



MID Region Air Navigation Report

Abbas Niknejad

*Regional Officer, AIM/ATM
ICAO Middle East Office, Cairo*

MIDAD TF/5 & AIM SG/3 (Cairo, Egypt, 13-15 February 2018)



INTERNATIONAL CIVIL AVIATION ORGANIZATION
MIDDLE EAST AIR NAVIGATION PLANNING
AND IMPLEMENTATION REGIONAL GROUP
(MIDANPIRG)
MID REGION
AIR NAVIGATION STRATEGY
Edition: Framework, 2017

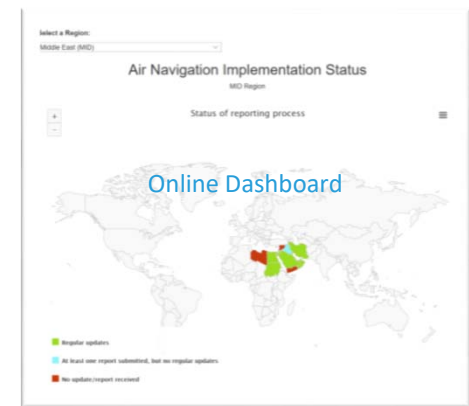
MID Doc 002



- B0-APTA
- B0-CCO
- B0-CDO
- B0-SURF
- B0-ACDM
- B0-FICE
- B0-DATM
- B0-AMET
- B0-FRTO
- B0-SNET
- B0-NOPS



AIR NAVIGATION REPORT
ICAO Middle East Region



Data collection, processing, storage and reporting activities are fundamental to the success of performance-based approaches.



Monitoring Bodies

Module Code	Monitoring		Remarks
	Main	Supporting	
B0-APTA	PBN SG	ATM SG, AIM SG, CNS SG	
B0-SURF	ANSIG	CNS SG	Coordination with RGS WG
B0-ACDM	ANSIG	CNS SG, AIM SG, ATM SG	Coordination with RGS WG
B0-FICE	CNS SG	AIM SG, ATM SG	
B0-DATM	AIM SG		
B0-AMET	MET SG		
B0-FRTO	ATM SG		
B0-NOPS	ATM SG		
B0-ACAS	CNS SG		
B0-SNET	ATM SG		
B0-CDO	PBN SG		
B0-CCO	PBN SG		



- **Released/endorsed by MIDANPIRG/16 (Kuwait, 13-16 February 2017)**
- **Contents:**
 - **Section 1:** Introduction
 - **Section 2:** Status of implementation of the priority 1 ASBU Block 0 Modules.
 - **Section 3:** ASBU Block 0 implementation outlook for 2020
 - **Section 4:** Environmental protection (*status of State's CO2 action plans and the operational improvements that had been/would be implemented in the MID Region*).
 - **Section 5:** Success stories related to the implementation of ASBU Block 0 Modules.
 - **Section 6:** Conclusion
 - **Appendix A** provides detailed status of the implementation of Priority 1 Block 0 Modules and their associated Elements for the MID States.
 - **Appendix B** illustrates the detailed status of implementation of ASBU Block 0 Modules in the MID States by 2020.

