# **Problem Report Briefing**

FANS Interoperability Team Meeting (FIT/20)
Auckland, New Zealand, 26-27 February 2013
Suzie Ness – FIT CRA

## Agenda

- Introduction
- PR Status Definitions
- PR Type Definitions
- Problem Report Metrics
- Updates on Pre-FIT/20 PRs
- Specific New PRs for Discussion
- All South Pacific PRs received since FIT/19

### Introduction

- PRs filed via ISPACG-CRA, NAT DLMA Problem Reporting website: <a href="http://www.ispacg-cra.com/">http://www.ispacg-cra.com/</a>
  - Website hosted by Airways Corporation of New Zealand Limited
- At FIT/19 CRA requested help getting operators registered
  - Excellent progress since last meeting:
    - 32 Operators now registered including USAF Air Mobility Command,
       US Navy, and one GLF-5 operator
    - 9 operators reported problem via website in 2012

#### Introduction

- 116 PRs received since FIT/19 (Feb 10, 2012 Feb 8, 2013)
  - 4 received since Feb 8, 2013; <u>24</u> received to date in 2013
- Followed up on and were able to close large backlog of old OPEN and ACTIVE PRs (refer to slide 7)
  - Difficult to get feedback on business and military jet PRs...
    - Kudos to Paul Radford for engaging USAF Air Mobility Command via DLUF paper
- Posted updated de-identified PR file and will continue to do so periodically.
  - Also available on ISPACG/27 website
     (http://www.airways.co.nz/ispacg/ispacg27/programme.asp)

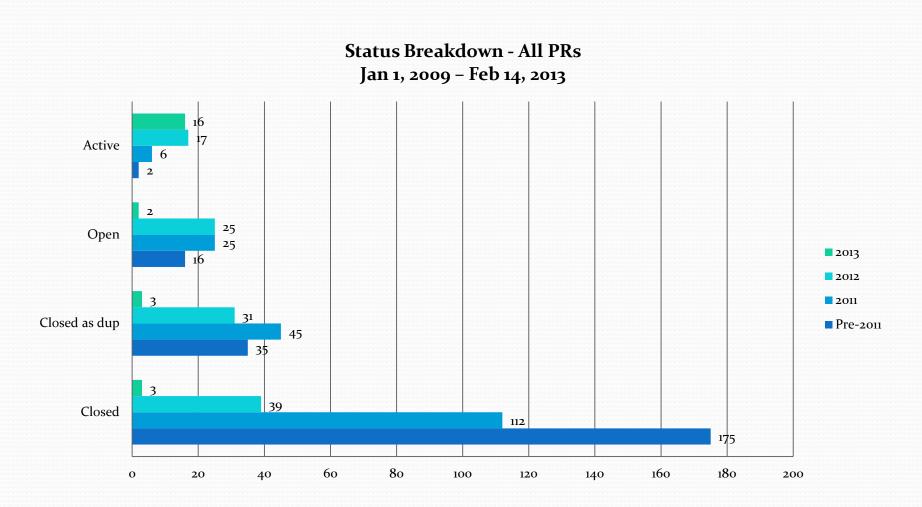
#### **PR Status Definitions**

- RAISED the PR has been filed by the originator but has not yet been processed by the CRA
- ACTIVE CRA has processed the PR and allocated a CRA # and someone to investigate it. During this phase the PR is under investigation
- OPEN The investigation is complete however some form of correction is required before it can be closed
- CLOSED AS DUPLICATE Closed because problem is already covered under another PR
- CLOSED Corrective action has been implemented or PR is a non-problem

