International Civil Aviation Organization

Regional Aviation Safety Group - Middle East

Fifth Meeting (RASG-MID/5)
(Doha, Qatar, 22-24 May 2016)

Agenda Item 5: Update from and Coordination with MIDANPIRG

MIDANPIRG ACTIVITIES RELATED TO SAFETY AND COORDINATION BETWEEN MIDANPIRG AND RASG-MID

(Presented by the Secretariat)

SUMMARY

This paper provides an update on the activities of the Middle East Air Navigation Planning and Implementation Regional Group (MIDANPIRG), especially those related to safety. It highlights the activities coordinated between RASG-MID and MIDANPIRG for an improved efficiency of both Groups and to avoid duplication of efforts including the agreed coordination mechanism.

Action by the meeting is at paragraph 3.

REFERENCES

- ATM SG/2 Report
- MIDANPIRG/15 Report
- MRC/1 Minutes
- MSG/5 Report
- RASG-MID/4 Report

1. INTRODUCTION

1.1 The RASG-MID and MIDANPIRG have been coordinating some safety-related issues such as mitigation measures for CFIT (unstabilized approaches) and call sign confusion and similarity. Other subjects of interest to both groups have been identified, in particular those related to ATM safety such as SMS implementation for ANS/ATM, Language Proficiency for Air Traffic Controllers, RVSM safety monitoring, flight tracking, etc.

1.2 The meeting may wish to note that the Fifth meeting of the MINDANPIRG Steering Group (MSG/5) was held at the ICAO Mid Regional Office, Cairo, Egypt, from 18 to 20 April 2016.

2. DISCUSSION

Coordination between RASG-MID and MIDANPIRG

2.1 In order to further improve the current coordination mechanism between MIDANPIRG and RASG-MID and based on the outcome of the Second PIRG-RASG (Montreal, Canada, 5 February 2015), the DGCA-MID/3 (Doha, Qatar, 27-29 April 2015), the RASG-MID/4 (Jeddah, Saudi Arabia, 30 March – 01 April 2015), and the MIDANPIRG/15 (Bahrain, 8-11 June 2015) meetings, it was agreed that:

- the Chairperson(s) of MIDANPIRG should attend the RASG-MID meetings;
- the Chairperson(s) of RASG-MID should attend the MIDANPIRG meetings;
- the ICAO MID Regional Office to organize on a yearly basis a MIDANPIRG/RASG-MID Coordination meeting to be attended by the Chairpersons of both Groups and their subsidiary bodies, in order to follow-up on the activities being coordinated between the two Groups, agree on the level of involvement of the relevant subsidiary bodies, address any roadblocks and identify additional subjects, which need to be addressed by/coordinated between both Groups;
- a Table listing the subjects in which both MIDANPIRG and RASG-MID have interest with an assignment of the leading Group be presented to the First MIDANPIRG/RASG-MID Coordination meeting for endorsement; and
- the procedural handbooks of MIDANPIRG and RASG-MID should be updated before the end of 2015 to include the agreed coordination mechanism.

2.2 The First MIDANPIRG/RASG-MID Coordination meeting was held on 10 June 2015 as a side meeting during the MIDANPIRG/15 meeting (Bahrain, 8-11 June 2015) and endorsed the Table at **Appendix A**, listing the subjects in which both MIDANPIRG and RASG-MID have interest with an assignment of the leading Group.

2.3 It was agreed that that the Second MIDANPIRG/RASG-MID Coordination meeting be held in Cairo, Egypt on 14 December 2015 back-to-back with RSC/4. However, the meeting was postponed due low level of confirmed participation. The MRC/2 meeting will be held on 25 May 2016.

MIDANPIRG Activities

Call Sign Confusion

2.4 The meeting may wish to recall that based on the outcome of the First meeting of the Call Sign Confusion Ad-hoc Working Group (CSC WG), the RASG-MID/4 meeting agreed to the issuance of the RASG-MID Safety Advisory (RSA) to provide a set of guidelines and similarity rules for use by airline operators and air traffic controllers. The RSA-04 was issued by the ICAO MID Regional Office through State Letter Ref.: ME 4-15/152 dated 26 May 2015 and posted on the ICAO MID website. Accordingly, the MIDANPIRG/15 meeting encouraged States and aircraft operators to implement the RASG-MID Safety Advisory- RSA-04.

