



**THE FORTY-SEVENTH MEETING OF THE
INFORMAL PACIFIC ATC CO-ORDINATING GROUP (IPACG/47)**

**THE THIRTY-FOURTH MEETING OF THE
IPACG FANS INTEROPERABILITY TEAM (IPACG FIT/34)**

(Virtual, 25-26 January 2022)

Agenda Item x: ???

**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/33 PR briefing in October 2020 and preparation of this PR briefing in January 2022, the FAA CRA investigated 178 PRs. Of those 178 PRs, 43 PRs (24%) occurred in the North and Central Pacific region. For context, the PR briefings for IPACG FIT/33 and IPACG FIT/32 respectively described 16 PRs (10%) and 36 PRs (11%) that occurred in the North and Central Pacific region.
- 1.3. Figure 1 illustrates the total number of PRs submitted per calendar year starting in 2006.

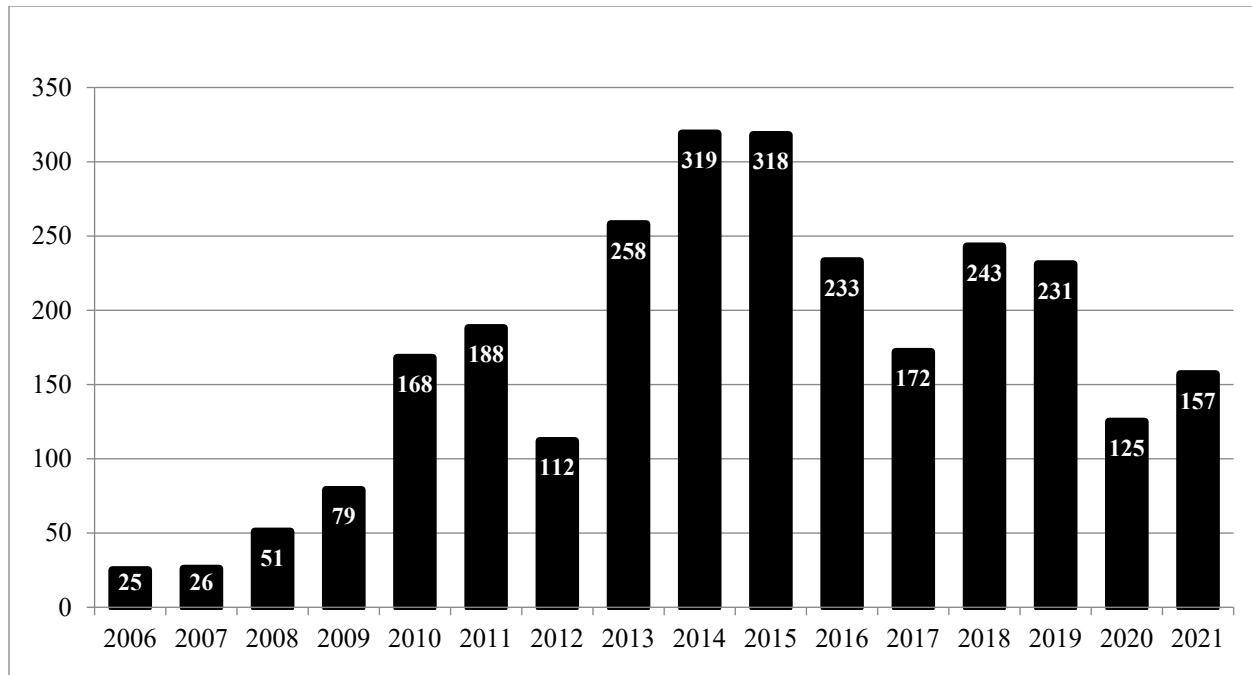


Figure 1 PRs Per Year

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. 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 old and new PRs as duplicates of this PR.
- a. 3067-CJ, Closed As Duplicate / Air – Technical. A Nippon Cargo Airlines Boeing 747-8 flight crew reported that while a CPDLC connection was established with ATMC datalink communications were lost and then 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.
 - b. 3111-CJ, Closed As Duplicate / Air – Technical. A Nippon Cargo Airlines Boeing 747-8 flight crew reported DATALINK LOST and SATVOICE LOST flight deck indications. Boeing investigation into the ACARS logs for the reported event revealed that the occurrence aligned to known 747-8 SATCOM avionics problems.
 - c. 3203-SH, Closed as Duplicate / Air – Technical. A Nippon Cargo Airlines Boeing 747-8 flight crew reported loss of both voice and datalink communications via SATCOM shortly after establishing a CPDLC connection with Anchorage. Boeing determined that the loss of datalink communications was caused by known 747-8 SATCOM avionics problems.
 - d. 3238-GM, Closed as Duplicate / Air – Technical. Nippon Cargo Airlines reported a loss of datalink functionality on one of their Boeing 747-8 aircraft while operating in oceanic airspace. A review of datalink data by both the CRA and the operator revealed that the SATCOM avionics aboard the aircraft were inoperative during the time of the event and that HF datalink was disabled, resulting in the loss of all links. The operator confirmed that a SATCOM avionics reset resolved the issue.