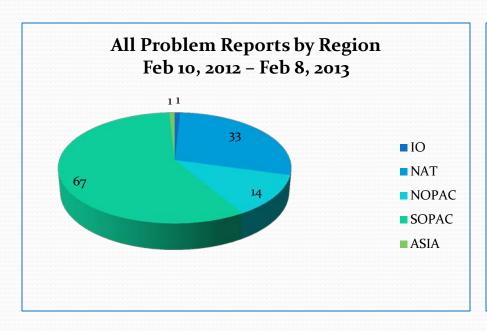
## PR Type Definitions

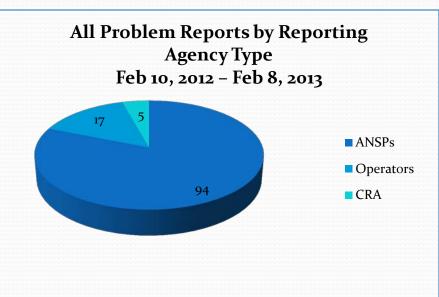
- Website choices: AIR, GROUND, NETWORK, TBA
- CRA tracking breaks out as:
  - AIR procedural Problem due to flight crew action
  - AIR technical Problem due to avionics fault
  - GROUND Problem due to issue at ATSU
  - NETWORK Problem at GES or in network
  - Mult Problems occurred in more than one area
  - None Problem was a non-problem
  - TBA To Be Assigned problem type not yet determined

# **Problem Report Metrics**



# **Problem Report Metrics**





- 923-RS B777 Several undelivered CPDLC uplinks
  - B777 acknowledges and then discards uplinks
  - 4 new reports since FIT/19 1140-SN, 1151-SN, 1157-SN, 1203-SN
  - PR closed, confirmed fixed in BPV 16

- 1030-GS No optional latitude longitude and airway to airway join in route requests
  - Also PR-1113-GS
  - PR confirmed fixed in 777 AIMS-2 BPV 17, to be closed when retrofit Service Bulletin available (4Q13)

- 1075-GS B777 Incorrect deviation R 128NM appended to CPDLC Position Report
  - CPDLC report entering NZZO had a R 128NM deviation appended. Aircraft was actually on a 1 NM SLOP
  - PR confirmed fixed in 777 AIMS-2 BPV 17, to be closed when retrofit Service Bulletin available (4Q13)

- 1083-GS B787 unable to encode waypoint position in ADS-C predicted route
  - All waypoints with a longitude of 180° (both lat/long fixes, and longitude reporting points) are encoded as S180W180 (default value)
  - PR confirmed fixed in 787 BP 2, to be closed when retrofit Service Bulletin available in 3Q13

- 1094-SN Corrupted CPDLC downlinks from B777
  - Some CPDLC position reports contain extra zeroes and ones in the CRC'd portion of the encoded message
    - E.g., AT1.XX-XXXA096330C1D803BA24CF8A41858F0D461890400000019922CB01658310AD80 0607729403237
  - Same scenario (but different outcome) as 1132-MM, 1171-SN
  - Reproduced in Boeing lab
  - Candidate for BPV 17A (awaiting approval)

## Updates on Pre-FIT/20 PRs – Airbus

- 2 categories of ADS-C PRs:
  - Invalid data (1116, 1084, 959)
  - Erroneous ETG (634A, 928, 868, 940, 1079, 1114, 1116)
  - Refer to Airbus Working Paper

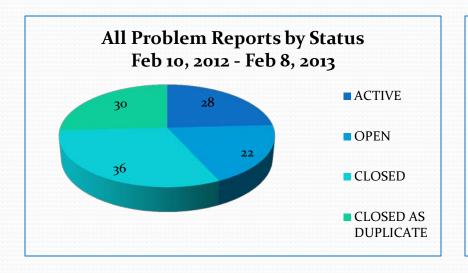
### Updates on Pre-FIT/20 PRs – FAA

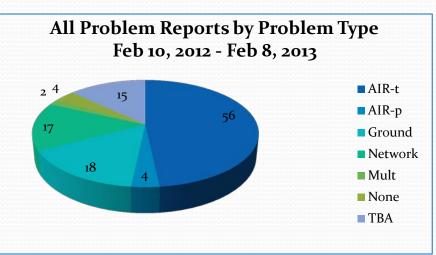
- 1111-GS Invalid ATC uplinks
  - Crew sent several free text re-route requests and received 'INVALID ATC UPLINK' response to each one
  - Free text downlinks included "DCT"
  - Per CRA review, route uplinks each included airway with a single-character (non-ISO5) name
  - PR closed, software with PR fix installed in Oakland on 11/30/12

