International Civil Aviation Organization

MIDANPIRG ATM Sub-Group

Second Meeting (ATM SG/2)
(Cairo, Egypt, 30 November – 03 December 2015)

Agenda Item 4:   **MID Region ATS Route Network**

INTER-REGIONAL ISSUES (EUR-MID)

(Presented by the Secretariat)

SUMMARY
This paper presents the main results from the outcomes of the last Route Development Group – Eastern Part of the ICAO EUR Region meetings which took place in May and October 2015. The WP also identifies the need of active engagement from States, addresses the increasing demand for inter-regional coordination and describes the developments towards a more seamless ATS route network.
Action by the meeting is at paragraph 3.
REFERENCES
-    RDGE/23 Report

1.   INTRODUCTION

1.1   The Route Development Group RDGE works within the terms of reference of the EANPG, on matters related to ATS route planning and implementation in the Eastern part of the ICAO European Region.

1.2   The RDGE meeting is supported, for the sake of efficiency, by four subgroups to cover several geographical areas simultaneously, namely:

- Baltic area and its interface;
- Black Sea and South Caucasus area and its interface;
- Middle Asia area and its interface; and
- Far East area and its interface

1.3   At the RDGE meeting, the working groups discuss the proposals and agree on actions and deadlines for their execution to enable the States to continue coordination on a bilateral or multilateral basis between the meetings. The actions and deadlines agreed are reflected in the RDGE ATS Route Catalogue.

1.4   This WP has extracts from the report of the Twenty-Third Meeting of the Route Development Group – Eastern Part of the ICAO EUR Region (RDGE/23) was held, at the kind invitation from the Russian Federation, in Sochi, Russian Federation from 19 to 23 October 2015, which was attended by 54 participants attended the meeting from 22 States and 3 international organizations.

2.   DISCUSSION

2.1   During the RDGE meetings, States are presenting individual State reports, which highlight either ATS route proposals in the RDGE ATS Route Catalogue as high priority items for further studies at the RDGE/23 meeting, or address interoperability aspects which would need further discussions. The outcome of these discussions is normally shown in the individual Subgroup reports

2.2   The representative from the **Islamic Republic of Iran** gave a comprehensive presentation to the meeting that the accumulated traffic figures for the time period from September 2014 to September 2015 increased by 29.4%, when compared to same time period in 2013/2014. The traffic figures for overflight traffic increased by 63.4%, increased for international departures/arrivals by 12.9%, but decreased for domestic flights by 3.2% (other flights decreased 5.4%). This effect is related to the fact that many ATS routes established within Tehran FIR had and will have to cope with high density traffic arising from closure of Ukraine airspace and also Baghdad FIR.

2.3   In August 2014, 3 new RNAV routes (Q1,Q2,Q3) were implemented as a first package, which was followed by another airspace change package (with new RNAV routes Q4, Q5, Q6 (UT975), Q7, Q8, Q9, Q10, Q11 (A453), Q12) in October 2014 in order to increase airspace capacity, increased safety and reduce controller & military coordination. In February 2015, another airspace change package (new RNAV routes Z1, Z2, Z3, Z4 & Z5 as domestic conditional RNAV route) was implemented with more direct routings that further reduced fuel consumption & CO_2 emission (up to -247NM = 31min flight time).

2.4   With the implementation of the OTS routing scheme, it was possible to reduce the radar separation between Tehran and Baku, Tehran and Yerevan, Tehran and Kuwait. A further airspace improvement was implemented with the separation of traffic flows at the DARAX waypoint (now via GABKO & PATAT). As a result from the AHACG meetings the implementation of 50NM RNAV separation between Tehran and Karachi, Tehran and Muscat, Tehran and Kabul was done from 29 September 2015 onwards.

2.5   A number of scenarios addressing the issues at the interface area between Ankara FIR and Tehran FIR (waypoints ALRAM, BONAM, DASIS, AGINA) were presented, but could unfortunately not be further discussed due to the absence of the Turkish delegation. The current airspace situation was presented in the following map with blue and orange routes mainly for domestic operations, and red and green routes newly implemented and contingency routes :

