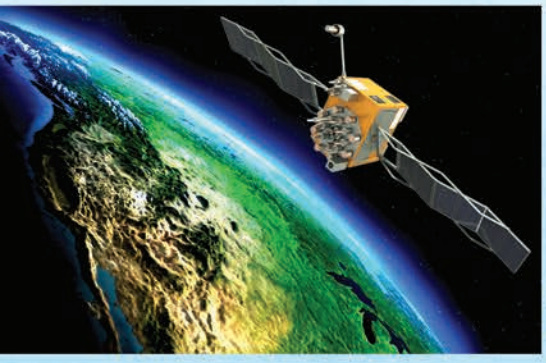
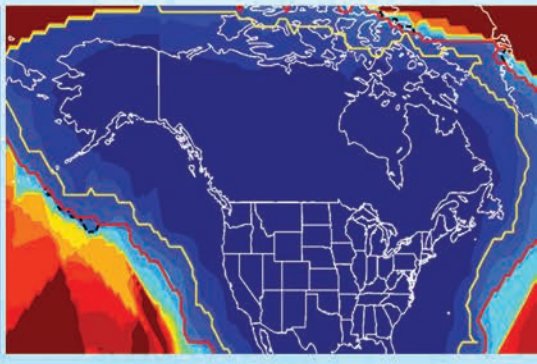
Federal Aviation Administration





the navigation system that dramatically increases the accuracy, integrity and availability of GPS

WAAS

Wide Area Augmentation System

WAAS provides required accuracy and integrity, enabling Performance-Based Navigation (PBN) allowing aircraft to navigate anywhere in the National Airspace System (NAS), in all phases of flight.

WAAS not only enhances the GPS signal in order to allow aircraft to fly within a precisely-contained flight path, WAAS also enables the essential NextGen capability referred to as Automatic Dependent Surveillance–Broadcast (ADS-B).

WAAS is critical to aviation safety and efficiency

WAAS commercial user says:

"Horizon Airlines considers being able to land, instead of diverting to an alternate airport, using WAAS LPV an operational "save." The passengers are where they want to be, and the airline avoids considerable expense.

In addition to helping to avoid diversions to alternate airports, the WAAS LPV capability allows dispatchers to reduce the extra amount of fuel being loaded aboard in case the aircraft has to divert. Some of the alternate airports with LPV are located closer to the destination airport than those with ILS. Horizon estimates it is saving $2 million a year using LPV minimums."

WAAS Benefits to Users

Saving Lives – WAAS increases the margin of safety for Angel Flight pilots to transport patients for critical medical procedures during low visibility, instrument meteorological conditions (IMC) weather. WAAS lightens their workload.

Economic Growth – Opens up new economic opportunities and improves access to otherwise isolated areas across America.

Fuel Savings – Northern Air Cargo saves about 200 pounds of fuel on each flight leg in rural Alaska.

WAAS

- Provides the only means for precision like approaches at certain airfields. In poor weather, aircraft can land at these airports rather than be diverted to an alternate airport some distance away.
- Reduces FAA operations costs by enabling the removal of ground-based navigation infrastructure and reduces the number of expensive ground-based NavAids that must be maintained.
- Provides service for en route navigation, airport departures, and airport arrivals.
- Combines ground based and space based assets that augment GPS providing both safety and capacity improvements in the NAS.
- Provides precise navigation and landing guidance to equipped aircraft in most weather conditions over the entire National Air Space (NAS) providing precision like approaches equivalent to CAT I ILS.

WAAS benefits offer cost savings for users and put smaller airports and communities they serve within reach by making it possible to land in low ceiling and visibility weather conditions.

https://gps.faa.gov

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