



Third Meeting of the Aeronautical Information Management Sub-Group (AIM SG/3)

Cairo, Egypt, 15-18 May 2017

Saudi Arabia

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AIM Manager



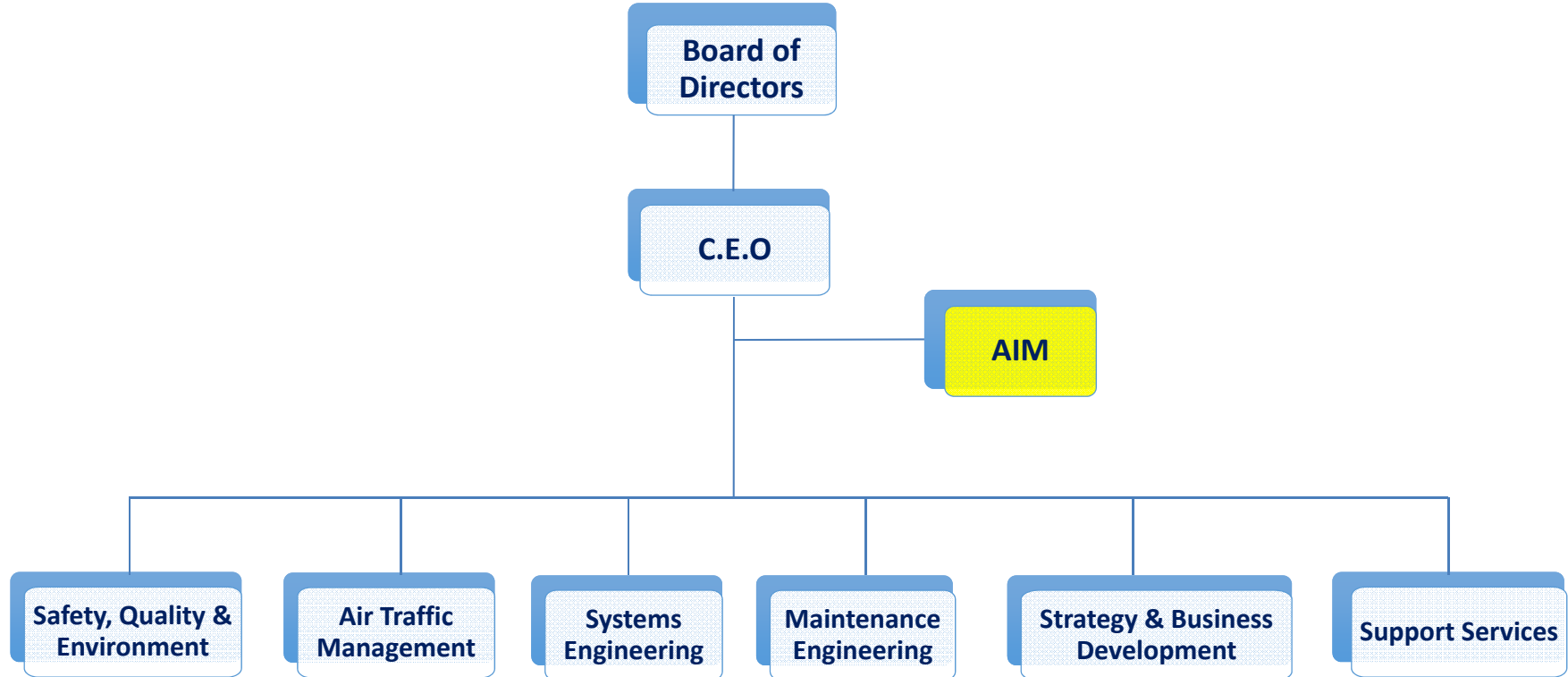
Outline

- **Saudi Arabia National AIM Implementation Roadmap**
- **Status of B0-DATM Implementation**
- **Outlook 2020**
- **Status of AIM Deficiencies**
- **Lessons Learned**
- **Challenges**
- **Recommendations**