2.5 The MIDANPIRG/15 meeting noted with appreciation that EUROCONTROL, in accordance with the CSC WG/1 Action Plan, provided the ICAO MID Regional Office on 11 May 2015 with the EUROCONTROL Voluntary ATM Incident Reporting (EVAIR) analysis related to the

identified Middle East Air Operators (AOs) with call sign similarities/confusions within the European Region. It was highlighted that call sign similarity/confusion issues were occurring not only between MID AOs and non-MID AOs but also between the same AO flights. The meeting reviewed and updated the Action Plan developed initially by the CSC WG/1 meeting. Accordingly, the meeting agreed to the following Conclusion:

CONCLUSION 15/2: CALL SIGN SIMILARITY PROVISIONS AND GUIDELINES

That, States be urged to:

a) take necessary measures to ensure that their Aircraft Operators (AOs) implement a mechanism to de-conflict call similarity between the same AO flights and thereafter between their local AOs and other Middle East AOs flights;

b) report call sign similarity/confusion cases using the template at Appendix 4.1C; and

c) develop a simplified mechanism to trigger the reporting of call sign similarity/confusion by ATCOs.

2.6 It is to be highlighted that MIDANPIRG/14 agreed that an initiative related to CSC be implemented under the framework of the MID Region ATM Enhancement Programme (MAEP), by the MAEP Interim Project Management Office (MAEP IPMO) with Etihad Airways as the lead. The progress report on the CSC initiative as presented to the Second Meeting of the MAEP Steering Committee (MAEP SC/2) is at **Appendix B**.

Reduced Vertical Separation Minima (RVSM)

2.7 The meeting may wish to recall that the Middle East Regional Monitoring Agency (MIDRMA) has been established in accordance with the provisions of ICAO Annex 11, to monitor the height-keeping performance of aircraft operating between FL290 and 410 inclusive, in order to ensure that the continued application of the vertical separation minimum meets the safety objectives. The MIDRMA is composed of the fifteen (15) MID States and is hosted in Bahrain, and staffed with three full time experts equipped with the latest GPS-based Monitoring Units (GMUs).

2.8 More details on RVSM implementation in the MID Region relevant to the Work Programme of the RASG-MID is presented in WP/25.

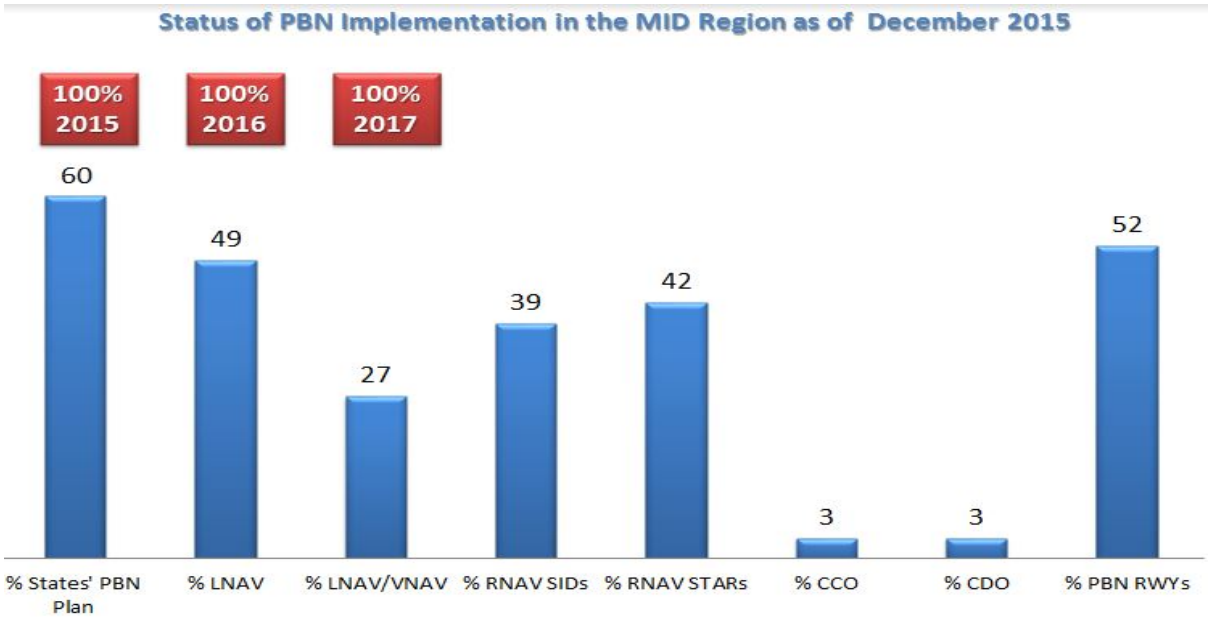
Performance Based Navigation (PBN)

2.9 The meeting may wish to recall that the Fourth Edition of the Global Air Navigation Plan (GANP) considered the Performance Based Navigation (PBN) as the highest priority for the air navigation. The introduction of PBN has met the expectations of the entire aviation community, by increasing airspace capacity, improving airport accessibility, ensuring flight safety, and reducing CO_2 emissions. The status of PBN implementation is reflected in the Global Air Navigation Report as well as the Global and Regional Air Navigation Performance Dashboards.

