



MIDANPIRG PBN SG/3 Meeting Cairo, Egypt, 11-13 February 2018

Jordan

Presented by
Ahmad Amireh

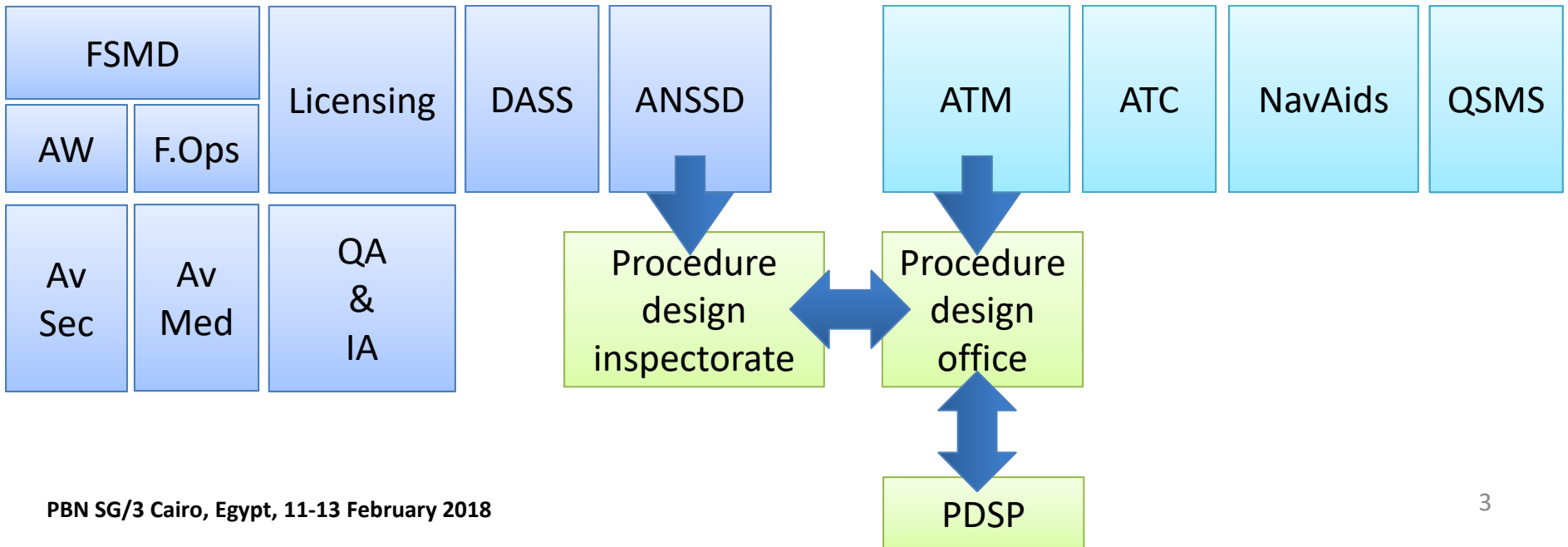
Presentation Outline



- ✦ **Brief of the State National PBN Implementation Plan**
- ✦ **Status of Implementation**
- ✦ **Lessons Learned**
- ✦ **Challenges**
- ✦ **Thoughts/Recommendations**



Procedure Design Entity / Inspectorate



Status of Implementation

King Hussein Intl (OJAQ)

100% PBN Runways (2/2)

	PBN	LNAV	LNAV/VNAV	LPV	RNP AR	Unknown PBN	SID	STAR
RWY 19	✓	✓					✓	✓
RWY 1	✓	✓	✓				✓	✓

Marka Intl (OJAM)

100% PBN Runways (2/2)

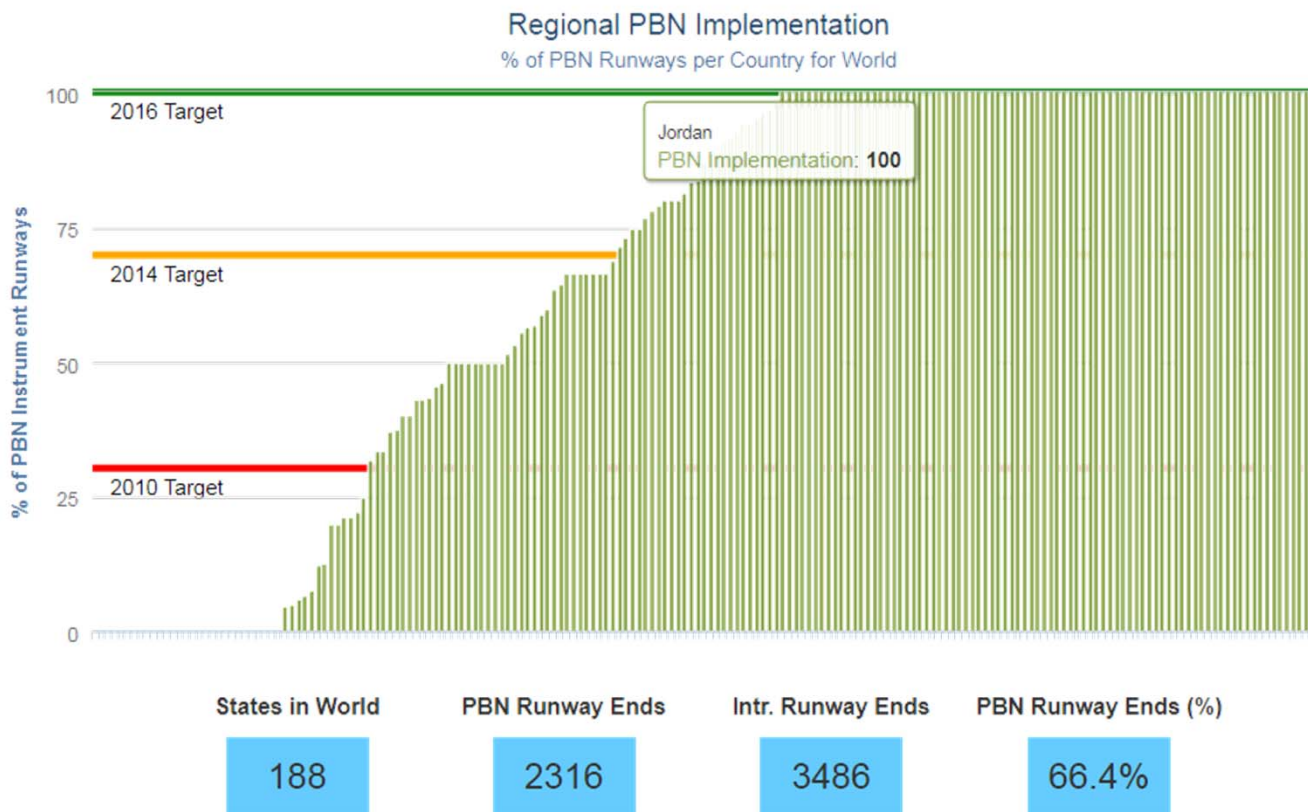
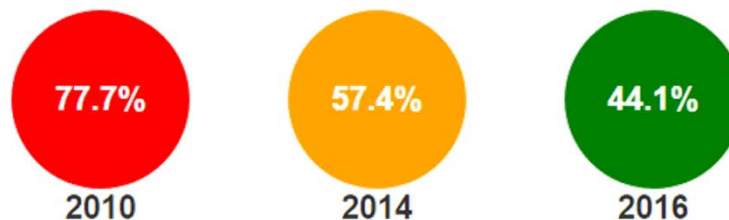
	PBN	LNAV	LNAV/VNAV	LPV	RNP AR	Unknown PBN	SID	STAR
RWY 24	✓	✓	✓				✓	✓
RWY 6	✓	✓	✓				✓	✓