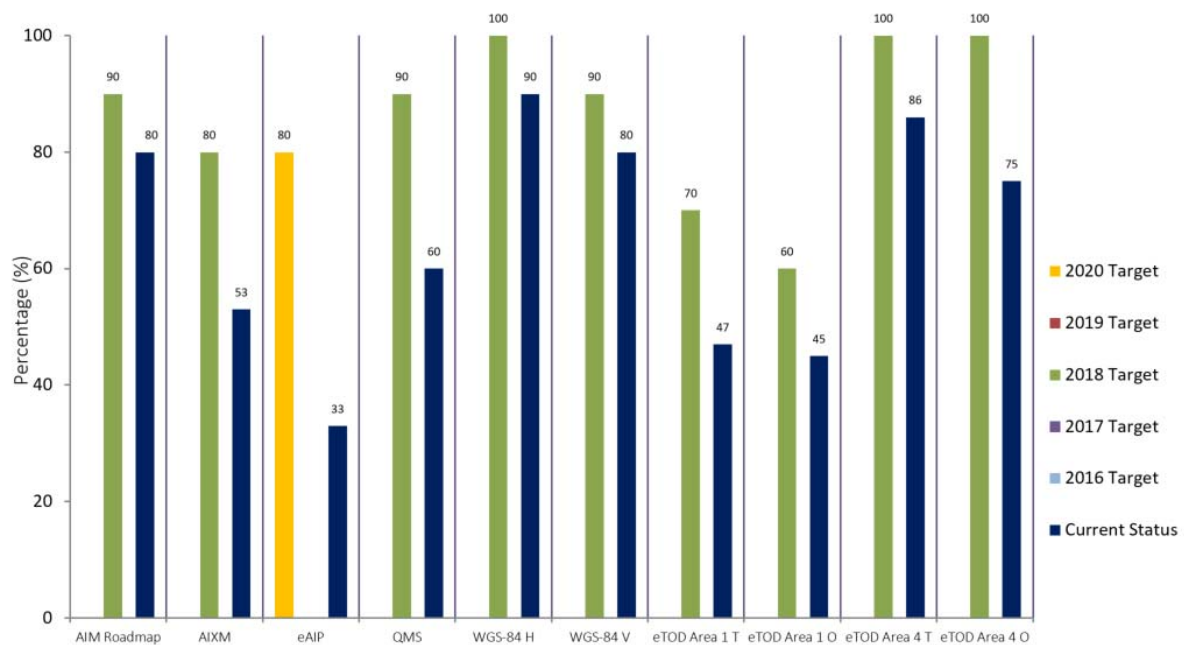


MID Region
AIR NAVIGATION REPORT





B0-DATM Status of implementation in the MID Region

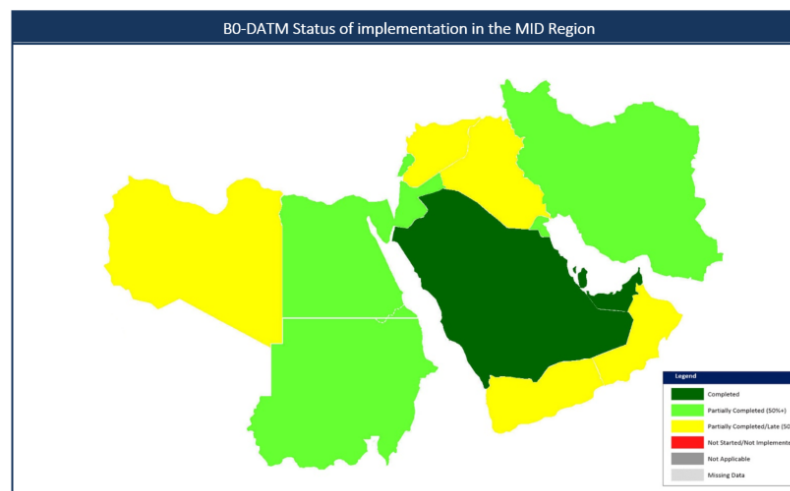




B0-DATM

Module	Elements	Bahrain	Egypt	Iran	Iraq	Jordan	Kuwait	Lebanon	Libya	Oman	Qatar	Saudi Arabia	Sudan	Syria	UAE	Yemen
B0-DATM	National AIM Roadmap	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green
	AIXM	Green	Red	Red	Red	Red	Red	Red	Red	Red	Red	Red	Red	Red	Red	Red
	eAIP	Green	Red	Red	Red	Red	Red	Red	Red	Red	Red	Red	Red	Red	Red	Red
	QMS	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green
	WGS-84 – H	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green
	WGS-84 – V	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green
	eTOD Area 1 Terrain	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green
	eTOD Area 1 Obstacles	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green
	eTOD Area 4 Terrain	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green
	eTOD Area 4 Obstacles	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green

The progress for B0-DATM is acceptable (with approximately 64% implementation). eTOD Area 4 is not applicable in 6 States.





