



**THE FORTY-EIGHTH MEETING OF THE
INFORMAL PACIFIC ATC CO-ORDINATING GROUP (IPACG/48)**

**THE THIRTY-FIFTH MEETING OF THE
IPACG FANS INTEROPERABILITY TEAM (IPACG FIT/35)**

(Des Moines, WA, 26-27 September 2023)

Agenda Item 2: PROBLEM REPORT ACTIVITY (Central Reporting Agency)

**Federal Aviation Administration (FAA) Central Reporting Agency (CRA)
Problem Report (PR) Briefing**

(Presented by the FAA CRA)

SUMMARY

This working paper describes the investigation and disposition of Future Air Navigation System (FANS) PRs that are of interest to the IPACG FIT.

1. Introduction

- 1.1. FANS stakeholders may submit PRs via the <http://www.fans-cra.com/> website.
 - 1.1.1. Airways Corporation of New Zealand (ACNZ) graciously hosts and maintains the website.
 - 1.1.2. The website is used for multiple regions, namely the North and Central Pacific region (IPACG FIT); the South Pacific region (ISPACG FIT); the Asia region (FIT-Asia); and the North Atlantic region (NAT TIG).
- 1.2. Between preparation of the IPACG FIT/34 PR briefing in January 2022 and preparation of this PR briefing in September 2023, the FAA CRA investigated 283 PRs. Of those 283 PRs, 74 PRs (26%) occurred in the North and Central Pacific region. For context, the PR briefing for IPACG FIT/34 described 43 PRs (24%) that occurred in the North and Central Pacific region.
- 1.3. Figure 1 illustrates the number of PRs submitted per calendar year starting in 2006.

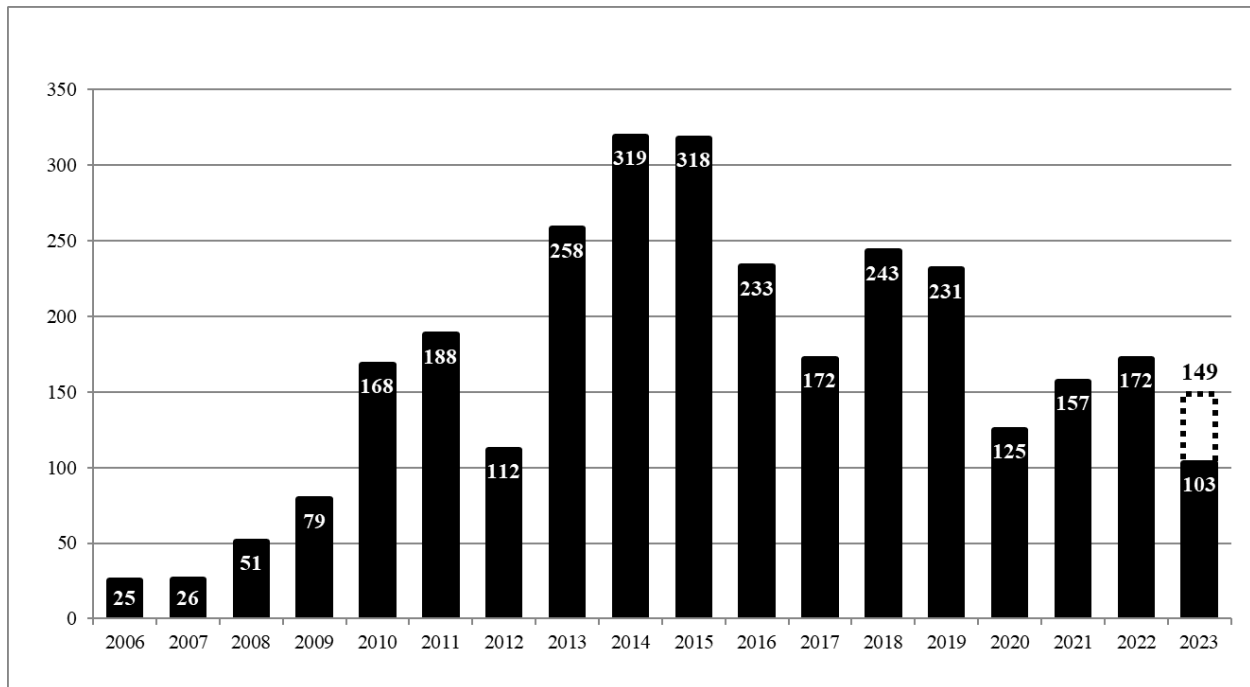


Figure 1 PRs Per Year

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 As Duplicate:** The CRA closed the PR because it is already tracking the same problem with another PR.
- **Closed:** The appropriate stakeholder implemented corrective action.
- **Closed – Monitoring:** The CRA closed the PR because it cannot determine the corrective action. The CRA 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:** 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 FAA CRA updated the status or progress of the following old PRs that are likely of interest to the FIT.