Queen Alia Intl (OJAI)

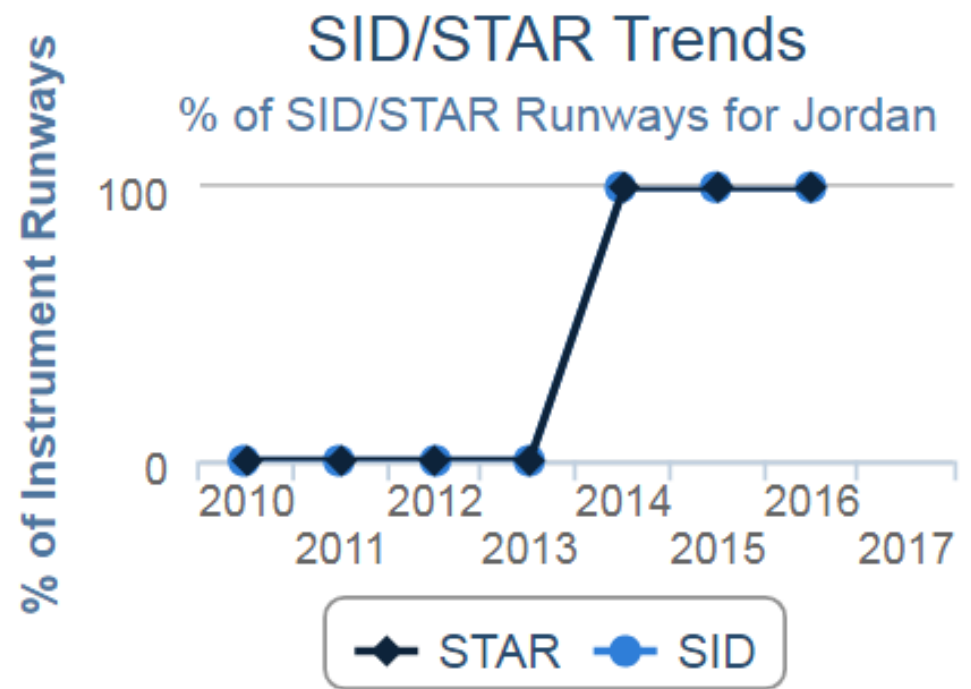
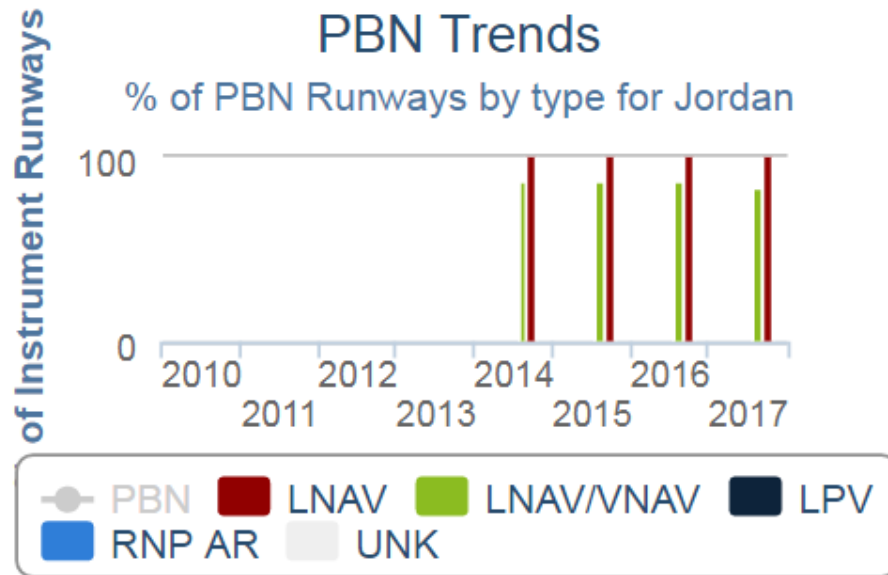
100% PBN Runways (2/2)

	PBN	LNAV	LNAV/VNAV	LPV	RNP AR	Unknown PBN	SID	STAR
RWY 08L ⓘ							✓	✓
RWY 26R ⓘ							✓	✓
RWY 08R	✓	✓	✓				✓	✓
RWY 26L	✓	✓	✓				✓	✓

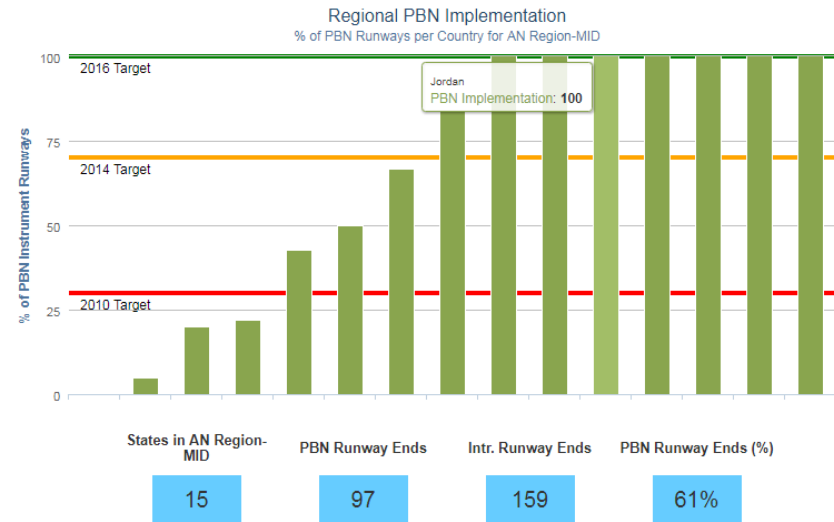
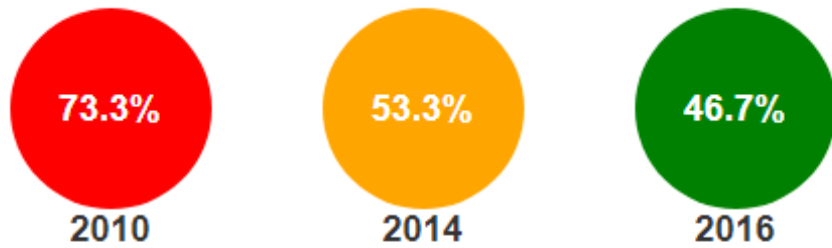
Status of Implementation