State	BO-APTA			BO-SURF		BO-ACDM	BO-FICE			BO-DATM							BO-AMET		BO-FRTO		BO-NOPS	BO-ACAS		BO-CDO		BO-CCO													
	PBN Plan	LNAV	LNAV/ NAV	TOTAL	A-SIMGCS 1	A-SIMGCS 2	TOTAL	AIM/HS Cap	AIM/HS Imp.	AIDC/OLDI	TOTAL	AIM Plans	AIMM	eAIP	OMS	WGS-84 H	WGS-84 V	eTOD area 1 T	eTOD area 1 O	eTOD area 4 T	eTOD area 4 O	TOTAL	SADIS 2G/FTP	OMS	TOTAL	FUA	Flex Routing	TOTAL	TOTAL	TOTAL	PBN STARS	CDO	TOTAL	PBN SIDR	CCO	TOTAL			
Bahrain																																							
Egypt																																							
Iran																																							
Iraq																																							
Jordan																																							
Kuwait																																							
Lebanon																																							
Libya																																							
Oman																																							
Qatar																																							
Saudi Arabia																																							
Sudan																																							
Syria																																							
UAE																																							
Yemen																																							






TBD



Outlook for 2020

Module	Current Status of implementation (approximate rate)	Projected Status of implementation by 2020* (approximate rate)
B0-APTA	33%	96%
B0-WAKE	(Priority 2)	71%
B0-RSEQ	(Priority 2)	55%
B0-SURF	46%	67%
B0-ACDM	0%	50%
B0-FICE	55%	83%
B0-DATM	61%	87%
B0-AMET	70%	92%
B0-FRTO	14%	71%
B0-NOPS	(Priority 2)	46%
B0-ASUR	(Priority 2)	70%
B0-ASEP	(Priority 2)	69%
B0-OPFL	(Priority 2)	60%
B0-ACAS	73%	100%
B0-SNET	(Priority 2)	92%
B0-CDO	10%	67%
B0-TBO	(Priority 2)	44%
B0-CCO	19%	63%

Legend

-  Good (75%+)
-  Acceptable (50%-75%)
-  Slow (25%-50%)
-  Very Slow (25%-)
-  Missing Data

Note – projected status for 2020 is calculated based on information received from 12 States (out of 15).



