

ARINC 424 NDB

Draft 4 of Supplement 23
Proposal

Location: Virtual Meeting
October 4-7, 2021

ADD OFFICE OF PRIMARY RESPONSIBILITY

V.0

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SUMMARY

Garmin is proposing to add the office of primary responsibility (OPR) to
SIDs/STARs/Approaches

ADD OFFICE OF PRIMARY RESPONSIBILITY

1.0 INTRODUCTION/ BACKGROUND

The Type 1 database suppliers send us the civilian and military procedures in the same NavDB. For example, the King Salmon (PAKN) airport has two ILS procedures to RW12; one which has a FAA OPR and the other has a US Air Force (USAF) OPR.

| | | | |
|---|------------------------|---|---|
| KING SALMON, ALASKA | | AL-1237 (FAA) | 21112 |
| LOC/DME I-AKN 110.3 Chan 40 | APP CRS 121° | Rwy Idg 8501 TDZE 62 Apt Elev 73 | ILS Y or LOC Y RWY 12 KING SALMON (AKN)(PAKN) |

Figure 1: PAKN I12-Y FAA

| | | | |
|---|-------------------------|--|---|
| KING SALMON, ALASKA | | AL-1237 [USAF] | 21112 |
| LOC/DME I-AKN 110.3 Chan 40 | APCH CRS 121° | Rwy Idg 8501 TDZE 62 Arpt Elev 73 | HI-ILS Z or LOC Z RWY 12 KING SALMON (PAKN) |

Figure 2: PAKN I12-Y USAF

This will be sent to us in the ARINC 424 database without any indication of which is the civilian versus military OPR.

2.0 DISCUSSION and/or ACTION

Garmin proposes to add a new office of primary responsibility (OPR) field to the SID/STAR/Approach records to distinguish the civilian versus military designed procedures.

3.0 Legacy ARINC 424 changes as depicted (Track Changes is Helpful)

3.1 Update Chapter 4, Table 4.1.9.2:

3.1.1 Add OPR

4.1.9.2 Airport SID/STAR/Approach Primary Extension Continuation Records

| Column | Field Name (Length) | Reference |
|-------------------------|-----------------------|--------------|
| ... | | |
| 111 | Special Indicator | 5.37 |
| 112 thru 115 | Reserved (14) | |
| 113 | OPR | 5.### |
| 114 thru 115 | Reserved (2) | |
| 116 thru 118 | Vertical Scale Factor | 5.293 |
| ... | | |

3.2 Update Chapter 4, Table 4.2.3.2:

3.2.1 Add OPR

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4.2.3.2 Heliport SID/STAR/Approach Primary Extension Continuation Records

| Column | Field Name (Length) | Reference |
|-------------------------|--------------------------|--------------|
| ... | | |
| 111 | Special Indicator | 5.37 |
| 112 thru 115 | Reserved (14) | |
| 113 | OPR | 5.### |
| 114 thru 115 | Reserved (2) | |
| 116 thru 118 | Vertical Scale Factor | 5.293 |
| ... | | |

3.3 Update Chapter 5, Field Definitions: Add new field definition for OPR

5.### Office of Primary Responsibility (OPR)

Definition/Description: The Office of Primary Responsibility (OPR) indicates if the procedure was designed by a civilian or military organization.

Source/Content: The OPR is derived from official government source. The OPR shall be packed in at least one Primary Extension record per procedure. If the Primary Extension record is output more than once on a procedure, the OPR value shall always be the same value.

| Field Content | Definition |
|---------------|------------------------------------|
| C | Civilian OPR (e.g. FAA) |
| M | Military OPR (e.g. USAF, USN, USA) |

Used On: SID/STAR/APP Continuation (Primary Ext)
Length: 1 character
Character Type: Alpha
Examples: C, M

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

- Jira Ticket: [ARINC-272](#)
- Git Feature Branch: [feature/ARINC-272-add-opr](#)
- Summary of changes:

4.1 Update Enumerations.xsd:

4.1.1 Add simpleType “OPR” with two enumerations: Civilian & Military

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```
5087 5087 </xs:simpleType>
5088 + <xs:simpleType name="OPR">
5089 + <xs:annotation>
5090 + <xs:documentation>The Office of Primary Responsibility ("OPR") field indicates if t
5091 + </xs:annotation>
5092 + <xs:restriction base="xs:string">
5093 + <xs:enumeration value="Civilian">
5094 + <xs:annotation>
5095 + <xs:documentation>Civilian OPR (e.g. FAA)</xs:documentation>
5096 + </xs:annotation>
5097 + </xs:enumeration>
5098 + <xs:enumeration value="Military">
5099 + <xs:annotation>
5100 + <xs:documentation>Military OPR (e.g. USAF, USN, USA)</xs:documentation>
5101 + </xs:annotation>
5102 + </xs:enumeration>
5103 + </xs:restriction>
5104 + </xs:simpleType>
5088 5105 </xs:schema>
```

Figure 3: XML Changes to Enumerations.xsd

4.2 Update SIDSTARApproach.xsd:

4.2.1 Add "opr" element as OPR enumeration

```
69 </xs:annotation>
70 </xs:element>
71 + <xs:element name="opr" type="enum:OPR" minOccurs="0" maxOccurs="1">
72 + <xs:annotation>
73 + <xs:documentation>The Office of Primary Responsibility (OPR) indicates if
74 + </xs:annotation>
75 + </xs:element>
76 </xs:sequence>
77 <xs:attribute name="referenceId" use="required" type="xs:ID"/>
78 </xs:extension>
```

Figure 4: XML Changes to SIDSTARApproach.xsd