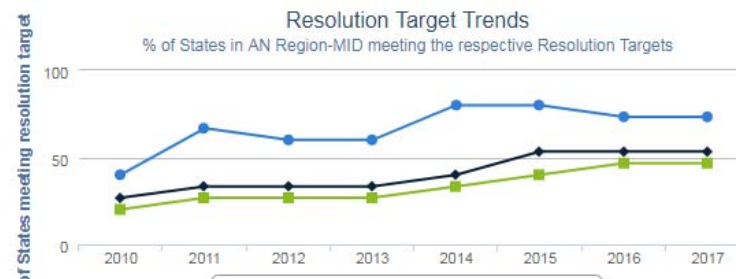
Status of Implementation



Status of Implementation



Regional PBN Implementation
 % of PBN Runways per Country for AN Region-MID



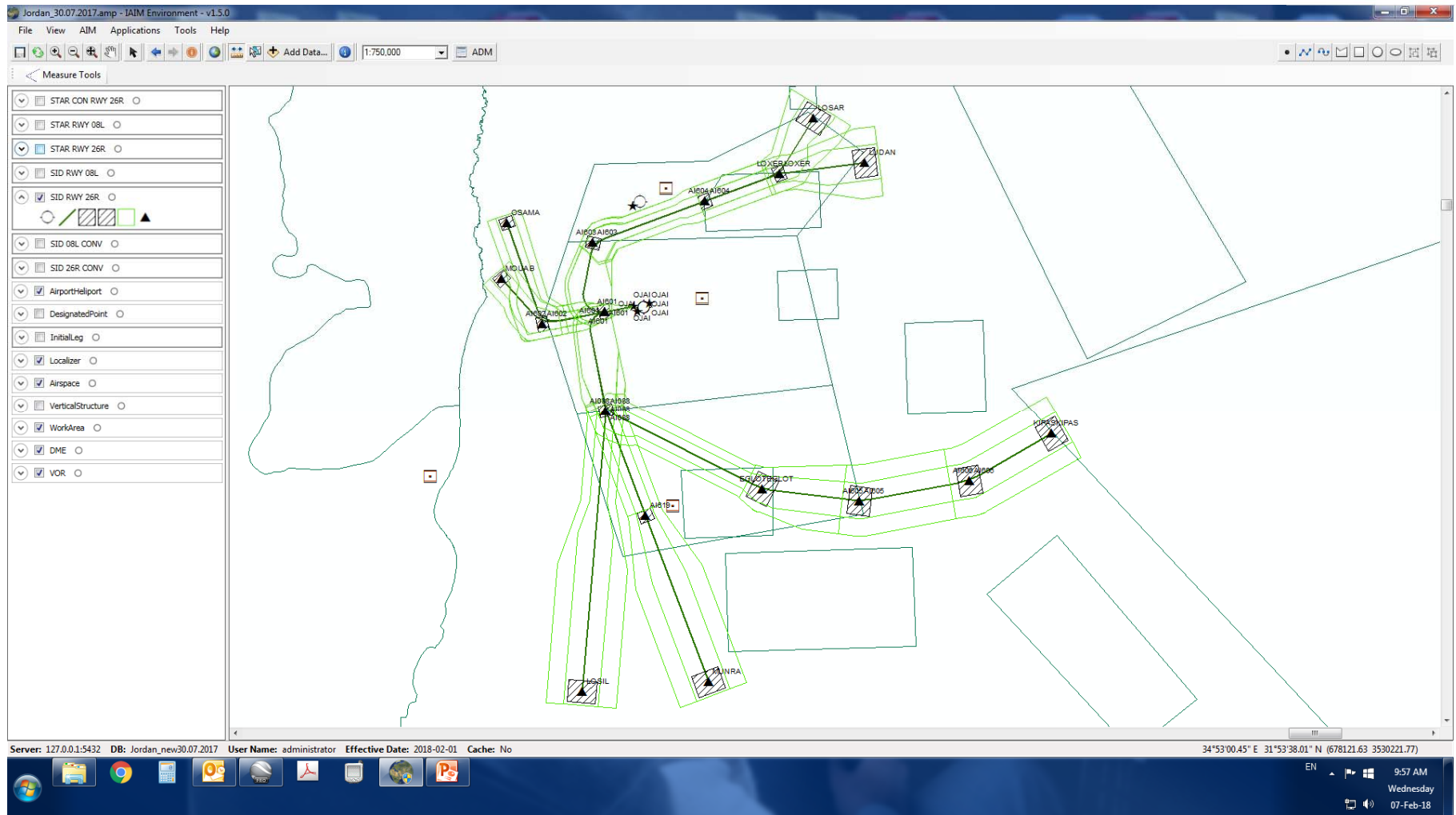
Status of Implementation 2016

AD	RWY Ends	ILS / CAT	LNAV	LNAV/ VNAV	LPV	RNP AR	RNAV SID	RNAV STAR
OJAI	26R	Cat II	✓✓	✓✓			✓✓	✓✓
	08L	Cat II	✓✓	✓✓			✓✓	✓✓
	26L	Cat II	✓✓	✓✓			✓✓	✓✓
	08R	--	✓✓	✓✓			✓✓	✓✓
OJAM	24	Cat I	✓✓	✓✓			✓✓	✓✓
	06	--	✓✓	✓✓			✓✓	✓✓
OJAQ	01	Cat I	✓✓	✓✓			✓✓	✓✓
	19	Cat I	✓✓	NA			✓✓	✓✓
Total	8	Cat I: 3 Cat II:3 75%	8/8 100%	7/8 100%	0	0	8 100%	8 100%