### Updates on Pre-FIT/20 PRs — SITA

- 1112-GS SATCOM Uplinks Not Delivered, but Downlinks Are
  - Subject of FIT/19 Working Paper
  - 9 new reports since FIT/19: 1126-SN, 1135-SN, 1142-SN, 1147-SN, 1150-SN, 1190-SN, 1210-SN, 1211-RP, (1241-SN)
  - SITA investigating scope of issue and what would be involved in modifying FANS UL routing logic

## New PRs





#### 1128-SN - Incorrect lat/long uplinked in route clearance

Region: SOPAC Status: OPEN Type: AIR-t

- Route clearance uplinked to B763 contained lat/long: 32N180E
- Pilot reported receiving 32N179E
- Behavior is result of a "fix" to correct a software reset that occurred with flight plan entry of longitude of E or W 180
- Fix was to change 180 to 179.9998 to prevent the variable from blowing up;
   longitude displayed in the flight plan as 179
- 777 and 787 have the same behavior
- Software fix will allow for entry and display of E/W 180
  - PR confirmed fixed in 777 AIMS-2 BPV 17, to be closed when retrofit Service Bulletin available in 4Q13
  - PR confirmed fixed in 787 BP 2, to be closed when retrofit Service Bulletin available in 3Q13
  - 757/767 fix candidate for next software blockpoint

# 1129-SN - ADS-C reports possibly contained Inactive route data

Region: SOPAC Status: CLOSED Type: AIR-p

- Aircraft requested diversion to NWWW
- For a period of time, ADS-C reports contained PRG indicating aircraft was flying towards NWWW, but Basic positions indicated aircraft was actually flying towards YBBN
- Pilot changed flight plan for diversion prior to requesting clearance, but continued tracking to YBBN until cleared
- B744 FMC does not compute predictions for inactive route, so pilot had to activate diversion flight plan to get predictions

# 1132-MM - Incorrect next fix time in CPDLC position report 1171-SN - Corrupted Next Fix in CPDLC Position Report

Region: SOPAC Status: OPEN Type: AIR-t

#### PR-1132-MM

- Aircraft sent DM48 position report with incorrect time at next fix
- Time sent for next fix was actually reported time at current fix

#### PR-1171-SN

CPDLC Position Report received had Next Fix decoded as S10W1@@; expected position from FPL was 10S171W

Same scenario (but different outcome) as PRs 1094-SN (2011)

- Problems occur when a Direct To the active fix is executed right as the active waypoint sequences
- Fix is targeted to 777 AIMS-2 Block Point Version 17A (pending approval)

# 1145-SN - B777 unable to send CPDLC messages after Data Authority Transfer

Region: SOPAC Status: OPEN Type: AIR-t

- Inactive CPDLC connection with YBBB successfully established; aircraft was estimating NFFF / YBBB FIR boundary at 1920
- At 2024, YBBB uplinked CPDLC message "REQUEST POSITION REPORT"
- Uplink received by aircraft, and flight crew attempted to downlink a CPDLC position report
- Flight crew attempted other downlinks, and noted that all downlinks they had attempted to send to YBBB had been "aborted"
- Flight crew was instructed to re-initiate logon process, and then all CPDLC functionality operated normally
- Behavior duplicated in the Boeing lab
- Problem occurs if a downlink is sent and the End Service uplink is initiated during a media transition or period of No Comm
- Honeywell investigating; fix target TBD

#### 1148-SN - Loss of FANS functions

Region: SOPAC Status: OPEN Type: AIR-t

- After ATC logon on VHF, at position FICKY a CPDLC position report and subsequent altitude request remained in the 'sending' mode
- Flight crew attempted two master datalink resets and other remedies
- CPDLC transfer from KZAK to NZZO failed but subsequent logon was successful and FANS functions were normal for the rest of the flight
- Log contained numerous Q5 rejects "Unable to Deliver Uplinked Message"
- Problem is targeted for correction in 777 AIMS Block Point Version 17

# 1155-GS - CPDLC Downlink message unreadable from B763

Region: SOPAC Status: OPEN

- Downlink request contained freetext element with random characters and destination airport identifier
- Random free text also displayed on VERIFY REQUEST page prior to sending
- Also reported in PRs 1179-MM and 1200-SN.
- Problem has been duplicated in Boeing lab and will be a candidate for the next 757/767 FMC block point

