Thirty-Third Meeting of the
Informal South Pacific ATS Coordinating Group
FANS Interoperability Team
(ISPACG FIT/33)

Brisbane, Australia
5-7 May 2026

Agenda Item 3: CRA Problem Report Briefings

Future Air Navigation System (FANS) Problem Report (PR) Briefing

Presented by: Central Reporting Agency (CRA)

SUMMARY

This paper describes recent investigation and disposition of submitted FANS PRs that are relevant to the ISPACG FIT.

1 INTRODUCTION

1.1 FANS stakeholders may submit PRs for investigation via the http://www.fans-cra.com/ website.

a) Airways New Zealand graciously hosts and maintains this website.

b) Stakeholders from multiple areas use this website, including the South Pacific area (ISPACG FIT), the North and Central Pacific area (IPACG FIT), the Asia area (FIT-Asia), and the North Atlantic area (NAT TIG).

1.2 Between preparation of the previous FANS PR briefing for the FIT/32 meeting held in April 2025 and preparation of this FANS PR briefing in April 2026, FANS stakeholders submitted 91 PRs via the website, of which 18 PRs (20%) occurred in the South Pacific area. For comparison, the previous FANS PR briefing indicated that FANS stakeholders submitted 92 PRs, of which 11 PRs (12%) occurred in the South Pacific area.

1.3 Figure 1 illustrates the number of PRs that FANS stakeholders submitted per calendar year starting in 2006. The dotted line and associated number in the figure represent a linear projection of the number of PRs that are estimated to be submitted in 2026.

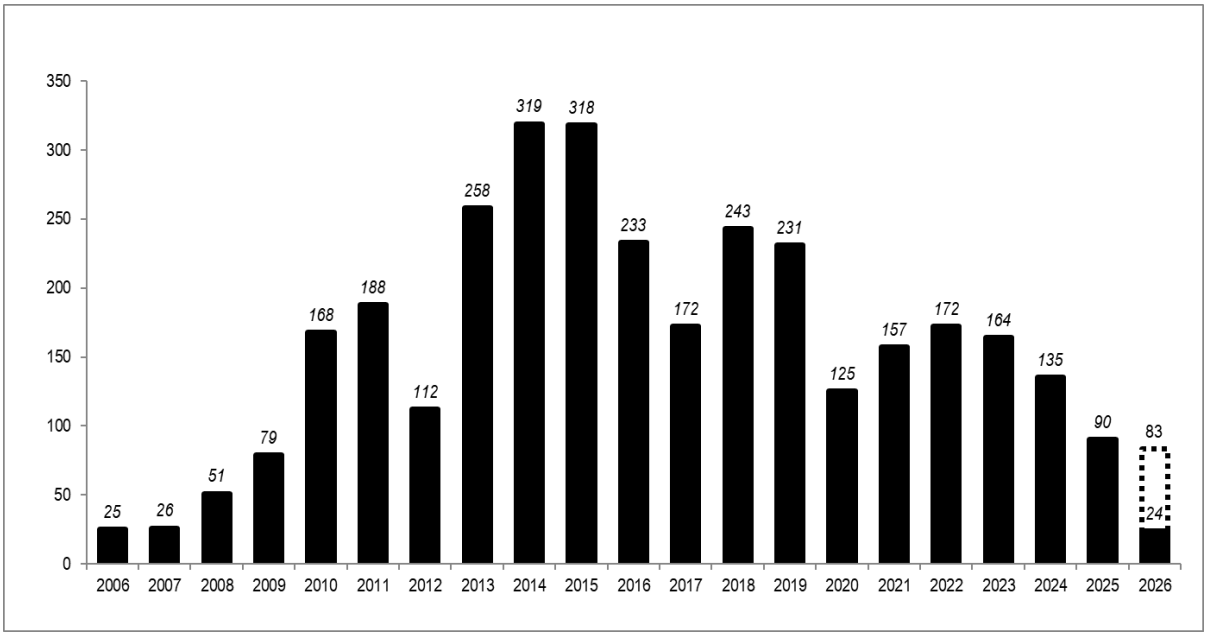

Figure 1 FANS PRs Per Year

1.4 PR status definitions include the following:

- **Raised:** The PR originator submitted the PR but the CRA has not yet processed it.
- **Active:** The CRA processed the PR and assigned it for investigation.
- **Open:** The CRA completed the PR investigation but some form of corrective action is required before the CRA can close it.
- **Open – Fix Available:** The appropriate stakeholder implemented corrective action and a fix is available for installation.
- **Closed:** The appropriate stakeholder implemented corrective action.
- **Closed As Duplicate:** The CRA is already tracking the same problem with another PR.
- **Closed – Monitoring:** The CRA cannot determine the corrective action and will monitor future PRs for any recurrences of the problem.