Status of Implementation 2018

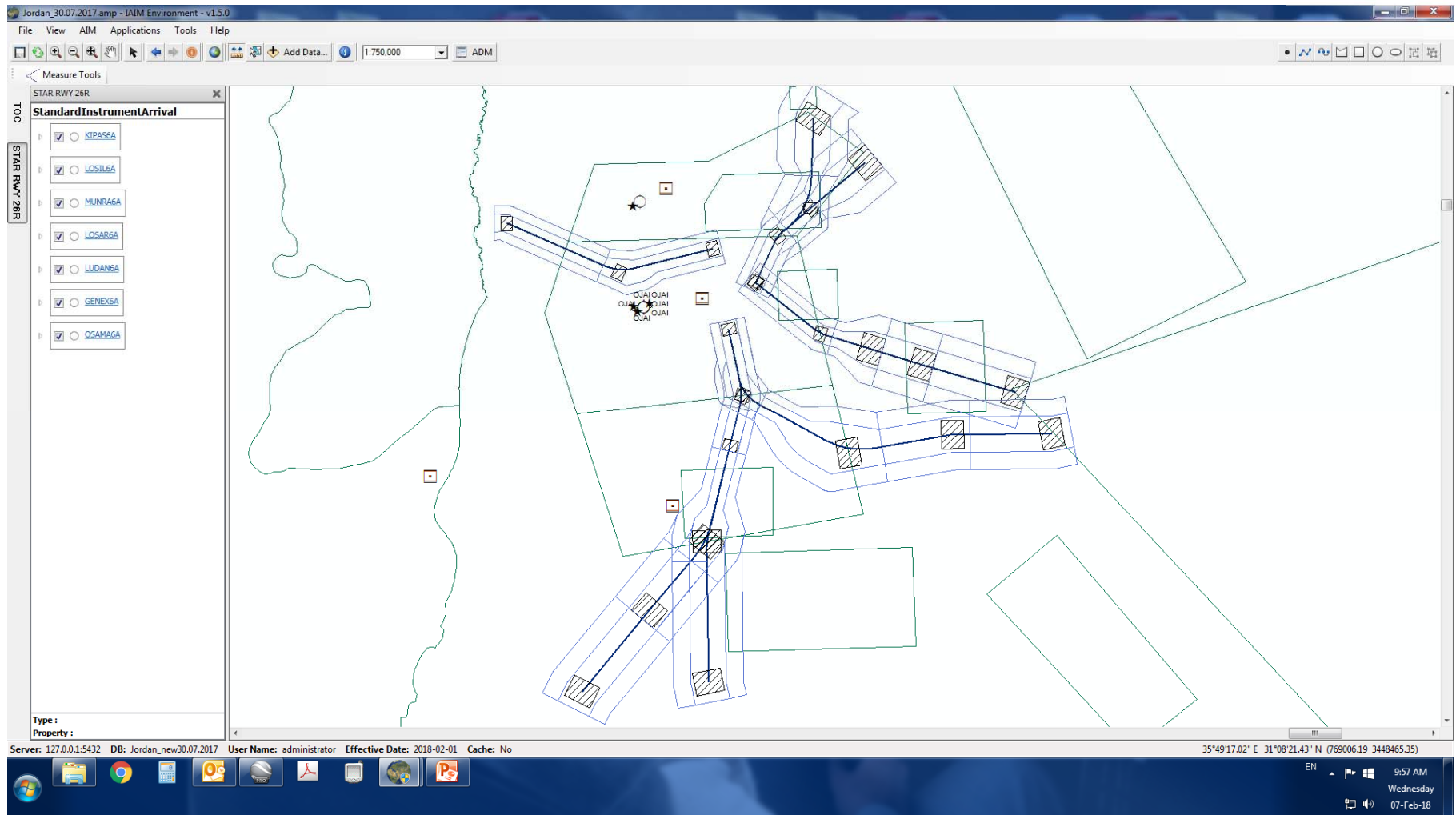
AD	RWY Ends	ILS / CAT	LNAV	LNAV/ VNAV	LPV	RNP AR	RNAV SID	RNAV STAR
OJAI	26R	Cat II	✗	✗			✓✓	✓✓
	08L	Cat II	✗	✗			✓✓	✓✓
	26L	Cat II	✓✓	✓✓			✓✓	✓✓
	08R	--	✓✓	✓✓			✓✓	✓✓
OJAM	24	Cat I	✓✓	✓✓			✓✓	✓✓
	06		✓✓	✓✓			✓✓	✓✓
OJAM	01	Cat I	✓✓	✓✓			✓✓	✓✓
	19	Cat I	✓✓	✗			✓✓	✓✓
Total	6	Cat I: 2 Cat II:3 83.3%%	4/6 66.7%	3/6 50.0%	0	0	8 100%	8 100%

New Amman PBN airspace SIDs RWY26R



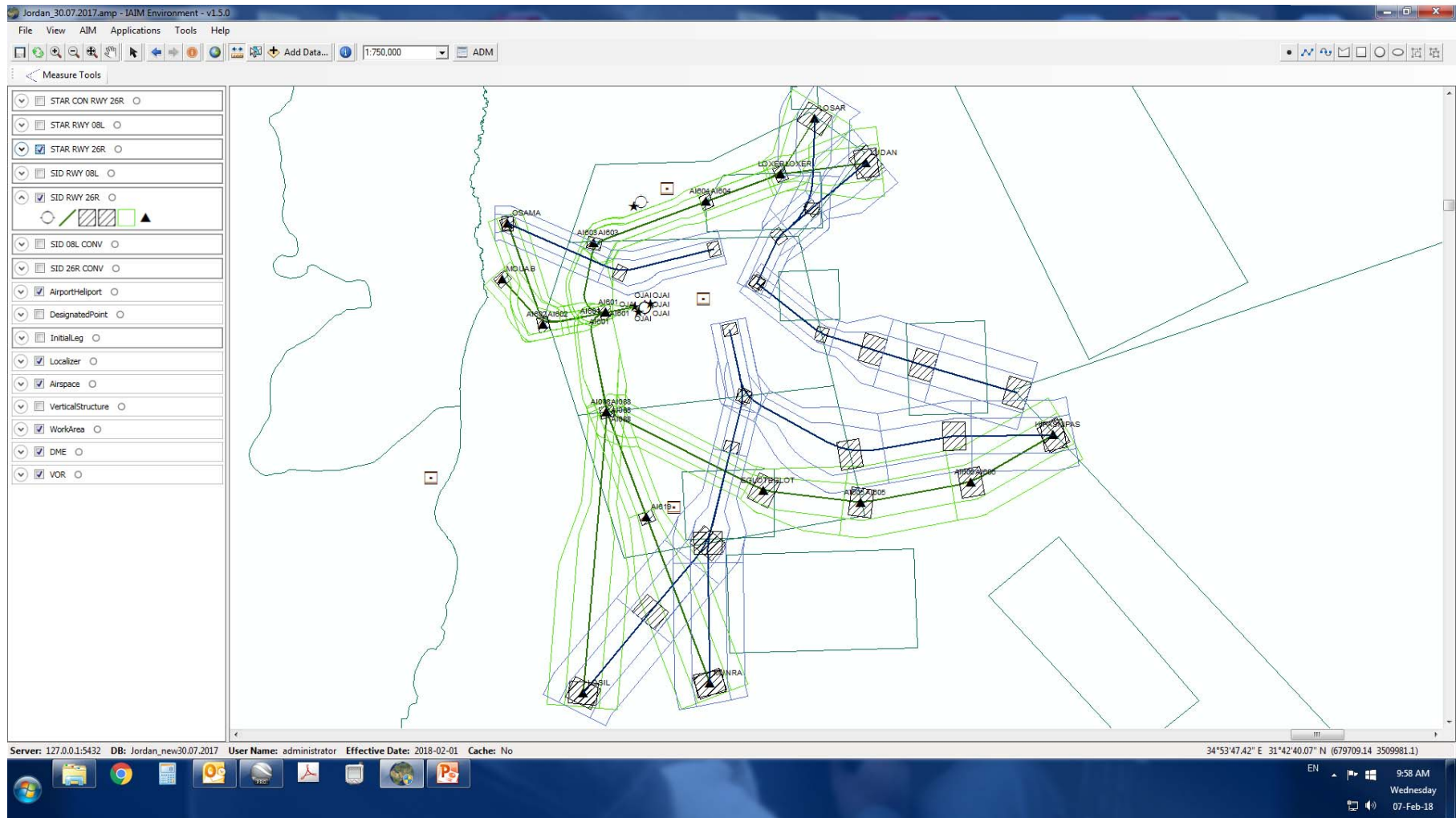
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New Amman PBN airspace STARs RWY26R