2.10 The Regional Implementation Plan is a document adopted by PIRGs offering appropriate guidance for air navigation service providers, airspace operators and users, regulators, and international organizations on the evolution of navigation capabilities as one of the key systems supporting air traffic management, and which describes the RNAV and RNP navigation applications that should be implemented in the short, medium and long term at the regional level. The revised version of the MID Region PBN Implementation Plan (MID Doc 007), as endorsed by the MSG/5

meeting, is available on the ICAO MID Regional Office Website: https://portal.icao.int/RO_MID/Pages/MIDDocs.aspx

2.11 Several mandates are requesting States and stakeholders to work together in order to foster the implementation of PBN such as: the Assembly Resolution A37/11, GANP, Montreal Declaration on Planning for Aviation Safety Improvement, MID Region Air Navigation Strategy, MID Region PBN Implementation Plan, Doha Declaration on Aviation Safety and Air Navigation in the MID Region, PIRGs and RASGs Conclusions, etc. The PBN regional requirements and their associated status of implementation are reflected in the graph below:



2.12 The main identified challenge impeding the advancement of PBN implementation in addition to the low number of qualified PBN Experts (PANS-OPS, Airspace planner, OPS Approval and Instructors) is the lack of necessary regulations enabling service providers to implement and the air operators to use PBN procedures.

2.13 The meeting may wish to note that the establishment of the MID Flight Procedure Programme under the framework of MAEP is on-going, based on the experience gained from the AFI and Asia/Pacific FPPs. The MID FPP main objective in Phase 1 is the building of the MID States' capabilities related to PBN, which eventually will foster the PBN Implementation.

2.14 The meeting may wish to note that the MSG/5 meeting reviewed the outcome of the PBN SG/2 meeting (Sharm El Sheikh, Egypt, 22-25 February 2016). The meeting was informed of the Amendment 6 to the Procedures for Air Navigation Services — Aircraft Operations (PANS-OPS, DOC 8168) and the new ICAO Circular 336 on the transition from RNAV to RNP approach chart identification.

2.15 The MSG/5 meeting was apprised of the latest developments related to the Visual Guided Approaches (VGAs). The meeting noted that VGAs are established at specific aerodromes to enhance safety, improve efficiency and for environmental/noise considerations. In this respect, the meeting encouraged States to work closely with the air operators to make available the required regulations/provisions and certification process, and to implement VGAs where needed/applicable, taking into consideration the best practices and the ICAO provisions that will be issued by 2018.

Civil/Military Coordination

2.16 The meeting may wish to recall that the MIDANPIRG/15 meeting established the MID Civil/Military Support Team, with a view to expedite the implementation of the FUA Concept in the MID Region. Accordingly, the meeting encouraged States to request the ICAO MID Regional Office to coordinate the conduct of a Support Team visit, which includes in its work programme a Civil/Military Cooperation Workshop.

2.17 The MIDANPIRG/15 urged States to take necessary measures to implement the provisions of the Resolution A38-12 and MIDANPIRG/14 Conclusions 14/12 and 14/13 and provide the ICAO MID Regional Office with an update on the action(s) undertaken before 1 October 2015. It was underlined that no feedback was received. Accordingly, the ATM SG/2 meeting urged States to provide their feedback to the ICAO MID Regional Office related to the actions undertaken, by **15 October 2016**.

Conflict Zones

2.18 The meeting may wish to note that some airspace users continue to circumnavigate Baghdad, Damascus and Tripoli FIRs due to the conflict zones. With regard to Sana'a FIR, some air operators resumed operations through Sana'a FIR using the ATS routes over the high seas.

2.19 Several Contingency Coordination Teams (CCTs) have been established in accordance with the MID Region ATM Contingency Plan (MID Doc 007), which succeeded in the provision of a forum for sharing information, identifying the challenges and implementation of contingency measures/routes ensuring the safety of air traffic during contingency situations. The revised version of the MID Region ATM Contingency Plan as endorsed by MSG/5 meeting, is available on the ICAO MID Regional Office website: https://portal.icao.int/RO_MID/Pages/MIDDocs.aspx

2.20 The meeting may wish to note that the majority of the information posted on the ICAO Conflict Zone Information Repository (CZIR) is related to the MID Region. In this respect States were encouraged to provide updated information related to conflict zones, in accordance with the interim procedure to disseminate information on risks to civil aviation arising from conflict zones attached to State Letter Ref.: SMM 1/4-15/16 dated 20 March 2015.

2.21 The meeting may wish to note that ICAO issued State Letter Ref.: AN 13/35-15/36 dated 21 May 2015, related to State emergency response to natural disasters and associated air traffic contingency (ATC) measures, reminding States of their obligations with regard to the importance and necessity of proactive contingency planning.

Search and Rescue (SAR)

2.22 The meeting may wish to note that the Council at its 206th Session approved the recommendation of the ANC on the amendment to Annex 6 Part 1 in relation to Normal Tracking with applicability of 2018. A State Letter will be issued in due course.