- e. 3254-RP, Closed As Duplicate / Air – Technical. JCAB reported an issue with a Nippon Cargo Airlines Boeing 747-8 in which the aircraft appeared to be limited to only VHF and HF media upon entering oceanic airspace. Boeing investigation into the ACARS logs showed that the problem was linked to a known issue where 747-8 aircraft experience periodic SATCOM losses.
 - f. 3257-RP, Closed As Duplicate / Air – Technical. Nippon Cargo Airlines reported an issue in which a Boeing 747-8 experienced inoperative SATCOM during flight. Boeing analysis of the ACARS data for the flight revealed that this issue was linked to a known issue on 747-8 aircraft where the avionics experience sporadic SATCOM losses until a SATCOM avionics reset occurs.
 - g. 3283-SH, Closed as Duplicate / Air – Technical. A Nippon Cargo Airlines Boeing 747-8 flight crew reported a loss of datalink communications while a CPDLC connection was established with Anchorage. Boeing determined that the loss occurred because the airplane had exited VHF datalink coverage, datalink communications via SATCOM had not been available since the aircraft departed, and datalink communications via HF was lost.
- 2.1.2. 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 4th quarter 2022. Boeing and Honeywell 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. The CRA closed the following old and new PRs as duplicates of this PR.
- a. 3110-CJ, 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 they could not enter the origin and destination airport designators on the ATC LOGON/STATUS page. Boeing investigation into this PR confirmed that the reported problem was an occurrence of the known ATC LOGON/STATUS page issue.
 - b. 3139-SH, Closed as Duplicate / Air – Technical. A Nippon Cargo Airlines Boeing 747-8 flight crew reported that they were unable to log on to Oakland Oceanic because they could not enter the origin and destination airport designators on the ATC LOGON/STATUS page. Boeing investigation into this PR confirmed that the reported problem was an occurrence of the known ATC LOGON/STATUS page issue.
 - c. 3117-SH, Closed as Duplicate / Air – Technical. A Nippon Cargo Airlines Boeing 747-8 flight crew reported that they were unable to log on to Oakland Oceanic

because they could not enter the origin and destination airport designators on the ATC LOGON/STATUS page. Boeing investigation into this PR confirmed that the reported problem was an occurrence of the known ATC LOGON/STATUS page issue.

