



Attachment

JCAB CRA Activities since IPACG FIT-20

IPACG-34/FIT-21

Honolulu, Hawaii

May 24, 2011

JCAB Central Reporting Agency

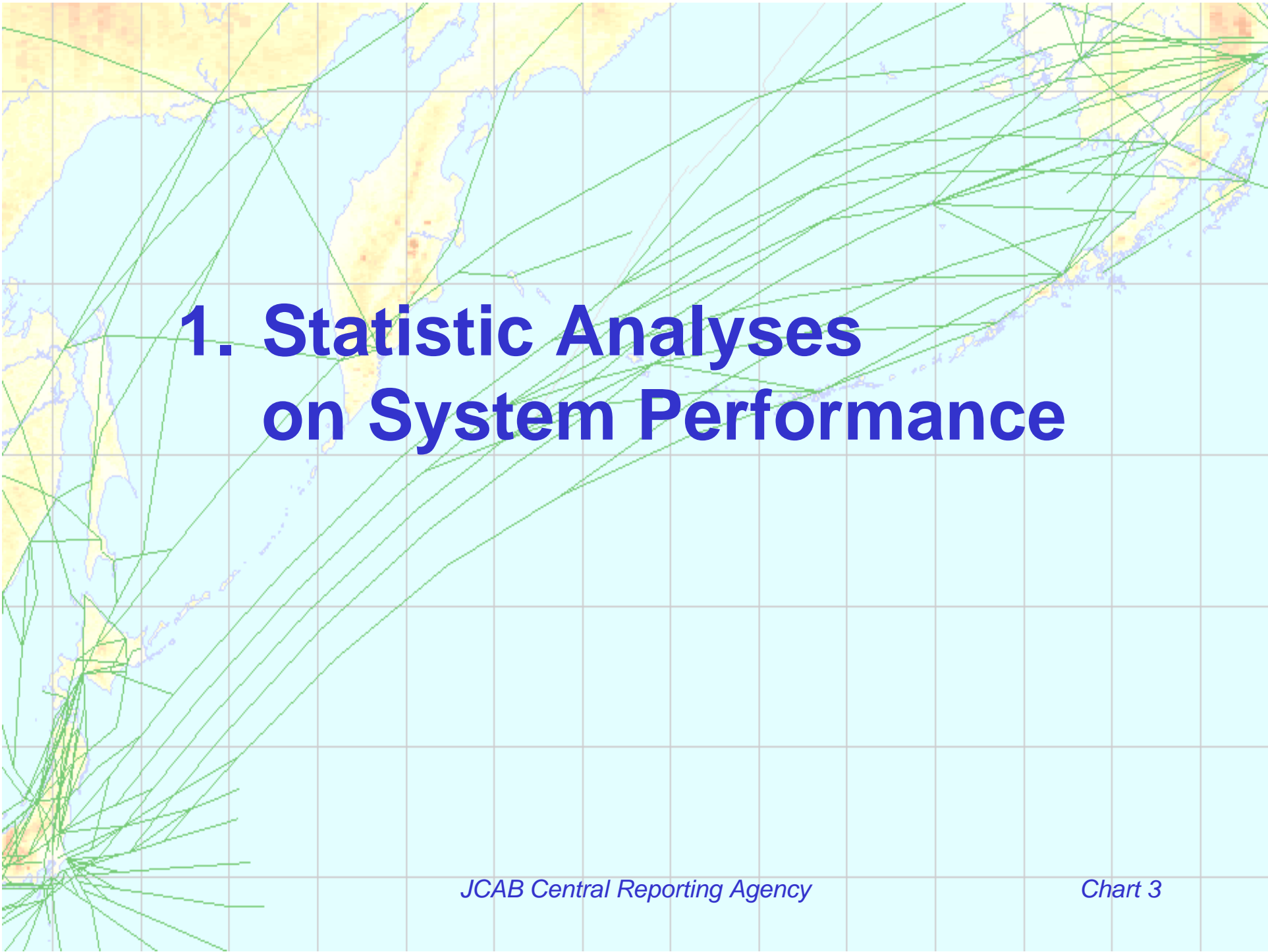
Chart 1



JCAB CRA Activities Since IPACG FIT-20

This presentation contains;

- 1. Statistic Analyses on System Performance**
- 2. Problems Reported since IPACG FIT-20**

A map of the Pacific Ocean region, showing the western coast of North America, Central America, and the eastern coast of South America. The map is overlaid with a grid of latitude and longitude lines. Numerous green lines represent flight paths, originating from various points along the western coast of North America and fanning out across the Pacific towards the eastern coast of South America. The text "1. Statistic Analyses on System Performance" is centered over the map in a large, bold, blue font.