1.5 PR type definitions include the following:

- **TBA**: To be assigned
- **Air – Procedural**: Flight crew issue
- **Air – Technical**: Avionics issue
- **Ground – Procedural**: Air traffic controller issue
- **Ground – Technical**: ATS unit system issue
- **Network**: Communication service provider or SATCOM service provider issue

- **Multiple**: Multiple types of issues
- **None**: Report is a non-problem

2 DISCUSSION

2.1 The CRA notes the following updates to old PRs which are relevant to the ISPACG FIT:

a) 777 AIMS BPV18 software is currently expected to become available in May 2026. This software will resolve PRs 2292-SN (inability to initiate logon), 2821-SH (no timestamp in CPDLC downlink message with dM63 NOT CURRENT DATA AUTHORITY), and 3090-SH (inability to initiate logon) and also implement the ACARS RAT1 function (to improve PBCS time performance in VHF-to-SATCOM transition areas).

b) 747 NG FMC BP4.1 software is currently expected to become available in Q3 2026. This software will resolve PRs 2892-KS (inability to initiate logon) and 3251-GM (incorrect rounding of certain Mach speeds on ATC LOG page and printouts).

c) 787 CMF BPv7 software is currently expected to become available in Q4 2026. This software will resolve PRs 2685-MM (inability to send downlink messages), 3119-MM (truncated CPDLC position reports when wind direction is between 0.0° and 0.9°), 3264-MM (incorrect rejection of CPDLC connection requests), 3344-MM (incorrect rejection of CPDLC connection requests), and 3534-MM (incorrect wind direction in ADS-C reports when wind direction is between 126° and 234°) and also implement the ACARS RAT1 function (to improve PBCS time performance in VHF-to-SATCOM transition areas).

d) 3759-CJ, Closed / Air – Technical. Airservices Australia reported an Airbus A333 that rejected multiple CPDLC uplinks due to its latency monitor function and sent downlink responses with timestamps earlier than the associated uplink. Per Airbus' feedback, the issue is a result of a known problem in ATSU standard CLR4.6. As the issue has been corrected in CLR7, the CRA closed the PR.

e) 3760-RP, Closed – Monitoring / Air – Technical. The FAA reported that it received five ADS-C reports which contained inaccurate ETAs for the next waypoint from a Boeing 767. Boeing found that the first four ADS-C reports contained accurate ETAs for the next waypoint, then the next five ADS-C reports contained the reported inaccurate ETAs for the next waypoint, and then the next ADS-C report contained an accurate ETA for the next waypoint. Boeing was unable to determine the reason for the inaccurate ETAs but will monitor future PRs for any recurrences of this event.

f) 3772-MM, Open / Air – Technical. Airways New Zealand reported that it received a CPDLC clearance request from a Boeing 787 when it was not yet the

CDA. Boeing and Honeywell determined that the problem occurred when [1] the NDA attempted to terminate its connection by sending an unusual CPDLC DR1 uM159 ERROR commandedTermination uplink message, [2] the CDA designated a new (different) NDA, and [3] the new NDA established an ADS-C connection. In this case, the avionics incorrectly sent CPDLC downlink messages which contained the address of the NDA and the "ADS" and "DIS" IMIs for ADS-C. Boeing and Honeywell will fix this avionics problem in 787 CMF BPv7 software (by having it more robustly handle an unusual CPDLC DR1 uplink message from an NDA), which is currently planned to become available in Q4 2026. The CRA also reminds ATS providers that there is no defined method for an NDA to terminate its CPDLC connection and that a CDA should only terminate its CPDLC connection by sending a CPDLC AT1 uM161 END SERVICE uplink message (potentially with other uplink message elements), not by sending a CPDLC DR1 uplink message (whether with or without any uplink message elements).

2.2 The CRA received the following significant new PRs which occurred in the South Pacific area:

a) 3791-MM, Active / TBA. NiuSky Pacific reported that it received an ADS-C report which contained incorrect coordinates for the next and next+1 waypoints from an Airbus A350. The CRA assigned Airbus to investigate this PR.

b) 3792-CJ, Closed – Monitoring / TBA. Airways New Zealand reported a PBCS performance drop in an operator's Airbus A20N and A21N fleets after an ATSU software update. The CRA assigned this PR to Airbus for investigation, but they were unable to obtain relevant data from the operator for analysis. Per Airbus' recommendation, the CRA agreed to close the PR and monitor for further underperformance.

c) 3796-MM, Active / TBA. Airways New Zealand reported that a Gulfstream G700 alternated between using Inmarsat Classic Aero SATCOM and Iridium Short Burst Data SATCOM during the same flight and did not meet the RSP 180 delivery time requirement at the 95% level. The CRA assigned Gulfstream to investigate this PR.