2.23 The Air Navigation Commission (ANC) at its 200th Session gave final review to amendments to Annex 6 Part 1 in relation to Flight Data Recovery and Distress Tracking with applicability in 2021 and their recommendation will be considered by the Council at its 207th Session (Feb-Mar 2016).

2.24 The Council and Commission both observed that extensive work was still required in relation to consequential Standards and Recommended Practices (SARPs) and guidance material and that diligence is required in this work to make sure there is no overlap or gaps in the documentation.

2.25 The meeting may wish to note that in accordance with the USOAP-CMA results SAR Effective Implementation at global level is **61.9%** and at the MID regional level is **65.18%.** The main findings are related to lack of:

- English Language Proficiency for RCC radio operators;
- Appropriate training programmes/plans of SAR experts;
- lack of signature of SAR agreements;
- lack of plans of operations for the conduct of SAR operations and SAR exercises;
- lack of provision of required SAR services; and
- non-compliance with the carriage of Emergency Locator Transmitter (ELT) requirements.

2.26 The MSG/5 meeting agreed to the establishment of a MID SAR Action Group composed of SAR Experts from volunteer States (Bahrain, Egypt, Iran, Saudi Arabia and UAE) and ICAO to develop the MID SAR Plan, and an Action Plan for the conduct of regional/sub-regional SAR training exercises. Accordingly, the meeting agreed to the following MSG Decision:

MSG DECISION 5/6: MID SEARCH AND RESCUE ACTION GROUP

That, a MID SAR Action Group be established to:

a) carry out a Gap Analysis related to the status of implementation of SAR services in the MID Region;

b) develop a SAR Plan for the MID Region based on the Asia/Pacific experience and other best practices; and

c) develop an action plan for the conduct of regional/sub-regional SAR training exercises.

2.27 The meeting may wish to note that an Inter-regional AFI/APAC/MID SAR Workshop will be held in Seychelles from 19 to 22 July 2016.

3. ACTION BY THE MEETING

3.1 The meeting is invited to:

a) encourage States to take necessary measures to:

i. ensure the implementation of MIDANPIRG Conclusion 15/2 related to CSC and support the work of the CSC Initiative carried out by the MAEP IPMO;

ii. develop/update the civil aviation regulations to cover the PBN requirements;

iii. work closely with the air operators to make available the required regulations/provisions and certification process, and to implement VGAs where needed/applicable;

iv. address/resolve their SAR findings identified under the USOAP-CMA.

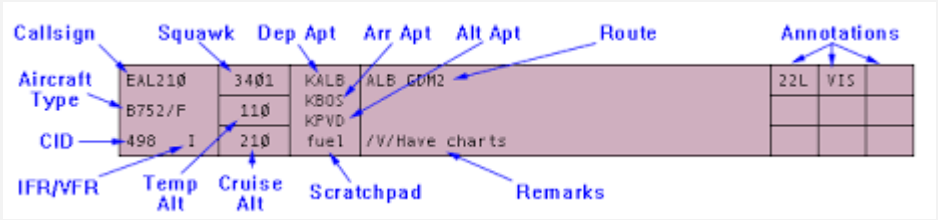
APPENDIX A

Coordination between MIDANPIRG and RASG-MID

Subjects of interest for MIDANPIRG and RASG-MID	Responsible/Leading Group	
	RASG-MID	MIDANPIRG
Aerodrome Operational Planning (AOP)		X
Runway and Ground Safety	X	
AIM, CNS and MET safety issues		X
CFIT	X	
SSP Implementation	X	
SMS implementation for ANS and Aerodromes	X	
Accidents and Incidents Analysis and Investigation	X	
English Language Proficiency	X	
RVSM safety monitoring		X
SAR and Flight Tracking		X
PBN		X
Civil/Military Coordination		X
Airspace management		X
Call Sign Similarity and Confusion		X
Conflict Zones		X
Contingency Planning		X
USOAP-CMA	X	
COSCAP, RSOO and RAIO	X	
Air Navigation Deficiencies		X
Training for ANS personnel		X
Training other civil aviation personnel	X	
Laser attack	X	
Fatigue Risk Management	X	
RPAS		X

ALPHA NUMERICAL CALL SIGN ACCEPTANCE TESTING

ALPHA NUMERICAL CALL SIGN ACCEPTANCE TESTING



ALPHA NUMERICAL CALL SIGN ACCEPTANCE TESTING

INTRODUCTION

The PMO is responsible of implementing and/or supporting the implementation of MAEP objectives.