Outlook for 2020

State	B0-APTA	B0-WAKE	B0-RSEQ	B0-SURF	B0-ACDM	B0-FICE	B0-DATM	B0-AMET	B0-FRTO	B0-NOPS	B0-ASUR	B0-ASEP	B0-OPFL	B0-ACAS	B0-SNET	B0-CDO	B0-TBO	B0-CCO
Bahrain	Green	Grey	Yellow	Green	Yellow	Green	Green	Green	Yellow	Yellow	Green	Yellow	Grey	Green	Green	Green	Yellow	Green
Egypt	Green	Green	Grey	Green	Yellow	Green	Green	Green	Green	Green	Green	Grey	Grey	Green	Green	Yellow	Grey	Yellow
Iran	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Grey	Green
Iraq	Yellow	Grey	Grey	Grey	Red	Green	Green	Yellow	Yellow	Red	Red	Red	Grey	Green	Green	Red	Red	Red
Jordan	Green	Grey	Red	Red	Yellow	Yellow	Yellow	Green	Red	Red	Green	Grey	Grey	Green	Green	Yellow	Red	Yellow
Kuwait	Green	Yellow	Yellow	Yellow	Yellow	Yellow	Green	Green	Yellow	Yellow	Yellow	Yellow	Yellow	Green	Yellow	Yellow	Yellow	Yellow
Lebanon	Green	Grey	Red	Grey	Yellow	Yellow	Green	Yellow	Yellow	Red	Red	Green	Red	Green	Green	Yellow	Yellow	Red
Libya	Grey	Grey	Grey	Grey	Grey	Grey	Grey	Grey	Grey	Grey	Grey	Grey	Grey	Grey	Grey	Grey	Grey	Grey
Oman	Green	Green	Green	Yellow	Yellow	Green	Green	Green	Green	Green	Yellow	Green	Grey	Green	Green	Yellow	Grey	Yellow
Qatar	Green	Red	Green	Green	Yellow	Green	Green	Green	Green	Yellow	Green	Grey	Grey	Green	Green	Green	Yellow	Green
Saudi Arabia	Green	Grey	Yellow	Yellow	Yellow	Green	Green	Green	Green	Grey	Green	Green	Green	Green	Green	Green	Green	Green
Sudan	Green	Yellow	Yellow	Grey	Yellow	Yellow	Yellow	Green	Yellow	Yellow	Yellow	Yellow	Yellow	Green	Yellow	Yellow	Yellow	Yellow
Syria	Grey	Grey	Grey	Grey	Grey	Grey	Grey	Grey	Grey	Grey	Grey	Grey	Grey	Grey	Grey	Grey	Grey	Grey
UAE	Green	Green	Yellow	Yellow	Yellow	Green	Green	Green	Green	Yellow	Green	Grey	Grey	Green	Green	Green	Yellow	Green
Yemen	Grey	Grey	Grey	Grey	Grey	Grey	Grey	Grey	Grey	Grey	Grey	Grey	Grey	Green	Grey	Grey	Grey	Grey



