



**THE FORTY-THIRD MEETING OF THE
INFORMAL PACIFIC ATC CO-ORDINATING GROUP
(IPACG/43)**

(Tokyo, Japan 27 – 28 September 2017)

Agenda Item 5: Communications/Navigation/Surveillance (CNS) Issues

Datalink Equipage in the Oakland and Anchorage Flight Information Regions (FIRs)

(Presented by the United States of America)

SUMMARY

This paper presents the data link usage and equipage observed within the Oakland and Anchorage oceanic airspace.

1. Introduction

1.1. The purpose of this paper is to provide an update on the observed trends in usage and equipage related to FANS 1/A data link within the Oakland and Anchorage oceanic flight information regions (FIRs). The statistics are provided for the period from January 2016 to June 2017.

1.2. This paper provides information in reference to the IPACG action item, **IP/35-2**, regarding the ongoing work by JCAB and the FAA to promote the use and correct filing for RNP4 and FANS 1/A equipage.

2. Discussion

2.1. Figure 1 illustrates the monthly trends in data link usage and filing of RNP4 during the past 18 months for Oakland and Anchorage oceanic FIRs.

2.2. It is noted that the percentage of flights using FANS 1/A data link in the aggregate Oakland oceanic FIR has increased nearly ten percent, between January 2016 and June 2017. The percentage of flights filing RNP4 had surpassed the percentage of flights using data link around July 2015, and has further increased to approximately 84 percent in June 2017.

2.3. For the Anchorage oceanic FIR, it is noted that both the percentage of flights filing RNP4 and the percentage of flights using FANS 1/A data link have held fairly constant at approximately 95 percent and 88 percent, respectively.