Type: AIR-t





# 1160-GS - Ocean21 Treats Optional Lat/Long as Separate Waypoint

Region: NOPAC Status: OPEN Type: GROUND

- DARP request included optional lat/long position information for waypoint MORAY
- Uplinked routeclearance contained optional latitude/longitude as a separate fix following MORAY
- Route construct prevented FMC from loading airway following MORAY
- Fix expected to be fielded 2Q13

# 1165-DN - Report of Large Data and Clearance Not Displayed by A/C Resulting in Failure of Climb Clearance

Region: NAT Status: OPEN Type: AIR-t

- Aircraft requested climb to FL350 via CPDLC
- ATC were unable to clear aircraft to requested level but could clear for climb to a lower level
- Per procedure, sent UNABLE/DUE TO TRAFFIC/ [STANDBY FOR HIGHER LEVEL]
- Aircraft ROGER'd this message
- Controller sent clearance 'CLIMB TO REACH [F310] BY [50N/20W]/ REPORT LEVEL [F310]/ [.....UNABLE YOUR REQUESTED LEVEL.....]
- Aircraft WILCO'd this message but failed to comply with the clearance
- When queried, flight crew said they had not received a climb clearance
- Uplink was too long to display in ATC message block on EICAS display; "LARGE ATC UPLINK" displayed in this situation
- ACCEPT and REJECT options were also (erroneously) displayed on message block
- Erroneous display of ACCEPT and REJECT options will be corrected in the next 747-8
   FMC software update (Block Point Version 3 4Q13)

# 1178-MM - Invalid next+1 position and altitude over long period

Region: SOPAC Status: CLOSED Type: None

- Next+1 position and altitude showed as INVALID in all downlinked ADS-C reports
- What was observed was correct behavior
- Arrival and approach procedures had not yet been loaded into the FMC, and there
  was only one fix left in the route
- The (non-existent) next+1 fix was encoded as S180-0.0,W180-0.0, as required
- All was well after procedure was loaded into FMC
- Originator considering drafting guidance for the GOLD regarding the meaning of default data in ADS reports

#### 1182-SN - Unexpected ADS Report

Region: NAT Status: ACTIVE Type: AIR-t

- An ADS alert message was triggered for an aircraft indicating an altitude deviation
- Flight had been cleared on a random route at FL350
- Alert message indicated aircraft at FL368 (with no vertical rate)
- Flight crew were contacted and reported not leaving FL350
- ADS demand contracts indicated FL350
- CRA log review confirmed altitude reported as FL368 in one ADS report
- Boeing investigation in progress. To date, they have been unable to duplicate this behavior in the lab

#### 1194-SN - KLAX Tailored Arrival Trial

Region: SOPAC Status: CLOSED Type: GROUND

- In early September, Tailored Arrival requests made by CPDLC began being denied
- Communication with Oakland Center indicated that SOCAL TRACON and consequently L.A. Center were no longer supporting TAs
- There was no consultation, or notification by way of a NOTAM to users
- Issues have been resolved; refer to FAA ISPACG paper

### 1195-SN - No Address forwarding from WAAF

Region: SOPAC Status: CLOSED Type: GROUND

- Address forwarding from WAAF to YBBB stopped in mid-September
- Problems with southbound transfers from WAAF appear to have been corrected

# 1214-GS - Nulls received in AFN message- incorrect message format

Region: NAT Status: CLOSED Type: AIR-t

- Null characters were received in an AFN message from a B788 and caused issues with end system
- If the airplane's ICAO Identifier has a leading zero, the AFN logon message is created containing erroneous (NUL) characters
- Problem corrected in 787 Blockpoint v1A

# 1215-SN - Multiple WILCO messages received in response to one up-link clearance from B777

Region: NAT Status: ACTIVE Type: AIR-t

- Aircraft was issued a multi-element clearance
- WILCO was received at 0407Z...followed by more than 1600 (yes, one thousand six hundred) identical WILCO's between 0407Z and 1318Z
- Boeing and Honeywell investigation in progress

#### 1228-SN - Unable to establish data link A333 - odd errors

Region: SOPAC Status: ACTIVE Type: TBA

- Per the CRA review, downlinks were received over SITA VHF and then satcom, while uplinks were being internetworked to ARINC and uplinked over HF
- SITA and ARINC both assisting with the investigation

