Rural and Regional Affairs and Transport

QUESTION ON NOTICE

Budget Estimates 2022 - 2023

Infrastructure, Transport, Regional Development, Communications and the Arts

Committee Question Number: 195

Departmental Question Number: SQ22-000775

Division/Agency Name: Agency - Airservices Australia

Hansard Reference: Spoken, Page No. 37 (25 November 2022)

Topic: AIRSERVICES - other technologies at regional airports

Senator Matthew Canavan asked:

Senator CANAVAN: Does that require upgrades to the equipment and the aircraft as well? To take advantage of the SBAS?
Mr Harfield: To utilise the space based augmentation system, there is a certain level of avionics that's required to access the signal. However, there are also other technologies that we are helping rollout around some of our regional ports that do allow for better arrivals in other weather, not just on SBAS.
Senator CANAVAN: Maybe you could take on notice the details of that. It is a very important issue. When this does close, particularly in remote areas, there's not a lot of alternative ways. There can be life or death situations. This is an incredibly important initiative.

Answer:

Aviation use of Space Based Augmentation System (SBAS) will require safety-of-life certified SouthPAN services that will be delivered by the Australian Government through Geoscience Australia. These services are planned for 2028.

Other technologies being implemented at regional aerodromes that can improve the ability for aircraft to arrive in unfavourable weather conditions by reducing the operating minima are:

- Required Navigation Performance - Authorisation Required (RNP-AR)
  RNP-AR allows aircraft to track with high accuracy and follow curved flight paths when close to landing. This is particularly important in congested airspace, around noise-sensitive areas and through geographically challenging terrain. The effectiveness of RNP-AR during periods of low cloud and bad weather results in fewer arrival and departure delays, and fewer diversions of arriving flights to other airports, with a low minima altitude similar to terrestrial based Instrument Landing Systems (ILS). Airservices has made RNP-AR available at 12 airports, and it is available at an additional 12 airports for Qantas proprietary procedures only.

- Approaches with vertical guidance (APV), using barometric vertical navigation systems (Baro-VNAV)
  Baro-VNAV APV provides vertically guided approach operations to runways without ground navigation facilities. Airservices has deployed Baro-VNAV APV approaches at 140 airports, with the system effective at Mount Isa from 25 March 2021.
  The implementation of Baro-VNAV APV has improved the operating minima at Mount Isa by several hundred feet (excluding Qantas proprietary RNP-AR approaches). The Baro-VNAV APV decision altitudes are 1,590 ft above mean sea level on approach to runway 34 (which is 469 ft above runway elevation), and 1,740 ft above mean sea level on the APV approach to runway 16 (which is 619 ft above runway elevation).
- Instrument Landing System (ILS)
  An Instrument Landing System (ILS) allows aircraft to land at an airport when there is poor or low visibility. An ILS is comprised of two transmitters—the localiser and glide slope. This ensures the aircraft is within the lateral and vertical parameters for the runway being used. ILS have been installed at regional airports including Essendon Fields, Gold Coast, Mildura and Tamworth airports.