1. Statistic Analyses on System Performance



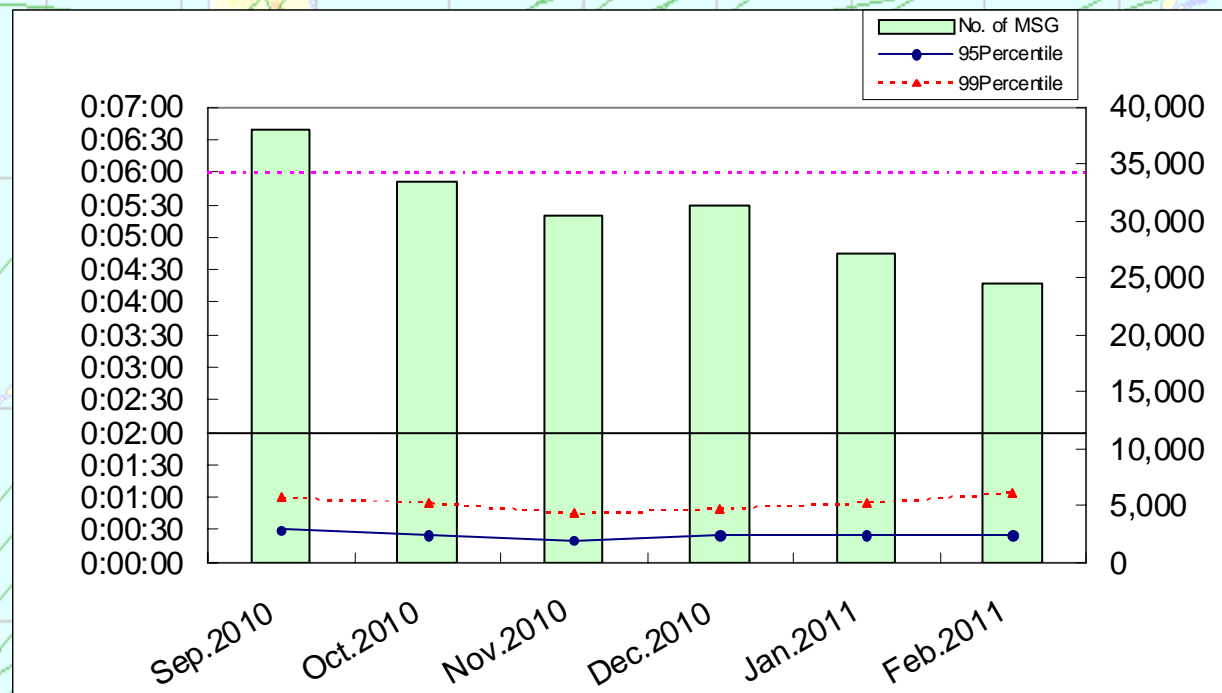
CPDLC System Performance

- ***In this section, we provide CPDLC system performance on:***
 - + CPDLC Downlink Performance
 - + CPDLC Uplink Performance
 - + CPDLC Uplink Message Success Rate
 - + Success Rate of Automatic-Transfer of CPDLC Connections to the Next ATSUs
(Fukuoka ATM Center - Oakland & Anchorage ARTCCs)

CPDLC Downlink Performance

(One-way Trip Time:
Difference of time-stamps between the avionics and ground systems)

