ATR PBN capabilities

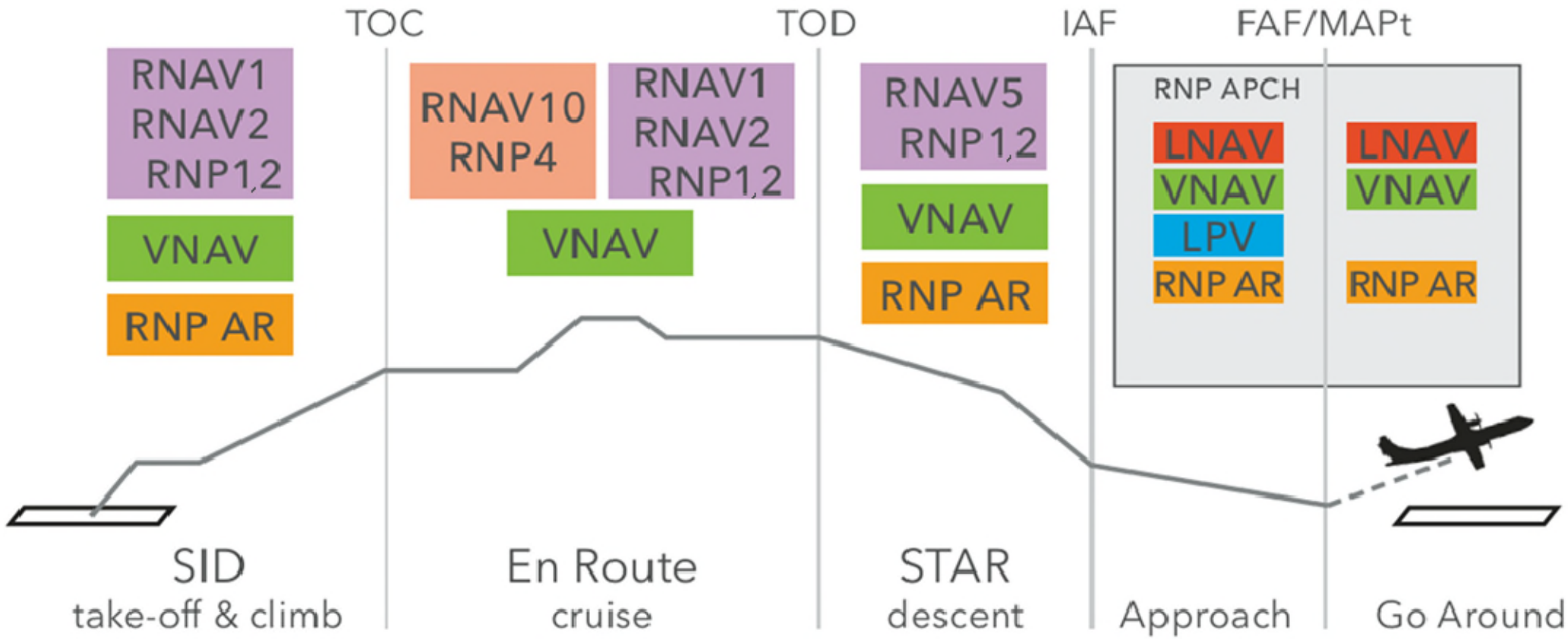
15 October 2025

ATR

ICAO

-500 vs -600

ATR Navigation Specifications



ATR -500

- LNAV
- LPV (Option)

ATR -500 with HT1000

LPV STC (Supplementary Type Certificate) by Sabena Technics compatible with:

- **Rockwell XPDR**
  - **Non ADS-B Out DO260B compliant**

- **ACSS XPDR**
  - **ADS-B Out DO260B compliant**

SLS control panels

SLS Switches and Annunciators

ICAO

ATR -500 with Universal Avionics

- **Avionics suite STC (Supplementary Type Certificate)**

UNIVERSAL AVIONICS
an Elbit Systems Company

- **LPV option**
  - **ADS-B Out DO260B compliant**

UNIVERSAL AVIONICS
an Elbit Systems Company

ICAO

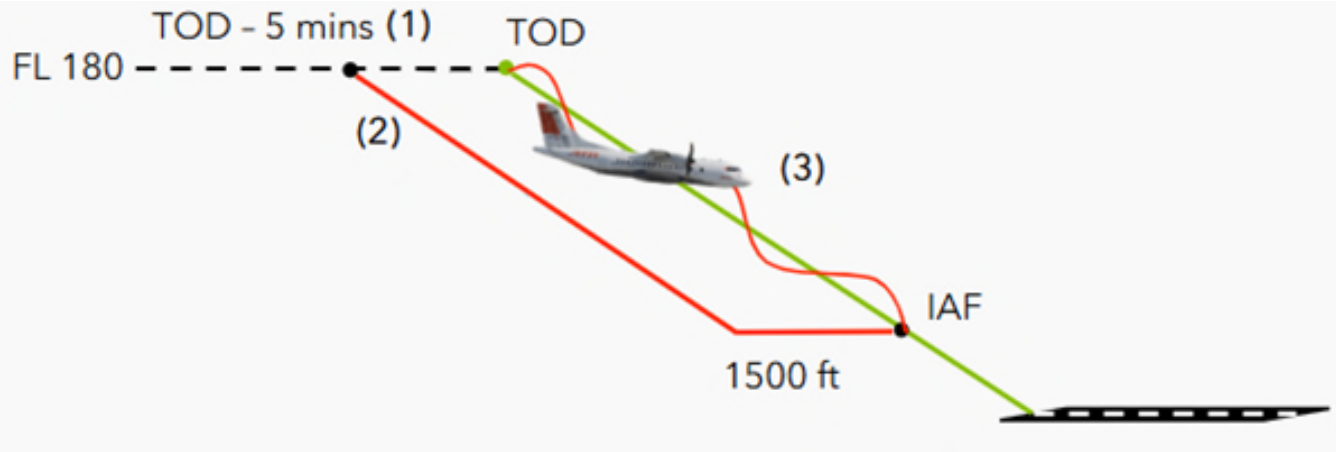
ATR -600 with FMS 220

- LNAV
- VNAV
- RNP AR (Option)
  - 0.3 / 1
  - 0.3 / 0.3 (+IRS)
- LPV (Option) (+2nd GPS)

Vertical navigation (VNAV)

- Optimised descent, with longer cruise
- No level off
- **Lower fuel consumption** as flight more efficient at higher level

Saving per approach **-20kg** & represents **-3%** of total flight fuel



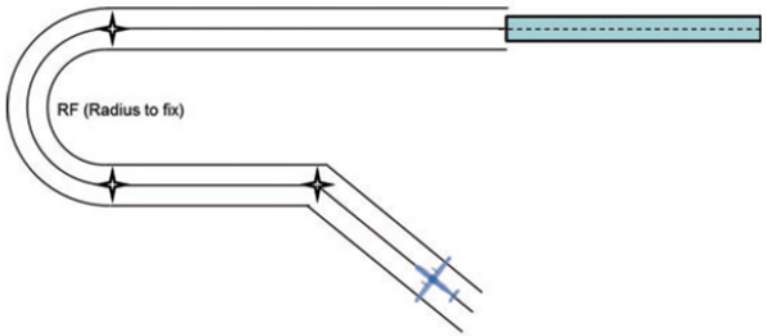
FL 200
Fuel consumption
670 kg/h

@ 1,500 ft
Fuel consumption
760 kg/h

Radius to Fix (RF) leg capability

Allows more optimized trajectories

Available on all -600 series



34.7.1 PBN OPERATION

c4c779d8-ad81-470d-b172-afee1920fda3 | NEW | 10 MAY 2024
06977

For all PBN operations listed here-in:

- If the missed approach procedure is based on conventional means (NDB, VOR, DME), all related navigation equipment must be installed and serviceable.
- The associated ground based navaids must also be operational.

Prior to start a RNP2 operation, the flight crew must set manually RNP value to 2 NM in the FMS. At the end of the operation, the flight crew must clear manual RNP value to restore RNP value auto setting.

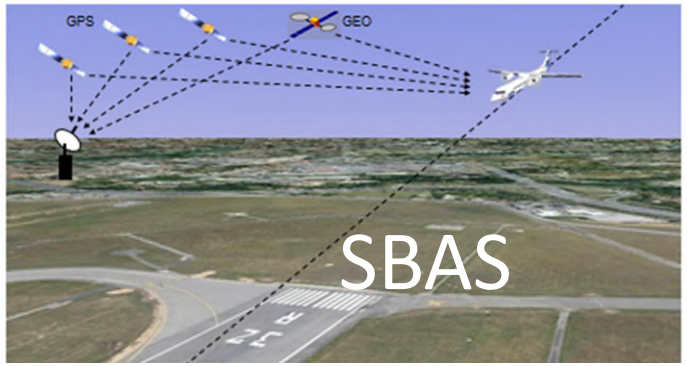
The FMS 220 is RF leg capable for RNAV/RNP operations.

Note

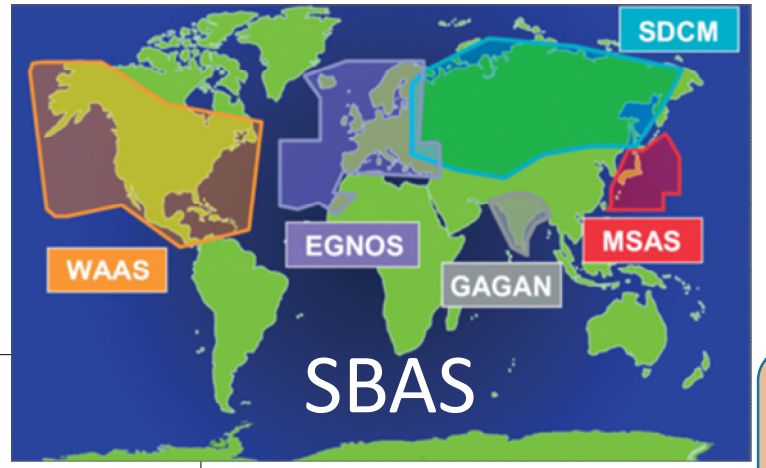
For all RNAV operations listed here above, the Fault Detection & Exclusion (FDE) or the Receiver autonomous integrity monitoring (RAIM) must be functional.