d) 3803-CJ, Closed / Multiple. An Air Tahiti Nui Boeing 787 flight crew reported SATVOICE LOST and DATALINK LOST flight deck indications 40 minutes prior to entering the Tahiti FIR, as well as poor HF voice communications. Log analysis by the CRA indicated a temporary loss of SATCOM for a period of ~7 minutes or less which did not cause any negative downstream effects to CPDLC or ADS-C. The operator indicated that the HF issues were caused by an antenna scheduled for replacement. The CRA subsequently closed the PR.

e) 3815-MM, Active / TBA. Airservices Australia reported that it received ADS-C reports which contained erroneous coordinates for the next+1 waypoint from a Bombardier Global 7500. The CRA assigned Bombardier to investigate this PR.

f) 3818-RA, Closed as Duplicate / Air – Technical. Airways New Zealand reported PBCS underperformance for a Boeing 777 related to dual SATCOM usage. Analysis by the CRA revealed simultaneous dual SATCOM usage caused the downlink delays and underperformance. This issue and its mitigation are captured in master PR 3486-RA. The CRA subsequently closed this PR as a duplicate of PR 3486-RA, which remains open to track this issue.

g) 3819-MM, Active / Network. The FAA reported that Oakland Oceanic, Anchorage Oceanic, and New York Oceanic received delayed downlink messages from multiple aircraft through ARINC for approximately 30 minutes on 17 July 2025. ARINC confirmed that downlink messages were in fact delayed between it and those facilities. ARINC is continuing to investigate this problem in order to determine and resolve its root cause.

h) 3822-CJ, Active / TBA. Airservices Australia reported receiving an unexpected downlink error message from a Bombardier Global 7500 in response to a latency monitor uplink. Log analysis by the CRA confirmed that the latency monitor uplink resulted in an unexpected error downlink from the avionics, but that prior and subsequent uplinks were responded to by the flight crew without issue. As such, the CRA assigned Bombardier to investigate this PR.

i) 3829-NW, Closed as Duplicate / Multiple. Airways New Zealand reported that a Boeing 787 sent CPDLC and ADS-C downlink messages which contained incorrect timestamps. Boeing determined that previous GPS interference caused the incorrect timestamps. Boeing and its avionics suppliers are actively working to improve the robustness of their GPS avionics to better respond to and recover from GPS interference. The CRA closed this PR as a duplicate of PR 3752-MM, which remains open to track the issue of 787 GPS avionics robustness.

j) 3835-MM, Closed / Multiple. Airservices Australia reported that it experienced a loss of CPDLC and ADS-C with three aircraft in an area to the east of Lord Howe Island.

   i. For the first aircraft, the CSP message log indicated that the aircraft's ACARS connection was unstable due to [1] a temporarily intermittent SATCOM link (the reasons for which the CRA could not determine) and [2] the aircraft operating on the fringe of VHF datalink coverage from the OOL (Gold Coast, Australia) ground station. This caused the airplane to retransmit an ADS-C periodic report to YBBB two additional times (after having initially transmitted it with no appreciable delay), although the aircraft was able to transmit the next ADS-C periodic report to YBBB with no delay or additional retransmissions. No CPDLC or ADS-C uplink

messages from YBBB to the aircraft are present in the log during the period in question.

ii. For the second aircraft, the CSP message log did not indicate any notable problems. Although delivery of uM147 REQUEST POSITION REPORT, uM160 NEXT DATA AUTHORITY NZZO, and AFN contact advisory for NZZO uplink messages by SITA were each delayed by about 40 seconds while SITA first attempted to deliver the messages via VHF before reverting to delivering them via SATCOM, the resulting downlink messages and other downlink messages – including a dM48 POSITION REPORT downlink message to YBBB – experienced no appreciable delays.

iii. For the third aircraft, the CRA was unable to obtain the CSP message log for analysis because it has no contact information for the aircraft operator (apparently the German government).

k) 3840-CJ, Closed – Monitoring / TBA. Airservices Australia reported a simultaneous loss of datalink connectivity with multiple aircraft utilizing Iridium SATCOM. From ACARS log analysis, the CRA confirmed that uplinks attempted over Iridium during a specific period of time all failed to be delivered to each of the reported aircraft, with the CSP returning Error 311 “No Ack” messages to the sender. The CRA contacted the CSP, but there was no known outage that would explain this temporary loss of SATCOM. As such, the CRA closed the PR but will monitor for further occurrences from which data can be obtained that may explain the loss of connectivity.

