International Civil Aviation Organization

Middle East Air Navigation Planning and Implementation Regional Group

Sixteenth Meeting (MIDANPIRG/16)
(Kuwait, 13 – 16 February 2017)

Agenda Item 4.1: Update from and coordination with the RASG-MID

CALL SIGN CONFUSION INITIATIVE

(Presented by IATA)

SUMMARY

The aim of this paper is provide an update on the MAEP project addressing regional Call Sign Confusion/Similarity as it relates to commercial flights.

Action by the meeting is at paragraph 3.

REFERENCES

- MAEP SC/1 Report
- MIDANPIRG/15 Report
- MAEP Board/3 Report
- RASG-MID/5 Report
- ICAO State Letter Ref.: AN 6/34-14/332
- ICAO State Letter Ref.: AN 6/34-16/173

1. INTRODUCTION

1.1 The use of similar call signs by aircraft operating in the same area and on the same radio frequency has potential to flight safety incidents, also known as “call-sign conflicts” or “call-sign confusion”. The danger of an aircraft taking and acting on a clearance intended for another aircraft due to call sign confusion is a common occurrence.

1.2 CNS SG/5 Tehran, Iran, 9 – 11 September 2014 highlighted that, in order to reduce the level of operational call sign confusion events, and therefore improve levels of safety, several Airline operators have changed their philosophy of only using a numeric (commercial) call-sign (e.g. UAE503) to that of applying an ‘alpha-numeric’ call sign(e.g. UAE59CG). This is now common practice in the European Region.

1.3 ICAO issued state survey AN 6/34-14/332 inviting States to provide information as it relates to acceptance of alpha numeric commercial flight identification numbers to include ATC systems and regulatory approvals.

1.4 The MAEP SC/1 meeting held Dubai, UAE, 20- 22 January 2015) identified call sign confusion would be a suitable project to present possible solutions for the region.

- The project identified Etihad Airways to lead a project that would provide regional solutions and testing to address the safety concern.

2. DISCUSSION

2.1 The progress of the project is presented at **Appendix A**.

2.2 To address the call sign confusion initiative the project has utilized a 2 phased project approach. The project manager during this project will be Etihad Airways with the support of IATA. This was also presented to the RASG-MID/4 Jeddah, Saudi Arabia, 30 March - 1 April 2015

2.3 Phase one of the project addresses regional Air Traffic Management systems to include Air Traffic Control , State Overflight Approval and Aerodrome landing/departure permissions and there acceptance on the use of alpha-numeric within a commercial flight plan i.e.(UAE20AA) utilizing flight plan testing.

2.4 Phase two of the project will run in parallel to phase one as to identify means and processes for identifying and de-conflicting current and future airline call signs within the region.

2.5 The meeting may wish to note that a coordination meeting was held at Etihad Headquarters in Abu Dhabi, UAE on 24 August 2016, between IATA, ICAO and several air operators. The meeting reviewed the progress of the CSC Initiative and agreed on the launching of second phase of trials. Additional airlines joined Etihad Airways in the testing of the flight plans starting from this year winter schedule. Accordingly, States have been invited to cooperate and report feedback in order to ensure successful implementation.

2.6 ICAO issued State Letter Ref.: AN 6/34-16/173 dated 26 June 2016, requesting States to implement MIDANPIRG Conclusion 15/2 and report call sign similarity/confusion cases using the template at **Appendix B**.