2.1.1. 1198-MM, Closed / Air – Technical. This is the master PR for the known “Ack-and-toss” issue on the Rockwell Collins CMU-900 with Core -012 software. The CRA recommends operators to update their CMU software to the Boeing certified Core -016 which fixes this issue. The CRA closed the following PRs as duplicates of this PR.

- a. 3285-RP, Closed as Duplicate / Air – Technical. Japan Air Navigation Service reported that the avionics on a Boeing 767 acknowledged receiving two CPDLC uplink messages but did not display them to the flight crew. Boeing determined that this problem occurred due to a Communications Management Unit (CMU) avionics fault that caused the CMU to acknowledge receiving the messages but fail to deliver them to the CPDLC application in the Flight Management Computer (FMC). Boeing notified the aircraft operator that Collins corrected this fault in CMU-900 Core -014 software and recommended that the operator consider installing that or later software. The CRA subsequently closed this PR as a duplicate of 1198-MM.
- b. 3447-CW, Closed as Duplicate / Air – Technical. Japan Air Navigation Service reported a Boeing 767-300 failing to establish ADS-C periodic reports and CPDLC despite successful message assurances. The issues identified during this flight are consistent with a known "Ack-and-Toss" scenario on Collins -900 CMU with -012 core software. The operator has confirmed this core software is loaded on this aircraft, and the CRA subsequently closed this PR as a duplicate.
- c. 3461-NI, Closed as Duplicate / Air – Technical. Japan Air Navigation Service reported an issue on a Boeing 767-300 where CPDLC requests were aborted and connection did not resume. The issues identified during this flight are consistent with a known "Ack-and-Toss" scenario on Collins -900 CMU with -012 core software. The operator has confirmed this core software is loaded on this aircraft, and the CRA subsequently closed this PR as a duplicate.

2.1.2. 1215-SN, Closed / Air – Technical. This is the master PR for a known Boeing 777 AIMS-2 issue in which the avionics transmit multiple duplicate AFN and CPDLC

downlinks. This issue is corrected in the BPv17B software update. The CRA closed the following PRs as duplicates of this PR.

- a. 3427-RA, Closed as Duplicate / Air – Technical. The FAA reported that a Boeing 777-300ER aircraft generated multiple duplicate AFN and CPDLC messages over a period of 9 hours. This is a known problem with 777 avionics, but is fixed in AIMS-2 BPv17B software. The CRA closed this PR as a duplicate of PR 1215-SN.
 - b. 3428-RA, Closed as Duplicate / Air – Technical. Japan Air Navigation Services reported that a Boeing 777-300ER sent repeated AFN Contact downlinks, despite receiving an AFN Acknowledgement from the ground facility. Investigation revealed this problem to be a duplicate of FANS PR 1215-SN, in which 777 avionics may generate many duplicate CPDLC and AFN downlink messages. The CRA subsequently closed this PR.
- 2.1.3. 2241-RP, Open / Air – Technical. This is the master PR for known Boeing 747-8 SATCOM avionics problems. Boeing and Collins are working to resolve these problems, request that aircraft operators which experience these problems report them to Boeing service engineering and Collins customer support with SATCOM avionics logs, and especially appreciate the patience and support of Nippon Cargo Airlines and UPS. The CRA closed the following PRs as duplicates of this PR.
- a. 3318-SH, Closed as Duplicate / Air – Technical. A Nippon Cargo Airlines Boeing 747-8 flight crew reported a SATCOM System Status Message and a loss of CPDLC functionality. A reset of the SATCOM system was initially unsuccessful, but datalink availability did eventually return. The CRA was unable to obtain data for this event, but determined that the cause was likely due to known 747-8 SATCOM avionics problems.
 - b. 3375-CJ, Closed as Duplicate / Air – Technical. A Nippon Cargo Airlines Boeing 747-8 flight crew reported “SATCOM” and “DATALINK LOST” EICAS alerts, along with a loss of CPDLC functionality. Functionality was restored after they cycled power to the SATCOM and ACARS avionics. Boeing determined that the loss of datalink communications was caused by known 747-8 SATCOM avionics problems.
 - c. 3406-CJ, Closed as Duplicate / Air – Technical. A Nippon Cargo Airlines Boeing 747-8 flight crew reported a “DATALINK LOST” EICAS alert. The CRA determined that the aircraft had briefly lost its SATCOM connection on the edge of VHF coverage and closed the PR as a duplicate of 2241-RP for known 747-8 SATCOM avionics problems.
 - d. 3422-CJ, Closed as Duplicate / Air – Technical. Japan Air Navigation Service reported a sudden loss of CPDLC functionality and a “DATALINK LOST” EICAS alert on a Boeing 747-8. The CRA determined that the aircraft had unexpectedly lost its SATCOM connection for an extended period (without additional media available)

and closed the PR as a duplicate of 2241-RP for known 747-8 SATCOM avionics problems.