(Fig.) CPDLC Uplink 95 & 99 Percentile

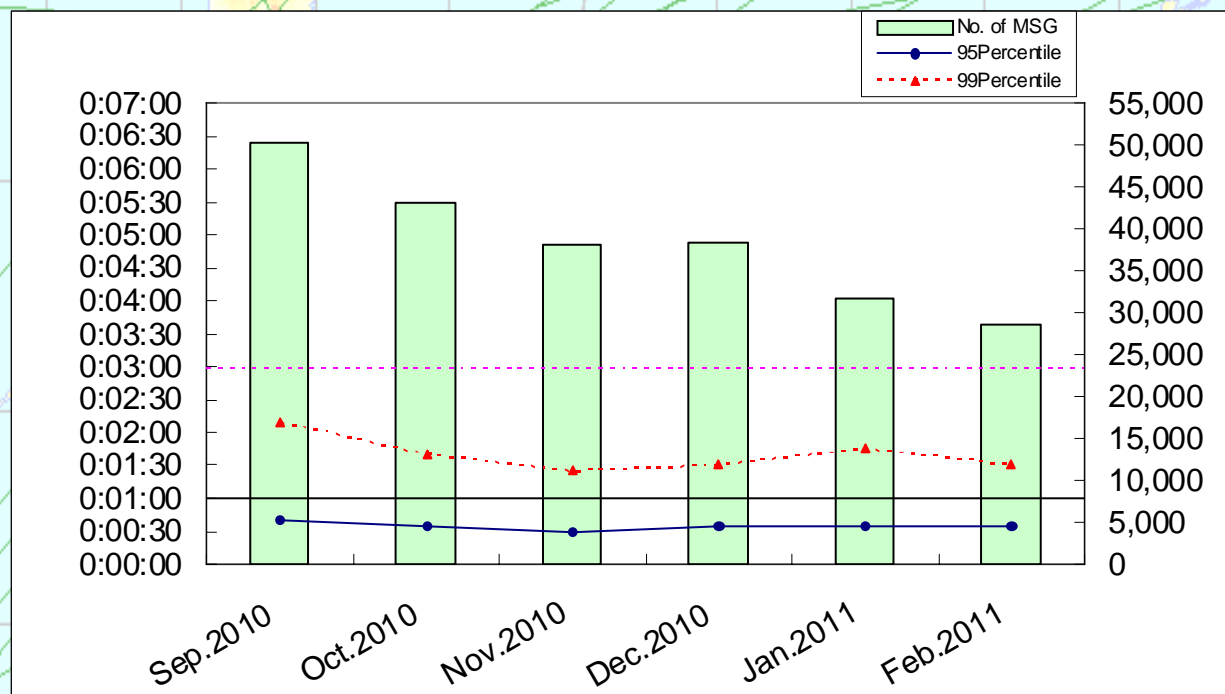


CPDLC Uplink Performance

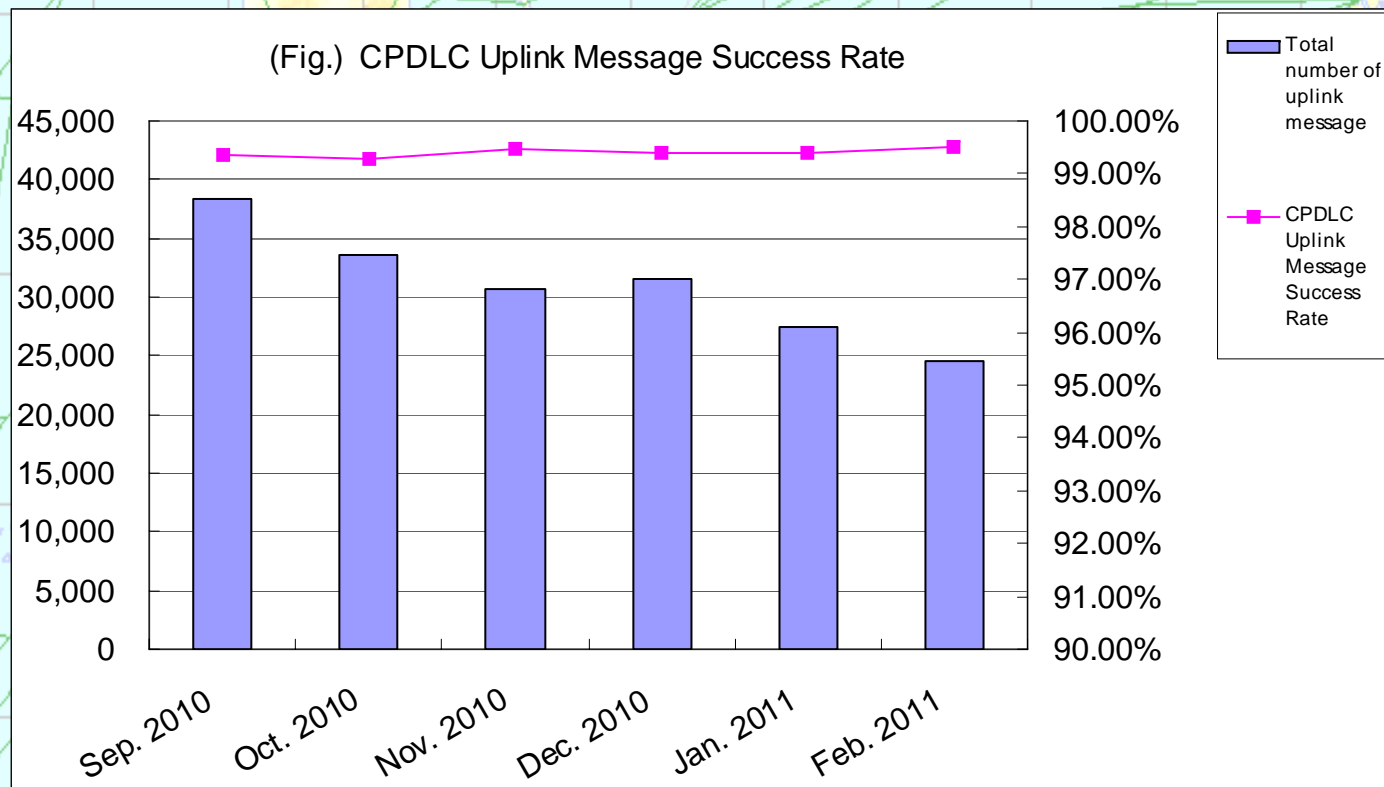
(Round Trip Time:

Transit-delay-time from time-stamp of uplink to receipt time of MAS)

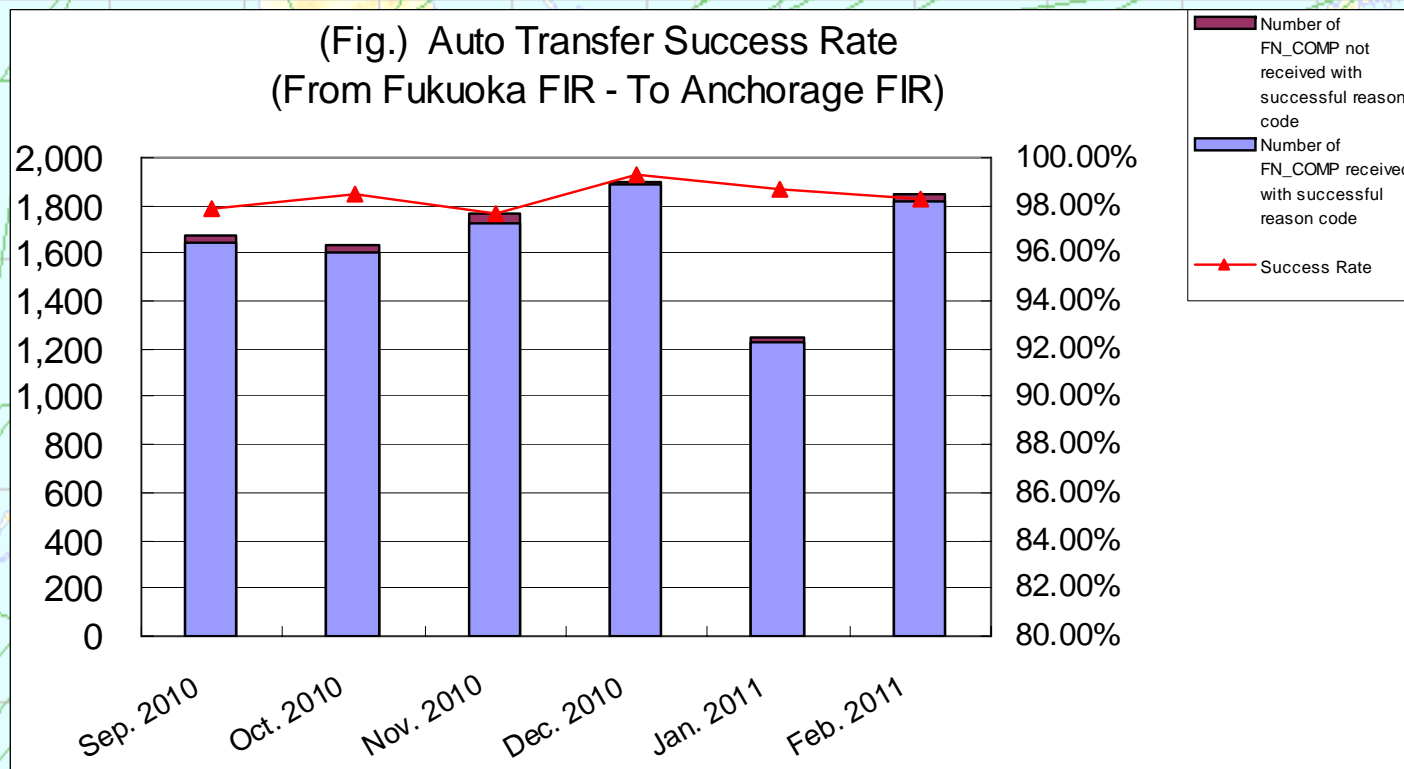
(Fig.) CPDLC Downlink 95 & 99 Percentile