3. ACTION BY THE MEETING

3.1 The meeting is invited to encourage States to:

a) Support the CSC initiatives ensuring effective regional implementation;

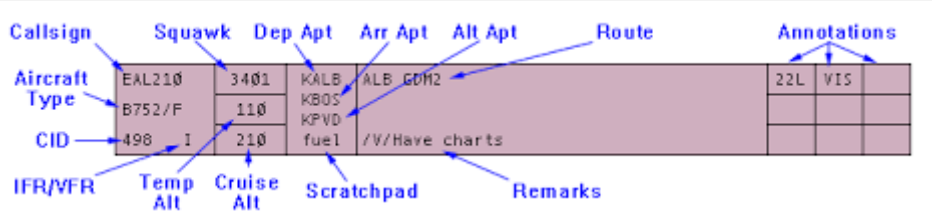
b) Follow-up with their operators to implement the procedures for the de-conflicting of call sign similarities in coordination with the CSC Initiative Team; and

c) Report call similarity using the excel form at **Appendix B** to the following email addresses: MIDCSC@icao.int and MENACSSU@iata.org.

d) Endorse project recommendations as provided in **Appendix C.**

APPENDIX A

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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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

3 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 Board 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.

4 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).

5 SECTION 2. RATIONALE

a. 2.1 Problems/Issues to be addressed

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

c. 2.2 Stakeholders and Target Beneficiaries

d. Stakeholders**: States, ANSPs and Operators**

e. Target Beneficiaries: **ATC and Operators**

f.

g. 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.

6 SECTION 3. PROJECT FRAMEWORK

a. 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 Board. The gap analysis might include such deficiencies that require States to upgrade their systems or review there regulatory requirements.

b. 3.2 project process and work plan

c. 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)

d. 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.

e. 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 designed to identify challenges within the state and airport environments.

f. 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.

g. Flight Plans:

1. Per ICAO doc 4444
2. Per state AIP

h. Testing schedule:

i. Test 1 and 2 - flight plan testing for ATC Systems

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

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

l. 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

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

n.

7 SECTION 4. IMPLEMENTATION AND MANAGEMENT ARRANGEMENTS

a. 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.