- e. 3437-NW, Closed as Duplicate / Air – Technical. Japan Air Navigation Service reported a Boeing 747-8 where the aircraft was unable to logon to CPDLC. The CRA closed this PR as a duplicate of PR 2241-RP for known 747-8 SATCOM problems.
- f. 3439-NW, Closed as Duplicate / Air – Technical. Nippon Cargo Airlines Boeing 747-8 flight crew reported DATALINK LOST and SATVOICE lost EICAS messages during cruise. The CRA closed this PR as a duplicate of PR 2241-RP for known 747-8 SATCOM problems.
- g. 3443-MM, Closed as Duplicate / Air – Technical. A Nippon Cargo Airlines Boeing 747-8 flight crew reported DATALINK LOST and SATVOICE LOST avionics indications. The CRA closed this PR as a duplicate of PR 2241-RP for known 747-8 SATCOM avionics issues.
- h. 3446-NW, Closed as Duplicate / Air – Technical. Nippon Cargo Airlines Boeing 747-8 flight crew reported unable to logon to CPDLC via SATCOM. Based on the limited data available, the CRA closed this PR as a duplicate of PR 2241-RP for known 747-8 SATCOM problems.
- i. 3467-NW, Closed as Duplicate / Air – Technical. Nippon Cargo Airlines Boeing 747-8 flight crew reported DATALINK LOST and SATVOICE lost EICAS messages during cruise. The CRA closed this PR as a duplicate of PR 2241-RP for known 747-8 SATCOM problems.
- j. 3485-NI, Closed as Duplicate / Air – Technical. Nippon Cargo Airlines Boeing 747-8 flight crew reported DATALINK LOST and SATVOICE lost EICAS messages during cruise. The CRA closed this PR as a duplicate of PR 2241-RP for known 747-8 SATCOM problems.
- k. 3510-RP, Closed as Duplicate / Air – Technical. The FAA reported multiple Boeing 747-8 airframes using HF media rather than SATCOM in oceanic airspace, despite filing J5. The CRA determined that this was due to known SATCOM avionics issues on the 747-8 and closed the PR as a duplicate of 2241-RP.
- l. 3521-RP, Closed as Duplicate / Air – Technical. A Nippon Cargo Airlines Boeing 747-8 flight crew reported DATALINK LOST and SATVOICE LOST avionics indications. The CRA closed this PR as a duplicate of PR 2241-RP for known 747-8 SATCOM avionics issues.
- m. 3526-MM, Closed as Duplicate / Air – Technical. A Nippon Cargo Airlines Boeing 747-8 flight crew reported DATALINK LOST and SATVOICE LOST avionics indications. The CRA closed this PR as a duplicate of PR 2241-RP for known 747-8 SATCOM avionics issues.

- n. 3537-MM, Closed as Duplicate / Air – Technical. A Nippon Cargo Airlines Boeing 747-8 flight crew reported DATALINK LOST and SATVOICE LOST avionics indications and that the ATC LOGON/STATUS avionics page would not accept entries. The CRA closed this PR as a duplicate of PR 2241-RP for known 747-8 SATCOM avionics issues and of PR 2892-KS for known ATC LOGON/STATUS page issues.
 - o. 3540-CJ, Closed as Duplicate / Air – Technical. A Nippon Cargo Airlines Boeing 747-8 flight crew reported intermittent “DATALINK LOST” EICAS alerts and a failed CPDLC transfer. The CRA determined that the transfer failed due to the aircraft having no SATCOM link and the DSP being unable to deliver the necessary uplinks via HF. Due to the inability of the aircraft to establish a SATCOM link, this PR was closed as a duplicate of 2241-RP.
 - p. 3544-CJ, Closed as Duplicate / Air – Technical. A Nippon Cargo Airlines Boeing 747-8 flight crew reported termination of CPDLC communications on R220 near NANDY. The CRA determined that the avionics did not transition to SATCOM media after a loss of VHF and closed this PR as duplicate of 2241-RP.
 - q. 3545-CJ, Closed as Duplicate / Air – Technical. A Nippon Cargo Airlines Boeing 747-8 flight crew reported “DATALINK LOST” and “SATCOM DATA” EICAS messages and termination of CPDLC communications near OMOTO. The CRA determined that the issue was caused by known SATCOM avionics problems and closed this PR as duplicate of 2241-RP.
 - r. 3553-NI, Closed as Duplicate / Air – Technical. Nippon Cargo Airlines reported an issue on a Boeing 747-8 where there was an extended datalink outage when connected to SATCOM. This is a known issue with 747-8 flying with Inmarsat SATCOM services and is related to the Collins SDU. Boeing determined the loss of datalink communications was caused by known SATCOM avionics problems and closed the PR as a duplicate.
- 2.1.4. 2892-KS, Open / Air – Technical. This is the master PR for known Boeing 747-8 AFN logon problems, including the inability of the flight crew to enter the origin and destination airport designators on the ATC LOGON/STATUS page. Boeing and Honeywell will resolve this problem in NG FMC Block Point 4.1 software, which is currently planned to become available in the fourth quarter of 2024. Boeing and Honeywell also especially appreciate the patience of Nippon Cargo Airlines. In the meantime, Boeing has published a workaround procedure for this problem in Flight Operations Technical Bulletin 747 21-77 and Maintenance Tip 747-8 MT 34-016 (747-400 MT 34-058). The CRA closed the following PRs as duplicates of this PR.
- a. 3350-GM, Closed as Duplicate / Air – Technical. A Nippon Cargo Airlines Boeing 747-8 flight crew reported that they were unable to log on to Anchorage because the logon page was stuck in SENDING for the duration of the flight. Although datalink

audit logs could not be obtained, Boeing confirmed that the reported problem was an occurrence of the known ATC LOGON/STATUS page issue.

