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**RNAV STAR:s AT STOCKHOLM/ARLANDA****GENERAL**

RNAV STARs are primarily used at night and during periods of low traffic density at ATC discretion. RNAV STARs are noise preferential routes and should be adhered to.

Pilots are requested to plan their descent so as to perform a continuous descent approach (CDA) from at least FL100. Specified minimum level at waypoints must be adhered to unless specifically cancelled by ATC.

When descending on initial approach, noise reductions should be achieved using Low Power, Low Drag operating procedures (LP/LD) by maintaining a "clean" aircraft configuration until the final stage of the approach, provided this is consistent with safe operation of the aircraft.

**APPROVED USERS, EQUIPMENT AND OPERATIONS**

Swedish operators must have a P-RNAV approval by the Swedish Civil Aviation Authority, Luftfartsstyrelsen, in order to use RNAV STAR. Foreign operators are required to have a P-RNAV Approval by their authority.

Operators will be cleared for RNAV STAR during periods of low traffic density at ATC discretion. Operators receiving clearance via RNAV STAR and are unable flying P-RNAV, shall inform ATC by using phraseology "UNABLE RNAV STAR".

**POSITION UPDATE**

All RNAV STARs are based on DME/DME or GNSS for position update. Failure of one DME in Stockholm TMA will not affect RNAV STARs navigation based on DME/DME.

**RNAV EQUIPMENT FAILURE**

If the airborne RNAV equipment fails, ATC shall be informed as soon as practicable. ATC will then provide radar vectors.

**RNAV STAR DESCRIPTION**

For each RNAV STAR, there is a description as a list of waypoints in sequence. If there is an altitude restriction and/or a speed restriction, this will be notified on chart and in the STAR description. There is also a description of the database coding to be used by navdatabase suppliers only. The coding is according to ARINC 424 standard.

Note: In order to adapt STAR coding to certain FMS equipment, a minimum altitude restriction is added at some waypoints where speed restriction is prescribed. These altitudes are marked with an asterisk (\*).

**RNAV STAR CHART**

Each RNAV STAR includes information about distance to threshold "DTG XX NM" (DTG = Distance To Go) at certain waypoints in order to facilitate a continuous descent approach (CDA).

If there is an altitude restriction, this is depicted in the chart as follows:

FL80 = At or above FL80

5000 = At or above 5000 ft

**RNAV STAR HAMMAR 2J, XILAN 2J and ELTOK 2J**

Notify that RNAV STAR HAMMAR 2J, XILAN 2J and ELTOK 2J, all to RWY 01L, are designed with a short straight distance before FAP. In order to facilitate the sharp turn onto final, two speed restrictions are added, IAS 200 kt and 180 kt. The design with a short distance before FAP has two reasons:

- Separation to aerodrome Stockholm/Bromma (ESSB)
- Avoiding populated areas due to noise.