

IP07: ADS-C CDP

Presented To: ISPACG/28

Presented By: Dennis Addison, FAA

Date: March 5-7, 2014



**Federal Aviation
Administration**

ADS-C CDP

Procedure is based on in-trail Distance Measuring Equipment (DME) rules in ICAO Doc 4444

- Near Simultaneous ADS-C Demand Reports
- Climb/Descend an aircraft through the altitude of a blocking aircraft

ADS-C CDP Clearances

Only 8 clearances issued during the Manual Trial.

□ FDX3875
• 360
• N410

□ DAL1151
• 390
• N1151

□ **UAL650** 3
• 350
• N536

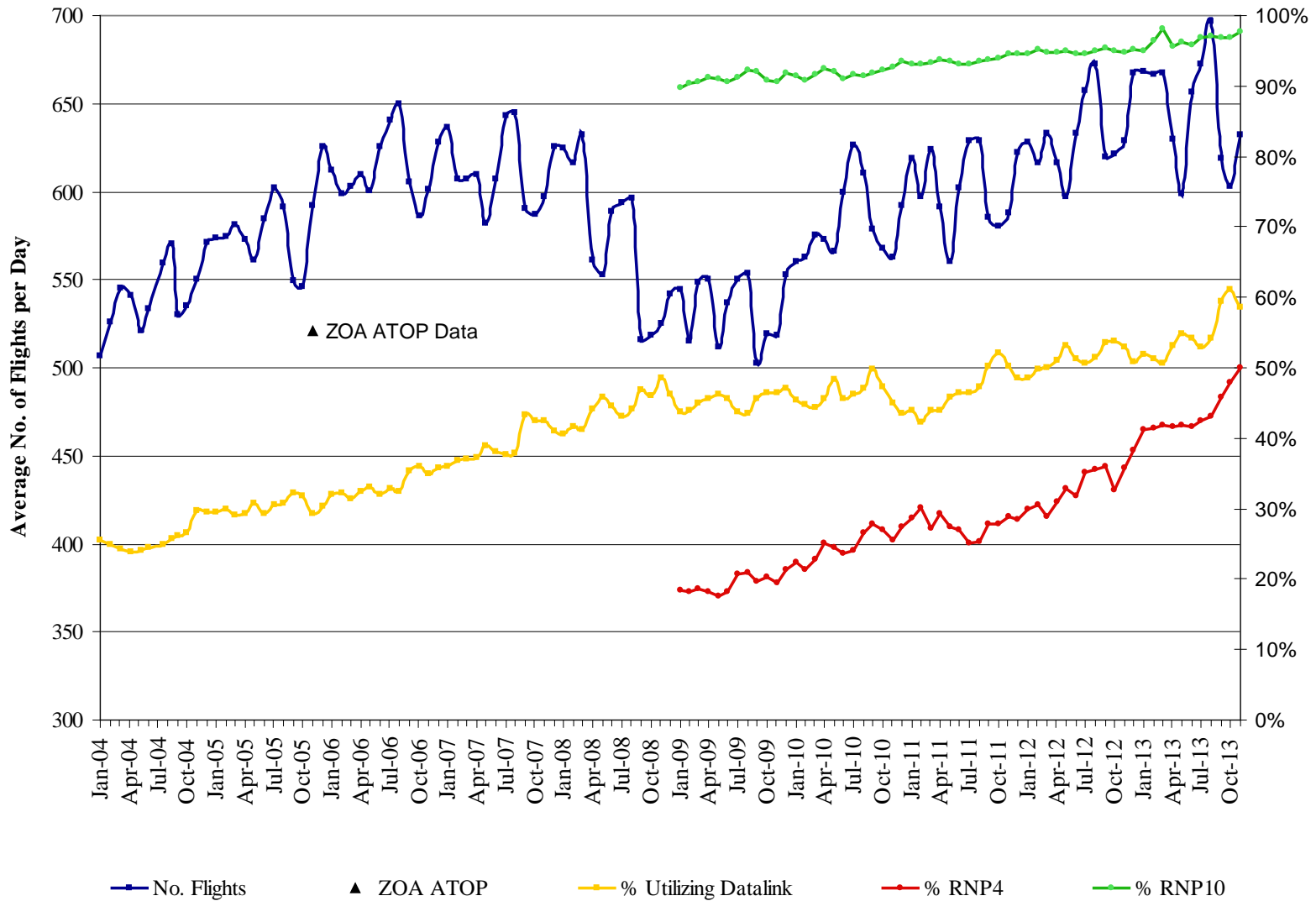
A 051N21

□ N170X
• 410
• N522

□ **DAL836** 3
& 340 **↑360**
• N522
r360



ZOA Flights & Equipment Utilization



Automated Procedure

CWP16

ATC ADS-C GDP CHECKLIST

PRELIMINARY SCREENING CRITERIA CHECKS (STEPS 1-3)

1. AIRCRAFT CALLSIGNS: RNA3059 / RNA0315

2. BOTH Blocking and Maneuvering Aircraft must have the "3" 3000 ADS separation flag set.

3. a. Both Aircraft Level Flight/Aircraft 1,000 Feet Apart/Planned Altitude Change 2,000 Feet or more.
 b. Neither Aircraft on WX Dev nor requesting a WX Dev.
 c. Both Aircraft RVSM
 d. "POS" NOT Displayed on Either Data Block
 e. There are no Out of Conformance (ARP) messages for either aircraft in the Sector Queue.
 f. Aircraft Same Direction traffic.