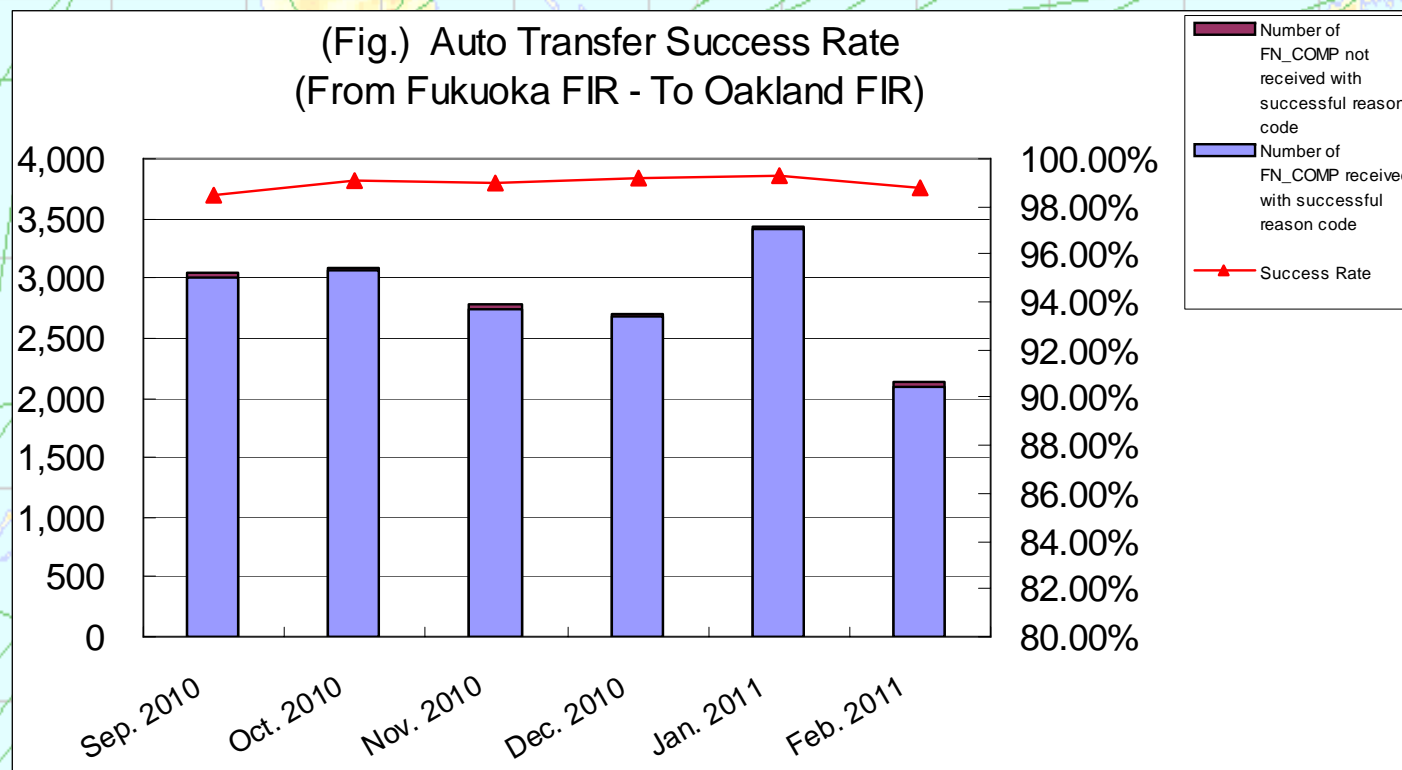
CPDLC Uplink Message Success Rate




Success Rate of Automatic-Transfer of Connections (From Fukuoka FIR to Anchorage FIR)



Success Rate of Automatic-Transfer of Connections (From Fukuoka FIR to Oakland FIR)