Saudi Arabia National AIM Implementation Roadmap

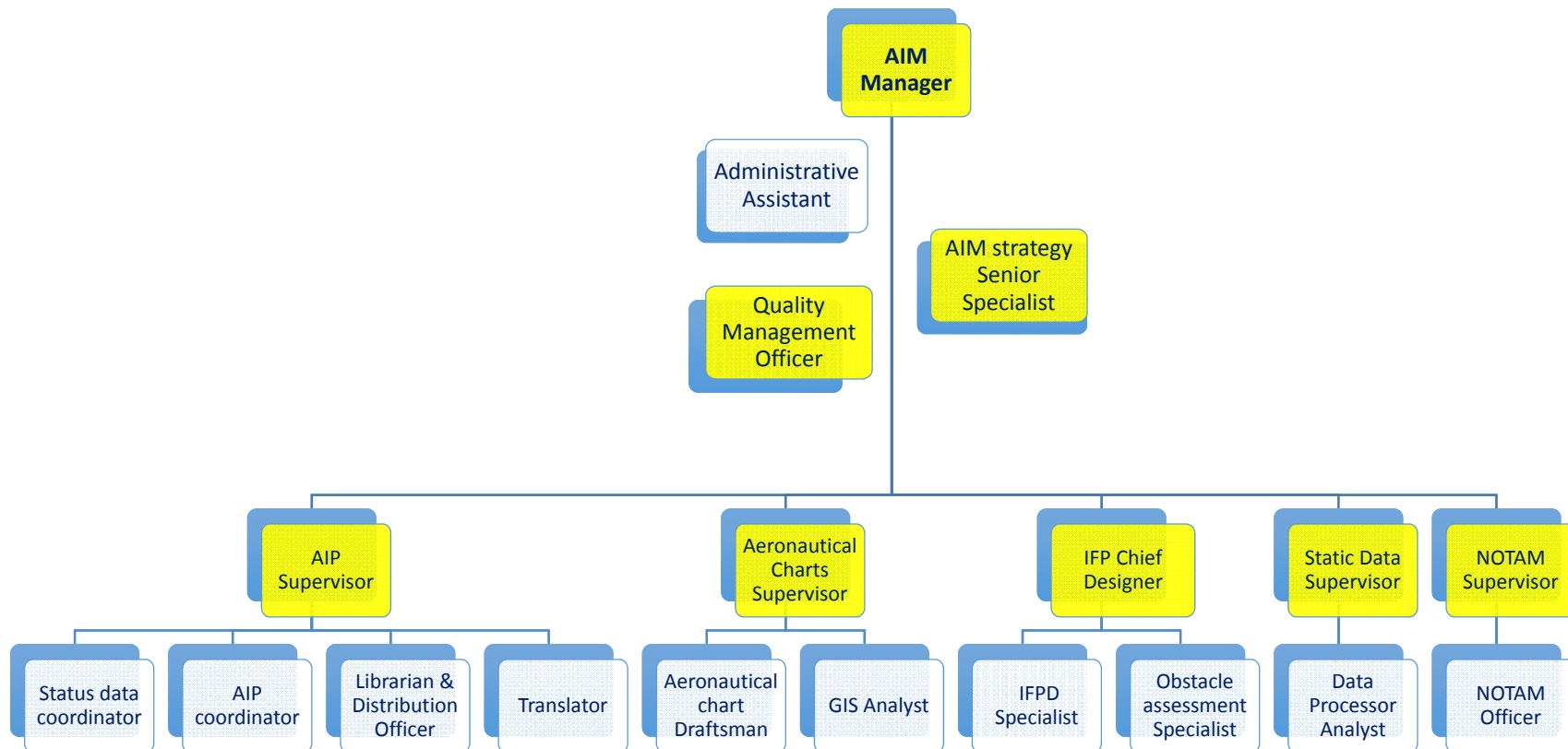
➤ AIM – Positional Organization Structure





Saudi Arabia National AIM Implementation Roadmap (Cont.)

➤ AIM – Positional Organization Structure





Saudi Arabia National AIM Implementation Roadmap (Cont.)

➤ *National AIM Roadmap implementation*

- ✓ KSA Roadmap updated on November 2016 (as per ICAO SL AN8/4-16/261 dated 22 September 2016).
- ✓ AIRAC Adherence questionnaire sent to ICAO MID Office.
- ✓ Renew of QMS ISO 9001 Certificate.
- ✓ eAIP distributed on DVD only and soon on website (new edition).
- ✓ Training on “AIS to AIM” for 25% of AIM Officer during 2016. (other 25% will be trained during 2017).

i.AIM - Functional Organization Structure



National AIM Implementation Roadmap

Phase/Step	Step No.	Timeline					Start	End	Remarks
		2014	2015	2016	2017	2018			
Phase I									
AIRAC adherence	P-03	█	█	█	█	█			Implemented
WGS-84 implementation	P-05	█	█	█	█	█			Implemented
QMS	P-17	█	█	█	█	█			Implemented
Phase II									
Data Quality Monitoring	P-01	█	█	█	█	█			Implemented
Data Integrity Monitoring	P-02	█	█	█	█	█			Implemented
AIXM	P-06	█	█	█	█	█			Implemented
Unique identifiers	P-07	█	█	█	█	█			Implemented
Aeronautical information conceptual model	P-08	█	█	█	█	█			Implemented
eAIP	P-11	█	█	█	█	█			Implemented
Terrain A-1	P-13	█	█	█	█	█			Implemented
Obstacle A-1	P-14	█	█	█	█	█			Implemented
Terrain A-4	P-13	█	█	█	█	█			Implemented
Obstacle A-4	P-14	█	█	█	█	█			Implemented
Terrain A-2	P-13						2017	2019	
Obstacle A-2	P-14						2017	2019	
Terrain A-3	P-13						2017	2019	
Obstacle A-3	P-14						2017	2019	
AD Mapping	P-15						2017	2019	

i.AIM - Functional Organization Structure



National AIM Implementation Roadmap

Phase III																								
Aeronautical data exchange	P-09	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■			Implemented	
Communication networks	P-10	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	2013	2017	
Aeronautical information briefing	P-12	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	2013	2017	
Training	P-16	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	2014	2018	
Agreement with data originators	P-18	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	2014	2018	
Interoperability with meteorological products	P-19	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■			
Electronic aeronautical charts	P-20	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■			
Digital NOTAM	P-21	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■			