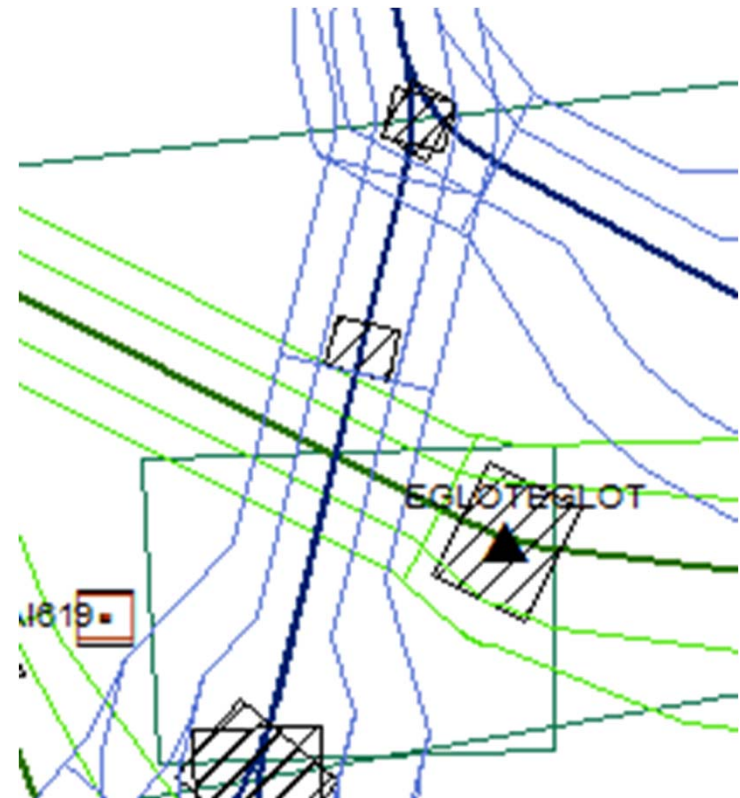
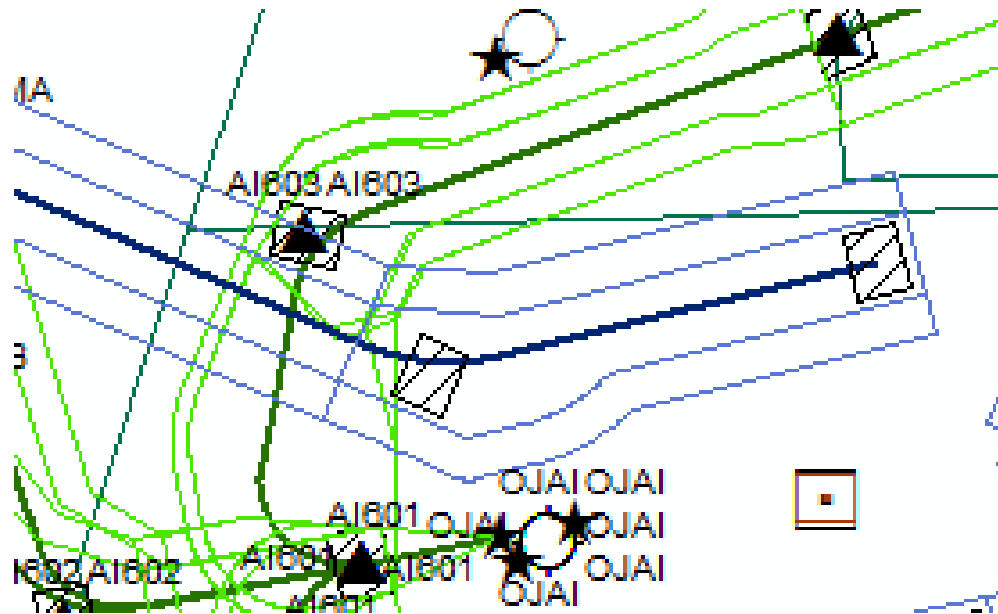
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New Amman PBN airspace De-conflicted SID-STAR network