Implemented Operational Improvements

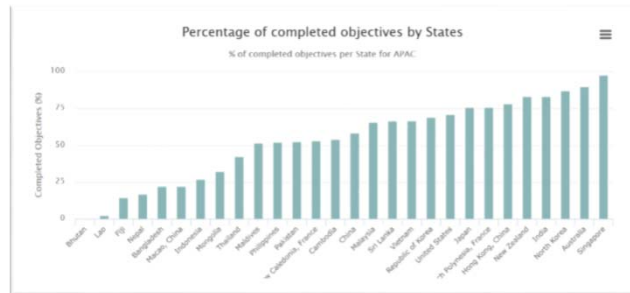
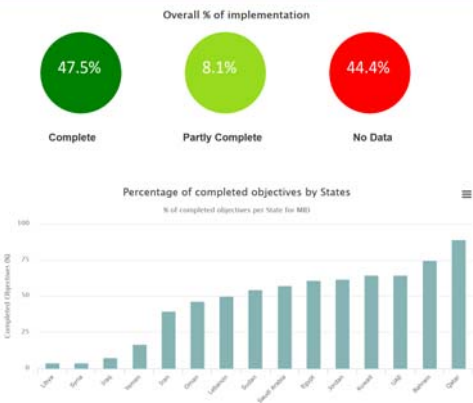
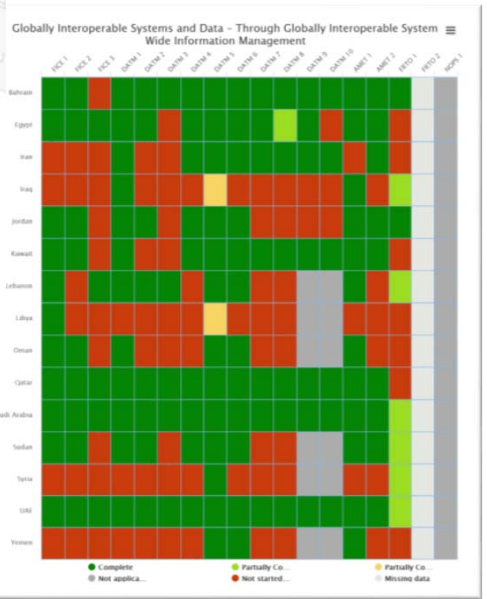
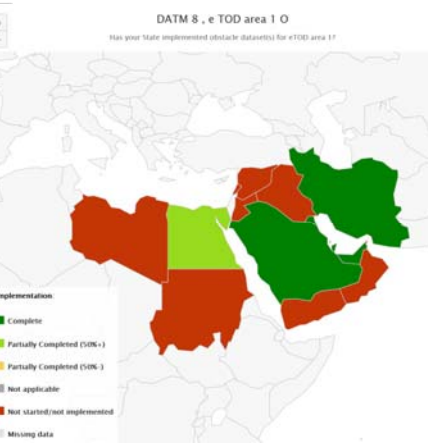
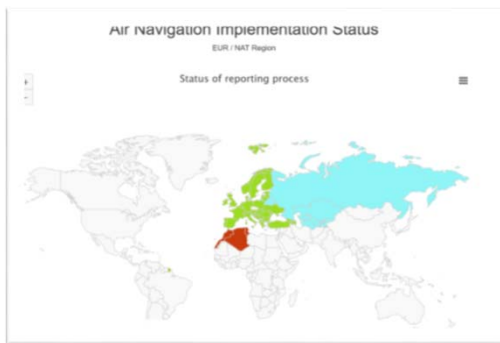
- Vast improvements in the regional ATS route network and the implementation of RNAV routes through close cooperation between neighboring States (Bahrain, Egypt, Iran, Iraq, Jordan, Libya and UAE)
- Establishment of new PBN SIDs and STARs (Bahrain, Egypt, Iran, Jordan, Kuwait, Lebanon, Oman, Qatar, Saudi Arabia and UAE)
- CCO/CDO implementation (Bahrain and Qatar)
- Implementation of LNAV/VNAV (Egypt, Iran, Jordan, Kuwait, Oman, Qatar, Jordan and UAE)
- Implementation of A-SMGCS (Bahrain, Egypt, Qatar and UAE)
- FUA implementation (Bahrain and Jordan)
- Implementation of Arrival Manager (AMAN) (Bahrain and UAE)
- Implementation of Departure Flow Manager (DFLOW) Web Interface (UAE)
- Improvement of airside structure including enhancing aprons, taxiways (rapid exit taxiways, etc.) (Bahrain)
- Implementation of Single-engine taxi operation (Bahrain, Qatar, UAE)
- Improving situational awareness using modernized aeronautical and MET information management systems (Bahrain, Qatar, Saudi Arabia and UAE)
- Modernization of CNS/ATM infrastructure and equipment (Oman, Qatar, Saudi Arabia, UAE)

Planned Operational Improvements

- Further improvements of the regional ATS route network and the implementation of RNAV1 routes
- Establishment of new PBN SIDs and STARs
- CCO/CDO implementation
- Implementation of LNAV/VNAV
- Implementation of A-SMGCS (Iran and Saudi Arabia)
- FUA implementation (Egypt, Iran, Jordan, Saudi Arabia, Sudan and UAE)
- Implementation of RNP AR approach (UAE)
- Further Modernization of CNS/ATM infrastructure and equipment (Iran, Kuwait, Saudi Arabia, Sudan)



ICAO CAPACITY & EFFICIENCY Harmonized monitoring & reporting





- Some States are still facing difficulties to develop a National ASBU Implementation Plan based on the GANP and regional strategy
- ICAO could support (National ASBU Implementation Workshop)
- Planning for ASBU Block 1 would start soon
- The progress for the implementation of some priority 1 Block 0 Modules in the MID Region has been acceptable/good; such as **B0-ACAS**, **B0-AMET** and **B0-DATM**. Nevertheless, some States are still facing challenges to implement the majority of the Block 0 Modules.
- The status of implementation of the ASBU Block 0 Modules also shows that Bahrain, Egypt, Jordan, Kuwait, Qatar, Saudi Arabia and UAE made a good progress in the implementation of the priority 1 ASBU Block 0 Modules
- Looking into the States' plans for 2020 (outlook), the focus/priority of States is to complete the implementation of **B0-APTA**, **B0-FICE**, **B0-DATM**, **B0-AMET**, **B0-CCO** and **B0-CDO**.