- d. 3202-SH, 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 they could not enter the origin and destination airport designators on the ATC LOGON/STATUS page. Boeing investigation into this PR confirmed that the reported problem was an occurrence of the known ATC LOGON/STATUS page issue.
 - e. 3204-SH, 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 they could not enter the origin and destination airport designators on the ATC LOGON/STATUS page. Boeing investigation into this PR confirmed that the reported problem was an occurrence of the known ATC LOGON/STATUS page issue.
 - f. 3253-KS, Closed – Monitoring / Air – Technical. JCAB reported an issue with a Nippon Cargo Airlines Boeing 747-8 where the flight crew experienced the inability to enter the origin and destination airport designators on the ATC LOGON/STATUS page as part of the AFN logon procedure. Attempts by the flight crew to mitigate the issue using the workaround procedure were unsuccessful, however. Accordingly, this PR is in the Closed – Monitoring state in the event that further unsuccessful recovery attempts are reported.
 - g. 3256-RP, Closed As Duplicate / Air – Technical. Nippon Cargo Airlines reported an issue on a Boeing 747-8 where the flight crew experienced the inability to perform an AFN logon upon selection of the SEND key. Boeing investigation revealed that the reported problem was an occurrence of the known ATC LOGON/STATUS page issue.
- 2.1.3. 3115-SH, Closed – Monitoring / Air – Technical. Anchorage reported unexpected ADS-C behavior by a Nippon Cargo Airlines Boeing 747-8, including an improperly formatted ADS-C disconnect message. Boeing investigated the problem, but could not it duplicate or resolve it. The CRA will monitor future PRs for recurrences of this problem.
- 2.2. The FAA CRA investigated the following significant new PRs that occurred in the North and Central Pacific region.
- 2.2.1. 3119-MM, Open / Air – Technical. The FAA reported that it received invalid CPDLC position reports from multiple Boeing 747-8 and 787 aircraft. Boeing and Honeywell determined that the avionics on both aircraft types sent the invalid reports because when the wind direction was between 0.0 and 0.9 degrees the avionics failed to properly

convert the wind direction to the range from 1 to 360 integer degrees that the CPDLC syntax defines. For the 747-8, Boeing and Honeywell will fix this problem in NG FMC Block Point 4.1 software, which is currently planned to become available in 4th quarter 2022. For the 787, Boeing and Honeywell will fix this problem in the next 787 CMF software release.

- 2.2.2. 3163-MM, Closed / None. The FAA reported that delayed delivery of a CPDLC climb clearance from Anchorage to an Atlas Air Boeing 747-400 caused confusion. The CRA determined that the uplink was delivered while the aircraft was in the process of exiting VHF coverage and switching to SATCOM. Considering that ARINC received the WILCO response downlink to the uplink before it received the ACARS acknowledgement downlink to the uplink, the aircraft evidently received the uplink via VHF even though ARINC did not receive the ACARS acknowledgement downlink via VHF and subsequently sent the uplink via SATCOM. Those events also explain why the aircraft later sent an error downlink; the aircraft received the uplink twice (first via VHF and then via SATCOM) and responded with the error downlink to the second uplink because the aircraft had already received the uplink. Overall, the ACARS network performed as designed. Situations like this one – when the airplane was on the blurry edge of VHF coverage and ARINC did not hear the ACARS acknowledgement downlink to the uplink that the airplane sent via VHF, which led ARINC to receive the WILCO response downlink before it received the ACARS acknowledgement downlink and to send the uplink via SATCOM – are uncommon but also unavoidable due to the nature of wireless radiofrequency communications. The CRA accordingly closed this report as a non-problem.
- 2.2.3. 3170-GM, Closed / Air – Technical. A Korean Air Boeing 777 was reported to fail to meet the RCP240 transaction time and RSP180 delivery time requirements at the 95% level in 3rd quarter 2020 due to a failure to transition to SATCOM use when entering oceanic airspace. The operator confirmed an issue with the SATCOM avionics aboard the aircraft during the time of PBCS non-compliance and that the issue had been resolved. Analysis of 4th quarter 2020 and 1st quarter 2021 PBCS data by the CRA showed compliance and that the aircraft was now successfully transitioning to SATCOM.
- 2.2.4. 3189-SH, Active / Ground – Technical. A Delta Air Lines Airbus A350 flight crew reported that several route clearances from Oakland Oceanic resulted in PARTIAL LOAD indications. Airbus determined that the indications occurred because the route clearances contained waypoints that have duplicate identifiers in the aircraft's navigation database, but the route clearances did not include the optional latitude and longitude coordinates for those waypoints that would have allowed the avionics to choose the intended waypoint. Airbus referenced NAT TIG/10 WP/05, in which it recommended that ATS providers always include the optional latitude and longitude coordinates and also noted that including the latitude and longitude coordinates are mandatory for Baseline 2 CPDLC. The CRA recently requested the FAA to examine this issue.