#### 1236-SN - No ADS-C WCE received - A332

Region: SOPAC Status: ACTIVE Type: GROUND

- No ADS-C WCE report received at WEENA
- CRA investigation indicated problem was in ATC ground station
- Ground station appeared to be randomly discarding ADS reports
- Also reported in PRs 1207-SN and 1235-SN
- ASA investigation in progress

# 1237-SN - LOAD prompt displayed for rejected CPDLC clearance - B744

Region: SOPAC Status: ACTIVE Type: NETWORK

- Flight was issued a route clearance by CPDLC
- Clearance contained an erroneous lat/long and flight crew were instructed (by voice) to disregard and reject clearance
- Corrected clearance was uplinked and WILCO'd
- Approximately 5-10 minutes later, flight crew (by voice) asked for confirmation of their clearance
- During the subsequent discussion they confirmed that the clearance they were being prompted for was the original (erroneous) clearance
- Per CRA analysis, flight crew received first routeclearance over SITA VHF and responded with UNABLE as requested by ATC, but airplane was at fringe of VHF coverage, and ACARS ACK did not reach network
- Flight crew received second (corrected) routeclearance over ARINC satcom and responded with WILCO
- 15 minutes after first routeclearance timed out on VHF, first routeclearance was internetworked to ARINC and delivered over satcom
- PR has been assigned to SITA to investigate

CRA number	Status	Туре	Title	Comments
2012 PRs				
1128-SN	OPEN	AIR-t	Incorrect lat/long uplinked in route clearance	This behavior is actually the result of a "fix" to correct a software reset that caused the FMC flight plan to clear when a longitude of E or W 180 was entered. The fix was to change 180 to 179.9998 to prevent the variable from blowing up. This is displayed in the flight plan as 179. 777 and 787 have the same behavior. 777 fix in AIMS-2 BPV 17 (4Q13); 787 fix in BP2 (3Q13). 757/767 fix candidate for next software blockpoint. Software fix will allow for entry and display of E/W 180.
1129-SN	CLOSED	AIR-p	ADS-C reports possibly contained Inactive route data	The pilot changed the flight plan for the diversion prior to requesting clearance, but continued tracking to YBBN until cleared. Execution of the flight plan change would have triggered the out of conformance. The (old) 744 FMC does not compute predictions for the inactive route, so the pilot had to activate the diversion flight plan to get preds.
1130-SN	OPEN	AIR-t	Incorrect ADS-C estimate for NEXT - B777	rThis problem can occur under the following condition: The flight plan contains a planned step down and an arrival procedure is selected which results in a top of descent prior the step down waypoint.
1132-MM	OPEN	AIR-t	Incorrect next fix time in CPDLC position report	Problem can occur when a Direct To the active fix is executed right as the active waypoint sequences. This problem is targeted to be corrected in 777 AIMS-2 Block Point Version 17A (pending approval).
1134-SN	CLOSED	AIR-t	Loss of comms	It appears that the airplane had a brief satcom issue (duration of approx 5 min). Closed due to no further issues reported with this airplane's satcom system.
1135-SN	CLOSED AS DUPLICATE	NETWORK	Unable to establish CPDLC / ADS-C connections with GLF5	Closed as a duplicate of 1112-GS.