- *MIDANPIRG CONCLUSION 16/8: MID REGION AIR NAVIGATION REPORT-2017*

That, MID States be urged to:

a) develop/update their National ASBU Implementation Plan, ensuring the alignment with and support to the MID Region Air Navigation Strategy (MID Doc 002); and

b) provide the ICAO MID Office, with relevant data necessary for the development of the MID Region Air Navigation Report-2017, by 1 November 2017.



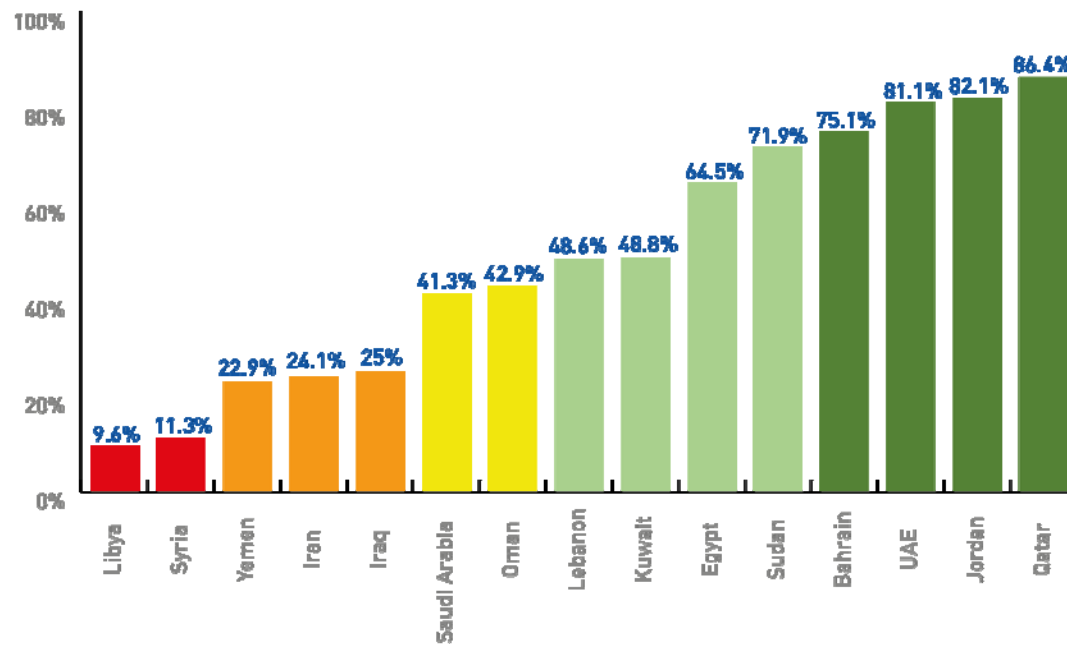
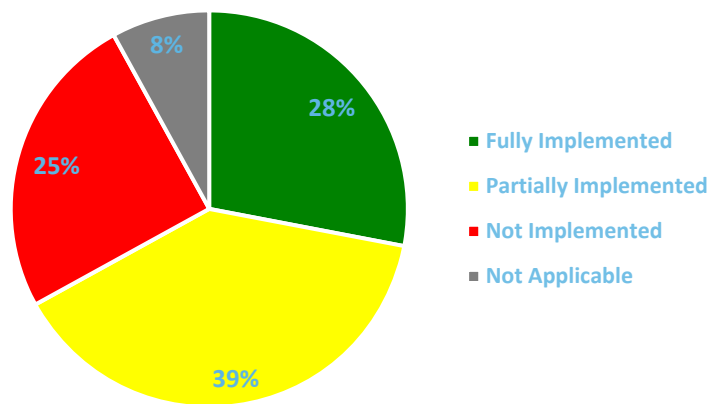
AIR NAVIGATION REPORT
ICAO Middle East Region





