



Pilbara region airspace 2024

Findings, actions and next steps

March 2025



Acknowledgement of Country

The Civil Aviation Safety Authority (CASA) respectfully acknowledges the Traditional Custodians of the lands on which our offices are located and their continuing connection to land, water, and community, and pays respect to elders past, present and emerging.

Artwork: James Baban.

Overview

Following detailed analysis of aviation data for the Pilbara region to determine the level of risk to aviation activity, CASA has not identified any aviation safety issues that required immediate action at this time.

This analysis was conducted using aircraft movements and aviation safety incident reports.

Based on extensive engagement with local operators, CASA has concluded that there are challenges related to pilots maintaining situational awareness and a consequential high cockpit workload.

As a result, CASA has identified several actions to enhance operations in this region – some have already been implemented and others are underway.

The conclusions and next steps are based on the current state. CASA notes that if the complexity of the airspace continues to increase with the introduction of new aerodromes, then constraints on the certification and use of those aerodromes may be required.

Background

CASA conducted data analysis and received feedback during the review of the Pilbara airspace [Pilbara basin 2021 preliminary airspace review](#) and [Airspace review - Pilbara Region, Western Australia](#) (October 2023), as well as ongoing engagement with industry as a member of the Pilbara Operators Safety Forum (POSF).

The purpose of reviewing the Pilbara airspace and subsequent industry consultation was to provide CASA with sufficient information and evidence to inform a decision on whether the airspace architecture, classification and services within the airspace are appropriate for the safety of all users of the airspace. The review considered safety incident reports provided by Airservices Australia, the Australian Transport Safety Bureau (ATSB) and passenger movement information provided by the Bureau of Infrastructure and Transport Research Economics (BITRE).

We appreciate the involvement of local operators and those who provided feedback during the airspace review process. All feedback can be found on our [Consultation Hub](#).

While there has been extensive feedback, CASA has not identified any risks to aviation safety that require intervention from a regulatory perspective or the need for airspace changes at this time. As a result, the October 2023 Pilbara Region Airspace Review will not be updated.

Safety improvements

The consultation process and subsequent industry engagement has provided an opportunity for local operators to highlight areas where safety could be enhanced. These include:

- a lack of VHF communication and surveillance coverage at lower levels that affect all airspace users
- the presence of hazardous or inclement weather in the region significantly increases crew workload
- the number of aerodromes and aircraft landing areas (ALAs) in close proximity contributes to traffic density and workload to manage self-separation
- multiple instrument approach and landing procedures overlap and create additional risk and complexity
- frequency congestion and the need to monitor multiple frequencies, including both HF and VHF in some cases simultaneously impacts situational awareness.

Actions taken

In response to issues raised, CASA has taken a number of actions as outlined below.

Established the Pilbara Operators Safety Forum (POSF)

CASA determined the current airspace and procedures in the Pilbara region were acceptably safe. However, the local operators agreed there was a need to engage with each other and explore common issues and opportunities that would enhance aviation safety in the region. CASA established the POSF which includes stakeholders from airlines, Airservices Australia, aerodromes, resource companies and service providers.

The POSF has set its own agenda and priorities that focus on initiatives that include sharing of schedules and safety information, pilot education/training, requests for new flight routes, training, local operating procedures, and options to promote better aerodrome planning.

Supported a new Terminal Area Chart (TAC)

There was no existing Terminal Area Chart covering the Pilbara region. Therefore, charts being used by pilots in the Pilbara region were not comprehensive and lacked information that was important to IFR aircraft.

CASA engaged Airservices Australia to develop a new chart that provides pilots with a common understanding of positions, routes and waypoints used by IFR aircraft across the Pilbara region. This enables improved situational awareness and self-separation.

Ensured CTAF frequencies for Fortescue Dave Forrest and Christmas Creek were published on the ERC-L8 chart

CASA became aware that information regarding the VHF frequency to be used in specific volumes of airspace was not reflected on the relevant navigation chart.

The addition of the frequency information has supported situational awareness in the region. The additional information is now published on the relevant charts.

Promoted submission of incident reports and information to CASA

CASA has promoted the submission of incident reports and information to CASA that may not otherwise be submitted to the ATSB.

This was influenced by CASA being made aware that safety data or information derived from the ATSB and Airservices Australia incident databases may not be comprehensive (it represented less than 10% of internal safety reports held by operators).

The provision of additional safety incident data and information from local operators enables a more accurate and valid analysis of risks in the airspace.

Next steps

Flight Information Services (FIS)

Over the next 3 months CASA will assess the adequacy of flight information services in the Pilbara region as it pertains to pilots establishing and maintaining situational awareness. This will include analysis of pilot cognitive workload specific to the following 6 aerodromes prioritised by industry:

- Christmas Creek
- Fortescue Dave Forrest
- Gudai-Darri
- Barimunya
- Coondewanna
- West Angelas.

ADS-B surveillance and VHF coverage

CASA will support Airservices Australia as it undertakes research and analysis related to surveillance and communication coverage in the Pilbara – expected to be completed by June 2025.

CASA will work with Airservices Australia on access to sites that can accommodate future infrastructure (such as ADS-B ground stations and VHF communication towers).

Industry-led Initiatives

CASA recognises there are situational awareness and cockpit workload aspects raised by industry that could potentially be mitigated through industry-led initiatives.

Through the POSF, industry has an opportunity to lead some of the initiatives to address situational awareness cockpit workload issues, which are outside of CASA's regulatory powers, but which CASA will support as needed. These include:

- the establishment of standard instrument arrival and departure procedures
- schedule coordination
- the coordination of routes to enable segregated flight paths around the region
- voluntary equipage of aircraft with ADS-B (IN) displays.

Land use planning considerations

CASA will engage with the Minerals Council of Australia and the Western Australian Government to advocate for better land use planning practices as they relate to closely spaced aerodromes in the Pilbara. This will include guidance on regulatory requirements relating to the approval of any new aerodromes or instrument approach procedures.

Further information

If you have any questions or concerns, please contact the Office of Airspace Regulation on 131 757 or [via our website](#).

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