CRA number	Status	Type	Title	Comments
1136-MM	CLOSED AS DUPLICATE	AIR-t	CPDLC Downlinks not received for B777	Closed as duplicate of PR 1145-SN.
1138-SN	OPEN	AIR-t	Unsolicited WILCO downlinked to YBBB (B777)	A second event occured a week later. Duplicated in the Boeing lab.
1140-SN	CLOSED AS DUPLICATE	AIR-t	ADS Contracts not cancelled but MAS (S) was received	Closed as duplicate of PR-923-RS. PR-923-RS was corrected in B777 AIMS Block Point Version 16. When this problem occurred, the avionics would acknowledge and then discard the uplink instead of forwarding it to the appropriate application.
1142-SN	CLOSED AS DUPLICATE	NETWORK	Failed CPDLC transfer to Oakland	Closed as a duplicate of 1112-GS.
1145-SN	OPEN	AIR-t	B777 unable to send CPDLC messages after Data Authority Transfer	Duplicated in the Boeing lab. The problem occurs if a downlink is sent and the End Service uplink is initiated during a media transition or period of No Comm.
1146-SN	ACTIVE	AIR-t	Unable to communicate with one aircraft from 2233z - 0028z	Per ARINC review, it appears there was an avionics problem on the airplane. Problem under investigation at Honeywell and Gulfstream.
1147-SN	CLOSED AS DUPLICATE	NETWORK	Unable to establish an ADS connection	Closed as a duplicate of 1112-GS.
1148-SN	OPEN	AIR-t	Loss of FANS functions	This problem is targeted for correction in 777 AIMS Block Point Version 17.
1150-SN	CLOSED AS DUPLICATE	NETWORK	Unable to logon to KZAK	Closed as a duplicate of 1112-GS.
1151-SN	CLOSED AS DUPLICATE	AIR-t	Unable to re-establish CPDLC with B777	Closed as duplicate of PR-923-RS. PR-923-RS was corrected in B777 AIMS Block Point Version 16. Also see PR 1140-SN

CRA number	Status	Туре	Title	Comments
1152-SN	CLOSED	AIR-t	Delayed downlinks from B772	The airplane had no satcom system and appeared to be operating at the fringe of VHF. Some downlinks were delayed while the airplane tried to find a good station.
1153-SN	CLOSED	NETWORK	Unable to establish ADS, CPDLC with B744	ARINC confirmed there was a problem at Santa Paula at that time.
1154-SN	CLOSED	NETWORK	Unable to establish ADS, CPDLC with B737	The airplane involved belongs to USAF. A contracted 3rd party investigated on their behalf. Based on the limited information provided to the CRA, the problem appeared to have been the result of a network issue.
1155-GS	OPEN	AIR-t	CPDLC Downlink message unreadable from B763	This problem has been duplicated in the Boeing lab and will be a candidate for the next 757/767 FMC block point. Also reported in PRs 1179-MM and 1200-SN.
1156-SN	CLOSED AS DUPLICATE	AIR-t	Delayed downlinks from B772	Closed as duplicate of PR 1152-SN
1157-SN	CLOSED AS DUPLICATE	AIR-t	5 failed connection requests CPDLC	Closed as duplicate of PR-923-RS. PR-923-RS was corrected in B777 AIMS Block Point Version 16. Also see PR 1140-SN
1158-SN	CLOSED	NETWORK	Uplinks via SATCOM in VHF coverage	ARINC had a missing configuration for VHF Australia to internetwork to AeroThai. This configuration change was activated in May, 2012.
1162-SN	OPEN	AIR-t	CPDLC Anomaly	On very rare occasions, the right FMC misses a synchronization event from the left. When this happens, the left FMC forces a resynch of the right side. One of the side effects is that the right FMC's ATC log gets messed up. Originally documented in Jan 2001 in FIT PR 338 which predates the current PR system.
1170-GS	OPEN	AIR-t	Partial Load of Tailored Arrival	We have not been able to reproduce this problem in the Boeing lab and suspect this is related to a problem fixed in 777 BPV 16. Recommend this be left open and monitor for new occurrence with BPV 16.

CRA number	Status	Туре	Title	Comments
1171-SN	OPEN	AIR-t	Corrupted Next Fix in CPDLC Position Report	Reproduced in the Boeing lab. This problem is targeted to be corrected in 777 AIMS-2 Block Point Version 17A (pending approval).
1172-MM	CLOSED	AIR-p	No .LOAD. prompt for route uplink	Could not reproduce in the Boeing lab. It is suspected that there was a route mod pending and the flight crew didn't notice, or didn't know the LOAD button would be inhibited with a mod pending.
1178-MM	CLOSED	None	Invalid next+1 position and altitude over long period	This is a non-problem. What was observed was correct behavior when there was only one fix left in the route and before the arrival and approach procedures had been loaded into the FMC. The (non-existent) next+1 fix was encoded as \$180-0.0, W180-0.0, as required. After the procedure was loaded into the FMC, all was well. The originator is drafting guidance for the GOLD regarding the meaning of default data in ADS reports.
1183-SN	CLOSED AS DUPLICATE	AIR-t	CPDLC Downlinks not received after CPDLC transfer	Closed as a duplicate of PR-1145-SN.
1186-SN	CLOSED AS DUPLICATE	AIR-t	B772 CPDLC Estimate for NEXT same as time over PREVIOUS	Closed as a duplicate of PR 1132-MM
1188-SN	ACTIVE	AIR-t	UM166 + UM77 combination received by A388	Refer to Airbus Working Paper
1189-SN	CLOSED	NETWORK	Unnotified CSP outage	On September 14, ARINC experienced a power outage during a planned UPS maintenance. Their global network processor recovered quickly and aircraft communication was re-established within a short period of time. Due to the nature of the power outage additional checks were also made on the application servers in the secondary system before all applications were recovered.
1190-SN	CLOSED AS DUPLICATE	NETWORK	airplane unable to logon to YBBB	Closed as a duplicate of 1112-GS.