- b. 3402-KS, Closed as Duplicate / Air – Technical. A Nippon Cargo Airlines Boeing 747-8 flight crew reported being unable to logon to Toronto because the Origin and Destination fields on the ATC LOGON/STATUS page were unresponsive. The CRA closed this PR as a duplicate of 2892-KS.
 - c. 3520-RP, Closed as Duplicate / Air – Technical. A Nippon Cargo Airlines Boeing 747-8 flight crew reported an inability to enter data into the Origin, Destination, and Logon field on the ATC Logon/Status page. The CRA closed this PR as a duplicate of PR 2892-KS for known ATC LOGON/STATUS page issues.
 - d. 3535-RP, Closed as Duplicate / Air – Technical. A Nippon Cargo Airlines Boeing 747-8 flight crew reported an inability to enter Origin and Destination on the ATC LOGON/STATUS page. The crew implemented the published recovery procedures, but were unable to make entries on the page. The CRA closed this PR as a duplicate of PR 2892-KS.
 - e. 3537-MM, Closed as Duplicate / Air – Technical. A Nippon Cargo Airlines Boeing 747-8 flight crew reported DATALINK LOST and SATVOICE LOST avionics indications and that the ATC LOGON/STATUS avionics page would not accept entries. The CRA closed this PR as a duplicate of PR 2241-RP for known 747-8 SATCOM avionics issues and of PR 2892-KS for known ATC LOGON/STATUS page issues.
 - f. 3552-MM, Closed as Duplicate / Air – Technical. A Nippon Cargo Airlines Boeing 747-8 flight crew reported that the ATC LOGON/STATUS avionics page would not accept entries. The CRA closed this PR as a duplicate of PR 2892-KS for known ATC LOGON/STATUS page issues.
- 2.1.5. 2976-MM, Open / Air – Technical. This is the master PR for the known issue in which flight crews are unable to send CPDLC downlinks because previous CPDLC downlinks are stuck in sending on general aviation aircraft with Honeywell FANS avionics. Honeywell has indicated that this issue is fixed for the Gulfstream G650 by the Block 3 update, although it remains unfixed for other affected aircraft types. The CRA closed the following PRs as duplicates of this PR.
- a. 3197-MM, Closed as Duplicate / Air – Technical. A Gulfstream G550 flight crew reported that they could not respond to CPDLC uplink messages. Honeywell indicated that the problem occurred due to the known avionics issue previously reported in PR 2976-MM, although Gulfstream also indicated that the “Cert India” program that will fix this issue is on hold with no scheduled release date.

- b. 3392-MM, Closed as Duplicate / Air – Technical. A Dassault Falcon 7X flight crew reported that they could not send CPDLC downlinks. This problem occurred due to the known avionics issue previously reported in PR 2976-MM.
- c. 3434-CW, Closed as Duplicate / Air – Technical. A Dassault Falcon 7X flight crew reported an unexpected drop in CPDLC communications. This problem occurred due to the known avionics issue previously reported in PR 2976-MM.
- 2.1.6. 3146-KS, Closed / Air. The FAA reported receiving inaccurate CPDLC position report data from a China Eastern Airlines Airbus A330 when crossing the FIR boundary from Fukuoka to Oakland Oceanic. Airbus determined that the out of date data contained in the position report was most likely due to an old position report that was kept displayed on the MCDU. The CRA subsequently closed this PR.
- 2.1.7. 3223-MM, Closed / Network. The FAA reported uplink failures and excessive delays to ADS-C reports via Iridium SATCOM during certain periods on five days in July 2021. Iridium found that Virtual Private Network (VPN) changes required for firewall updates caused the delays.
- 2.1.8. 3251-GM, Active / Air – Technical. Nippon Cargo Airlines reported an issue on a Boeing 747-8 where the speed value contained within a CPDLC uplink differed between display on the ATC LOG page and the ATC UPLINK page. Boeing has stated that the speed is correctly displayed when viewed on the ATC Uplink/Downlink pages. Thus, crews should not use the printer or the ATC log for speed clearances. Boeing and Honeywell expect to certify NG FMC Block Point 4.1 software that will resolve this issue in the fourth quarter of 2024. The CRA closed the following PRs as duplicates of this PR.
 - a. 3316-SH, Closed as Duplicate / Air – Technical. An Atlas Air Boeing 747-400 flight crew reported that they received a CPDLC message that displayed a speed clearance of Mach .84. When the crew printed the message, the clearance showed Mach .83. Boeing investigation into this PR confirmed that the reported problem was an occurrence of the known Mach number rounding issue.
 - b. 3401-CJ, Closed as Duplicate / Air – Technical. A Nippon Cargo Airlines Boeing 747-8 flight crew reported a discrepancy between the Mach speed displayed on the ATC Uplink page and the ATC Log page. The CRA closed this PR as a duplicate of 3251-GM for known Mach speed rounding issues on the NG FMC.
 - c. 3454-NW, Closed as Duplicate / Air – Technical. Nippon Cargo Airlines Boeing 747-8 flight crew reported a difference in Mach speeds on the ATC Uplink page and ATC Log page. The CRA has closed this PR as a duplicate of PR 3251-GM for known 747-400 NG FMC rounding problems.
 - d. 3487-CJ, Closed as Duplicate / Air – Technical. A Nippon Cargo Airlines Boeing 747-8 flight crew reported a discrepancy between the Mach speed displayed on the ATC Uplink page, the ATC Data Block, and the ATC Log page. The CRA closed