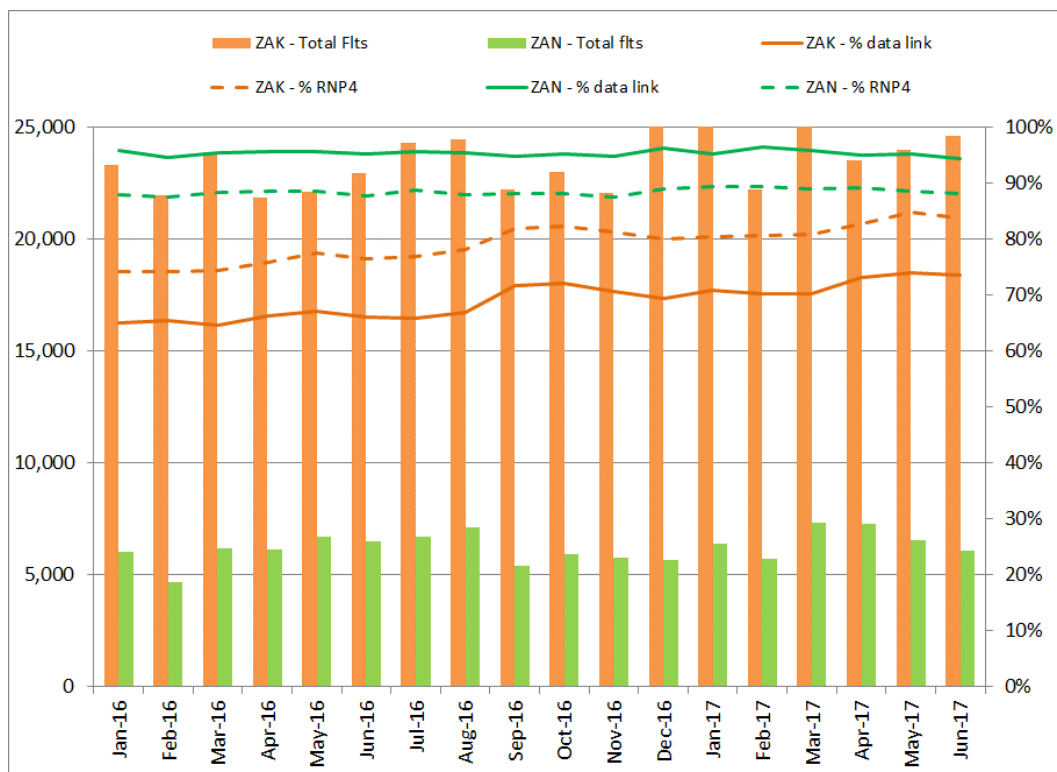


Figure 1. FANS 1/A data link filing and usage

2.4. Figures 2 and 3 provide a summary of the data link equipage statistics for Oakland and Anchorage oceanic FIRs, respectively. The notes below detail the assumptions for the collected statistics. It should be noted that ADS-B is not currently used in FAA oceanic airspace and therefore the “% Using ADS-B” column is blank.

2.5. The inclusion of the “% Filing RSP180/RCP240” statistic has been added to begin tracking the aircraft receiving RCP240 and RSP180 approvals and indicating eligibility for performance-based separation standards, as defined in the 16th amendment of the PANS-ATM, ICAO Doc 4444 (November 2016).

Notes:

1. Flights are designated as "**OTS**" if they file a NAT route in their flight plan
2. **AFN logon** - any AFN messages is observed
3. **ADS-C usage** - at least one ADS-C position report was observed
4. **ADS-C filing** - “D1” was observed in field 10b of the respective ICAO flight plan
5. **CPDLC usage** - at least one CPDLC message was observed
6. **CPDLC filing** - either a “J2,” “J5,” “J6,” or “J7,” was observed in field 10a of the respective ICAO flight plan
7. **RNP4 filing** - "L1" was observed in field 18 of the respective ICAO flight plan
8. **ADS-B usage** - at least one ADS-B report was observed
9. **ADS-B filing** - “E” or “L” and “B1” or “B2” was observed in field 10b of the respective ICAO flight plan
10. **RSP180/RCP240 filing** - “P2” observed in field 10b **AND** "RSP180" observed in field 18 after "SUR/" of the respective ICAO flight plan

United States FAA Reporting on Equipage in Oakland FIR										
Period: Jan 01, 2016 to Jun 30, 2017 (18 months)										
Month	ALL FLIGHTS									
	Total Flights	% AFN logon	% Using ADS-C	% Filing ADS-C	% Using CPDLC	% Filing CPDLC	% Filing RNP4	% Using ADS-B	% Filing ADS-B	% Filing RSP180/RCP240
Jan-16	23,300	65%	65%	62%	65%	64%	74%		55%	0%
Feb-16	21,909	65%	65%	62%	66%	64%	74%		54%	0%
Mar-16	23,835	65%	64%	62%	65%	64%	74%		54%	0%
Apr-16	21,828	66%	66%	63%	66%	66%	76%		55%	0%
May-16	22,107	67%	67%	64%	67%	67%	77%		56%	0%
Jun-16	22,901	66%	66%	64%	66%	66%	76%		54%	0%
Jul-16	24,280	66%	66%	63%	66%	66%	77%		54%	0%
Aug-16	24,411	67%	67%	64%	67%	67%	78%		56%	0%
Sep-16	22,182	72%	71%	68%	72%	71%	82%		60%	0%
Oct-16	22,997	72%	72%	69%	72%	70%	82%		61%	0%
Nov-16	22,038	71%	70%	68%	71%	68%	81%		60%	0%
Dec-16	25,553	69%	69%	66%	70%	67%	80%		60%	0%
Jan-17	25,171	71%	70%	67%	71%	68%	80%		63%	0%
Feb-17	22,219	70%	70%	67%	70%	67%	81%		62%	0%
Mar-17	25,005	70%	70%	67%	71%	67%	81%		62%	0%
Apr-17	23,510	73%	72%	69%	73%	69%	83%		66%	0%
May-17	23,966	74%	73%	70%	74%	70%	85%		71%	0%
Jun-17	24,565	74%	73%	69%	74%	68%	84%		68%	0%