For all RNP operations described here above, the FDE (or RAIM) and the on-board performance monitoring and alerting capabilities must be functional.

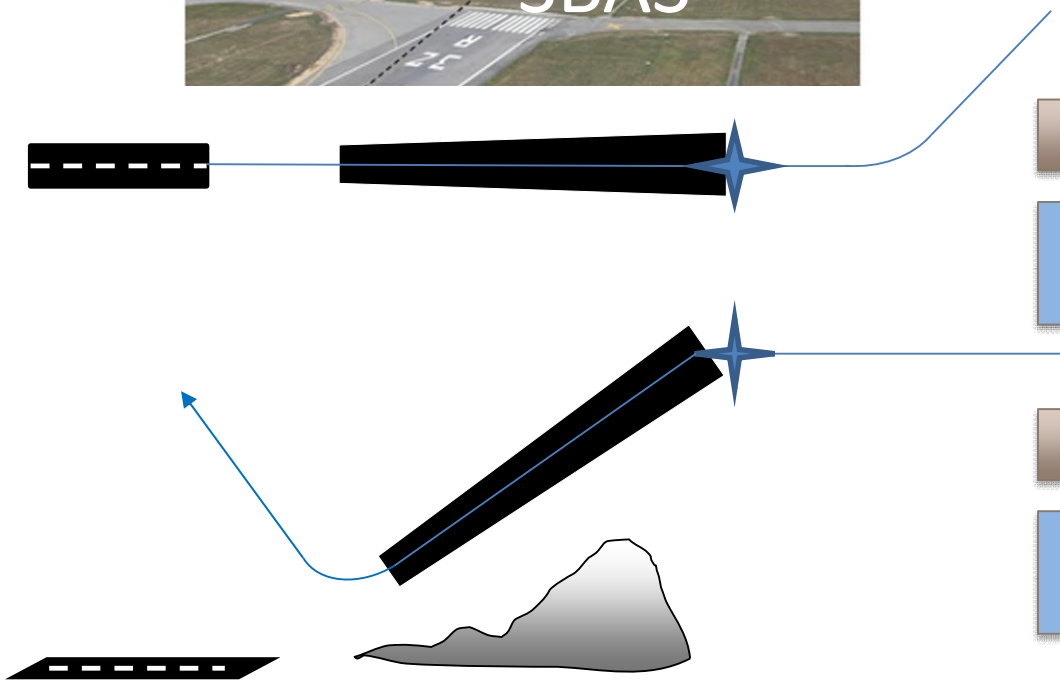
RNP APCH / LPV



LPV



Available on ATR-500 and Legacy through STC



Lateral margin

Lateral Guidance: GNSS (GPS)

Vertical Margin

Vertical Guidance: GPS

3 dimensional guidance entirely coupled with the Autopilot

Vertical & Lateral deviation symbols

ILS

LPV

LPV benefits

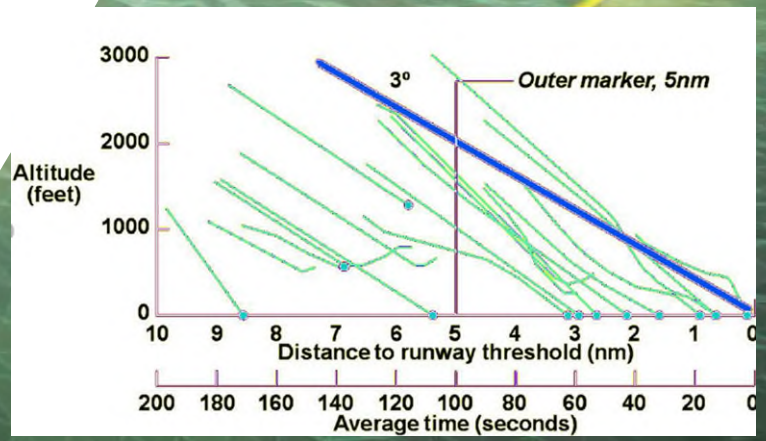
Performance identical to ILS CAT I

Improves **airport accessibility**

- Enables instrument approach with minimal investment
- Decision altitude (DA) as low as 200 feet height

Enhances **reliability and predictability** of operations

- Increases safety and situation awareness with lateral and vertical guidance



Source: ALAR Approach and landing accident reduction

ICAO

Thank You!