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

a. 5.1 Monitoring

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

b. 5.2 Communication and Visibility

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

c. 5.3 Reporting Schedule

d. TBD

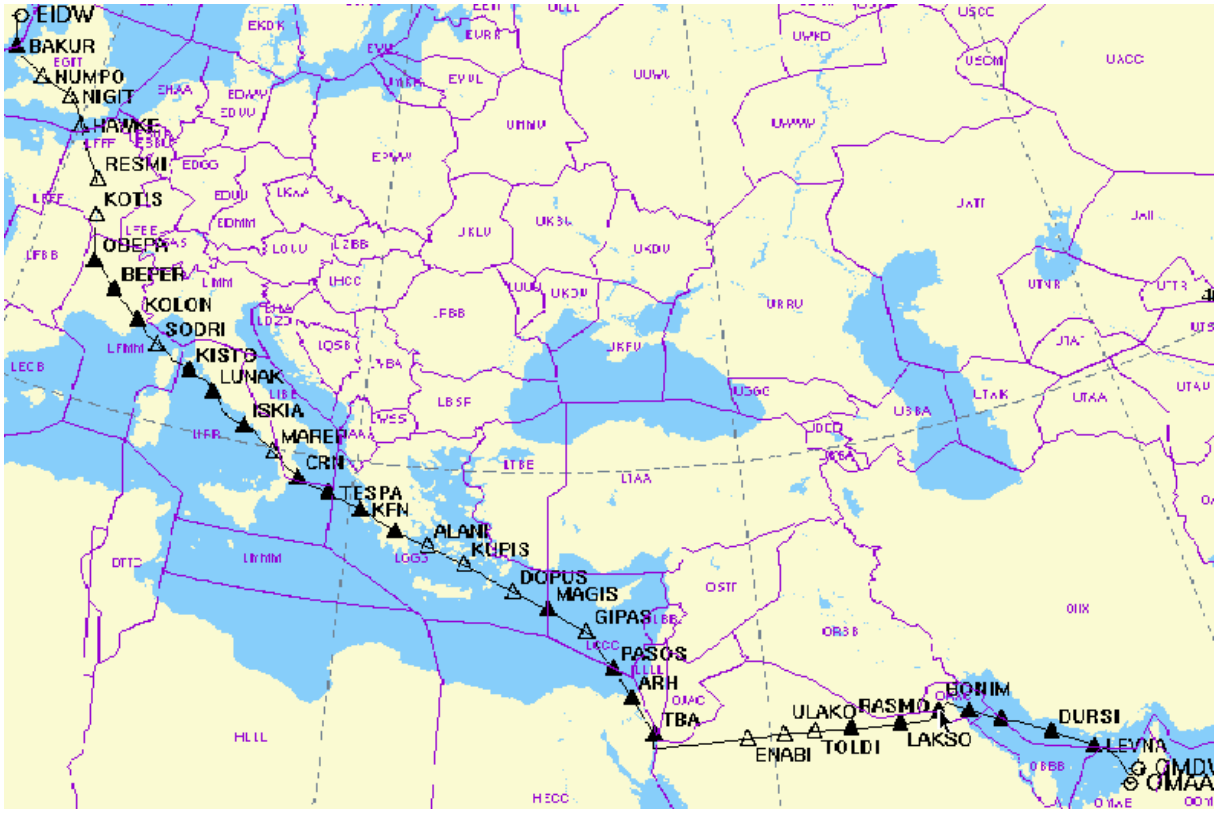
9 ANNEX-1 PROJECT WORK PLAN

Country	ATC System capability	State Overflight Approval	Airport Landing / Departure Approval	Remarks
Egypt	YES / EMAIL	YES / EMAIL	Partially Successful	Testing temporarily suspended due to EY internal software issues
Saudi Arabia	YES / EMAIL	YES / EMAIL	Successful	
Kuwait	YES / EMAIL	YES / EMAIL	Successful	
Iran	YES / EMAIL	YES / EMAIL	Partially Successful	Testing temporarily suspended due to EY internal software issues
Bahrain	YES / EMAIL	SEE QATAR	Successful	
UAE	YES / EMAIL	N/A	Partially Successful	Etihad does not operate to all UAE airports
Jordan	YES / EMAIL	YES / EMAIL	Successful	
Iraq	YES / EMAIL	YES / EMAIL	Partially Successful	EY has suspended operation to Iraq destinations and overflight is currently prohibited by authorities
Lebanon	YES / EMAIL	YES / AFTN	Successful	
Qatar	YES / EMAIL	YES / AFTN	Successful	
Oman	YES / EMAIL	YES / AFTN	Successful	
Sudan	YES / EMAIL	Sudan already accepts any call sign	Partially Successful	No overflight testing is currently possible as it would move into another region (AFI)
Syria	NO REPLY	NOT REQUESTED	not planned	
Yemen	NO REPLY	NOT REQUESTED	not planned	

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)



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)

10 Analysis

The Pool of Standards Required by the Use Case

Summary of Standards

Test trial summary

Over the past 18 Months Etihad has successfully introduced 44 live test trial flights into Europe and 38 live test trial flights within the Middle East. The trials will continue to include further destinations where necessary. Below is an extract of flights currently operated with an alpha numeric call sign within the Middle East

MIDDLE EAST							
VALID 30 October 2016 TILL 25 March 2017							
Operator IATA	Commercial Flight Number	Operator ICAO	Alpha Numeric Call Sign	Departure IATA	Departure ICAO	Destination IATA	Destination ICAO
EY	327	ETD	11D	AUH	OMAA	DMM	OEDF
EY	308	ETD	14C	KWI	OKBK	AUH	OMAA
EY	333	ETD	14D	AUH	OMAA	JED	OEJN
EY	385	ETD	14W	MCT	OOMS	AUH	OMAA
EY	346	ETD	18U	MED	OEMA	AUH	OMAA
EY	301	ETD	19A	AUH	OMAA	KWI	OKBK
EY	345	ETD	21C	AUH	OMAA	MED	OEMA
EY	371	ETD	23B	AUH	OMAA	BAH	OBBI
EY	334	ETD	23Y	JED	OEJN	AUH	OMAA
EY	331	ETD	25Q	AUH	OMAA	DOH	OTBD
EY	320	ETD	29F	DMM	OEDF	AUH	OMAA
EY	314	ETD	38A	JED	OEJN	AUH	OMAA
EY	323	ETD	40Y	AUH	OMAA	DMM	OEDF
EY	315	ETD	42P	AUH	OMAA	RUH	OERK
EY	391	ETD	43A	AUH	OMAA	DOH	OTBD
EY	310	ETD	44V	KWI	OKBK	AUH	OMAA
EY	313	ETD	48U	AUH	OMAA	JED	OEJN
EY	325	ETD	49X	AUH	OMAA	DMM	OEDF
EY	318	ETD	50N	RUH	OERK	AUH	OMAA
EY	379	ETD	54W	AUH	OMAA	BAH	OBBI
EY	376	ETD	60Z	BAH	OBBI	AUH	OMAA
EY	328	ETD	61A	DMM	OEDF	AUH	OMAA
EY	316	ETD	61E	RUH	OERK	AUH	OMAA