- 2.2.5. 3206-KS, Closed / Air – Technical. The FAA reported an increase in CPDLC uplink failure indications for multiple Southwest Airlines Boeing 737 aircraft. An investigation into the ACARS logs for applicable aircraft by the CRA concluded that the cause of the increased uplink failures was Collins ICS-300 Iridium SATCOM avionics issues. The aircraft operator confirmed that the avionics had a known issue which was resolved by updating to firmware part number 072-4418-001.
- 2.2.6. 3230-MM, Active / TBA. The FAA reported that it received many ADS-C waypoint change event reports from Airbus A350 aircraft that contained nearly identical current and next waypoint positions. The CRA assigned this PR to Airbus to investigate.
- 2.2.7. 3237-GM, Closed / Air – Procedural. JCAB reported that a CPDLC transfer of authority from Anchorage to ATMC for a Boeing 777 was unsuccessful and that a CPDLC connection with ATMC was only established after the flight crew performed a manual log on. A review of ACARS data by the CRA revealed that the unsuccessful transfer was the result of the flight crew terminating the established CPDLC connections with Anchorage and ATMC before the automatic transfer could be completed. The CRA has provided guidance to the aircraft operator on the proper procedure for completing automatic transfers without flight crew intervention. The CRA has closed the following PRs involving the same aircraft operator as duplicates of this PR.
 - a. 3236-GM, Closed As Duplicate / Air – Procedural. JCAB reported that a CPDLC transfer of authority from Anchorage to ATMC for a Boeing 777 was unsuccessful. The CRA found that this issue was the result of flight crew intervention into the automatic transfer process which resulted in failure of the transfer.
 - b. 3249-GM, Closed as Duplicate / Air – Procedural. JCAB reported that a CPDLC transfer of authority from Anchorage to ATMC for a Boeing 777 was unsuccessful and that a CPDLC connection with ATMC was only established after the flight crew performed a manual log on. A review of ACARS data by the CRA revealed that the unsuccessful transfer was the result of the flight crew terminating the established CPDLC connections with Anchorage and ATMC before the automatic transfer could be completed. The CRA has provided guidance to the aircraft operator on the proper procedure for completing automatic transfers without flight crew intervention.
- 2.2.8. 3251-GM, Open / 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. This is a known issue which Boeing has included a fix for in NG FMC Block Point 4.1 software to be made available for upgrade by operators in 4th quarter 2022. This PR will remain open until release of that software.
- 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. 3151-GM, Closed / Air – Technical. Airways New Zealand reported that an Air New Zealand Airbus A320 did not respond to ADS-C contract requests. Airbus indicated that the avionics improperly considered the requests to be duplicate requests and discarded the requests because the requests reused contract numbers but the avionics were recently modified to consider a request with the same content as one of the previous five requests to be a duplicate request and to discard the request. The RTCA DO-306 / EUROCAE ED-122 oceanic airspace safety and performance requirements allow contract numbers to be reused, but Airbus made the avionics change in order to resolve FANS PR 3058-MM for true duplicate requests and in anticipation of new RTCA DO-350A / EUROCAE ED-228A all-airspace safety and performance requirements. Although Airways New Zealand modified its ground system to no longer reuse contract numbers, the CRA notes that this PR indicates the importance of avionics and ground systems maintaining compatibility as they transition from complying with existing RTCA DO-306 / EUROCAE ED-122 requirements to new RTCA DO-350A / EUROCAE ED-228A requirements.
- 2.3.2. 3171-MM, Closed / Network. Airways New Zealand, Airservices Australia, and the FAA reported a loss of communications on 14 April 2021 with airplanes using SATCOM via SITA, while they continued normal operations with airplanes using SATCOM via ARINC. SITA indicated that the problem affected internetworking (an aircraft connected to one communication service provider and an ATS provider connected to the other communication service provider) for almost three hours and that it completed two actions to prevent the problem from recurring.
- 2.3.3. 3195-MM, Closed / Network. Airways New Zealand and the FAA reported excessive delays to ADS-C reports from multiple aircraft using Iridium SATCOM via SITA on 13 June 2021. SITA indicated that the delays occurred due faulty hardware that was subsequently replaced and that it would review its real-time monitoring of performance degradations.
- 2.4. The FAA CRA received the following less-significant new PRs that occurred in the North and Central Pacific region.
 - 2.4.1. 3123-MM, Closed / Air – Procedural. The FAA reported that it received ADS-C reports from multiple United States Air Force (USAF) KC-135 aircraft containing a Figure of Merit of 0. The USAF indicated that the problem occurred due to expired GPS keys and that it modified the KC-135 flight manual to include checking GPS keys as part of normal flight crew procedures.
 - 2.4.2. 3125-MM, Closed as Duplicate / Air – Technical. The FAA reported that it received ADS-C reports from multiple USAF C-5 aircraft containing improperly encoded 180E waypoints. The CRA closed this PR as a duplicate of PR 1862-SN, which is currently open and which the USAF and Lockheed Martin are planning to fix.
 - 2.4.3. 3126-GM, Closed as Duplicate / Air – Technical. The FAA reported that CPDLC uplinks were being successfully delivered to the avionics but not responded to by the