l) 3853-MM, Closed / Air – Technical. Airservices Australia reported that after having previously instructed the flight crew of an Airbus A320 to set the value of the CPDLC uplink message latency monitor to 300 seconds and successfully exchanging other CPDLC messages with the aircraft, it received an error indication that the value was exceeded for an uplink message but only 51 seconds after it sent the message. Airbus indicated that this problem occurred due to the avionics incorrectly calculating the uplink message latency when the message timestamp is just before midnight (in this case 23:59:48) and the avionics receive the message just after midnight (in this case 00:00:16). Airbus further indicated that ATSU avionics standard CSB10 resolves this issue.

m) 3872-MM, Open / Air – Technical. The FAA reported that it received multiple ADS-C reports which contained inaccurate information for the reported, next, and next+1 waypoints from a United States Air Force Reserve Boeing C-17. Boeing C-17 avionics engineering indicated that the problem was caused by the avionics mission computer initializing GPS with an incorrect date, which placed GPS in the wrong epoch and led to incorrect or unreliable time/date and navigation behavior. This issue will be fixed in Block 29 software that is expected to be released in mid-2028.

n) 3877-MM, Active / TBA. Airservices Australia reported that it received a MAS failure in response to a CPDLC climb clearance that it sent to a Boeing 787 and that when it resent the clearance it received a MAS success but did not receive an operational response from the flight crew. CSP message log analysis by the CRA corroborates the PR description but does not indicate why delivery of the first climb clearance failed (other than the CSP believed that the airplane was not reachable via SATCOM) or why the flight crew did not respond to the second climb clearance (which the avionics acknowledged receiving). Boeing has requested the aircraft operator to provide avionics logs in order to further investigate this PR.

2.3 The CRA received the following significant new PRs which occurred outside the South Pacific area, but which are relevant to the ISPACG FIT:

a) 3786-MM, Open / Multiple and 3860-RP, Active / TBA. Aircraft operators and ATS providers in the North Atlantic area have reported multiple problems that were caused by ARINC evidently persisting too long in attempting but failing to deliver uplink messages to aircraft via VHF before successfully delivering the messages via SATCOM. The CRA has assigned ARINC to investigate these PRs.

2.4 The CRA received the following less-significant new PRs which occurred in the South Pacific area:

a) 3790-MM, Closed / TBA. The FAA reported that it received a WILCO to a route clearance from the flight crew of a United States Marine Corps Lockheed C-130 but that a subsequent CPDLC position report indicated that a waypoint in the route clearance was skipped. The CRA was unable to investigate this PR because it does not have any contact information for the aircraft operator or avionics manufacturer.

b) 3804-RP, Closed / TBA. An Air Tahiti Nui Boeing 787 flight crew reported SATVOICE LOST and DATALINK LOST flight deck indications. Boeing was unable to determine the reason for the apparent SATCOM avionics or network failure and notes that it received no network outage notifications that would explain the failure.

c) 3841-RA, Closed as Duplicate / Air – Technical. Airways New Zealand reported excessive downlink delays during SATCOM ground station transitions from an operator's Boeing 777 fleet. The CRA determined that this issue is related to PR 3661-RA, for which a recommendation was made to the operator to update their SATCOM Owner Requirements Table (ORT) files. The CRA will continue to monitor PR 3661-RA for performance improvements and subsequently closed this PR as a duplicate.

d) 3863-MM, Active / TBA. An Air New Zealand Boeing 787 flight crew reported that a CPDLC transfer of authority from Ujung Pandang to Brisbane failed.

Analysis of the CSP message log by the CRA indicates that Ujung Pandang did not designate Brisbane as the NDA and did not perform AFN address forwarding to Brisbane. The CRA assigned AirNav Indonesia to investigate this PR.

e) 3875-MM, Closed / None. A Boeing 787 aircraft operator reported the following: “Several of the position reports by CPDLC, ADS-C were not given automatically by the aircraft. The flight crew noticed that some of the lat/lon's were ABORTED position reports, and we redid them manually along the route.” Boeing does not completely understand the problem report description, but it notes the following: By design the avionics automatically provide ADS-C position and other reports as requested by ATC; by design the avionics never automatically provide CPDLC position reports to ATC (the flight crew must always manually send CPDLC position reports); the CSP message log shows that the flight crew sent two CPDLC position reports to Tahiti; and the most likely explanation for the aborted CPDLC position reports is that they were somehow pending when CPDLC transfers of authority occurred (such as the one from Oakland Oceanic to Tahiti). The CRA has closed this problem report, but if the aircraft operator provides more clarifying details (such as the precise indications that the flight crew saw and the times when they saw those indications) then it will investigate the report further.

3 ACTION BY THE MEETING

3.1 The CRA invites the ISPACG FIT to:

a) note the content of this paper; and

b) promote expeditious resolution of Active and Open PRs.

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