this PR as a duplicate of 3251-GM for known Mach speed rounding issues on the NG FMC.

- e. 3536-RP, Closed as Duplicate / Air – Technical. A Korean Airlines Boeing 747-8 flight crew reported receiving two CPDLC speed clearances that displayed a different Mach number on the message printout. The CRA determined that this was due to known Mach speed rounding issues on the NG FMC and closed the PR as a duplicate of PR 3251-GM.

2.2. The FAA CRA investigated the following significant new PRs that occurred in the North and Central Pacific region.

- 2.2.1. 3301-SH, Closed / Multiple. Japan Air Navigation Service reported an issue in which an AFN Acknowledgement went undelivered to a Boeing 747-400, resulting in failure to establish a CPDLC connection. The CRA determined that the uplink failed due to an unstable SATCOM link and also recommended to the ANSP that failed uplinks be repeated at least once, per PANS-ATM, ICAO Doc 4444, section 14.3.8.
- 2.2.2. 3306-MM, Closed / None. Japan Air Navigation Service reported that a Cessna C560 aircraft failed to issue the requested Aircraft Intent group in an ADS-C periodic report and instead issued a non-compliance. The CRA confirmed with the avionics supplier that the aircraft does not support the ADS-C aircraft intent group and closed the PR as a non-problem.
- 2.2.3. 3344-MM, Open / Air – Technical. A Boeing 787-9 responded to a Connect Request (CR1) with DR1 plus dM64 which was missing the required ICAO Facility Designation parameter. Investigation by Boeing and Honeywell revealed that the problem occurred due to a synchronization error between dual, redundant instances of the Communication Management Function. Boeing expects the problem to be fixed in the next 787 CMF avionics software update. Accordingly, this PR will be kept open pending this software release.
- 2.2.4. 3370-MM, Closed – Monitoring / TBA. Japan Air Navigation Service reported that a Boeing MD-11 failed to downlink a Connect Confirm when attempting to establish CPDLC with Fukuoka. Analysis by the CRA indicated that the problem began several flight legs earlier and resulted in multiple failed CPDLC connections with other centers. The CRA was unable to determine the root cause of the problem with the available data and placed the PR in the monitor state.
- 2.2.5. 3430-NW, Closed / None. A Nippon Cargo Airlines 747-8 flight crew reported a failed CPDLC connection transfer to Anchorage Oceanic. ACARS log analysis by the CRA revealed that the transition from VHF to SATCOM media resulted in a failed facility notification to the Next Data Authority. The CRA closed this PR as a non-problem because all systems performed as designed and notes that issues involving VHF to

SATCOM transitions can be alleviated by the implementation of the ACARS RAT1 function in the avionics.

