



**THE FORTY-FOURTH MEETING OF THE  
INFORMAL PACIFIC ATC CO-ORDINATING GROUP  
(IPACG/44)**

(Honolulu, Hawaii, 22 & 23 August 2018)

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

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

(Presented by the Federal Aviation Administration)

**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 2017 to July 2018.

**2. Discussion**

2.1. Figure 1 illustrates the monthly trends in data link usage and filing of required navigation performance (RNP) 4 during the past 18 months, and filing of required communication performance (RCP) 240 and required surveillance performance (RSP) 180 since March 2018, 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 seven percent, between January 2017 and July 2018. The percentage of flights filing RNP4 had surpassed the percentage of flights using data link around July 2015, and has further increased to approximately 87 percent in July 2018.

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 96 percent and 90 percent, respectively.

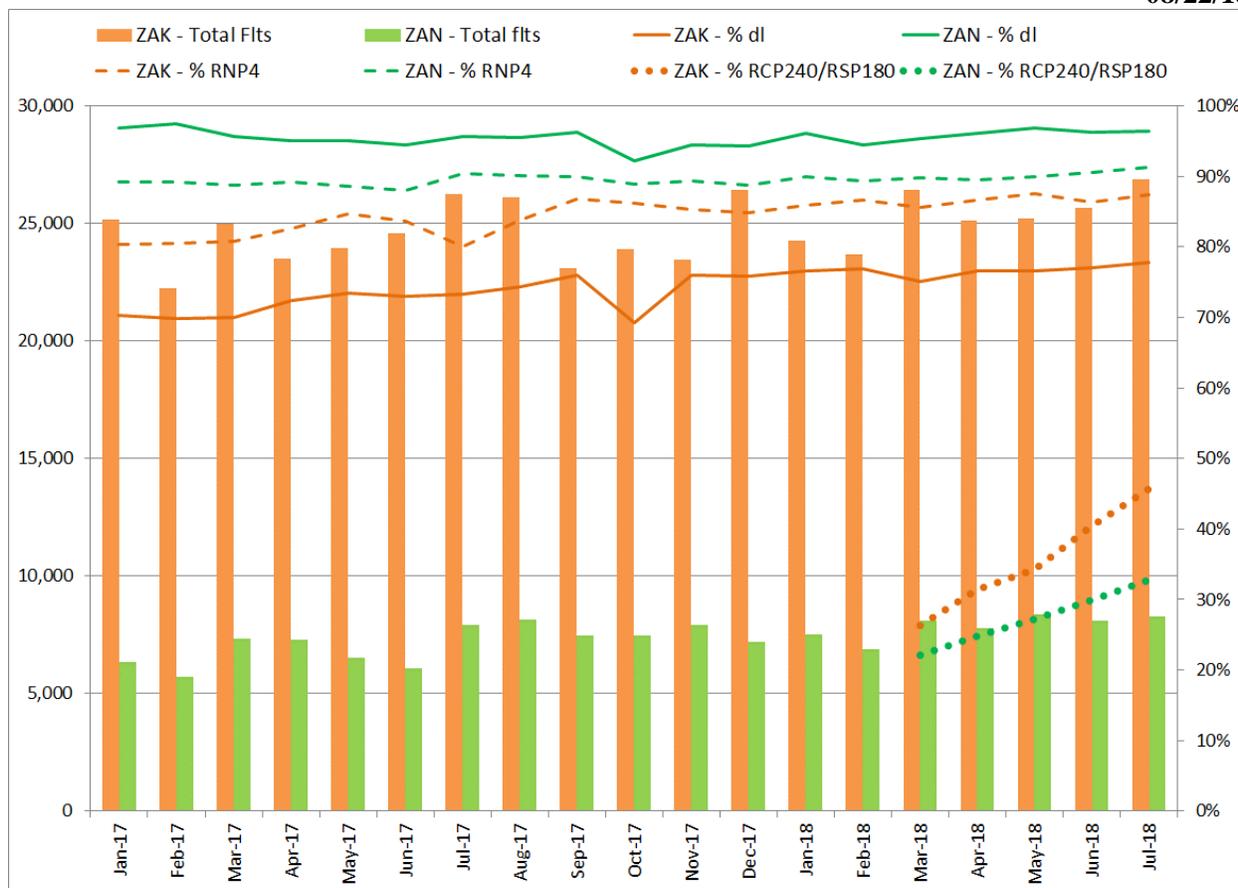


Figure 1. FANS 1/A data link filing and usage

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.