2. Problem Reports



JCAB CRA Activities Since IPACG FIT-20

- **Updated Problem Reports**
- **New Problem Reports**
- **Specific reports to be discussed**

Updated PRs

Updated problem reports

PR #	Problem Report Title	Air/ Ground	Comments/Notes/Description	Status	Discuss at FIT/21?
10535	Appearance to be unapproved route deviation	Air/ Ground	Waypoint Event Report undelivered	Open	Y
10538	Unable to establish CPDLC connection	Air	Avionics issue	Waiting	Y
10542	Down linked CPDLC messages without timestamps	Air	The airplane only	Waiting	Y
10543	ADS report with low level FOM (Figure of Merit)	Air	FOM LEVEL = 3	Waiting	Y

New PRs

New problem reports

PR #	Problem Report Title	Air/ Ground	Comments/Notes/Description	Status	Discuss at FIT/21?
10553	Duplicate instruction of "Report Back on Route"	Ground	ATSU End system received two times of the "Back on Route" down links	Waiting	N
10554	Incorrect position display of an ADS airplane	Air/ Ground	One hour delayed ADS report was down linked	Open	N
10555	Down link messages via HFDL undelivered	Air	HFDL for ATC unavailable in Fukuoka FIR	Open	Y
10556	Response to a Climb instruction not down linked	Air	A MAS to the climb instruction was received	Waiting	N
10557	Data transmission delay	Air/ Ground	Being No-Comm situation	Open	N
10558	CPDLC up link failure	Ground	Received "Not Current Data Authority"	Open	N
10559	Data transmission delay	Air/ Ground	Being No-Comm situation	Open	N
10560	CPDLC up link failure	Air/ Ground	Under investigation	In progress	N

New PRs

New problem reports

PR #	Problem Report Title	Air/ Ground	Comments/Notes/Description	Status	Discuss at FIT/21?
10561	Temporal data link disruption	Air/ Ground	Under investigation	In progress	N
10562	Temporal data link disruption	Air/ Ground	Under investigation	In progress	N
10563	Periodic/Demand report not down linked	Air	HFDL for ATC not available in Fukuoka FIR	Open	N
10564	ADS report with low level FOM	Air	FOM LEVEL = 4	Waiting	Y
10565	Appearance to be unapproved route deviation	Air/ Ground	WayPoint Event Report undelivered	Open	Y
10566	ADS Periodic report undelivered	Air	HFDL for ATC unavailable in Fukuoka FIR	Open	Y
10567	ADS Event report undelivered	Air	HFDL for ATC unavailable in Fukuoka FIR	Open	Y

A background map of East Asia, specifically showing Japan and the surrounding waters. The map is overlaid with a grid of latitude and longitude lines. Numerous green lines represent flight paths or routes, radiating from various points across the region. The title 'Specific PRs' is prominently displayed in the upper center of the map.

Specific PRs

- HFDL for ATC use not available in Fukuoka FIR (PR10555,PR10563,PR10566,PR10567)
- Appearance to be unapproved route deviation (PR10535,PR10565)
- ADS report with low level FOM (PR10543,PR10564)
- Unable to established CPDLC connection (PR10538)



