Flight Information Service in the Pilbara Region

Industry consultation pack
V1. 22 June 2026

We acknowledge and embrace a culture that celebrates diversity, inclusion, and equality for all. In making this statement we acknowledge Aboriginal and Torres Strait Islander peoples as the Traditional Owners and Custodians of the country on which we operate, now called Australia.

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Introduction

Purpose

- Airservices is progressing a program to improve the adequacy and effectiveness of the Flight Information Service (FIS) in the Pilbara region in accordance with a CASA Direction.
- Airservices will continue to seek stakeholder feedback on the proposed Pilbara FIS rectification plan as it is developed and refined.

Background

- The Class G airspace (below 12,500ft – F125) in the Pilbara covers a number of uncontrolled aerodromes where safe operations depend on pilot procedures and self-separation/see-and-avoid, including Common Traffic Advisory Frequency (CTAF) broadcasts.
- Airservices FIS is an advisory service providing flight-related information to assist with the safe and efficient conduct of flights without providing separation services. FIS includes traffic information (directed traffic information on other IFR aircraft and known VFR aircraft), operational information (weather updates, aerodrome status and airspace hazards) and flight following (position and traffic information service for VFR aircraft, on request and subject to controller workload).
- In the Pilbara, the FIS is supported by available VHF, and outside VHF coverage, HF services.
- In April 2026, CASA released a final 2025 Review of Flight Information Services in the Pilbara Region. The report included findings regarding the limitations with the provision of FIS to aircraft operating outside controlled airspace in the Pilbara region, specifically pilot workload and communication issues during critical phases of flight and challenges in obtaining information important to the safety of operations. The CASA findings have informed Airservices' planning to enhance FIS outcomes to date.
- Subsequently on 18 May 2026, CASA issued a Direction requiring Airservices to prepare a Rectification Plan to address identified FIS deficiencies in the Pilbara region. The deficiencies were defined in terms of three performance criteria - **integrity, timeliness and accessibility.**
- The key requirements of the Direction include:
  - (1) provide CASA with a **Planning Phase Pilbara FIS Identified Deficiencies Rectification Plan** within 4 weeks of the Direction
  - (2) consult all users of Pilbara airspace within 8 weeks of the Direction on:
    - how best to rectify the Pilbara FIS identified deficiencies;
    - how to measure progress in rectifying the identified deficiencies, including metrics and data sources
  - (3) provide CASA with a **Draft Pilbara FIS Identified Deficiencies Rectification Plan** within 3 months of the Direction, including a summary of consultation conducted and feedback received; and
  - (4) provide CASA with a **Final Pilbara FIS Identified Deficiencies Rectification Plan** within 5 months of the Direction, including a description of the consultation conducted, a summary of the feedback received, and an explanation as to how it was used to inform the Rectification Plan.

FIS deficiencies

Survey responses from airspace users (commenced 10 June 2026) have identified the following key themes of FIS limitations, consistent with CASA reviews and industry inputs from forums such as the Pilbara Operators Safety Forum in recent years.

Operating Environment	FIS limitations	Operational impact	Safety risk
Traffic density has outgrown current FIS and supporting communications and surveillance infrastructure	• The primary FIS limitation relates to unavailable or unreliable VHF coverage at lower levels (e.g. below ~4,000FT to the ground). Additional congestion occurs during taxi and holding, particularly where communication is limited or absent on VHF. The limitation is encountered across multiple locations and frequently (daily) • Concerns concentrated during critical phases of flight (take-off / departure; descent / approach, low-level operations) • Loss of two-way communications with FIS at low levels reported • Limited VHF coverage further adds reliance on HF which is often congested or delayed • Despite HF being the current standard ATS communications method outside of VHF coverage, it is considered unsuitable as a primary means of communication due to traffic density and complexity in the Pilbara, especially during peak periods • Accessibility is the primary constraint linked to VHF coverage limitations, leading to integrity and timeliness performance issues	Reduced situational awareness *(at low levels and near aerodromes)*	Traffic conflictions / TCAS-RA events
Environmental factors add to complexity and variability, e.g.: • Closely spaced aerodromes – some with conflicting runway alignments, making it challenging for pilots to build a mental model of the traffic situation • Nearby mining operations (e.g. explosives, airwork activity) • Short runways / high payload operations • Terrain challenges • Weather disruptions (e.g. cyclone seasons) • Changing traffic patterns / mix (domestic and regional jets, turboprops, helicopters, general aviation) • Aerodrome infrastructure constraints		Increased pilot cognitive workload *(during critical phases of flight)*	Tactical recovery actions executed during critical phases of flight, such as revised altitude and heading divergence
Schedule / demand factors • Short flight times between airports • Simultaneous operations at nearly airports • Mining sector's rostering constraints		Greater reliance on aircraft/pilot controls: e.g.: • CTAF procedures • Visual scan • Aircraft-to-aircraft coordination • Self-separation • TCAS / ADS-B IN *In Class G airspace, pilots must manage self-separation, while monitoring CTAF and area frequencies (VHF and HF) simultaneously - most challenging during critical phases when traffic complexity and workload are highest*	
		Operational predictability and efficiency challenges *(e.g. non-optimal flight profiles, level-offs, holding at low levels, diversions)*	