- 2.2.6. 3483-NW, Closed / None. A Nippon Cargo Airlines 747-8 flight crew reported a loss of CPDLC functionality while connected to Anchorage Oceanic. ACARS log analysis revealed a lengthy VHF to SATCOM transition that resulted in multiple delays for uplinks and downlinks. The CRA closed this PR as a non-problem because all systems performed as designed and notes that issues involving VHF to SATCOM transitions can be alleviated by the implementation of the ACARS RAT1 function in the avionics.
- 2.2.7. 3513-CJ, Closed / Network. The FAA reported simultaneous datalink outages for twelve aircraft with a single operator. The CRA assigned this PR to ARINC and SITA to investigate. ARINC investigation revealed that there was an issue with SITA's internetworking when delivering the ATC messages from KZAK to the ARINC network for delivery to the aircraft. SITA confirmed that there was a configuration issue, but was unable to provide further details. Subsequently, the CRA closed this PR as a network problem.
- 2.2.8. 3542-CJ, Closed / Air – Technical. A Nippon Cargo Airlines Boeing 747-8 flight crew reported an inability to logon to RPHI. Analysis by the CRA indicated that the aircraft's flightpath took it along the edge of VHF coverage and that the avionics did not switch to SATCOM media in a reasonable amount of time. This resulted in lengthy downlink delays. The CRA recommended that NCA report this event to Boeing service engineering and Collins customer support with SATCOM avionics logs.
- 2.2.9. 3563-RA, Active / TBA. Japan Air Navigation Service reported a Boeing 777-300ER that failed to transfer to Fukuoka from Anchorage Oceanic. ACARS message log analysis indicates a uM161 'End Service' to terminate the current CPDLC connection was not sent from Anchorage Oceanic. The CRA has assigned this PR to the FAA to investigate why the 'End Service' message was not sent to complete the auto-transfer procedure. The CRA notes that this PR is similar to PRs 3372-MM, 3457-MM, 3472-MM and 3492-NW, all of which involve failed transfers from FAA airspace to Fukuoka.
- 2.3. The FAA CRA investigated the following significant new PRs that occurred outside of the North and Central Pacific region but which are likely of interest to the FIT.
 - 2.3.1. The CRA received several PRs (3347-MM, 3371-MM, 3449-RA, and 3451-RA) caused by ATS providers incorrectly considering a dM40 ASSIGNED ROUTE [route clearance] downlink containing a legal "-" (hyphen) character in the approach procedure name (e.g., "ILS-Y") to be an error. ATS providers should consider confirming that their systems accept all legal characters, which per RTCA DO-258A / EUROCAE ED-100A for a departure, arrival, or approach procedure name is the "IA5String" (ASCII) character set defined in the ITU T.50 standard (available at <https://www.itu.int/rec/T-REC-T.50-199209-I/en>).

- 2.3.2. The CRA received several PRs (3411-CJ, 3455-CJ, 3470-RA, and 3471-MM) for uM79 CLEARED TO [position] VIA [route/clearance] uplinks that when loaded caused the avionics to remove the arrival, arrival transition, and/or approach from the route. Boeing confirmed that inclusion of the destination airport parameter in a uM79 uplink causes the avionics to remove the arrival, arrival transition, and/or approach from the modified route because the avionics reload the destination airport, even if the destination airport in the uplink is the same as the destination airport in the active route. Boeing accordingly recommends that ATS providers refrain from including the destination airport parameter in a uM79 uplink.
- 2.4. The FAA CRA received the following less-significant new PRs that occurred in the North and Central Pacific region.
- 2.4.1. 3330-SH, Closed / TBA. A Boeing 747-8 flight crew reported receiving a “DATALINK LOST” EICAS message while attempting to accept a CPDLC uplink from Anchorage Oceanic. The crew cycled the appropriate circuit breakers and CPDLC functionality was restored. The CRA was unable to obtain datalink audit logs for this event and subsequently closed the PR
- 2.4.2. 3331-MM, Active / TBA. Japan Air Navigation Service reported that a United States Air Force K35R sent downlinks with a timestamp 5.5 minutes behind UTC time. The CRA assigned the PR to USAF for investigation.
- 2.4.3. 3372-MM, Active / TBA. The CPDLC connection of a Boeing 777-300ER failed to automatically transfer from Anchorage to Fukuoka. The flight crew was able to manually logon to Fukuoka after the failed transfer. Message log analysis indicated that the connection had been terminated by the flight crew. The CRA assigned the PR to the FAA to investigate whether the transfer should have occurred earlier, or if the connection was terminated prematurely.
- 2.4.4. 3389-MM, Closed as Duplicate / Ground – Technical. Japan Air Navigation Service reported not receiving a DR1 response after transmitting two End Service uplinks to a Boeing 777-200LR aircraft. Log analysis indicated that the avionics had downlinked the DR1 and it was determined that the ATC center had not fully processed the DR1. The CRA closed this PR as a duplicate of 3390-MM.
- 2.4.5. 3390-MM, Closed / Ground – Technical. Japan Air Navigation Service reported not receiving a DR1 response from a Boeing MD-11 after transmitting two End Service uplinks. Investigation by Boeing revealed that the avionics had responded with a DR1 and that the downlink was not completely processed by Fukuoka. JANS indicated that they would continue to investigate the problem and the PR was subsequently closed by the CRA.
- 2.4.6. 3394-CJ, Closed – Monitoring / Air – Technical. The FAA reported that a Boeing 737 MAX airplane did not respond to several ADS-C Demand Contract Requests, despite

receiving a MAS/S from the DSP. The CRA determined that the aircraft was on SATCOM media at the time of the event, but was unable to determine why the avionics did not respond to the ADS-C Requests. The operator reported no recent issues with the tail involving SATCOM. The CRA subsequently closed the PR, but will monitor for future occurrences.