HFDL for ATC use not available in Fukuoka FIR

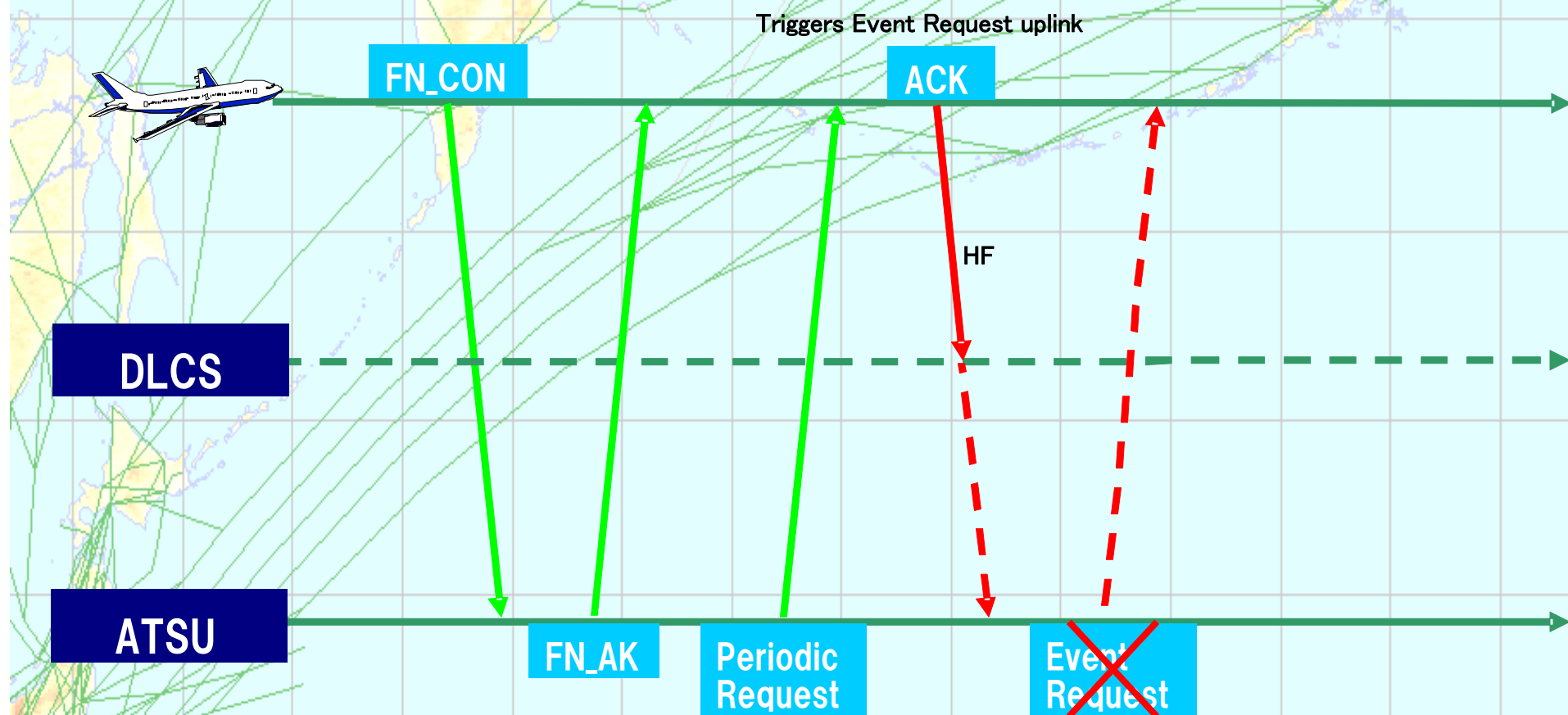
PR Number: PR10555,PR10563,PR10566,PR10567

- Airplane use of HFDL for ATC resulted in following four Problem Reports
- Automatic uplink of Event Request not performed(PR10555)
- Periodic/Demand report undelivered(PR10563)
- ADS contract established, but Aircraft not indentified as ADS airplane on ATC screen(PR10566)
- A WayPoint Event Report undelivered(PR10567)

