Second Meeting of the Air Navigation System Implementation Group (ANSIG/2)

Cairo, Egypt, 6-8 December 2016

I.R. of Iran

Presented by

Deputy CEO for Aeronautical Operation of

Iran Airports and Air Navigation Co.

Outline

- Brief on the Iran National ASBU Implementation Plan
- Status of ASBU Implementation
- Lessons Learned
- Challenges
- Recommendations
- Outlook 2020

Status of ASBU Implementation

Status of ASBU Implementation

B0 – APTA: Optimization of Approach Procedures including vertical guidance				
Elements	**Applicability**	**Status**	**Action Plan/Timelines**	**Remarks**
States' PBN Implementation Plans	Tehran FIR	In progress	Developed	
LNAV	OIIE 29 OIMM 31R OIFM 26R/08L OISS 29L/11R OIII 29L/11R OIKB 21L/03R OIZH 17/35 OITT 30R/12L	Implemented In progress In progress In progress In progress In progress In progress In progress	--- JUNE 2017 DEC 2017 JULY 2017 DEC 2017 OCT 2017 NOV 2017 DEC 2018	OIII RNP/ILS Awaiting for validation
LNAV/VNAV	OIIE 29 OIMM 31R OIFM 26R/08L OISS 29L OIII 29L/11R OIKB 21L/03R OIZH 35 OITT 30R	Implemented In progress In progress In progress In progress In progress In progress In progress	--- JUNE 2017 DEC 2017 JULY 2017 DEC 2017 OCT 2017 NOV 2017 DEC 2018	OIII RNP/ILS Awaiting for validation

Status of ASBU Implementation

B0-SURF: Safety and Efficiency of Surface Operations (A-SMGCS Level 1-2)				
Elements	**Applicability**	**Status**	**Action Plan/Timelines**	**Remarks**
A-SMGCS Level 1	---	---	---	---
A-SMGCS Level 2	OIIE OIII OIMM OISS	In Progress In Progress In Progress In Progress	Dec 2017 Dec 2017 Dec 2019 Dec 2018	---

Status of ASBU Implementation

B0 – ACDM: Improved Airport Operations through Airport-CDM				
Elements	**Applicability**	**Status**	**Action Plan/Timelines**	**Remarks**
A-CDM	OIII OIIE	Plan Plan	Dec 2019 Dec 2019	---

Status of ASBU Implementation

B0 – FICE: Increased Interoperability, Efficiency and Capacity through Ground-Ground Integration				
Elements	**Applicability**	**Status**	**Action Plan/Timelines**	**Remarks**
AMHS capability	Tehran AMHS/AFTN Centre	In Progress	Dec 2017	
AMHS Impl. /interconnection	Tehran AMHS/AFTN Centre	In Progress	Dec 2017	international AMHS link with adjacent AMHS centers (Ankara, Bahrain, Kuwait, Muscat, Karachi, Abu-Dhabi, Damascus)
Impl. of AIDC/OLDI between adjacent ACCs	Between Tehran ACC and adjacent ACCs (Ankara, UAE, Muscat, Kuwait, Bahrain)	In Progress	Dec 2019	

Status of ASBU Implementation

B0 – DATM: Service Improvement through Digital Aeronautical Information Management				
Elements	**Applicability**	**Status**	**Action Plan/Timelines**	**Remarks**
National AIM Roadmap	Iran	Implemented	2008	---
AIXM	Iran	In Progress	Dec 2018	
eAIP	Iran	In Progress	Dec 2018	
QMS	Iran	Implemented	2008	
WGS-84	ENR AD TMA GUND	Implemented Implemented Implemented Implemented	2013 2013 2013 2013	
eTOD	Area 1 Terrain Area 1 Obstacle Area 4 Terrain Area 4 Obstacle	Implemented Implemented Implemented Implemented	2014 2014 2014 2014	Area 2 & 3 Implemented by Oct 2016