Industry suggestions

- Stakeholder suggested priority improvements include expanded VHF coverage to ground level (top priority), reduced HF reliance (or removal), reduced frequency congestion (including avoiding duplicated information and improving accuracy of traffic information) and improved timely coordination between FIS operators – i.e. ATC (VHF) and HF operators.
- Key locations of concern include Boolgeeda and six aerodromes (3 pairs of closely spaced aerodromes) in the Iron Triangle (i.e. West Angelas | Coondewana; Barimunya | Koodaideri / Gudai-Derri; Christmas Creek | Fortescue Dave Forrest).
- Based on survey results, preferences for priority FIS improvement locations vary across industry stakeholders, correlated with their operational areas. This highlights an inherent focus on locations where individual operators have the highest level of activity and operational risk exposure.

Program overview

Airservices has established a Pilbara FIS Rectification Program, with the following two streams for concurrent delivery.

Initial risk mitigation

(1) Introduce additional HF operator capacity through reconfiguration of HF positions to address congestion and additional resourcing during peak periods.

(2) Interim improvement to address congestion and timeliness issues.

(3) Target delivery in Financial Year 2026-2027, subject to vendor engagement and system modification timelines.

Longer-term service capability uplift

(1) Provide longer-term FIS capability uplift, focusing on enhanced communications coverage at lower levels (and to the ground at some aerodromes) for the critical taxi/take-off and approach phases of flight.

(2) Support long-term improvements to accessibility and integrity of FIS.

(3) Detailed planning and design underway. Target delivery will depend on the details of site locations, coverage optimisation, installation details (e.g. integration with aerodrome infrastructure and network systems) and FIS configuration.

The area of focus is aligned to the locations examined by CASA in their 2025 review of the FIS (illustrated on the right).