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. This procedure can be ignored after one or two seasons of using alpha numeric call signs to reduce workload for operators and state approvers. 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 and issues**

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.

B777 Flight Tracking

Issue

B777 flights with alphanumerical call signs could not be tracked through our flight watch system. The system dropped the letter so position reports were not received unless the aircraft was within ADS-B coverage.

Solution

An upgrade of the ACARS system as well as the flight tracking system has solved the problem. Additionally Flight Crews now have a supplementary procedure in place

Connecting gates uplink and IFE map

Issue

Connecting gate uplink for our hub operation discontinued to work with the introduction of alpha numeric call signs and the IFE map started showing the alpha numeric call sign iso the commercial flight number which caused confusion

Solution

A software change was initiated which has fixed the gate uplink issue. We are currently working on the IFE issue.

ACARS LS acceptance and AIMS OOOI message

Issue

The FMS started using the alpha numeric call sign iso the commercial flight number which was not understood by several internal systems such as the load master system as well as our ops control system

Solution

In a first step we have changed the configuration in our AIRCOM server so that the system was able to read both commercial as well as alpha numeric call signs. This however was only a workaround and therefore a converter document will be introduced which is the final solution

Mobile APP

Issue

We are using an APP that allows several functions around flight operation including the location on a map. We are however not getting position data where alpha numeric call signs are used.

Solution

As a workaround we have introduced a table to the flight information system FIS which will be used as a converter so that the APP understands the connection between commercial and alpha numeric flight numbers.

Use Case Airline Open Issues

Event	Event Description	Actions
IFE (inflight entertainment system)	Alpha numeric flight number display iso commercial	A software change was initiated which has fixed the gate uplink issue. We are currently working on the IFE issue.

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
Sudan overflight	Testing did not include MID to AFI overflight	Flights in and out of Sudan Airports identified no gaps
Saudi Arabia overflight	Initial denial of overflight permission	Appears to be a gap in information exchange
Saudi Arabia airports	Initial denial of alpha numeric call signs	Test trial supporting airline's request to use alpha numeric call signs was initially refused. This was resolved with the kind cooperation of GACA, IATA and ICAO

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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
Recommendations for states		

Resolution Recommendations TBD

Event	Event Description	Standard Duplication/ Overlap/Gap Resolution

Next Steps

1. Etihad's summer 2017 has once again been de-conflicted by EuroControl. This is the first time that we have kept most of the alpha numeric call signs since they have worked well during the winter 2016 season. This way we have limited changes to converter lists which would be very time consuming. We are currently requesting overflight and airport permissions for all Etihad flights into below regions / countries. It is also the first time that we request overflight permissions for Europe and the Middle East for alpha numeric call signs only as we have not had any issues during the last 2 seasons
    - Europe
    - North America (new region)
    - Middle East
    - India (new region)

2. Etihad invited other operators to help testing further destinations within the Middle East. Currently RJ, TK, QR, FZ and BA (support as needed).