flight crews of multiple Airbus A330 aircraft. The CRA, in collaboration with Airbus, determined that this issue was the result of a known “Ack & Toss” issue that is triggered when a multi-block uplink is sent on the edge of VHF coverage. The “Ack & Toss” issue is tracked in PR 2153-SN and is corrected in certified CSB/CLR7.5 and CSB/CLR9 avionics software.

- 2.4.4. 3129-SH, Closed / Network. A Boeing 747-8 flight crew reported that a CPDLC transfer of authority from Anchorage to Edmonton failed. Investigation by the CRA and ARINC revealed that ARINC did not deliver downlink messages from the airplane to Edmonton because the aircraft operator incorrectly indicated to ARINC that the aircraft registration was no longer in use. ARINC subsequently configured the aircraft registration for use.
- 2.4.5. 3140-MM, Open / Network. A general aviation Dassault Falcon 900 flight crew reported delayed receipt of a CPDLC climb clearance. Honeywell and SITA determined that the uplink was delayed because SITA was already in the process of sending a large multi-block weather uplink to the aircraft. SITA is working to implement uplink nesting for the aircraft, which would allow higher-priority CPDLC uplinks to temporarily interrupt lower-priority multi-block uplinks.
- 2.4.6. 3145-KS, Closed / Air – Procedural. The FAA reported that a USAF KC-135 sent multiple CPDLC downlinks during flight that contained incorrect timestamps. An investigation into the ACARS data and aircraft configuration, by both the CRA and USAF, identified that the aircraft in question was utilizing expired GPS keys at the time of the incident which resulted in incorrect time stamps being sent. The USAF indicated that it modified the KC-135 flight manual to include checking GPS keys as part of normal flight crew procedures.
- 2.4.7. 3146-KS, Active / TBA. 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. The CRA assigned this PR to Airbus for investigation.
- 2.4.8. 3150-MM, Closed / Air – Technical. A general aviation Gulfstream G550 flight crew reported that they could not respond to a CPDLC climb clearance. Honeywell indicated that newer ASC911 software fixes this problem.
- 2.4.9. 3173-RP, Open / TBA. The FAA reported that a FedEx MD-11 experienced issues in receiving CPDLC uplinks. An investigation of ACARS data by the CRA revealed that the uplink failures were the result of the SATCOM avionics not being able to maintain a stable SATCOM connection in oceanic airspace. With no VHF coverage and only an intermittent SATCOM connection, a number of CPDLC uplinks failed. This PR remains open pending a response from the operator on whether performance of the aircraft has improved or SATCOM avionics replacement was required.
- 2.4.10. 3186-SH, Open / Ground – Technical. UPS reported its concern with the “THIS MEDIA IS NOT AVAILABLE FOR ATC COMM IN FUKUOKA FIR” uplink that JCAB ATMC sends to inform the flight crew that it received a FANS downlink via HF datalink.

UPS is concerned about the uplink because ATMC addresses it to the flight deck printer, not to the flight deck displays. UPS indicated that a printer uplink may be distracting to the flight crew and is not forwarded to UPS Airlines like FANS uplinks. UPS and JCAB are continuing to discuss the concern.