Project: ATS systems acceptance of Commercial Airline call-signs utilizing Alpha-Numeric within the flight ID per ICAO Annex10 and ICAO DOC 4444 Pans/ATM

In order to achieve its purpose the MAEP PMO shall:

1. Review regional objectives in line with the Air Navigation Strategy and the users' requirements.
2. Identify, propose and prioritize projects to meet the regional objectives as stipulated in MAEP Master Plan.
3. Develop project plans (business plans, deliverables, timeline, budget and concerned entities) for each agreed regional project for the review of the MSC and/or the Board.
4. Coordinate, support and track the implementation of national projects.
5. Ensure coordination between national and regional projects.
6. Measure the performance of MAEP.
7. Provide regular communications and reports to the MSC, the Board and other stakeholders as appropriate.
8. Manage PMO projects.
9. Maintain communication channels with all MAEP stakeholders.
10. Coordinate the work of Task Forces and implementation bodies.
11. Provide Secretarial support to MAEP Steering Committee (MSC).

Composition & Reporting:

The PMO is a dedicated and independent (both financially and managerially) office hosted at ICAO MID Regional Office. The PMO reports directly into MAEP Steering Committee and into MAEP Board through the MSC. Its work is supported by all MAEP stakeholders as required

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COVER PAGE

Country: UAE

Project title: ALPHA NUMERIC CALL SIGN ACCEPTANCE

Starting date: 22 February 2015

Completion date: ongoing

Responsible for project execution: Etihad Airways

Responsible for project execution: IATA Middle East North Africa

ALPHA NUMERICAL CALL SIGN ACCEPTANCE TESTING

EXECUTIVE SUMMARY

Alpha numeric flight call sign acceptance testing within the Middle East ATS systems is a defined series of structured tests that do not include the element of a live flight associated with the flight plan as to identify any challenges associated in ensuring the regions capability of accepting alpha numeric call signs for commercial flights. Testing will include ATC Systems, regulatory overflight approval, Airport landing and departure approvals. As to validate the testing the project will conclude with a live flight. Etihad Airways has been selected to manage this project that includes a final report and Gap Analysis to the MEAP PMO for review and consideration.

The project is the first phase addressing the regional and global concern relating to call sign confusion. The need to identifying solutions and possible mitigation measures addressing this safety concern will need the co-operation of all aviation stakeholders.

SECTION 1. BACKGROUND

This document will look at call sign similarity / confusion that often occur within an FIR. The danger is that ATC clearances issued to one flight (call sign) can be – and has been – incorrectly read back and complied with by a similar sounding flight (call sign). This confusion by either flight crews or ATC can lead to possible safety consequences. Whilst it would seem an easy exercise to change call signs to eradicate the confusion, several factors affect this:

- The call sign usually reflects the flight number associated with the airline schedule,
- Overflight approvals in certain countries are requested based on the flight number / call sign and can take an extremely long time to apply for a change (especially in our current geopolitical climate);
- Automation on the ground such as operations systems, flight planning systems, reservations and weight and balance are fed by downlinks from the aircraft (i.e. 0001 messages);
- In areas where datalink is used for communications or surveillance the flight call sign input into the FMS will downlink into ATC systems (meaning the FMS must reflect what is in the ICAO ATC filed flight plan).

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SECTION 2. RATIONALE

2.1 Problems/Issues to be addressed

States and their respective ATM systems must be ready to accept alpha numeric call signs in any combination.

2.2 Stakeholders and Target Beneficiaries

Stakeholders: States, ANSPs and Operators

Target Beneficiaries: ATC and Operators

2.3 Project Justification

Call sign similarity / confusion have been identified on a global and regional level that creates a safety problem which has proportionally increased within the region and will increase further with the increased growth of commercial aviation. Due to the limited number of current combinations of flight call signs the number of operators using the same flight numbers within the same areas of airspace has and will increase.

As a mitigating factor regions surrounding the Middle East have adopted the acceptance of alpha numeric with a commercial flight id used within the ATS environment.

SECTION 3. PROJECT FRAMEWORK

3.1 Impact

To ensure the Middle East ATS system acceptance of such flight Id's several tests will be conducted, testing will include "dummy Flight Plans" to validate ATC, regulatory and airport acceptance to conclude with a live actual flight.

The testing requires State and ANSP feedback as to provide a gap analysis to the MEAP PMO. The gap analysis might include such defenceless that require States to upgrade their systems or review there regulatory requirements.

3.2 project process and work plan

The following structure and process shall be utilized during the phases of testing and will be adjusted as deemed necessary as to produce a final report and Gap Analysis. (see chart Annex-1)

Prior to any ATC system testing states shall be notified through the IATA MENA office with the relevant information prior to the planned test, these tests will identify any ATC system challenges associated with acceptance of such flight plans.

State overflight, airport landing and departure approvals shall be accomplished through the required application process which can vary from state to state as well as airport to airport. As this phase of testing is solely a paper and approval exercise no prior notification will be provided with

landing and departure approvals only addressing international airports. This phase of testing is to design to identify challenges within the state and airport environments.

As to validate the testing and not solely rely on results done in a test environment a "Stress Test" shall be conducted prior to the actual live flight conclusion. The stress test with consist of several regional airlines per there internal bulk flight plan processing include a flight plan that includes a flight utilizing alpha-numeric. The aim of this test is to finalize the testing phase prior to an actual flight.