FINAL SCREENING CRITERIA CHECKS (STEPS 4-9)

4. Initiate ADS DEMAND for both Aircraft. ENTER TIME that DEMAND request was sent to Maneuvering Aircraft: 1245Z

5. From ADD Report,
 Mach Number of Maneuvering Aircraft: ASO 12.79
 Mach Number of Blocking Aircraft: ASO 12.81

6. SAME SPEED OR FASTER AIRCRAFT IN FRONT: 6a, 6b, and 6c Must be Satisfied

6a. From Conflict Report Window, ACTUAL Longitudinal Distance Between Maneuvering and Blocking Aircraft AT LEAST 14 MILES *110*

6b. From ASD, Both Aircraft Same Groundspeed, or Faster Aircraft is in Front *faster in front*

6c. From Step # 5, Both Aircraft Same Mach Number, or FASTER Mach AIRCRAFT IN FRONT

7. OVERTAKE SITUATION: 7a, 7b, and 7c Must be Satisfied

7a. From Conflict Report Window, ACTUAL Longitudinal Distance Between Maneuvering And Blocking Aircraft AT LEAST 20 MILES

7b. From ASD, Trailing Aircraft Groundspeed Must NOT be More Than 10 Knots Faster

7c. From Step # 5, Trailing Aircraft is NOT More Than 82 Mach Faster

8. Build Clearance Utilizing MOPS Message 26 or 28, "CLIMB/DESCEND TO REACH (alt) BY (time)". Probe the Pending Clearance. Ensure that Time Inserted in Clearance is within 15 Minutes of Time Inserted in Step #5.

8a. Append Free-Text Advisory from the Pre Formatted messages "ADS-C GDP PROCEDURE IS BEING APPLIED BY ATC".

9. Check the 2nd Profile Conflicts of the Maneuvering Aircraft. IF THERE ARE ACTUAL OR IMMINENT CONFLICTS WITH OTHER AIRCRAFT, DO NOT EXECUTE PROCEDURE



CLEARANCE

ANA61A 37N160E 1631/ 39N170E 1725/ 41N180E 1817/ 42N170W 1908/ 42N160W 1957/ 40N150W 2050/ 39N140W 2

Urgent	Rpt	Negot	Rspn	Misc	Vert	Route	Speed	X-ing	Conn	Pre-Fnt							
RP	RR	climb	0Time	0Fix	0Time	0Fix	DSCND	0Time	0Fix	0Time	0Fix	CROSS	A0A	A0B	NDA	OTA	HOLD
		20	CLIMB TO AND MAINTAIN (alt)	F330		EOS											
		26	CLIMB TO REACH (alt)	F330		BY (time)		EOS									
		27	CLIMB TO REACH (alt)	F330		BY (pos)		EOS									
		(20)	CLIMB TO AND MAINTAIN (alt)	F330													INS
																	DEL

Probing : CLIMB TO AND MAINTAIN F330
 [ANA61A]: Conflict with 1 aircraft, 0 airspace, IMMINENT
 GDP is available

CDP CAN TPRB SND UNABL VHF SAVE EALT DVDR COORD RCPT REJ HLP CLS

CLIMB/DESCEND PROCEDURE

REQUESTING ACID: **ANA61A** BLOCKING ACID: **ANA60B** ON-DEMAND STATUS: **WAITING**

REQUESTED ALT: **F330** COUNTDOWN TIMER: **14 : 26**

Clearance:

(26) CLIMB TO AND REACH (alt) **F330** BY (time) **2129** **EOS**

Response Area:

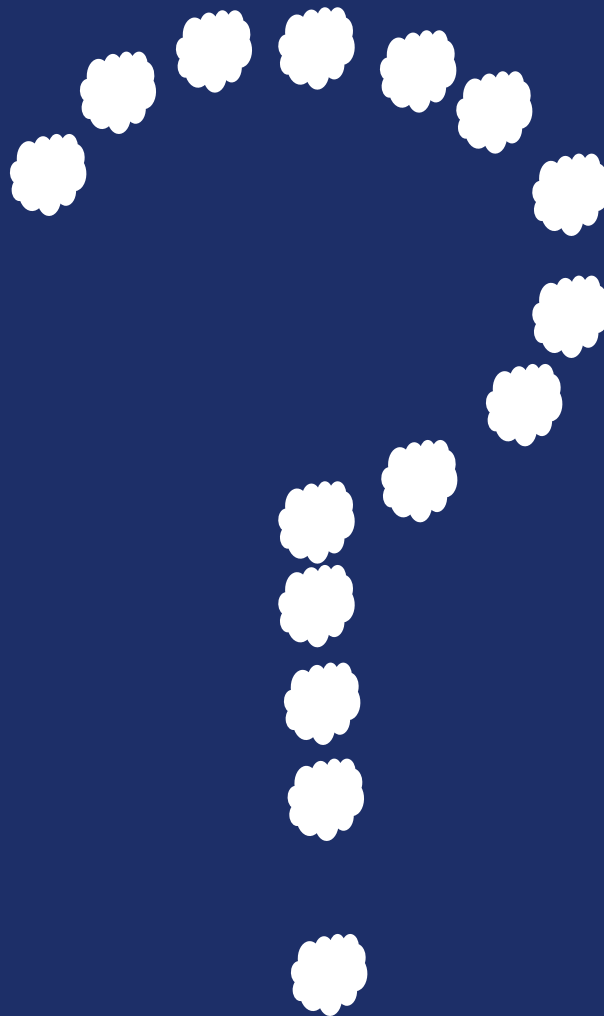
CDP-PROBE SEND UNABLE RESET CLOSE



Ocean21 Automation Platform



- **Manual trial ended 2/15/2013**
- **CDP procedure is seen as a benefit.**
- **T24 software update January of 2016**



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