**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, 2017 to Jul 31, 2018										
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-17	25,171	71%	70%	67%	71%	68%	80%		63%	
Feb-17	22,219	70%	70%	67%	70%	67%	81%		62%	
Mar-17	25,005	70%	70%	67%	71%	67%	81%		62%	
Apr-17	23,510	73%	72%	69%	73%	69%	83%		66%	
May-17	23,966	74%	73%	70%	74%	70%	85%		71%	
Jun-17	24,565	74%	73%	69%	74%	68%	84%		68%	
Jul-17	26,252	73%	73%	64%	74%	64%	80%		64%	
Aug-17	26,107	75%	74%	68%	75%	68%	84%		69%	
Sep-17	23,088	76%	76%	72%	77%	78%	87%		74%	
Oct-17	23,905	70%	69%	71%	70%	78%	86%		75%	
Nov-17	23,444	76%	76%	71%	77%	78%	85%		75%	
Dec-17	26,435	76%	76%	71%	76%	77%	85%		75%	
Jan-18	24,260	77%	77%	71%	77%	78%	86%		75%	
Feb-18	23,698	77%	77%	72%	77%	79%	87%		76%	
Mar-18	26,436	76%	75%	70%	76%	77%	86%		75%	26%
Apr-18	25,125	77%	77%	72%	77%	78%	87%		76%	31%
May-18	25,191	77%	77%	72%	77%	78%	88%		76%	34%
Jun-18	25,653	78%	77%	71%	78%	77%	86%		76%	40%
Jul-18	26,875	78%	78%	74%	78%	78%	87%		77%	46%

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

United States FAA Reporting on Equipage in Anchorage FIR										
Period: Jan 01, 2017 to Jul 31, 2018										
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-17	6,360	95%	97%	92%	94%	96%	89%		89%	
Feb-17	5,702	96%	98%	94%	94%	97%	89%		89%	
Mar-17	7,323	96%	96%	90%	94%	97%	89%		88%	
Apr-17	7,264	95%	95%	90%	92%	96%	89%		86%	
May-17	6,527	95%	95%	88%	92%	96%	89%		87%	
Jun-17	6,077	94%	94%	86%	92%	95%	88%		85%	
Jul-17	7,897	96%	96%	87%	93%	96%	90%		86%	
Aug-17	8,150	95%	96%	87%	93%	96%	90%		85%	
Sep-17	7,448	95%	96%	88%	93%	96%	90%		85%	
Oct-17	7,460	92%	92%	86%	90%	96%	89%		85%	
Nov-17	7,925	94%	94%	89%	92%	96%	89%		87%	
Dec-17	7,184	94%	94%	89%	92%	96%	89%		89%	
Jan-18	7,493	96%	96%	91%	94%	97%	90%		89%	
Feb-18	6,884	95%	94%	91%	93%	96%	89%		87%	
Mar-18	8,103	96%	95%	90%	94%	97%	90%		88%	22%
Apr-18	7,764	96%	96%	88%	92%	96%	90%		87%	25%
May-18	8,360	96%	97%	89%	94%	97%	90%		88%	27%
Jun-18	8,117	96%	96%	88%	94%	97%	91%		84%	30%
Jul-18	8,258	97%	96%	89%	93%	97%	91%		85%	33%

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

2.5. It is observed that the percentage of flights using ADS-C is higher than the percentage of flights filing accordingly in the flight plan in both Oakland and Anchorage FIRs. 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.

2.6. 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.

2.7. The filing of “P2,” indicating State-issued authorization for RCP240, and “SUR/RSP180,” indicating State-issued authorization for RSP180, was observed to begin in late March in preparation for the 29 March 2018 global implementation of performance-based communication and surveillance (PBCS). The filing statistics for “% RSP180/RCP240” were collected as of 29 March 2018. The filing rates in Anchorage have been the lowest of those in FAA oceanic airspace.

2.8. Further details on equipage trends related to PBCS and associated impact is provided in a separate presentation.

2.8.1. It is 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. Conclusion**

- 3.1 The meeting is invited to note the information provided.