Flight Plans:

1. Per ICAO doc 4444
2. Per state AIP

Testing schedule:

Test 1 and 2 - flight plan testing for ATC Systems

Test 3 - Flight plan testing for state overflight permissions which require individual flight plan processing per state over flight permission.

Test 4 - Flight plan testing for international airport landing and departure approvals to be based on airport requirements for processing.

Test 5- Stress test utilizing several Middle East based operators processing several days of bulk flight plans with embedded flight plans that utilize Alpha numerics

Test 7- Actual live flight to validate final acceptance based upon testing results.

SECTION 4. IMPLEMENTATION AND MANAGEMENT ARRANGEMENTS

4.1 Institutional Framework and Coordination

Etihad Airways will provide flight plans to test ATM systems, overflight approvals and airport approvals and conclude with an actual flight testing based on section 3.

SECTION 5. OVERSIGHT, MONITORING, MANAGEMENT INFORMATION, AND REPORTING

5.1 Monitoring

IATA and Etihad Airways will monitor the testing as well as the outcome and provide a final report to the MEAP PMO.

5.2 Communication and Visibility

All communication will be completed by IATA to include MEAP PMO updates as necessary

5.3 Reporting Schedule

TBD

ALPHA NUMERICAL CALL SIGN ACCEPTANCE TESTING

Annex-1 PROJECT WORK PLAN

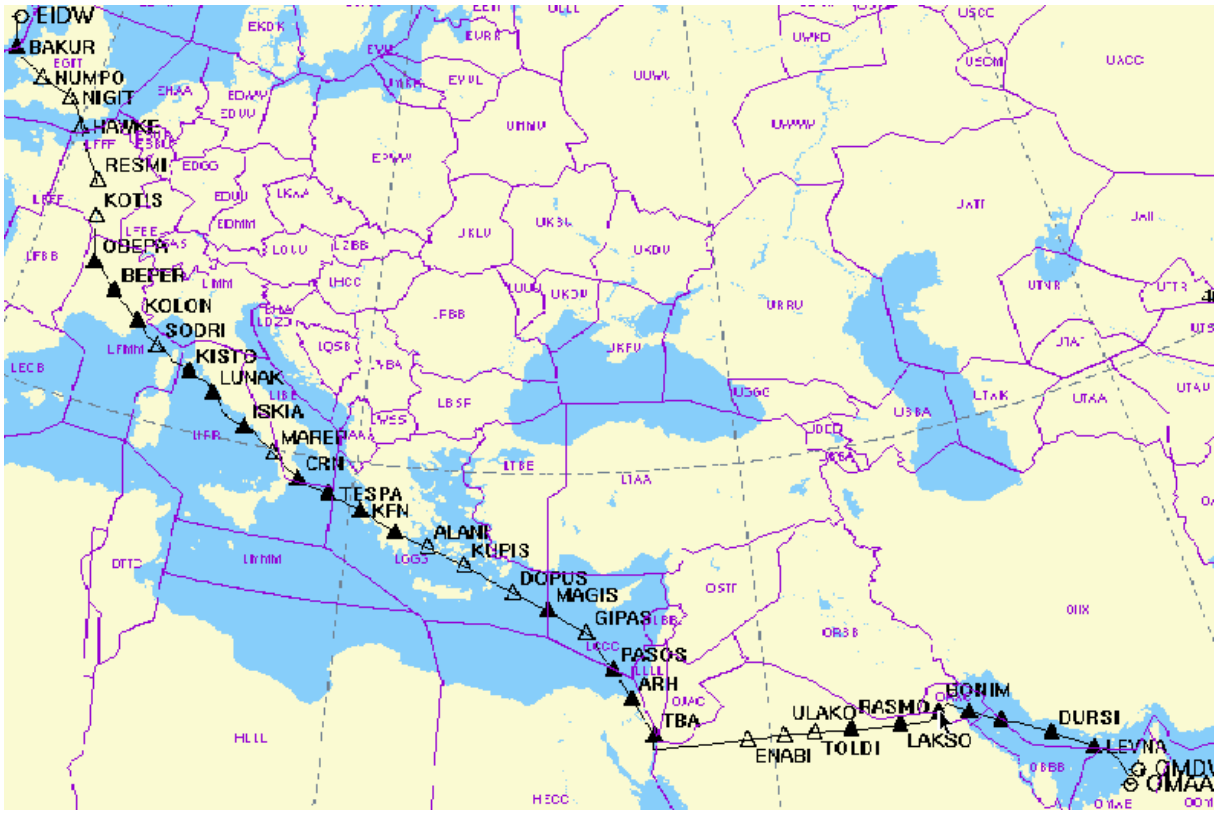
Country	ATC System capability	State Overflight Approval	Airpport Landing / Departure Approval
Egypt	YES / EMAIL	YES / EMAIL	ongoing
Saudi Arabia	YES / EMAIL	YES / EMAIL	RUH, JED, MED successful
Kuwait	YES / EMAIL	YES / EMAIL	KWI successful
Iran	YES / EMAIL	YES / EMAIL	ongoing
Bahrain	YES / EMAIL	SEE QATAR	BAH successful
UAE	YES / EMAIL	N/A	AUH successful
Jordan	YES / EMAIL	YES / EMAIL	AMM successful
Iraq	YES / EMAIL	YES / EMAIL	ongoing
Lebanon	YES / EMAIL	YES / AFTN	BEY successful
Qatar	YES / EMAIL	YES / AFTN	DOH successful
Oman	YES / EMAIL	YES / AFTN	MCT successful
Sudan	YES / EMAIL	Sudan already accepts any call sign	ongoing
Syria	NO REPLY	NOT REQUESTED	not planned
Yemen	NO REPLY	NOT REQUESTED	not planned