CRA number	Status	Туре	Title	Comments
1192-SN	ACTIVE	AIR-t	Off Track Deviation in CPDLC Position Report from C17	Assigned to USAF for investigation.
1193-SN	CLOSED AS DUPLICATE	GROUND	Failed transfer	Closed as a duplicate of PR 1195-SN.
1194-SN	CLOSED	GROUND	KLAX Tailored Arrival Trial	Issues have been resolved. Refer to FAA ISPACG paper
1195-SN	CLOSED	GROUND	No Address forwarding from WAAF	Problems with southbound transfers from WAAF appear to have been corrected.
1198-MM	CLOSED	AIR-t	Contact Message not received by aircraft	The reported problem cannot be explained. The aircraft avionics acknowledged receipt of the CONTACT KZOA CENTER 119.975 uplink from KZAK, but no corresponding WILCO downlink from the aircraft was received (and the PR originator stated that the flight crew reported that they did not receive the uplink).  The previous CPDLC exchange approximately 10 minutes earlier was normal.
1199-SN	CLOSED	None	Duplicate uplinks	The uplink was attempted 8 times over VHF. When no ACARS ack was received from the airplane, the message was redirected to satcom. As sometimes occurs, the airplane received the message, but the VHF station did not "hear" the ACARS ack and continued to attempt the uplink. In this case, the airplane received the message 3 times – twice over VHF and once over satcom.
1201-SN	ACTIVE	NETWORK	Simultaneous SATCOM failures for one operator	sAssigned to SITA for investigation.
1202-SN	ACTIVE	AIR-t	Empty CPDLC downlinks received	Based on the log for the most recent event, the problem scenario appears to be similar the scenario for PR-1138-SN. Boeing has been unable to reproduce this problem in the lab and are monitoring for additional occurrences.

CRA number	Status	Туре	Title	Comments
1203-SN	CLOSED AS DUPLICATE	AIR-t	No CPDLC CC1 , then on next sector no ADS connection	Closed as duplicate of PR-923-RS. PR-923-RS was corrected in B777 AIMS Block Point Version 16. Also see PR 1140-SN
1205-SN	ACTIVE	AIR-t	Random free text appended to position report	The appended free text seems to have been prepared during the flight that occurred the day before but was never sent. The reason why it has been erroneously appended without the crew being aware of it remains unexplained. It is the second case of such an anomaly (the previous one however, was on a previous standard)  On going investigations before a fix is defined.
1207-SN	CLOSED AS DUPLICATE	GROUND	ADS-C WCE not received from A332	Closed as a duplicate of (2013) PR-1236-SN.
1209-MM	CLOSED AS DUPLICATE	AIR-t	ADS-C Periodic not received (or late) for MD-11	Closed as a duplicate of PR 1219-SN.
1210-SN	CLOSED AS DUPLICATE	NETWORK	Loss of CPDLC, ADS-C with A332	Closed as a duplicate of 1112-GS.
1211-RP	CLOSED AS DUPLICATE	NETWORK	Loss of CPDLC, ADS-C with B777	Closed as a duplicate of 1112-GS.
1212-SN	CLOSED	AIR-t	Loss of CPDLC, ADS-C with A340	Per ARINC review, it appears there was a satcom problem on the airplane. No further issues with this airplane have been reported.
1213-GS	ACTIVE	TBA	Multiple waypoint event reports from B777	CRA investigation in progress.
1218-SN	ACTIVE	GROUND	Erroneous ADS-C report for A332	Airbus analysis indicates the problem was in the ATC ground station. The problem has been reassigned to Air Services Australia. ASA investigation in progress.
1219-SN	OPEN	AIR-t	Large CPDLC, ADS-C delays for MD11	An issue with the operator's CMU has been identified. Boeing is working with the operator and CMU vendor to rectify the problem.