- 2.4.7. 3407-GM, Closed / TBA. Cathay Pacific reported a Boeing 747-8 experiencing significant delays around FIR boundaries utilizing Iridium SATCOM. The CRA was unable to obtain datalink audit logs to confirm this and subsequently closed the PR.
- 2.4.8. 3424-MM, Active / Air – Technical. Japan Air Navigation Service reported that Fukuoka received ADS-C reports delayed by several minutes via Iridium SATCOM from a Boeing 747-8. ACARS message log analysis by the CRA indicated an apparent problem in or between the ACARS avionics and newly installed Iridium SATCOM avionics on the aircraft. The CRA assigned the aircraft operator to investigate this PR further, possibly via maintenance actions on the Iridium SATCOM avionics.
- 2.4.9. 3433-CW, Closed / Network. The FAA reported that multiple aircraft using Iridium SATCOM experienced numerous uplink/downlink delays and MAS Failures. ARINC confirmed that there was an Iridium outage during this same period. The CRA closed the PR as network problem.
- 2.4.10. 3435-NI, Active / TBA. S.C. Johnson & Son, Inc. reported a Dassault Falcon 7X did not arm ADS-C upon re-logout to Fukuoka. The CRA has reassigned this PR to Honeywell for further investigation.
- 2.4.11. 3448-NI, Closed – Monitoring / Air – Technical. United Airlines reported a 737-800 with two issues. The first being inaccurate data on CPDLC Position Report page shortly after takeoff, and the second issue was a failed CPDLC transfer after entering the next controlled airspace. The former issue is closed as monitoring as it was not reproducible and no further reports have been made. The latter issue was due to a pending open message from the current data authority. The CRA recommends the flight crew to respond to and close all open messages when they are received.
- 2.4.12. 3453-NW, Closed / Air – Technical. Japan Air Navigation Service reported a Boeing 747-400 with inoperable SATCOM after entering oceanic airspace. The CRA has closed this PR as no further reports have been made, and ACARS logs for subsequent flights of this aircraft indicate SATCOM was working nominally.
- 2.4.13. 3456-RA, Closed / Air – Procedural. United Airlines Boeing 777-200ER flight crew reported that they could not establish CPDLC connections with Fukuoka during flight. The ACARS message log indicates that Fukuoka could not match the flight ID and flight plan upon the logon request. The CRA is closing this PR as a procedural error by the airline operator and recommends flight plans be filed in accordance with PANS-ATM, ICAO doc 4444.

- 2.4.14. 3457-MM, Active / TBA. Japan Air Navigation Service reported that a CPDLC transfer of authority from Oakland Oceanic to Fukuoka failed. ACARS message log analysis by the CRA indicated that the flight crew manually terminated the CPDLC connections with Oakland Oceanic as the current data authority and Fukuoka as the next data authority after the aircraft entered Fukuoka's airspace. The CRA assigned the FAA to investigate this PR further, specifically whether Oakland Oceanic should have terminated its CPDLC connection as the current data authority to make Fukuoka the new current data authority before the flight crew manually terminated both CPDLC connections.
- 2.4.15. 3458-CW, Closed as Duplicate / Ground – Procedural. Japan Air Navigation Service reported an issue on a Boeing 767-300 where the aircraft disconnected from the Current Data Authority and failed to transfer to the next data authority. Upon the air crew sending an AFN logon request to CAA Philippines and receiving a positive acknowledgment, CAA Philippines did not send a CR1 to initiate CPDLC. The CRA closed this PR as a duplicate of PR 3541-NI (which is currently assigned to Manila for investigation).
- 2.4.16. 3472-MM, Active / TBA. Japan Air Navigation Service reported that a CPDLC transfer of authority from Oakland Oceanic to Fukuoka failed. ACARS message log analysis by the CRA indicated that the flight crew manually terminated the CPDLC connections with Oakland Oceanic as the current data authority and Fukuoka as the next data authority at about the time that the aircraft entered Fukuoka's airspace. The CRA assigned the FAA to investigate this PR further, specifically to determine whether from its perspective the transfer was delayed.
- 2.4.17. 3480-RA, Closed / Air – Procedural. Oakland Oceanic reported ATOP received 86 AFN logon requests from an Airbus A-321neo. The logon requests were rejected because neither J5 or J7 was filed in field 10 of the ICAO flight plan, and flight crew resent logon requests upon receiving "Notification Failed" in the flight deck. The CRA closed this PR as procedural and recommends operators file flight plans in accordance with PANS-ATM, ICAO doc 4444.
- 2.4.18. 3481-NW, Active / TBA. Japan Air Navigation Services reported an automatic CPDLC transfer failure for a Boeing 757-200 entering Fukuoka from Manila. ACARS log analysis indicated that while Manila had uplinked uM160 NDA to the aircraft, they did not uplink an AFN Contact Advisory to notify Fukuoka of their status as Next Data Authority. When Manila sent the End Service uplink, Fukuoka had not connected as NDA and the connection was terminated. The CRA assigned this PR to Manila to investigate why AFN address forwarding did not occur.
- 2.4.19. 3492-NW, Active / TBA. Japan Air Navigation Services reported the failure of an automatic CPDLC handoff between Oakland Oceanic and Fukuoka. ACARS log analysis showed that the Boeing 767-300ER flight crew manually terminated the CPDLC connection with Oakland Oceanic and that the center had not attempted an End Service uplink. The CRA assigned the FAA to investigate this PR further, specifically to determine whether an End Service should have been transmitted sooner.