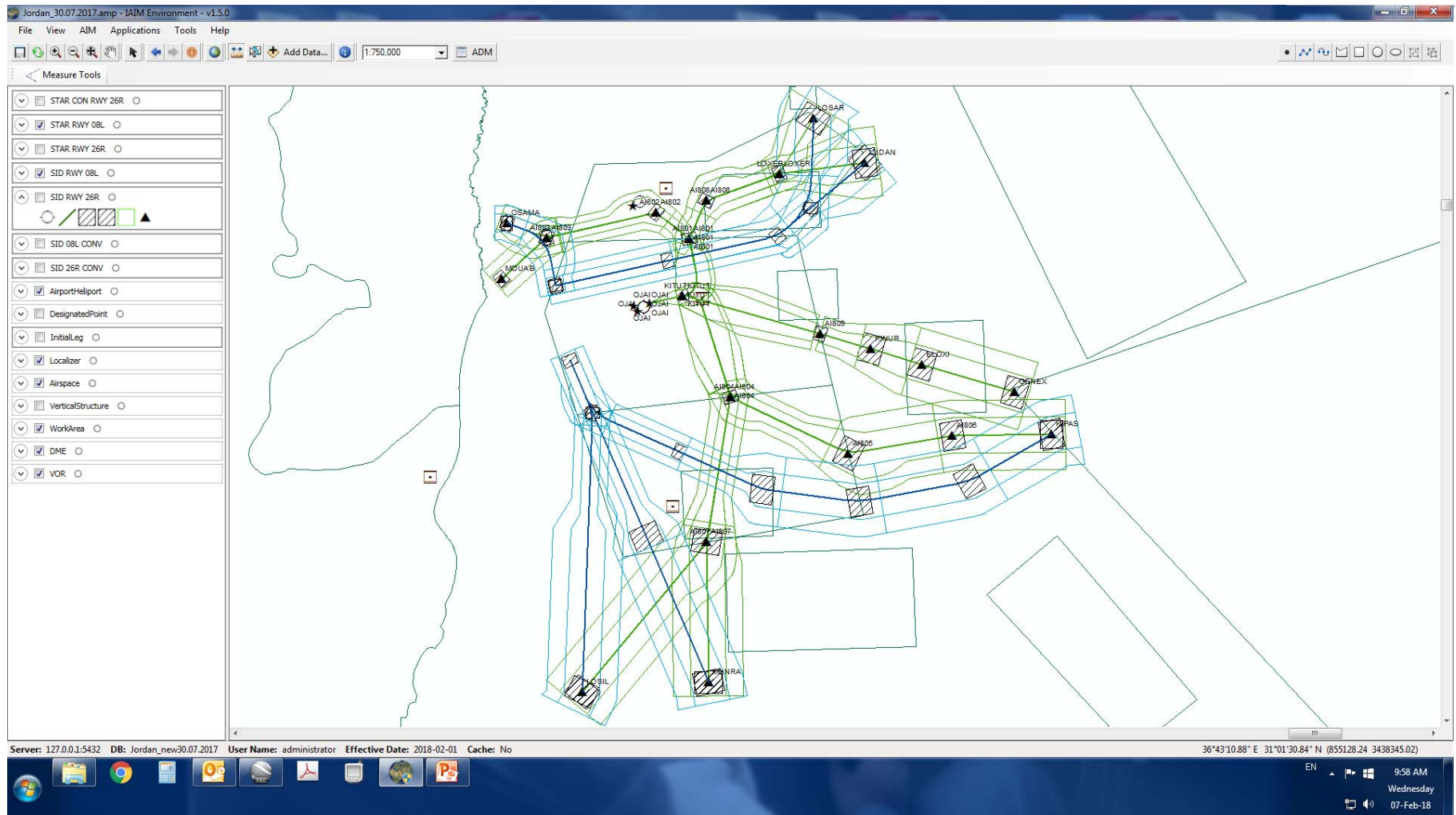


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New Amman PBN airspace De-conflicted SID-STAR network