14 Summary Recommendations for endorsement

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 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. Call signs that have worked well during a season should be kept were possible. It will help to eventually decrease the changes to zero and support the aim of retaining a specific alpha numeric call sign for a commercial flight number
10. 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.

Alphanumeric Call-Sign Trial

Qatar Airways

Navigation Services, ATM

Qatar Airways –Alpha Numeric Trial (MENA Region)

UPDATE JANUARY 2017

- August 2016, Qatar Airways confirmed participation in the MENA Region Alpha Numeric Trials

- QR agreed to undertake Alpha Numeric Trials in:
- Iran (IKA, SYZ, MHD)
- Iraq (BGW, ISU, BSR, EBL, NJF)

- All QR destinations in Iran and Iraq are served by the Airbus A320/A330 Fleet

- Tehran (IKA) was nominated as the first airport for the trial

ACTIVITY UPDATE

November 2016

EUROCONTROL Training undertaken by ATM team in Brussels.

De-confliction of winter 16/17 schedule utilizing the CSS tool.

Manual check of the Alpha Numeric city pairs assigned by the CSS undertaken by ATM, Fleet Management and Flight Safety to capture further potential conflicts or issues.

- Issue identified for short return sector flights where Alpha Numeric was similar e.g. 32H / 32J. Similar Call-Signs amended.

A Procedure for fallback use of Alpha Numeric Call-Sign established to support late notice a/c swap from Airbus to Boeing fleet (B777).

Awareness campaign undertaken for fleets (QR publications, intranet, internal briefings).

<u>January 2017</u>

Overflight Permissions from Iran, Saudi Arabia and Egypt requested (to support route options in/out of Iran/Iraq).

Iran/Iraq Alpha Numeric Call-Signs (Winter 16/17)

QR	482	QTR	482	450	655	DOH	IKA
QR	483	QTR	483	805	1010	IKA	DOH
QR	490	QTR	32K	2155	2359	DOH	IKA
QR	491	QTR	51P	110	315	IKA	DOH
QR	498	QTR	498	1545	1750	DOH	IKA
QR	499	QTR	499	1910	2115	IKA	DOH
QR	476	QTR	56E	2315	30	DOH	SYZ
QR	477	QTR	39H	130	250	SYZ	DOH
QR	492	QTR	73B	1600	1820	DOH	MHD
QR	493	QTR	19Z	1920	2200	MHD	DOH
QR	494	QTR	56K	2120	2340	DOH	MHD
QR	495	QTR	495	40	320	MHD	DOH
QR	442	QTR	94F	1550	1800	DOH	BGW
QR	443	QTR	443	1900	2059	BGW	DOH
QR	444	QTR	78L	505	715	DOH	BGW
QR	445	QTR	64D	815	1015	BGW	DOH
QR	458	QTR	458	1015	1225	DOH	BGW

QR	459	QTR	459	1325	1525	BGW	DOH
QR	462	QTR	462	330	705	DOH	ISU
QR	463	QTR	62F	805	1020	ISU	DOH
QR	446	QTR	58Q	1055	1225	DOH	BSR
QR	447	QTR	17L	1325	1450	BSR	DOH
QR	448	QTR	448	545	715	DOH	BSR
QR	449	QTR	449	815	940	BSR	DOH
QR	450	QTR	80A	1215	1535	DOH	EBL
QR	451	QTR	451	1635	1900	EBL	DOH
QR	452	QTR	75N	520	840	DOH	EBL
QR	453	QTR	14R	940	1205	EBL	DOH
QR	456	QTR	456	525	725	DOH	NJF
QR	457	QTR	61B	825	1015	NJF	DOH
QR	460	QTR	460	1545	1745	DOH	NJF
QR	461	QTR	461	1845	2035	NJF	DOH
QR	464	QTR	464	1020	1220	DOH	NJF
QR	465	QTR	78A	1320	1510	NJF	DOH

Alphanumeric Trial - Tehran (IKA)

- Tehran ATC notified of trial, ATC confirmed no issues in support QR's trial
- 1st test flight commenced 29th Nov