- 2.4.20. 3493-RA, Active / TBA. Oakland Oceanic reported an Airbus A330-900neo sending ADS-C demand report contract acknowledgements and demanded reports in separate downlinks. Per DO-258A, the acknowledgement and reports for demand contracts should be sent in one message in response to valid ADS-C demand contract requests. The CRA has assigned this PR to Airbus for further investigation.
- 2.4.21. 3514-MM, Closed / Network. The FAA reported uplink message failures and downlink message delays via Iridium SATCOM with multiple aircraft without any corresponding notifications from ARINC and SITA. ARINC and SITA both indicated that the lack of notifications was due to the short interval (less than two minutes) between the outage notification and the restoral notification from Iridium and that they would review their related procedures.
- 2.4.22. 3515-NI, Active / TBA. Oakland Oceanic reported a Gulfstream G280 reporting incorrect wind direction in ADS-C reports. The CRA has assigned this PR to Gulfstream for further investigation.
- 2.4.23. 3516-NI, Closed / Network. A Nippon Cargo Airlines Boeing 747-8 fight crew reported a DATALINK LOST and SATCOM VOICE indication that they could not establish connections with Anchorage Oceanic or Fukuoka. The problem was caused by an Inmarsat SATCOM outage April 17, 2023.
- 2.4.24. 3517-NI, Closed / Network. A Nippon Cargo Airlines Boeing 747-8 fight crew reported a DATALINK LOST and SATCOM VOICE indication that they could not establish connections with Anchorage Oceanic or Fukuoka. The problem was caused by an Inmarsat SATCOM outage April 17, 2023.
- 2.4.25. 3524-NI, Closed as Duplicate / Air – Technical. Japan Air Navigation Service reported a Boeing 767-300 responding to a CR1 with a DR1 + DM64 with no unit and 4 spaces. The CRA closed this PR as a duplicate of PR 1877 and note that a fix is confirmed for Block Point 11. The expected Service Bulletin release is October 2023.
- 2.4.26. 3549-NI, Active / TBA. The FAA reported multiple Hawaiian Airlines A321-neo aircraft experiencing message assurance failures over SATCOM and VDLm2 within the same time period. The CRA has assigned this PR to Airbus for further investigation.
- 2.4.27. 3550-MM, Active / TBA. The FAA reported that for a period of one hour, downlink messages from multiple aircraft via Iridium SATCOM through ARINC were delayed while downlink messages from other aircraft via Iridium SATCOM through SITA were not delayed. Iridium indicated that it did not experience any problems during that time and the CRA assigned ARINC to investigate this PR further.
- 2.4.28. 3555-RA, Active / Air – Technical. Oakland Oceanic reported an issue on an Airbus A330-300 where Oakland Oceanic received multiple AFN Logon Requests in a short period of time. Oakland Oceanic correctly uplinked a positive AFN acknowledgement

and subsequent CPDLC CR1's, but the aircraft did not respond with CC1's. Airbus is currently investigating the issue.

- 2.4.29. 3560-MM, Closed / Air – Technical. A Nippon Cargo Airlines Boeing 747-8 flight crew reported DATALINK SYS and SATVOICE avionics indications for a period of about 20 minutes. Considering that the CRA was not aware of any Inmarsat SATCOM outages or degradations during that time, the CRA recommended that Nippon Cargo Airlines report this event to Boeing service engineering and Collins customer support with SATCOM avionics logs.
- 2.4.30. 3565-NI, Active / TBA. Nippon Cargo Airlines reported a Boeing 747-8F disconnected from CPDLC between Anchorage Continental and Anchorage Oceanic. CRA analysis of the ACARS log indicated Anchorage Oceanic incorrectly rejected the aircraft's logon request with a negative AFN Acknowledgement with reason code 4. The CRA has assigned this PR to the FAA to investigate why the logon attempt was rejected.
- 2.4.31. 3567-MM, Closed / Network. A Nippon Cargo Airlines Boeing 747-8 flight crew reported a DATALINK LOST avionics indication and that they could not establish CPDLC connections with Anchorage Oceanic or Fukuoka. This problem was caused by an Inmarsat SATCOM outage on August 31 from 00:21 to 07:27.
- 2.4.32. 3569-MM, Active / TBA. An Airways New Zealand Boeing 787 flight crew reported that no CPDLC transfer from Vancouver to Oakland Oceanic occurred. Considering that the ACARS message log indicates that Vancouver did not designate Oakland Oceanic as the next data authority, perform AFN address forwarding to Oakland Oceanic, or instruct the flight crew via CPDLC to contact Oakland Oceanic, the CRA assigned Nav Canada to investigate this PR further.

3. Action by the meeting

- 3.1. The FAA CRA invites the IPACG FIT to:
 - a) note the content of this paper; and
 - b) promote expeditious resolution of Active and Open PRs.