New Amman PBN airspace De-conflicted SID-STAR network

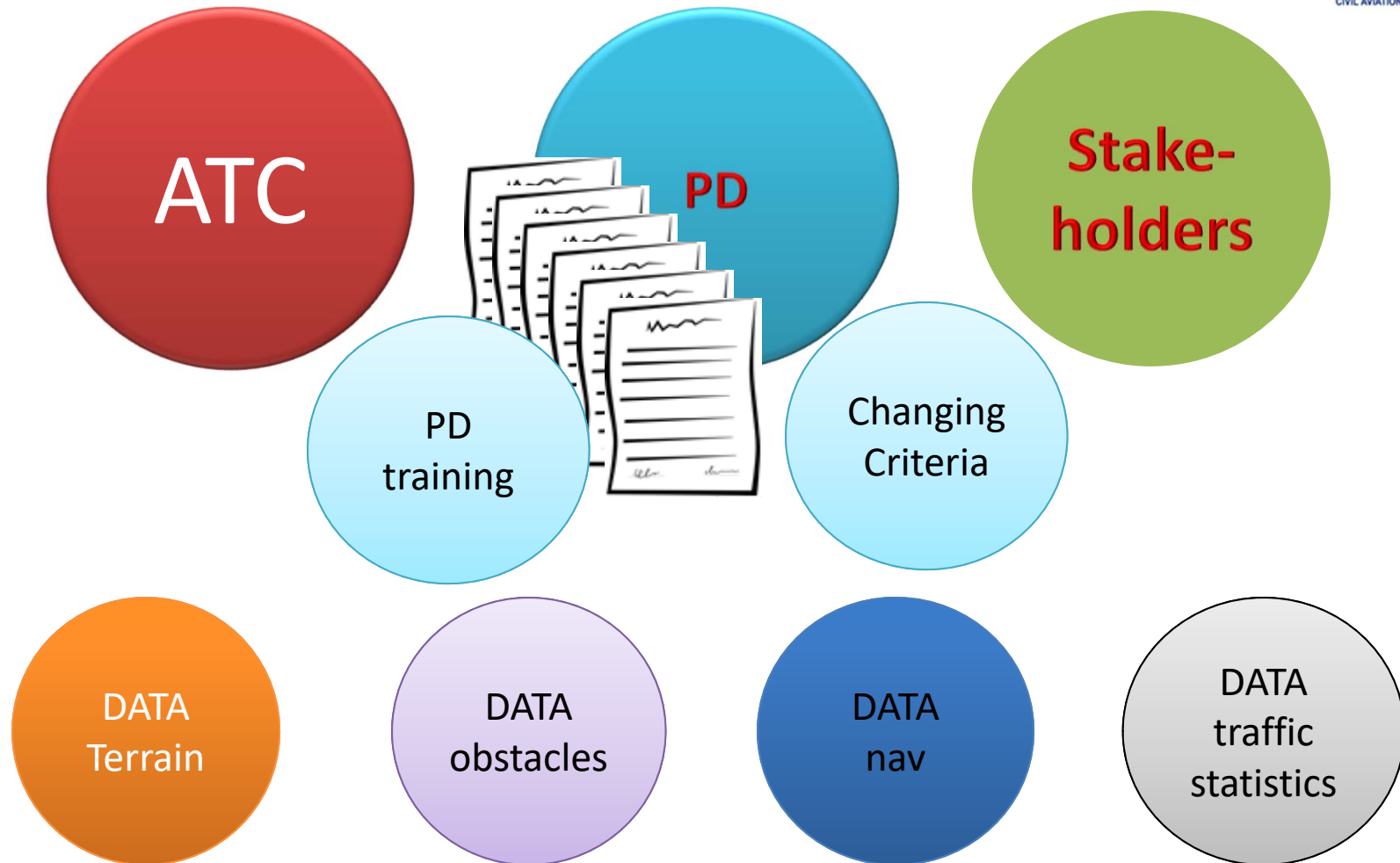


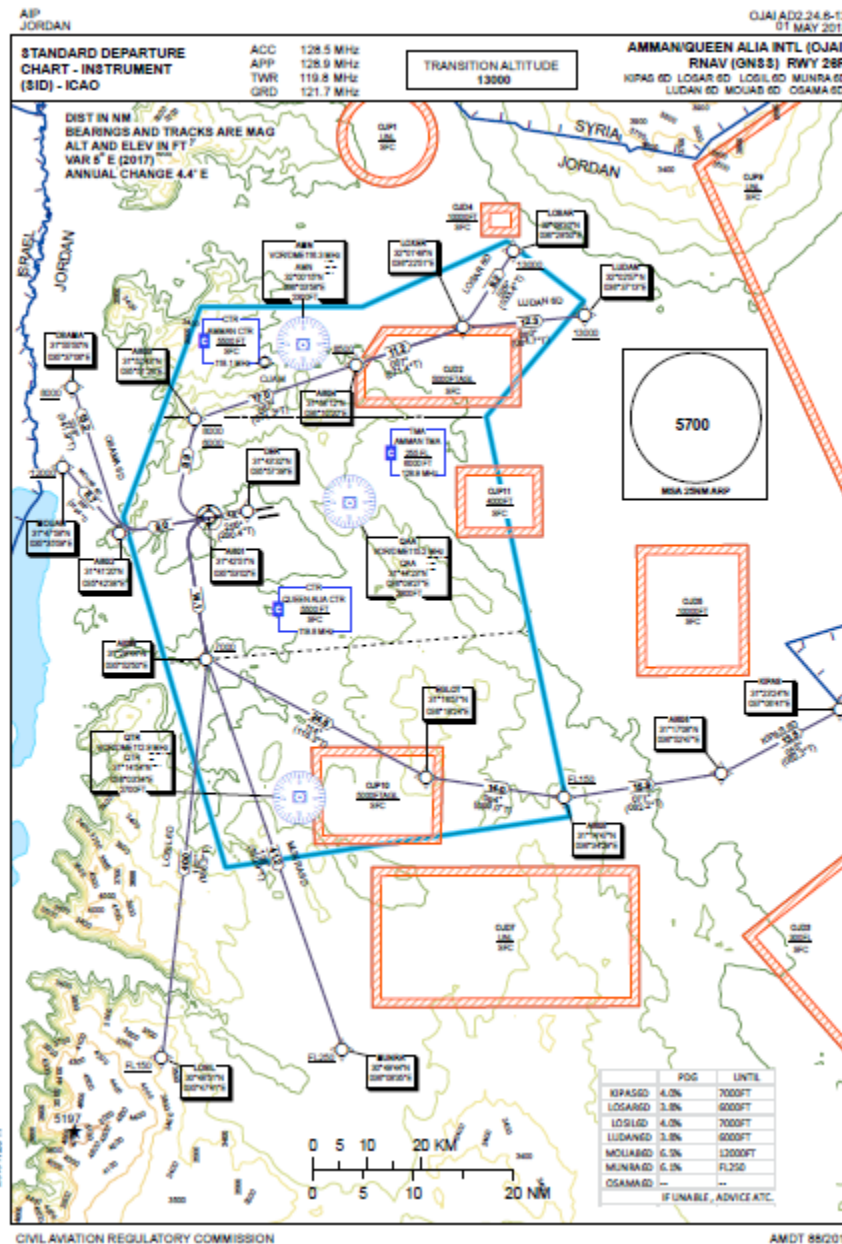
National PBN Implementation Plan



	Task	Objective	Obstacle
2018	RNAV to RNP IAP Depiction	Compliance with 6 th Version	Guidance material
2018	RNAV APPs OJAI	Recovers implementation percentage.	Guidance material, Validation process.
2018	OJAQ LNAV/VNAV APP	Recovers the implementation percentage.	Obstacle / Terrain data
2018	1x CDO, 1x CCO	Compliance with MID ANP	Civil / Military Workshop, Go visit team.
2018	Update and submit PBN implementation plan.		