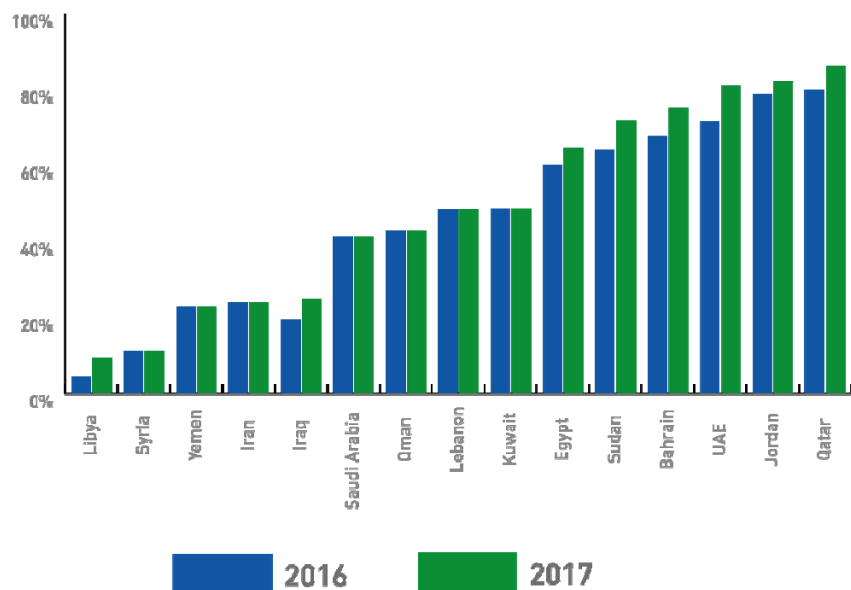
Overall status 2017

Overall Implementations of ASBU Block 0 in the MID Region

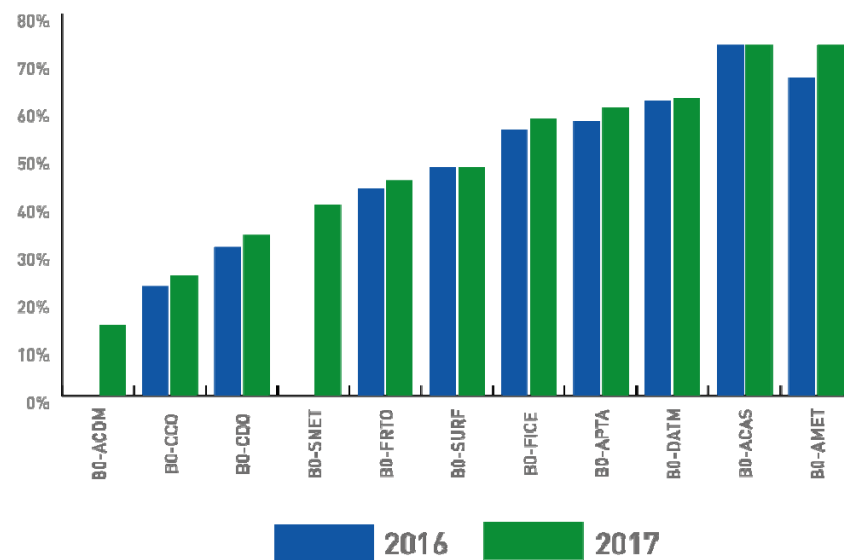




ASBU Block 0 Implementation - By States



ASBU Block 0 Implementation - By Modules





Action by the meeting

- note the information provided in this presentation; and
- review and update, as necessary, the MID Region Air Navigation Report-2017.



ICAO | CAPACITY & EFFICIENCY



ICAO