CRA number	Status	Туре	Title	Comments
2013 PRs				
1220-SN	ACTIVE	ТВА	Data link delays for GLF5	Honeywell and Gulfstream investigation in progress
1221-SN	CLOSED	AIR-t	Data link failure - B744	Per the DSP log, the airplane appeared to be experiencing problems with its satcom system. PR 1223-SN involved the same aircraft.  Operator has completed maintenance action on the airplane's satcom system including replacement of the RFU.
1222-SN	ACTIVE	AIR-t	Data link failure but flight crew thought it was operational - A388	Airbus investigation in progress.
1223-SN	CLOSED AS DUPLICATE	AIR-t	Data link failure - B744	Closed as a duplicate of PR 1221-SN
1225-SN	CLOSED	None	Multiple position reports - A388	This was the result of the same behavior as occurred in the PR 1199-SN report. The aircraft was leaving VHF coverage. As a result, 3 copies of the position report request uplink were received on the flight deck. The flight crew responded to all three requests. Duplicate uplink delivery is not uncommon at the fringe of VHF coverage.
1226-SN	ACTIVE	TBA	Delayed MTSAT ADS-C reports out of SITA TBU VHF coverage	An issues has been identified with the MTSAT GES. MTSAT investigation in progress.
1228-SN	ACTIVE	ТВА	Unable to establish data link A333 - odd errors	Per the CRA review, downlinks were received over SITA VHF and then satcom, while uplinks were being internetworked to ARINC and uplinked over HF. SITA and ARINC both assisting with the investigation
1229-SN	ACTIVE	ТВА	Potential Problems with A332 ADS-C Reports	Airbus investigation in progress.

CRA number	Status	Туре	Title	Comments
1230-MM	ACTIVE	ТВА	B744 delayed data link performance	CRA investigation in progress.
1231-GS	ACTIVE	ТВА	Data link failure - B772	CRA investigation in progress.
1232-SN	CLOSED	AIR-t	Data link failure - A332	Per CRA analysis, the airplanes satcom system appears to have failed. CRA received feedback from operator; satcom dropout reported by crew. System tested on ground with No Fault Found.
1235-SN	CLOSED AS DUPLICATE	mult	No CPDLC - B744	Closed as a duplicate of PR-688 (sulky ATC behavior), PR-1021_MM (Rockwell-Collins CMU bug), and PR-1236-SN (Air Services' ground station software bit-bucketing ADS reports)
1236-SN	ACTIVE	GROUND	No ADS-C WCE received - A33	2CRA investigation indicates the problem was in the ATC ground station. The ground station appears to be randomly discarding ADS reports. The problem has been reassigned to Air Services Australia. ASA investigation in progress.
1237-SN	ACTIVE	NETWORK	LOAD prompt displayed for rejected CPDLC clearance - B744	The flight crew received the first routeclearance over SITA VHF and responded with UNABLE as requested by ATC. The airplane must have been at the fringe of VHF coverage, as the airplane received the message, but the ACARS ACK from the airplane did not reach the network. The flight crew received the second (corrected) routeclearance over ARINC satcom and responded with WILCO. 15 minutes after the first routeclearance timed out on VHF, the first routeclearance was internetworked to ARINC and delivered over satcom. Hence, the crew confusion over the content of the uplink. PR has been reassigned to SITA to investigate.
1238-SN	OPEN	AIR-t	Data link failure - A332	CRA investigation in progress.
1239-SN	ACTIVE	AIR-t	ADS-C failure - A332	Airplane would not send ADS reports to anyone (not FUKJJYA, nor OAKODYA, nor BNECAYA). ADS reports were sent on the previous flight. Assigned to Airbus for further investigation.