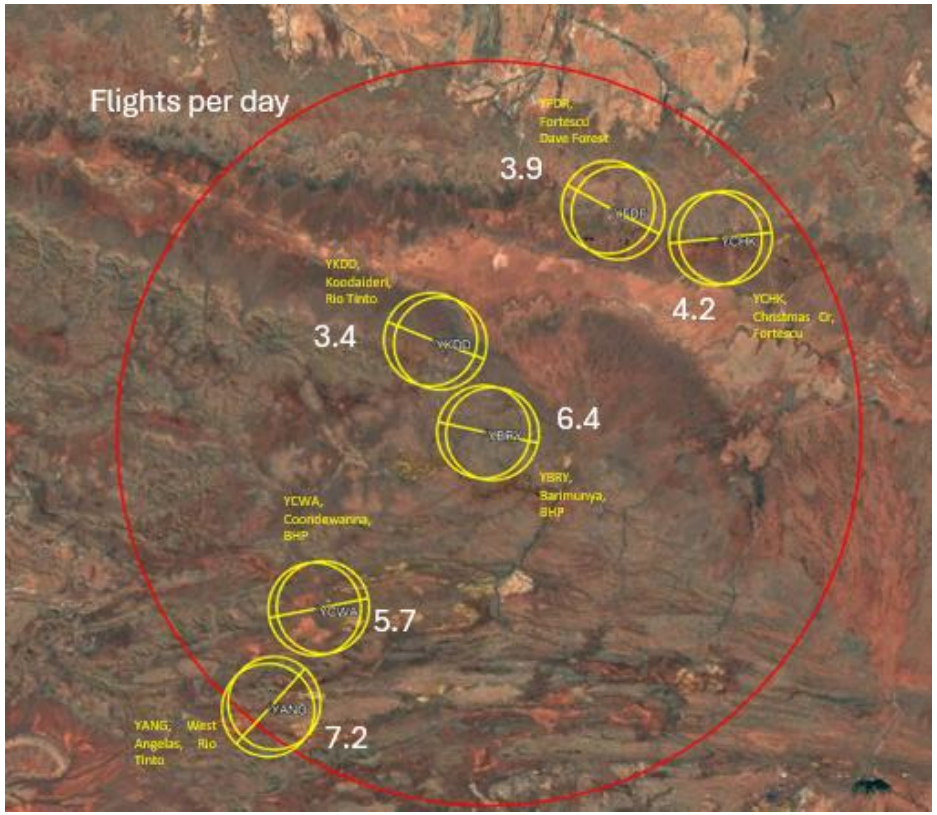

Figure 1 - Northwest Western Australia
(Red: 40 NM radius circle, Yellow: 5 NM from runway end)

Initial risk mitigation approach: Reduce HF Frequency Congestion

- **What HF provides:** Long-range voice communications for aircraft operating outside VHF coverage (remote, oceanic and regional airspace).
- **How it operates:** Network of remote transmit/receive sites with centralised control and radio operators in Airservices Brisbane Air Traffic Services Centre.
- **Coverage and reliability:** National and international coverage with multi-site redundancy and independent infrastructure (not reliant on local towers).
- **Operational challenge:** Lack of VHF coverage on-ground / at low altitude means reliance on HF communications, and increasing traffic volume/complexity creates congestion and delays at HF consoles.
- **Proposed changes:**
  - Enables two HF Aviation Communications Specialists on one airspace (Southern RDARA) – one will be dedicated to Pilbara traffic.
  - Splits workload by frequency and antenna mode.
  - Allows simultaneous communications with multiple aircraft, especially during peak periods.
- **Service outcomes**
  - Reduced communication delays during peak traffic.
  - Easing congestion and improving responsiveness outside VHF coverage.
- **Constraints:**
  - Some transmit flexibility reduced in split mode.
  - HF still subject to propagation variability (atmospheric conditions).

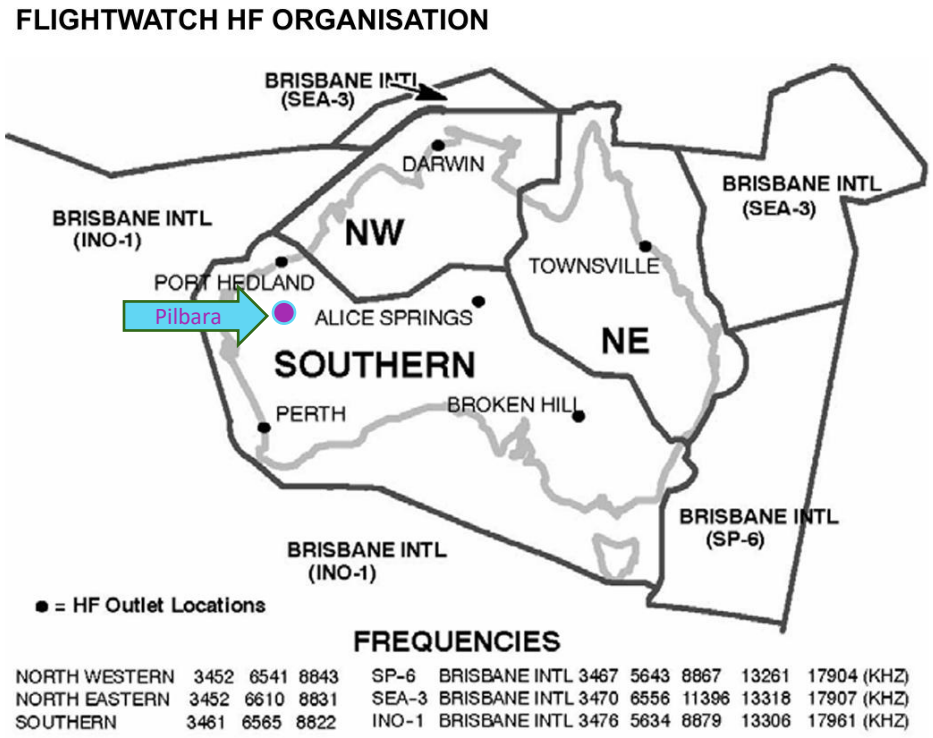

Figure 2 – Flightwatch HF

Longer-term service enhancement approach

Based on feedback from airspace users and Airservices FIS personnel to date, Airservices proposes to improve the integrity, timeliness and accessibility of FIS at lower levels (below the current coverage ~4,000 to the ground) to better support pilots' cognitive workload, communications and obtaining relevant flight information during critical phases of flight. This service outcome will likely be delivered through new VHF installation(s) based at aerodromes identified as having the greatest overall benefit to both terminal area and/or enroute (line of sight) coverage in the region. This is consistent with the priority improvement area highlighted in survey responses to date.

