



# **CNS Report**

# Civil Aviation Organization of I.R.IRAN CAO.IRI











## Some Facts About IRAN

- Population: 79 million
- Area: 1,648,195 km<sup>2</sup>
- Located in ICAO MID Region, Neighborhood of EUR/NAT and APAC Regions







#### **IRAN Aviation Structure**







#### Iran Aviation, Facts & Figures

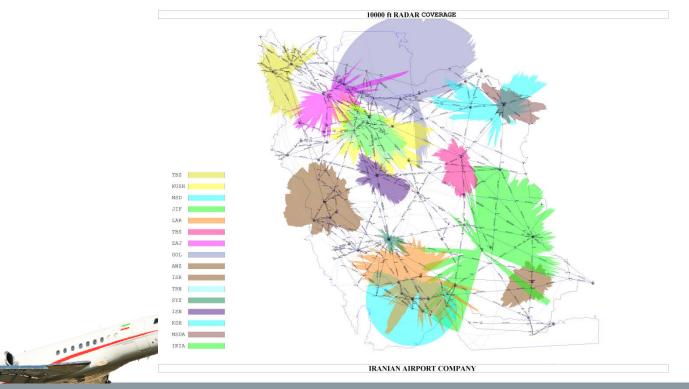
- 80 Airports
  - 9 International Airports
  - 56 Airports affiliated to IAC
- ~1100 daily over flights
- ~400 daily domestic flights
- 33 million passengers per year







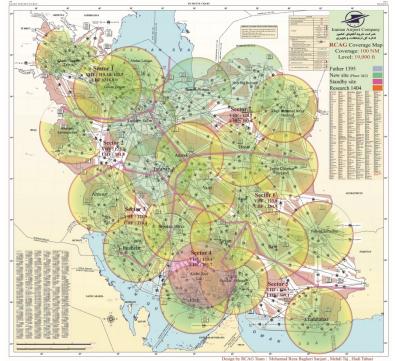
#### VHF Coverage, 10,000 FT







#### VHF Coverage, 19,000 FT

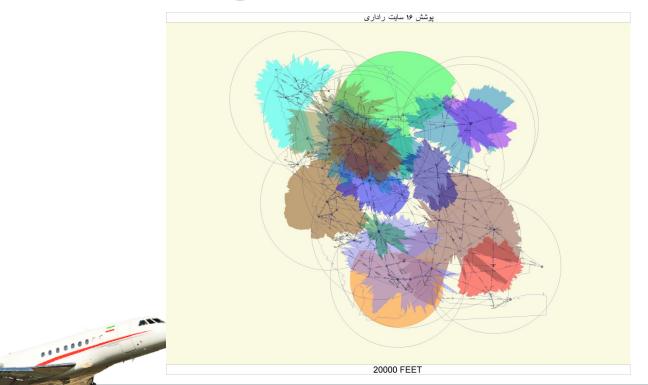








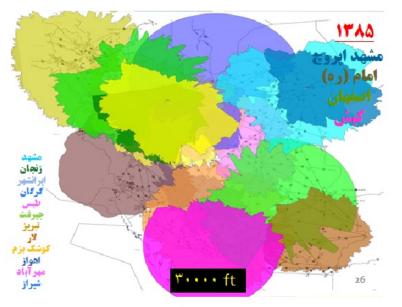
#### Surveillance Coverage, 20,000 FT







#### Surveillance Coverage, 30,000 ft









## ADS-B

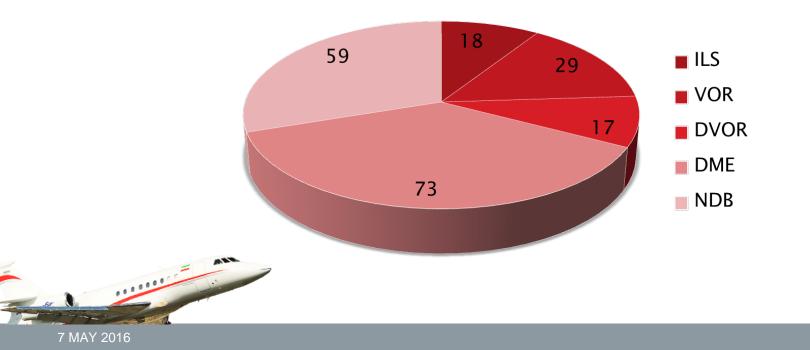
• Operational Tests will be start before 2017 in Tehran ACC







#### **Conventional Navigation Aids**







# **Conventional SIDs/STARs/IAPs**

- 48 ILS CAT I IAP
- 1 ILS CAT II IAP
- 120 VOR/DME IAP
- 84 VOR IAP
- 51 NDB/DME IAP
- 96 NDB IAP
- 630 STARs







#### **PBN-Enroute**

- RNAV 5
  - 43 RNAV 5 ATS Routes Implemented
- RNAV 1
  - 5 RNAV 1 ATS Route Implemented