Status of ASBU Implementation

B0 – AMET: Meteorological information supporting enhanced operational efficiency and safety				
Elements	**Applicability**	**Status**	**Action Plan/Timelines**	**Remarks**
SADIS 2G or Secure SADIS FTP	Tehran FIR	In Progress	DEC 2019	
QMS	Tehran FIR	Implemented	2015	

Status of ASBU Implementation

B0 – FRTO: Improved Operations through Enhanced En-Route Trajectories				
Elements	**Applicability**	**Status**	**Action Plan/Timelines**	**Remarks**
Flexible use of airspace (FUA)	Tehran FIR	Create Airspace Management Cell	Dec 2018	
Flexible routing	Tehran FIR	Plan	Dec 2019	

Status of ASBU Implementation

B0 – ACAS: ACAS Improvements				
Elements	**Applicability**	**Status**	**Action Plan/Timelines**	**Remarks**
ICAO Regulation on carriage of ACAS (TCAS v7.1)	Tehran FIR	in progress	By 1 JAN 2017 for aircraft performing commercial air transport	ICAS 106

Status of ASBU Implementation

B0 – CDO: Improved Flexibility and Efficiency in Descent Profiles (CDO)				
Elements	**Applicability**	**Status**	**Action Plan/Timelines**	**Remarks**
PBN STARs	OIIE	Implemented	---	
	OIII	In progress	JUNE 2017	
	OIMM	In progress	JUNE 2017	
	OIFM	In progress	DEC 2017	
	OISS	In progress	JULY 2017	
	OIKB	In progress	OCT 2017	
	OIZH	In progress	NOV 2017	
	OITT	In progress	DEC 2018	
	OIYY	In progress	DEC 2018	
International aerodromes/ TMAs with CDO	Tehran TMA	In progress	DEC 2019	
	Mashhad TMA	In progress	DEC 2019	
	Isfahan TMA	In progress	DEC 2019	
	Shiraz TMA	In progress	DEC 2019	
	Bandar Abbas TMA	In progress	DEC 2019	
	OIZH	In progress	DEC 2019	
	OITT	In progress	DEC 2019	
	OIYY	In progress	DEC 2019	

Status of ASBU Implementation

B0 – CCO: Improved Flexibility and Efficiency Departure Profiles - Continuous Climb Operations (CCO)				
Elements	**Applicability**	**Status**	**Action Plan/Timelines**	**Remarks**
PBN SIDs	OIIE	Implemented	---	
	OIMM	In progress	JUNE 2017	
	OIFM	In progress	DEC 2017	
	OISS	In progress	JULY 2017	
	OIKB	In progress	OCT 2017	
	OIZH	In progress	NOV 2017	
	OITT	In progress	DEC 2018	
	OIYY	In progress	DEC 2018	
International aerodromes/ TMAs with CCO	Tehran TMA	In progress	DEC 2019	
	Mashhad TMA	In progress	DEC 2019	
	Isfahan TMA	In progress	DEC 2019	
	Shiraz TMA	In progress	DEC 2019	
	Bandar Abbas TMA	In progress	DEC 2019	
	OIZH	In progress	DEC 2019	
	OITT	In progress	DEC 2019	
	OIYY	In progress	DEC 2019	

Other ASBU Block 0 Modules (priority 2) Implemented by the State

Module	Module Title	Status		Remarks
		Yes	No	
B0-WAKE	Increased Runway Throughput through Optimized Wake Turbulence Separation		NO	
B0-RSEQ	Improve Traffic flow through Runway Sequencing (AMAN/DMAN)		NO	
B0-ASUR	Initial capability for ground surveillance		NO	
B0-ASEP	Air Traffic Situational Awareness (ATSA)		NO	
B0-OPFL	Improved access to optimum flight levels through climb/descent procedures using ADS-B		NO	
B0-SNET	Increased Effectiveness of Ground-Based Safety Nets		NO	
B0-TBO	Improved Safety and Efficiency through the initial application of Data Link En-Route		NO	