QR 482/29 NOV/DOH-IKA


```
[ OFP ]
-----------------------------------------------------------------
          QTR32K /QR482   29NOV P0300 OTHH/OIIE P0330  A321 A7ADS

OFP: 4/0/0/01:40

FLIGHT CREW PLEASE REVIEW THE BELOW BEFORE ACCEPTING THE OFP.
REVISED ZFW-RTOW-RZFW-EXFA-MET-NOTAMS-COMPANY NOTAMS-CREW ALERT
CREW BULLETIN-MEL-AIRCREW NOTICES-ETOPS-AIRFIELD BRIEFING-OTHERS

REMARKS: //ALPHANUMERIC ATC CALL SIGN TO BE USED,CALL SIGN
IS:QTR32K//
```

Flight Info

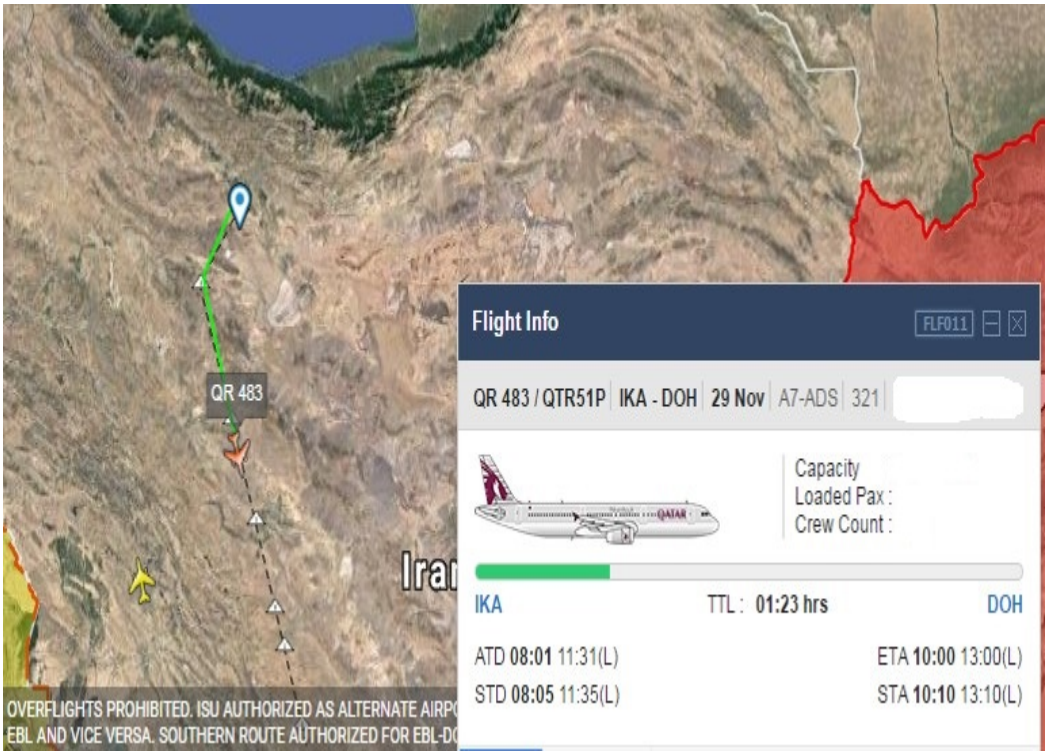
FLF011

QR 482 / QTR32K | **DOH - IKA** | **29 Nov** | A7-ADS | 321

Capacity
Loaded Pax :
Crew Count :

DOH	TTL : **00:00 hrs**	IKA
ATD **04:47** 07:47(L)		ATA **06:48** 10:18(L)
STD **04:50** 07:50(L)		STA **06:55** 10:25(L)

Alphanumeric Trial



Return Flight IKA – DOH
QR483 | QTR51P

29th November 2016

QR 482 QTR32K DOH-IKA | QR 482 QTR 51P 29/11

–No issues reported by ATC

–Positive feedback received from operating crew

–Minor adjustment required to in-house Flight Watch tool due Call-Sign correlation issue

November 2016 – January 2017

–DOH – IKA-DOH flight continues to operate with Alpha Numerics

–1 operational issue reported due late a/c change to B777, fall back to numeric Call-Sign required, caused minor issues.