- 2.4.11. 3196-MM, Closed / None. A general aviation Gulfstream G650 aircraft operator reported that the aircraft did not meet RCP240 95% and 99.9% transaction time requirements. The CRA closed this PR as a non-problem because it was based on only eight CPDLC transactions during one flight.
- 2.4.12. 3197-MM, Active / TBA. A general aviation Gulfstream G550 flight crew reported that they could not respond to CPDLC uplinks. The CRA assigned this PR to Honeywell to investigate.
- 2.4.13. 3198-MM, Closed / Air – Technical. A general aviation Bombardier Challenger 350 operator reported that the aircraft did not comply with RSP180 position report delivery time requirements. Bombardier indicated that the SATCOM avionics were determined to be defective and were replaced.
- 2.4.14. 3220-GM, Closed / Air – Technical. Nippon Cargo Airlines reported a loss of datalink functionality on one of their Boeing 747-8 aircraft while operating in oceanic airspace. A review of datalink data by both the CRA and the operator revealed that the SATCOM avionics aboard the aircraft was inoperative during the time of the event and that HF datalink was disabled, resulting in the loss of all media links. The operator confirmed SATCOM avionics replacement by the manufacturer has resolved the issue.
- 2.4.15. 3222-GM, Closed / Air – Technical. Nippon Cargo Airlines reported a loss of datalink functionality on one of their Boeing 747-8 aircraft. A review of datalink data by both the CRA and the operator revealed that the SATCOM avionics aboard the aircraft was inoperative during the time of the event and that both VHF and HF datalink were initially disabled, resulting in the loss of all links. VHF was re-established and used until coverage was lost in oceanic airspace, resulting in a loss of all links. The operator confirmed SATCOM avionics replacement by the manufacturer has resolved the issue.
- 2.4.16. 3223-MM, Active / TBA. The FAA reported delays to ADS-C reports from multiple aircraft delivered via Iridium during five separate days in July 2021. The CRA assigned this PR to Iridium to investigate.
- 2.4.17. 3229-MM, Closed / None. A general aviation Gulfstream G650 aircraft operator reported that the aircraft did not meet RSP180 95% delivery time requirements. The CRA closed this PR as a non-problem because it was based on only 34 ADS-C reports during one flight.
- 2.4.18. 3241-MM, Closed / TBA. JCAB reported that ATMC could not establish an ADS-C connection with an Air Canada Boeing 777. The CRA and Boeing could not investigate

this PR because the ACARS message log from ARINC and the avionics log from the aircraft were no longer available.

- 2.4.19. 3252-GM, Closed / Air – Technical. Nippon Cargo Airlines reported a loss of datalink functionality on one of their Boeing 747-8 aircraft while operating in oceanic airspace. A review of datalink data by both the CRA and the operator revealed that the SATCOM avionics aboard the aircraft was inoperative during the time of the event. While a SATCOM avionics reset temporarily resolved the issue, the operator confirmed SATCOM avionics replacement by the manufacturer was ultimately required to resolve the issue.
- 2.4.20. 3263-MM, Closed / Ground – Technical. JCAB reported that the CPDLC transfer of authority from Manila to ATMC for a Japan Airlines Boeing 787 failed. Manila indicated that it did not transfer CPDLC authority to ATMC due to a ground system software problem that was subsequently fixed.
- 2.4.21. 3272-MM, Closed / Ground – Procedural. JCAB reported that Oakland Oceanic transferred CPDLC authority to ATMC approximately 42 minutes early for a Japan Airlines Boeing 787. The FAA indicated that the controller intended to terminate the CPDLC connection with a different aircraft but instead the controller inadvertently terminated the CPDLC connection with this aircraft.
- 2.4.22. 3280-MM, Active / TBA. JCAB reported that it experienced AFN log on and ADS-C periodic report problems with a USAF KC-135. The CRA assigned this PR to the USAF to investigate.
- 2.4.23. 3285-RP, Active / TBA. JCAB reported that the avionics on an ANA Boeing 767 acknowledged receiving two CPDLC uplink messages but did not display them to the flight crew. The CRA is investigating this PR.

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.