Outlook 2020

(Status of ASBU Block 0 Modules by 2020)

Module	Module Title	Status by 2020				Remarks
		FI	PI	NI	N/A	
B0-APTA	Optimization of Approach Procedures including vertical guidance	✓				For PI and NI please specify completion date
B0-WAKE	Increased Runway Throughput through Optimized Wake Turbulence Separation	✓				For PI and NI please specify completion date
B0-RSEQ	Improve Traffic flow through Runway Sequencing (AMAN/DMAN)	✓				For PI and NI please specify completion date
B0-SURF	Safety and Efficiency of Surface Operations (A-SMGCS Level 1-2)	✓				For PI and NI please specify completion date
B0-ACDM	Improved Airport Operations through Airport-CDM	✓				For PI and NI please specify completion date
B0-FICE	Increased Interoperability, Efficiency and Capacity through Ground-Ground Integration	✓				For PI and NI please specify completion date

Outlook 2020

(Status of ASBU Block 0 Modules by 2020)

Module	Module Title	Status by 2020				Remarks
		FI	PI	NI	N/A	
B0-DATM	Service Improvement through Digital Aeronautical Information Management	✓				For PI and NI please specify completion date
B0-AMET	Meteorological information supporting enhanced operational efficiency and safety	✓				For PI and NI please specify completion date
B0-FRTO	Improved Operations through Enhanced En-Route Trajectories	✓				For PI and NI please specify completion date
B0-NOPS	Improved Flow Performance through Planning based on a Network-Wide view	✓				For PI and NI please specify completion date
B0-ASUR	Initial capability for ground surveillance	✓				For PI and NI please specify completion date
B0-ASEP	Air Traffic Situational Awareness (ATSA)	✓				For PI and NI please specify completion date

Outlook 2020

(Status of ASBU Block 0 Modules by 2020)

Module	Module Title	Status by 2020				Remarks
		FI	PI	NI	N/A	
B0-OPFL	Improved access to optimum flight levels through climb/descent procedures using ADS-B	✓				For PI and NI please specify completion date
B0-ACAS	ACAS Improvements	✓				For PI and NI please specify completion date
B0-SNET	Increased Effectiveness of Ground-Based Safety Nets	✓				For PI and NI please specify completion date
B0-CDO	Improved Flexibility and Efficiency in Descent Profiles (CDO)	✓				For PI and NI please specify completion date
B0-TBO	Improved Safety and Efficiency through the initial application of Data Link En-Route				✓	For PI and NI please specify completion date
B0-CCO	Improved Flexibility and Efficiency Departure Profiles - Continuous Climb Operations (CCO)	✓				For PI and NI please specify completion date

Lessons Learned

- Implementation of ASBU blocks require close collaboration of ATM community from first step of planning to the final steps.
- Preparation of the action plan in detail is a prerequisite for successful implementation.
- ATC Under planning and procedure designer.

Challenges

- Comprehensive training is required for operational personnel.
- The heavy workload of flight inspection of ASBU procedure designed.
- Reorganization of airspace to optimize ASBU implementation benefits.
- Data validation and Flight validation
- Military coordination

Recommendations

- Close cooperation of neighboring states according to regional plan is encouraged.
- Sharing and exchanging of experiences during implementation can facilitate the progress of plan and reduces implementation time and costs.

Thank you

- **Requirement for ATS systems to be interoperable with the IAID, shown by:**
- **FI - Fully Implemented**
- **PI - Partially Implemented NI - Not Implemented**
- **10 Action Plan — short description of the State's Action Plan with regard to the provision of**
- **AIM products and services based on the IAID, especially for items with a "PC", "PI", "NC" or "NI" status, including planned date(s) of full compliance, as appropriate. 11 Remarks — additional information, including detail of "PC", "NC", "PI" and "NI", as appropriate.**