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ARINC 424 NDB

**Draft 4 of Supplement 23
Discussion/Proposal**

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UAV TAXI WAYPOINTS

V.1

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SUMMARY

Add a new code to Waypoint Type to uniquely identify UAV Taxi Waypoints.
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1.0 INTRODUCTION/ BACK GROUND

The UAV community is consolidating its Nav DB efforts and is looking for ways to leverage existing CNS/ATM navigational outputs. One of the main differences is how the aircraft navigates on the ground. In order to guide the aircraft to the runway the UAV uses waypoints in a taxi plan very similar to a flight plan.

2.0 DISCUSSION and or ACTION

NGA is proposing to add a code to Waypoint Type to uniquely identify Waypoints used to guiding a UAV on the ground.

3.0 Changes as depicted (Track Changes is Helpful)

This is the table from 5.42 Waypoint Type:

ENROUTE AND TERMINAL WAYPOINTS				
Waypoint Type	Column 27	Column 28	Column 29	Use
ARC Center Fix	A	Note 3	Note 3	PC
Combined Named Intersection and/or named DME Fix and RNAV Waypoint	C			EA, PC
Unnamed, Charted Intersection and/or Unnamed DME Fix	I			EA, PC
Middle or Inner Marker as Waypoint	M			PC
NDB or Terminal NDB Navaid as Waypoint	N	Note 1	Note 2	EA, PC
Outer or Back Marker as Waypoint	O			PC
Named Intersection and/or Named DME Fix	R			EA, PC
UAV Taxi Waypoint	T	Note 9		HC, PC
Uncharted Airway Intersection	U			EA
VFR Waypoint	V	Note 4		EA, PC
RNAV Waypoint	W			EA, PC
Final Approach Fix		A		EA, PC
Initial Approach Fix and Final Approach Fix		B		EA, PC
Final Approach Course Fix		C		EA, PC
Intermediate Approach Fix		D		EA, PC
Off-Route Waypoint, Intersection or DME Fix		F (Note 6)		EA
Initial Departure Fix		G		EA, HC, PC

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Helicopter Only Airway Fix		H		EA
Initial Approach Fix		I		EA, PC
Required Off-Route Waypoint		J (Note 8)		EA
Final Approach Course Fix and Initial Approach Fix		K		EA, PC
Final Approach Course Fix and Intermediate Approach Fix		L		EA, PC
Missed Approach Fix		M		EA, PC
Initial Approach Fix and Missed Approach Fix		N		EA, PC
Oceanic Gateway Fix		O		EA
Unnamed Stepdown Fix		P		PC
RF Leg Fix Not at Procedure Fix		R	Note 5	PC
Named Stepdown Fix		S		PC
FIR/UIR or Controlled Airspace Intersection		U		EA
Latitude/Longitude Fix, Full Degree of Latitude		V		EA
Latitude/Longitude Fix, Half Degree of Latitude		W		EA
Published for Use in SID			D	EA, PC
Published for Use in STAR			E	EA, PC
Published for Use in Approach Procedures			F	EA, PC
Published for Use in Multiple Terminal Procedure Types			Z	EA, PC
Source Provided Enroute Waypoint			G (Note 7)	EA

Used On: Enroute Waypoints, Airport and Heliport Terminal Waypoints.
Length: 3 characters
Character Type: Alpha

Note 1: Column 28 of the Enroute and Terminal Waypoint Types will always be blank when column 27 carries the N for NDB or Terminal NDB produced as Waypoints.

Note 2: Possible codes for column 29 are identical for both Enroute and Terminal Waypoints and are those carried in the third portion of the table. Column 29 will always be blank when column 27 carries the N for NDB or Terminal NDB produced as Waypoints.

Note 3: When column 27 equals A for ARC Center Fix Waypoint, columns 28 and 29 will always be blank.

Note 4: The code V in column 27 for VFR Waypoints is not used in conjunction with any codes from column 28 and 29.

Note 5 Column 28 content of R used only in conjunction with column 27 set to C, R, or W.

Note 6: Off-Route Waypoints, Intersections, or DME fixes can be source provided or created by the data supplier to ensure referential integrity within a data file. The only specific meaning of the option is that the fix is not used on any route coded as part of the Enroute Airway File (ER Section).

Note 7: The coding option G for Source Provided Enroute Waypoint is in support of ADS-C and is intended to facilitate the application providing ADS-C Reports when and only when the waypoint has been established by the relevant ANSP. This permits the data supplier to create on-route fixes that are not published by the ANSP for referential integrity purposes such as the coding of Company Routes.

Note 8: The coding of option J for Required Off-Route Waypoint is in support of programs such as FRA in Europe.

Note 9: The code T in column 27 for UAV Taxi Waypoints is not used in conjunction with any codes from column 28 and 29.

4.0 XML ARINC 424 changes as depicted (Track Changes is Helpful)

Reflect the changes from above.