Challenges





Challenges

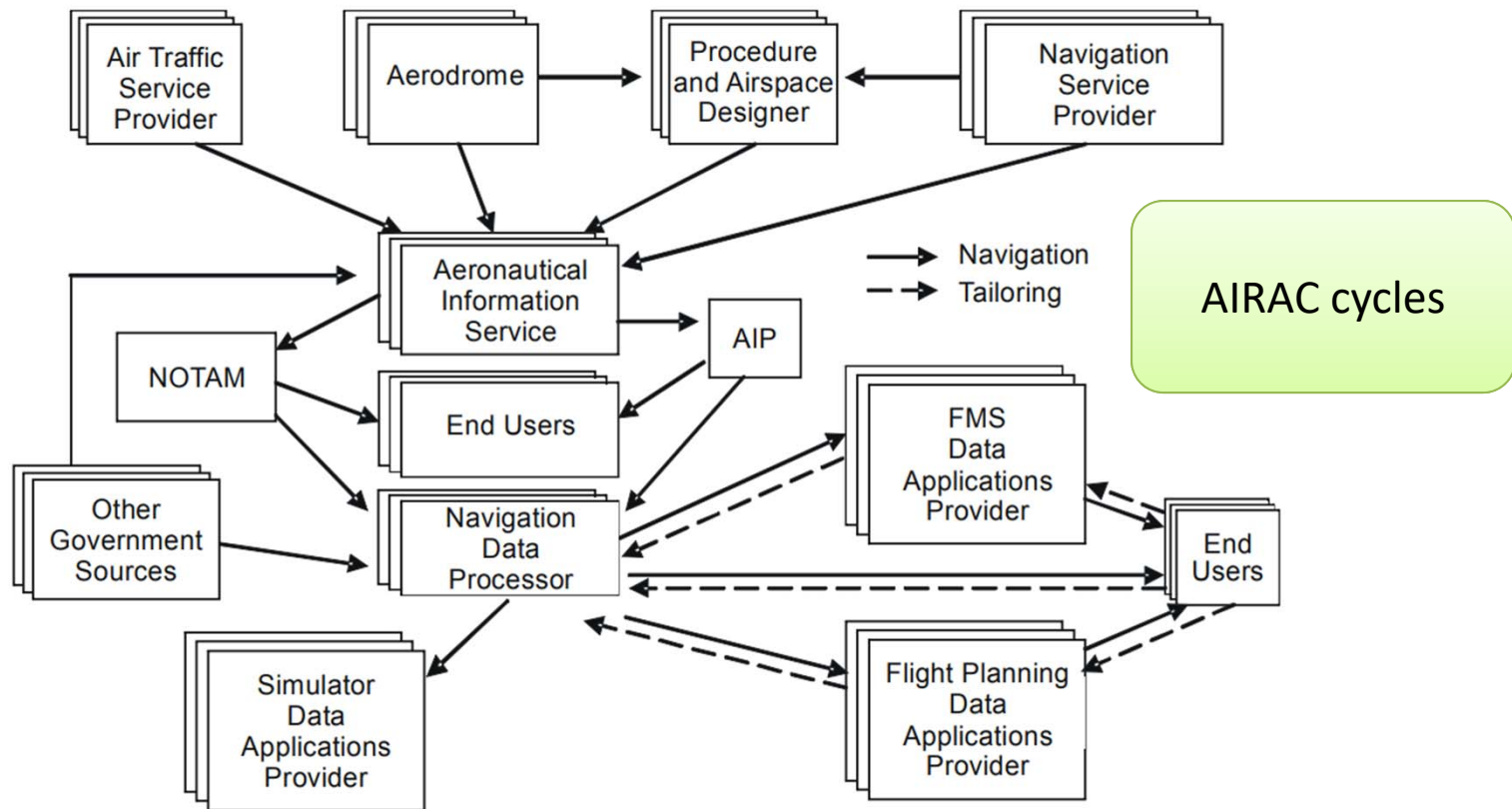
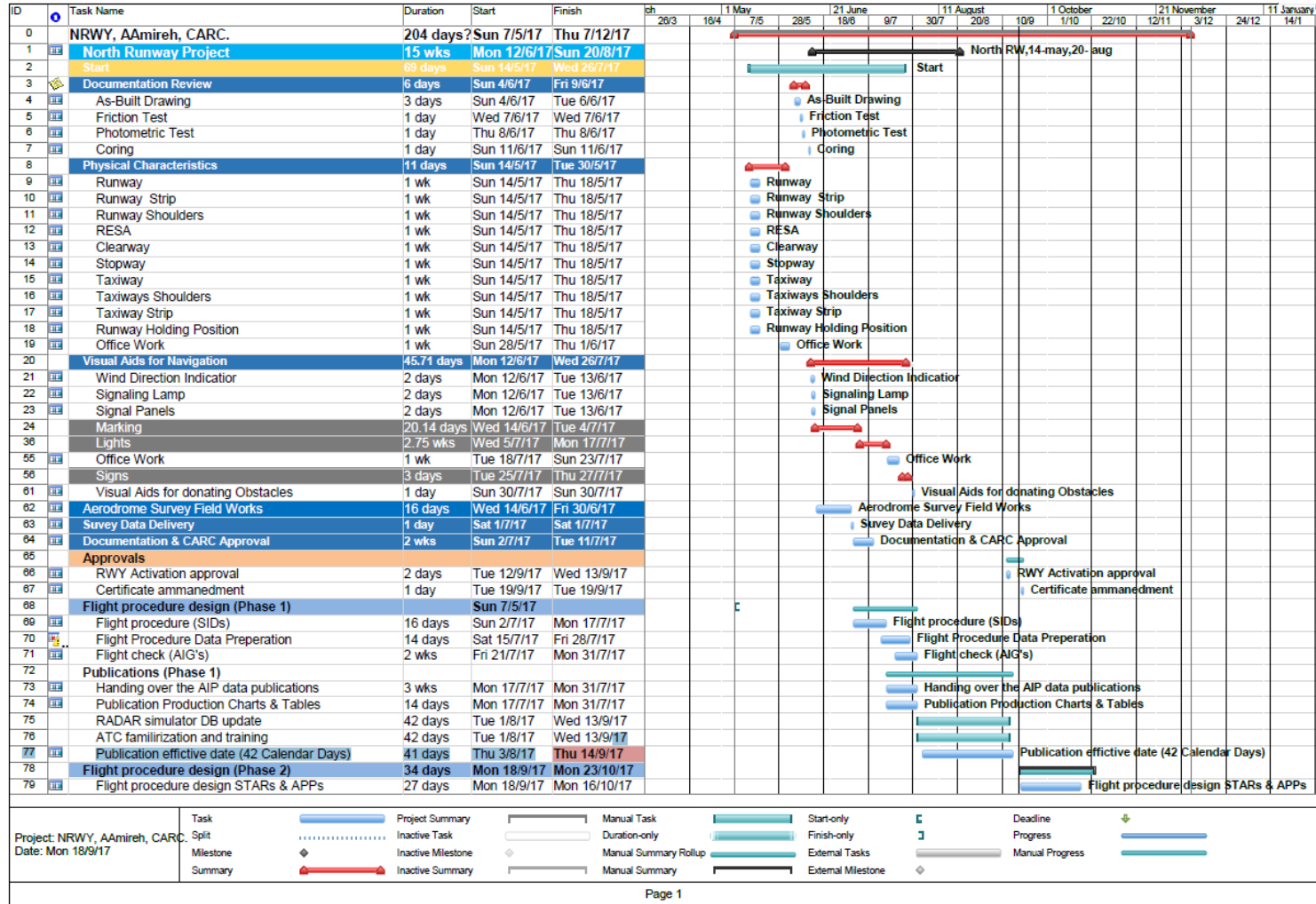


Figure 1. Participants in the development of an IFP.

Lessons Learned



Lessons Learned



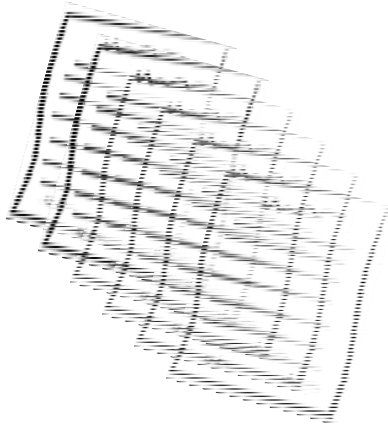
ID	Task Name	Duration	Start	Finish	1h	1 May	21 June	11 August	1 October	21 November	11 January									
80	Flight Procedure Data Preparation	33 days	Mon 18/9/17	Sun 22/10/17	28/3	16/4	7/5	28/5	18/6	9/7	30/7	20/8	10/9	1/10	22/10	12/11	3/12	24/12	14/1	
81	Flight check (CARC's) needs confirmation with CNS	5 days	Mon 16/10/17	Fri 20/10/17																
82	Publications (Phase 2)																			
83	Handing over the AIP data publications	2 days	Fri 20/10/17	Sun 22/10/17																
84	Publication Production Charts & Tables	27 days	Fri 22/9/17	Fri 20/10/17																
85	RADAR simulator DB update	44 days	Sun 22/10/17	Wed 6/12/17																
86	ATC familiarization and training	44 days	Sun 22/10/17	Wed 6/12/17																
87	Publication effective date (42 Calendar Days)	45 days	Sun 22/10/17	Thu 7/12/17																

Project: NRWY, AAmireh, CARC Date: Mon 18/9/17	Task	Project Summary	Manual Task	Start-only	Deadline
	Split	Inactive Task	Duration-only	Finish-only	Progress
	Milestone	Inactive Milestone	Manual Summary Rollup	External Tasks	Manual Progress
	Summary	Inactive Summary	Manual Summary	External Milestone	Progress

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Recommendation

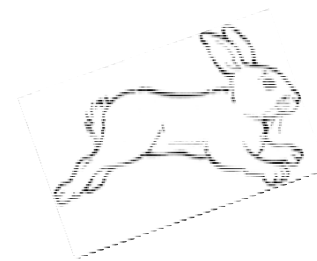
- ✦ Requirements, Qualification and competency of flight procedure designers.
- ✦ PD is a continuous training subject, Basic, Advanced, refresher, recurrent...
- ✦ Keeping up with the changing criteria,
- ✦ Projects management, and time planning,
- ✦ Users capability, Mixed environment,
- ✦ Importance of aeronautical data base, correctness, completeness, integrity and traceability



Regulations



Operators
/
ANSPs



Technologies

Thank you