–B777 software still not capable to support Alpha Numeric Call-Signs (QR). Limitation requires to use an aircraft swap procedure, and limits implementation process.

–Unclear Landing/airport approvals procedure in Iran. No clear indication on how to obtain landing permissions from Iran.

– NOTAM issued by Dubai stating non acceptance of Alpha Numeric Call-Signs.

Next Steps

JANUARY 2017

- –Commence Alpha Numeric Trials on remainder of destinations served by QR in Iran/Iraq
- –Undertake Testing of B788/A350/A380
- –Attend EUROCONTROL CSS User Group Meeting (January 24th 2017)
- –To support recommendations from the Alpha Numeric Regional meeting (Abu Dhabi 24th August 2016):

    All Participating Airlines (Qatar Airways, Royal Jordanian & Turkish Airlines) to de-conflict schedule using the Eurocontrol tool. (Actioned)

    Airlines to provide chosen routes for the trial. (Actioned)

    ICAO and IATA to establish an ATM Call-Sign similarity Working Group, to de-conflict Call-Signs amongst all the Regional Airlines. (QR Supports)

    Call-Sign similarity statistics to be gathered for analysis. (QR Collating stats)

    A combined paper mapping final test result for both ICAO & Airlines to be provided by the 25th of January 2017.

Call-Sign Conflict

QR REPORT

▪40 reports received since commencement of Winter 2016schedule.

- 6 external (e.g.: EMIRATES 383 QR 933 Etihad 833)

- Majority of reports are from Middle East, Asia and Europe.

- all Aircraft types, majority of reports B777/B787 fleet ▪Majority of reports identify conflicts with more than two aircraft ▪Only 1 report received from ANSP (Brest ACC):

▪Number of numeric flight numbers available limits full possibility to deconflict schedules.

▪Airlines are assigning numeric Call-Signs based on their own criteria, thus creating additional Call-Sign conflict.

APPENDIX B

Call Sign Similarity/Confusion Reporting Template

Case	**Reporting ANSP or AO**	**Place of occurrence** (Airport, sector, etc)	**Date of occurrence** (26/04/2013)	**Time** (UTC)	**Call signs** (one line for each)	**Departure airport** (ICAO 4-letter code)	**Arrival airport** (ICAO 4-letter code)	**Type of aircraft** (ICAO type desig)	**Aircraft Operator** (ICAO 3-letter code)	**Type of Occurrence** (CSS or CSC)	**AO using CSST** (YES or NO)
1											
2											
3											
4											
1											
2											

APPENDIX C

Recommendations for endorsement:

1. ICAO / IATA Establishment of a regional call-sign similarity unit (CSS)
2. IATA MENA to provide software and airline support for regional call sign de-confliction
3. ICAO to establish CSS Working Group to monitor trends and rules for call-sign conflicts utilizing Eurocontrol procedures until such time mid region recommendations are accepted
4. Operators utilizing an internal process to de-conflict there flight operations schedule, will provide there internally de-conflicted schedule to the regional call sign similarity unit (CSS) for regional de- confliction and recommendations for change.
5. Operators that do not have an internal de-conflicting process to utilize and provide flight detail 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. Call signs that have worked well during a season should be kept were possible. It will help to eventually decrease the changes to zero and support the aim of retaining a specific alpha numeric call sign for a commercial flight number
10. States to publish the acceptance of alpha numerical call signs
11. States to publish notification on airports that are unable to accepts alpha numerical call signs for ATC use
12. States and operators to report to the regional call sign similarity unit (CSS) for review tracking and action if deemed appropriate

- END -