ALPHA NUMERICAL CALL SIGN ACCEPTANCE TESTING

Annex-2

Flight Plan Test-1 conducted February 22nd 2015

(FPL-ETD42DW-IS
-B77W/H-SDE2E3FGHIJ5M1RWXY/SB1D1
-EIDW0820
-N0482F350 PESIT5A PESIT DCT BAKUR UN546 STU UP2 NIGIT UL18 MID UL612 RESMI UM728 KISTO UQ160 MEDAL UM729 PNZ UM603 SOR UM736 CRN UM601 EKTOS/N0467F370 UM601 MIL UN134 ASPIS UG183 PASOS UL550 BOSID B417 KUA B416 AMBIK UB416 KUVER B416 IMDAT R784 ORSAR G666 TANGA
-OMAA0655 OMDW
-PBN/A1B1C1D1L1O1S2T1 DOF/150130 REG/A6ETA EET/EISN0010 EGTT0013 LFFF0043 LIRR0154 LIBB0232 LIRR0242 LGGG0250 LCCC0356 HECC0421 OEJD0449 OKAC0556 OBBB0608 OIIX0613 OMAE0639 SEL/GRLP OPR/ETD RMK/TCAS EQUIPPED)



ALPHA NUMERICAL CALL SIGN ACCEPTANCE TESTING

Annex-2

Flight Plan Test-2 conducted March 22nd 2015

(FPL-ETD42DW-IS
-B77L/H-SDE2E3FGHIJ5M1RWXY/SB1D1
-OMAA0800
-N0479F370 DCT MCT/N0482F380 DCT SYN DCT PSD/N0477F390 DCT
LUDAN/N0475F380 DCT KAD/N0456F360 DCT ORER/N0445F350 DCT OTHH DCT
-OMAA0826 OMAL
-PBN/A1B1D1L1O1S2T1 DOF/150316 REG/XXXXX EET/OOMM0010 OEJD0053
OOMM0123 OYSC0128 OEJD0245 HHAA0326 HSSS0334 HECC0403 OEJD0417
OJAC0504 OSTT0524 OLBB0533 OSTT0545 ORBB0614 OIIX0647 ORBB0656
OIIX0657 ORBB0700 OIIX0714 ORBB0716 OIIX0718 ORBB0722 OKAC0726
OBBB0736 OMAE0813 SEL/CJDQ OPR/ETD RMK/TCAS EQUIPPED DUMMY FLIGHT
PLAN ONLY NO AIRCRAFT)

Analysis

The Pool of Standards Required by the Use Case

Summary of Standards

Test trial summary

Etihad has in addition to the successful test trial introduced several live flights into Europe (already using alpha numeric call signs) and live flights to 6 destinations within the Middle East. The trials will continue until the end of our winter schedule. Below are the flights currently successfully operated with an alpha numeric call sign

Sector	Commercial Flight Number	Alpha Numeric ATC Call Sign
AUH/DUS	EY23	ETD35EY
DUS/AUH	EY24	ETD56EY
AUH/MUC	EY3	ETD46W
MUC/AUH	EY4	ETD16E
AUH/ZRH	EY73	ETD54B
ZRH/AUH	EY74	ETD81C
AUH/FCO	EY83	ETD79EY
FCO/AUH	EY84	ETD26C
AUH/GVA	EY51	ETD28Y
GVA/AUH	EY52	ETD27B
AUH/BRU	EY55	ETD67E
BRU/AUH	EY56	ETD97A
AUH/BRU	EY57	ETD46X
BRU/AUH	EY58	ETD73Y
AUH/KWI	EY301	ETD10RE
KWI/AUH	EY302	ETD87XB
AUH/RUH	EY315	ETD82YR
RUH/AUH	EY316	ETD73UY
AUH/JED	EY313	ETD28TR
JED/AUH	EY312	ETD25TN
AUH/MED	EY345	ETD58UA
MED/AUH	EY346	ETD21EU
AUH/AMM	EY513	ETD10VA
AMM/AUH	EY514	ETD1EY
AUH/BEY	EY535	ETD34CB
BEY/AUH	EY534	ETD47TM

ALPHA NUMERICAL CALL SIGN ACCEPTANCE TESTING

Technical details:

1. **Conversion to an alpha numeric call sign**
   It is important to understand that not every single flight number needs to be changed. This would create a reversed negative affect. Etihad has used the EuroControl CSS tool to de-conflict its own schedule. EuroControl has provided alpha numeric call signs to those flight numbers that are phonetically similar.