Status of B0-DATM Implementation

Abbreviations used in Status Tables:

NI: Not implemented

PI: Partially Implemented

FI: Fully Implemented

NC: Not Compliant

PC: Partially Compliant

FC: Fully Compliant

N/A: Not Applicable

Note – NC/PC/FC is used for the provisions required by SARPS; NI/PI/FI are regionally agreed requirements



Provision of AIS/AIM products and services based on the Integrated Aeronautical Information Database (IAID)			
Elements	Status	Action Plan	Remarks
Integrated Aeronautical Information Database (IAID)	FI		
AIXM (+version)	FI (Version 4.5)		AIXM 5.1 by end 2017
eAIP (IAID-based)	FI		
NOTAM (IAID-based)	PC		Separated Database but loading of static data from IAID is possible
SNOWTAM (IAID-based)	PC		Separated Database but loading of static data from IAID is possible
PIB (IAID-based)	PC		Separated Database but loading of static data from IAID is possible
Charting (interoperable with IAID)	FC		
Procedure Design (interoperable with IAID)	FI		
ATS (interoperable with IAID)	FI		



Aeronautical Data Quality			
Elements	Status	Action Plan	Remarks
Quality Management System (QMS)	FC		
Formal agreement with originators	FC		
Digital data exchange with originators	NI	2020	
Metadata	FC		
Data quality monitoring	FC		
Data integrity monitoring	FC		
AIRAC adherence	FC		



WGS-84			
Elements	Status	Action Plan	Remarks
FIR/ENR	FC		
Terminal	FC		
AD	FC		
Geoid Undulation (GUND)	FC		



electronic Terrain and Obstacle Datasets (eTOD)			
Elements	Status	Action Plan	Remarks
Area 1 Terrain	FC		
Area 1 Obstacles	FC		
Area 4 Terrain	FC		
Area 4 Obstacles	FC		
Area 2a Terrain	NC	2019	
Area 2a Obstacles	NC	2019	
Area 2b Terrain	NI	2019	
Area 2b Obstacles	NI	2019	
Area 2c Terrain	NI	2019	
Area 2c Obstacles	NI	2019	
Area 2d Terrain	NI	2019	
Area 2d Obstacles	NI	2019	
Area 3 Terrain	NI	2019	
Area 3 Obstacles	NI	2019	
AMDB	NI	2019	



Outlook 2020

(Status of B0-DATM by 2020)



B0 – DATM: Service Improvement through Digital Aeronautical Information Management				
Elements	Applicability	Status	Action Plan/Timelines	Remarks
National AIM Roadmap	State	FI		
AIXM (+version)	State	FI (Ver. 5.+)		
eAIP	State	FI		
QMS	State	FC		
WGS-84	ENR	FC		
	AD	FC		
	TMA	FC		
	GUND	FC		
eTOD	Area 1 Terrain	FC		
	Area 1 Obstacle	FC		
	Area 4 Terrain	FC		
	Area 4 Obstacle	FC		



Status of AIM Deficiencies

AIM Deficiency	Status	Action Plan/Timelines	Remarks
<i>Pre-flight information service not provided at International Airports</i>	Not completed	December 2017	<i>Through Web Based Pilot Briefing System (WBPBS)</i>



Lessons Learned

- **Instrument Flight Procedure Design unit within AIM Department:** Flexibility, interoperable exchange with Aeronautical Information Database (IAID);
- To implement AIM roadmap we have to **involve all Airspace stakeholders;**
- Reply to airspace users on time and acquire the data that they need as required is a **good way to earn their trust.**
- **Competency of AIM Staff** is the most important reason for AIM success;
- Resolve essential issue as needed and **be ready for the future.**



Challenges

- **Human Resources:** to provide more training in line with AIM and future IM;
- **New technology:** to update our Automation System and Integrated Aeronautical Information Database (IAID);
- **Integration with other systems:** To link IAID with eTOD database and becoming major enabler for current & future systems;
- Introduce Digital data and **interoperable exchange** with authoritative sources;
- Achieve **eTOD** area 2 & 3;
- Start **AIMDB**.



Recommendations

- State to share best practices on AIM implementation;
- To Involve regulator and main stakeholders from the beginning in projects related to AIM and IM;
- ICAO to provide more training workshop on AIM;



Thank you