# **PBN- Approach**

- LNAV/VNAN in the International Aerodromes
  - OIIE Implemented
  - OIII 26 MAY 2016 RWY 29 L
  - OIMM 28 APR 2016
  - OIFM 21 JUL 2016
  - OIKB 28 APR 2016
  - OISS 23 JUN 2016
  - OITT 23 JUN 2016
  - OIZH 26 MAY 2016





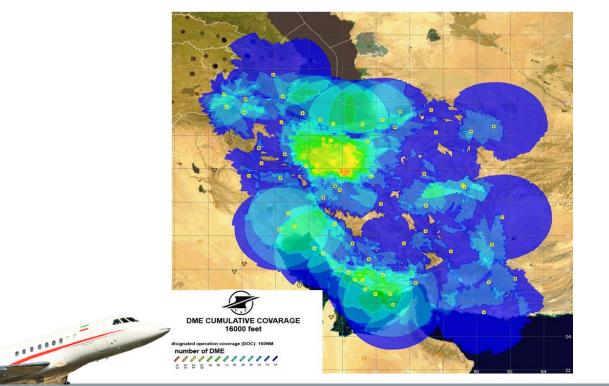
## PBN- SIDs/STARs

- International Aerodromes
  - OIIE Implemented
  - OIII 26 MAY 2016
  - OIMM 28 APR 2016
  - OIFM 21 JUL 2016
  - OIKB 28 APR 2016
  - OISS 23 JUN 2016
  - OITT 23 JUN 2016
  - OIZH 26 MAY 2016 - OHYY 21 JUL 2016





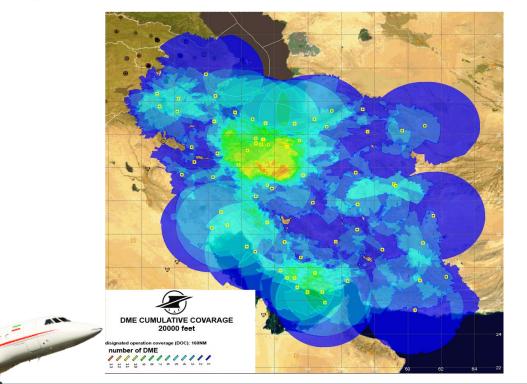
#### DME Coverage, 16,000 FT







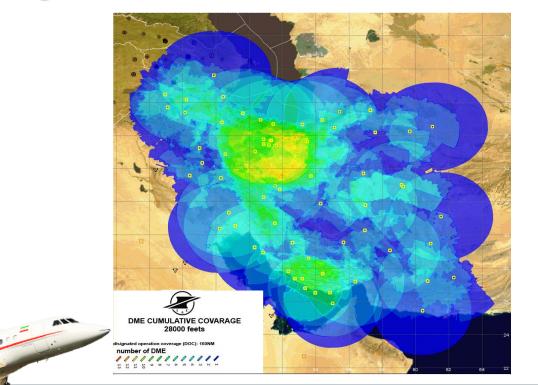
#### DME Coverage, 20,000 FT







#### DME Coverage, 28,000 FT







#### **GNSS** Augmentation

• No SBAS for Commercial Air Transport







## ASBU- BO

B0 – FICE: Increased Interoperability, Efficiency and			
Capacity through Ground-Ground Integration			
Elements		Status	
AMHS capability	Having the AMHS capability	Equipment is ready, to be operational before 2018	
AMHS implementation /interconnection	Having the AMHS implemented (interconnected with other States AMHS)	To be implemented by 2018	
Implementation of AIDC/OLDI between adjacent ACCs	TehranACChavingimplementedatleastoneinterface to use AIDC/OLDI witha neighboring ACCs	Implemented	





## ASBU- BO

<b>B0 – ACAS: ACAS Implementation</b>			
Elements		Status	
Avionics	requiring carriage of ACAS (TCAS v 7.1) for aircraft with a max certificated take-off mass greater than 5.7 tons	FIR by 2017, No new aircraft	





## Miscellaneous

- Flight Calibration In IRAN
  - 50 years history
    - Risk management approach in lack of services
    - Outsourcing the services
    - New aircraft is operational, operated by service provider
      - King air 300, 2013, Aerodata latest technology
      - Ready to provide services to other states







#### EP-BAA, entering into services











## Miscellaneous

- CNS Safety Oversight
  - Issuance of Approval for Service providers base on:
    - Acceptance of established quality system
      - Equipment design, manufacturing, maintenance and operation
      - Management system
      - Qualification of personnel
      - SOPs
      - Performance indicators
  - Oversight activities





# Challenges

- Regulatory issues:
  - Lack of guidance material regarding management system specifications
  - Lack of guidance regarding equipment manufacturing certification
  - Oversight guidelines

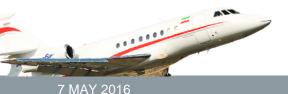






# Action by the meeting

- The meeting is invited to:
  - a) Note the information contained in this presentation;
  - b) Note the updates provided regarding the status of CNS implementation in Iran; and
  - c) Note the experience and capability of Iran in providing NAV AIDs flight check services to other States.







## Thank You