Figure 2. Equipage and usage statistics summary for Oakland oceanic FIR

United States FAA Reporting on Equipage in Anchorage FIR										
Period: Jan 01, 2016 to Jun 30, 2017 (18 months)										
Month	ALL FLIGHTS									
	Total Flights	% AFN logon	% Using ADS-C	% Filing ADS-C	% Using CPDLC	% Filing CPDLC	% Filing RNP4	% Using ADS-B	% Filing ADS-B	% Filing RSP180/RCP240
Jan-16	6,007	96%	96%	92%	93%	96%	88%		86%	0%
Feb-16	4,666	94%	95%	91%	93%	95%	87%		85%	0%
Mar-16	6,191	95%	96%	91%	93%	95%	88%		85%	0%
Apr-16	6,147	95%	96%	91%	93%	96%	88%		85%	0%
May-16	6,710	95%	96%	91%	93%	96%	89%		84%	0%
Jun-16	6,506	95%	96%	90%	93%	94%	88%		85%	0%
Jul-16	6,693	96%	96%	89%	93%	95%	89%		85%	0%
Aug-16	7,089	95%	96%	90%	93%	95%	88%		85%	0%
Sep-16	5,390	95%	95%	90%	92%	95%	88%		84%	0%
Oct-16	5,890	95%	96%	90%	92%	96%	88%		87%	0%
Nov-16	5,760	95%	96%	90%	92%	94%	87%		88%	0%
Dec-16	5,645	96%	97%	91%	93%	95%	89%		89%	0%
Jan-17	6,360	95%	97%	92%	94%	96%	89%		89%	0%
Feb-17	5,702	96%	98%	94%	94%	97%	89%		89%	0%
Mar-17	7,323	96%	96%	90%	94%	97%	89%		88%	0%
Apr-17	7,264	95%	95%	90%	92%	96%	89%		86%	0%
May-17	6,527	95%	95%	88%	92%	96%	89%		87%	0%
Jun-17	6,077	94%	94%	86%	92%	95%	88%		85%	0%

Figure 3. Equipage and usage statistics summary for Anchorage oceanic FIR

2.6. It is observed that the percentage of flights using ADS-C and CPDLC is higher than the percentage of flights filing accordingly in the flight plan in Oakland FIR. In Anchorage FIR, it is observed that the percentage of flight using CPDLC is less than the percentage of flights filing CPDLC capability in field 10a of the flight plan, while the percentage of flights using ADS-C is less than that for filing accordingly.

2.7. There are inconsistencies observed between usage and filing of ADS-C and CPDLC for specific operators. These are being further investigated. Operators are encouraged to ensure appropriate filing of capabilities in the flight plan.

2.8. There are currently no RCP240 or RSP180 approvals known to have been issued. Therefore, it would be expected that there are no flights filing either of the corresponding flight plan codes.

2.8.1. While there were no flights observed filing both RCP240 and RSP180 (as would be required for application of the associated separation minima), there were flights observed filing these codes individually.

2.8.1.1. Flights from the following operators were observed filing “P2” (without RSP180):

- (1) AFR – Air France, France

2.8.1.2. Flights from the following operators were observed filing “RSP180” (without P2):

- (1) DOD – Dept of Defense, United States (also filing “P2” incorrectly in field 18) – this issue has been reported
- (2) SAM – SAM Colombia, Colombia

2.8.2. It must be emphasized that:

- (1) Operators should not file either “P2” in item 10 or “RSP180” in item 18 without State-issued approvals for RCP240 and RSP180, respectively.
- (2) Operators should file “P2” in item 10 **AND** “RSP180” in item 18 to indicate eligibility for application of performance-based separation standards once approval is obtained.

3. Action by the meeting

3.1 The meeting is invited to note the information provided.