Next slide→

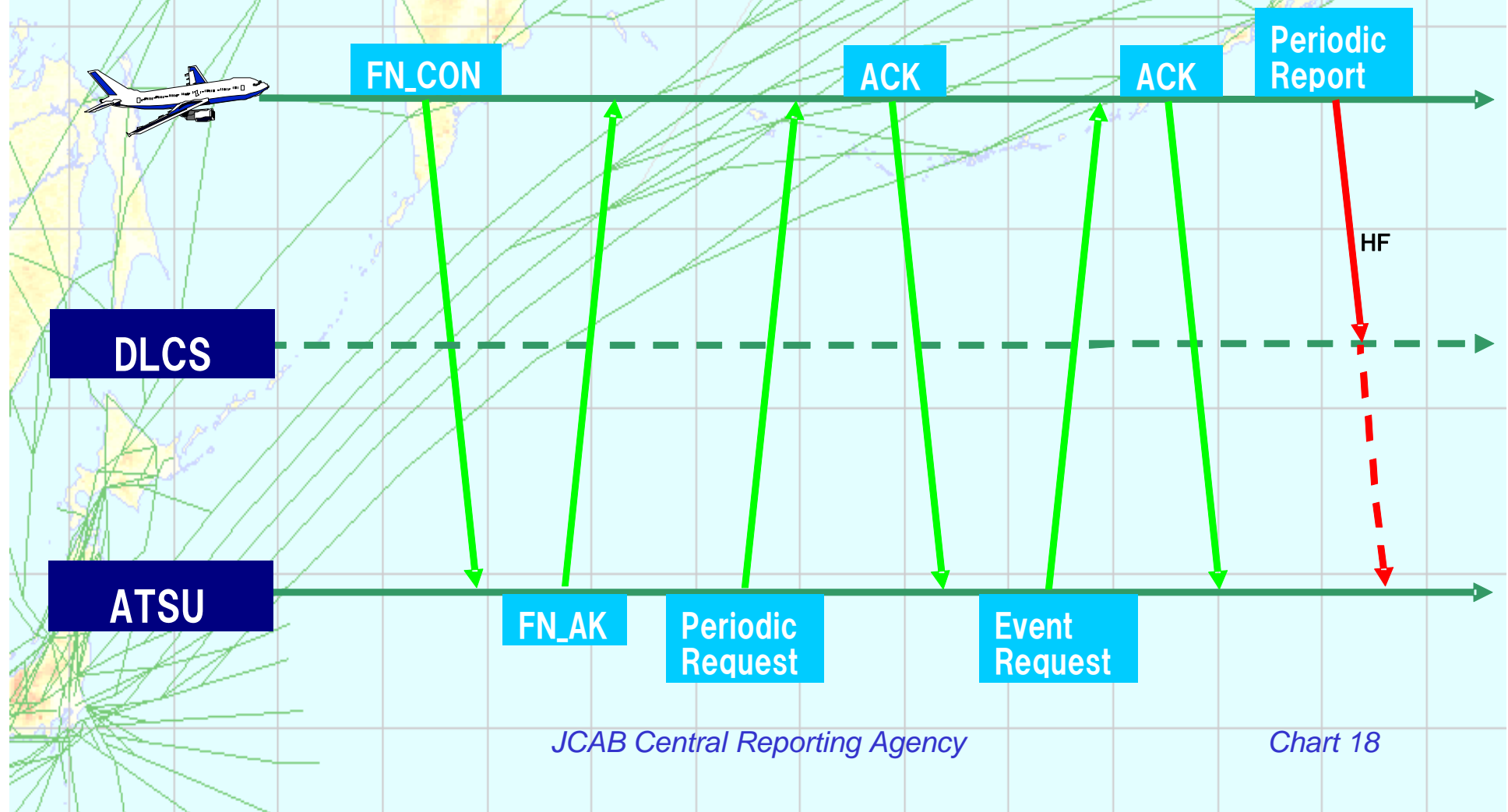
HFDL for ATC use not available in Fukuoka FIR

<PR10555>



HFDL for ATC use not available in Fukuoka FIR

<PR10566>



A background map of the Pacific Ocean, showing the western coast of North America on the left and the eastern coast of Asia on the right. Numerous green lines represent flight paths, radiating from the west coast and fanning out towards the east. The map includes a grid of latitude and longitude lines.

Appearance to be unapproved route deviation

PR Number: PR10535,PR10565

- Airplane appeared to be deviated on the ATC screen
- Due to No-Comm situation, ATSU end system failed to receive a WayPoint Event Report, which caused the Problem Report

Next slide→

Appearance to be unapproved route deviation

<PR10565>

Due to A/C in No-Comm situation,
ATSU failed to receive FIX-A WayPoint Event Report

~~WayPoint Event Report
FIX-B (hh:mm:ss)
FIX-C~~

Periodic Report
FIX-A (hh:mm:ss)
FIX-B
FIXED INTENT

FIX-A

actual aircraft position

FIX-B

aircraft position on ATC screen

FIXED INTENT

FIX-C



ADS report with low level FOM

PR Number: PR10543,PR10564

- The FOM level in an ADS report degraded, causing ATSU end system to disconnect with ADS contract.
- The ATSU end system disconnected the ADS contract with the aircraft because the FOM value indicated below the specified value (4).
- In response to our inquiry about the reason for the degradation of FOM, the aircraft manufacturer answered that the aircraft avionics might have a long-term trouble with the GPS.
- Aircraft operating company replied us that found no fault with the aircraft.
- Recently, similar case examples are reported frequently.



Unable to established CPDLC connection

PR Number: PR10538

- In response to up link a CR (Connection Request) with the aircraft (B767), which promptly down linked a DR (Disconnect Request) with its CDA (Current Data Authority) portion being blank (“ ”).
- In response to our inquiry about the problem events, the aircraft manufacturer replied that regarding B777 they received a similar problem report and made improvements, but about B767 it was the first report for them and they will investigate the cause of the problem hereafter;

Questions?