The communication coverage area and priority will be jointly determined in consultation with industry stakeholders, following a set of steps. An example of the approach is illustrated below.

Step 1 – Filter by airspace safety risk	Target locations with highest safety risk profile based on (a) safety occurrences (b) ongoing industry safety assessment (e.g. Line Operations Safety Assessment 'LOSA', Airservices risk modelling) and (c) feedback from pilots and FIS operators through workshops and survey. Traffic/aerodrome environment related threats are input considerations (e.g. proximity of aerodromes, opposing runway directions, intersecting traffic flows). Currently identified sites for consideration include **Barimunya, West Angelas and Fortescue Dave Forrest.**
Step 2 – Prioritise 2.a traffic density/complexity 2.b equity in user coverage	For closely coupled aerodrome pairs in the Iron Triangle, prioritise the locations with the highest traffic density and complexity (i.e. targeting one site within each pair to maximise benefits across both aerodromes). Traffic volume, mix and peak periods are input factors. Currently identified sites for consideration include **West Angelas** (West Angelas | Coondewanna pair), **Barimunya** (Koodaideri | Barimunya pair) and **Christmas Creek** (Fortescue Dave Forrest | Christmas Creek pair). Validate the site selections to ensure improvements deliver broad, region-wide benefit across all flight segments- i.e. enroute / climb / descent / arriving / departing and on-ground: • Investment is based on locations that deliver greatest overall benefit – not specific aircraft or aerodrome operators, or individual mining operations. • Focus on sites that support FIS access and safety improvement for the wider aviation community.
Step 3 – Refine 3.a frequency management and network design 3.b ALARP principle	Ensure siting and solution design improves the overall usability of the communication capability at the network level, not just local coverage: • Optimise pilot frequency management (e.g. minimise switching between frequencies across aerodromes in proximity during critical phases of flight, avoid congestion on ATC area frequency for self-separation in Class G airspace). • Support effective integration with airspace sectorisation and boundaries with FIS service delivery. • Built-in future proofing (incl. projected traffic trends, new aerodrome development, interaction with Perth Airport traffic management). Apply the ALARP principle to balance benefits of enhanced risk mitigations with cost, timeline and implementation feasibility: • Leverage existing or accessible supporting infrastructure (power, communications, land access, facilities) where feasible to reduce cost and delivery timeframe. • Ensure solutions are achievable within the Long-Term Pricing Agreement (LTPA) envelope.

Measures of progress

Airservices is seeking industry feedback on how to measure progress in rectifying the Pilbara FIS identified deficiencies. An initial set of measures are provided below for industry feedback.

Key FIS performance criteria	Deficiency	Root cause	Measures (with data based on operational surveys to understand airspace users' experience and service sampling)
Accessibility: the ease with which pilots can reliably establish communication and obtain the required information when needed	Difficulty establishing VHF/HF contact	Line-of-sight limitations of VHF in Pilbara terrain and HF performance constraints, particularly at low altitudes and on-ground	• Reduction in failed or delayed transmissions
Timeliness: the delivery of information promptly enough to be operationally useful	Delays in operational information	VHF and HF frequency congestion; limitations of VHF coverage and typical HF limitations (both technology characteristics and the time to relay comms via HF operators to/from ATC)	• Average time to establish communication • Workload indicators – pilots, HF operators, ATC
Integrity: the accuracy, completeness and reliability of information provided	Duplication or incomplete information exchange	Coverage constraints; Pilbara traffic environment and resulting pilot-to-FIS communication demand outpaced existing FIS configuration	• Coverage reliability • Reduction in loss of two-way communications during critical phases of flight • Reduction in duplicated information • Reduction in incomplete information

Inviting stakeholder feedback

Airservices is seeking stakeholder feedback on:

- initial risk mitigation to enhance HF delivery
- proposed long-term service enhancement approach
- proposed measures to track the progress of FIS rectification
- any additional suggestions or insights from industry stakeholders to enhance FIS outcomes.

Please submit feedback to

Stakeholder Engagement

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