   Points to be considered:
   We have tested the use of EY as letters (e.g. ETD1EY) but found that it was not practical. Other airline codes may work better.
   It was also recommended by our crews to use 2 numbers and 1 letter whenever possible. It is easier to say and to remember. Since this is a global issue we may even run out of possible combinations so this is not always possible

2. **Obtaining overflight permissions and airport approvals**
   When applying for overflight it is recommended to apply for both the commercial flight number and the respective alpha numeric call sign. This will help to safeguard the flight in case of any unforeseen problems using the alpha numeric call sign. For airport approvals it is usually sufficient to inform the airport of the alpha numeric call sign that is connected to a commercial flight number.

3. **Internal considerations**
   Flight Plan
   The operational flight plan should include both the commercial and the alpha numeric call sign. The ICAO flight plan however will be filed with its alpha numeric call sign but it is important to add the commercial flight number under field 18 to ensure the connection between the two numbers.
   FMS
   We have tested Airbus A320, A340 and A320, Boeing B787 and Boeing B777.
   Depending of the FMS used may have to be used to ensure that messages are transmitted to other internal systems such as load planner, fuel dockets etc.
   ACARS
   It is important that the ops control system is set so that it understands both flight numbers. This is important since the aircraft uses alpha numeric in the OOOI messages where the airport offices typically send movement messages with commercial flight numbers.
   Datalink
   We have further tested DCL and CPDLC. We found no issues when using alpha numeric call signs.

Use Case Open Issues

Event	Event Description	Major Assumptions

Gaps in Standards

In this subsection we provide a description of the gaps, including missing or incomplete standards, in standards that are required for the events in this Use Case.

Event	Event Description	Standard Gap

ALPHA NUMERICAL CALL SIGN ACCEPTANCE TESTING

Standards to be profiled in Implementation Guides TBD

In this subsection we provide a list of projected profiles for any standards that maybe utilized

Event	Event Description	Standard Gap

Resolution Recommendations TBD

Event	Event Description	Standard Duplication/ Overlap/Gap Resolution

Next Steps

1. Etihad is planning to introduce alpha numeric call signs (where required) to the following regions starting with the summer schedule

    - Europe (all Etihad destinations)
    - North America (all Etihad destinations)
    - Middle East (all Etihad destinations but depending on the outcome of further trials)

2. Etihad will invite other operators to help testing further destinations within the Middle East.

ALPHA NUMERICAL CALL SIGN ACCEPTANCE TESTING

Interim Summary

The project has found no deficiencies so far with flight plan processing or active live flights with regional ATC or CAA units. Etihad Airways with the support of selected regional and international airlines will continue the flight plan testing phases for International airports' arrivals and departures within the Mid-Region to identify gaps and/or challenges within the airport process, such as IT or human factors, that would limit the use of Alpha-Numeric call signs for commercial flights in the MID region. Any deficiencies will be reported to ICAO and the MEAP S/C upon the completion of the testing phase.

The project has identified that the current Call Sign Similarity process and software which is currently used by Eurocontrol can be utilized in the MID Region. Furthermore, the region will benefit from the lessons learned by Eurocontrol to ensure a better implementation of the tool.

Suggestions overview:

1. Establish a regional call-sign similarity unit (CSS)
2. Establish CSS rules for call-sign conflicts as done by Eurocontrol
3. Establish CSS Working Group through ICAO
4. Operators having an internal process to de-conflict the airline's flight schedule, will provide the internally de-conflicted schedule to the regional call sign similarity unit (CSS).
5. Operators that do not have an internal de-conflicting process that they can utilize to de-conflict their internal flight schedule, will provide data to the regional call sign similarity unit (CSS) for de-confliction.
6. Call- sign conflicts identified through regional call sign similarity unit (CSS) will be provided to operators with options for adjustments (example: XXX123 to XXX12A/XXX12M).
7. Call signs that have been identified with no conflict will be assigned until such time they are no longer utilized by operator.
8. All new call signs will be applied through the regional call sign similarity unit (CSS) prior to utilizations to assure de-confliction and report and assignment provided to submitter by the (CSS)
9. States will report to the regional call sign similarity unit (CSS) attaching the ATC/Airport call-sign confusion reports for review tracking and action if deemed appropriate.

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