- Dividing sector 1 (neighboring Yerevan and Ankara FIRs) into upper/lower or West/East sectors
- Dividing sector 4 (neighboring UAE and Bahrain FIRs) into East/West sectors
- Enhancing Radio Telephony Communication Facilities
- Assigning more Qualified controllers at traffic peak-times
- Modifying present ATS routes and establishing uni-directional parallel ATS routes e.g. Q1, Q5
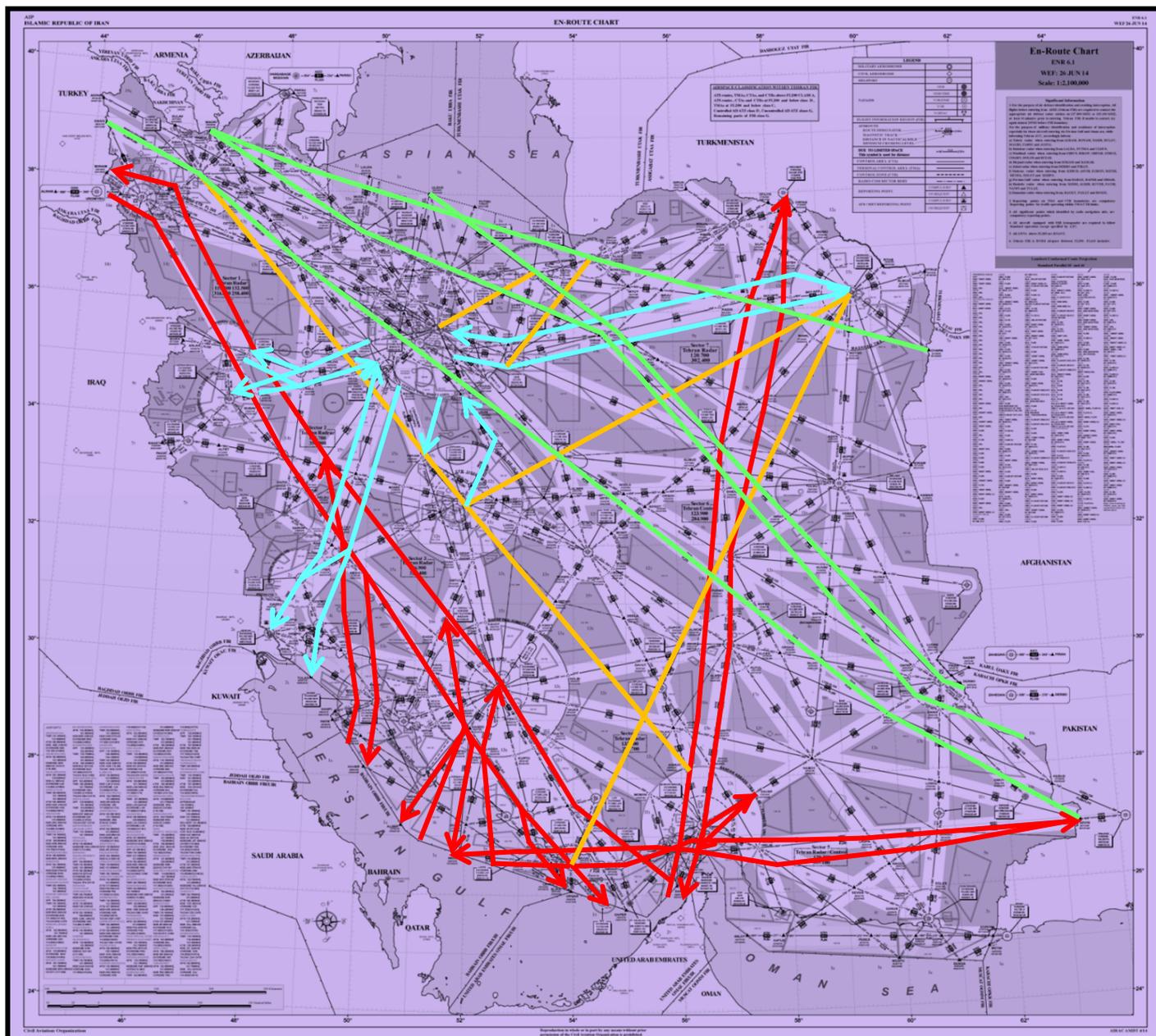
adjacent FIRs to support Kabul FIR during contingency situation, the capacity of the airspace regarding current and demand situation of traffic in Tehran FIR was reviewed and updated (especially at north, east and south east) to adopt Tehran FIR contingency schemes. The agreed Royal Road Organized Track System (OTS) within Tehran FIR is as follows:

a) From DERBO (Tehran/Karachi FIR) G452 ZDN UN319 ULDUS (Tehran/Baku FIR) as a bidirectional scheme (available right now).
b) From ASVIB (Tehran/Karachi FIR) PEKES T215 ANK RUS R661 TBZ UL333 DASIS (Tehran/Ankara FIR) as a bidirectional scheme (going to finalize).
c) From KEBUD (Tehran/Karachi FIR) DANOV DHN RST B121 MAGRI (Tehran/Yerevan FIR) as a bidirectional scheme (negotiating).

Note: the routes with a pink colour in Figure are available currently and the blue colour is our desired track which is being negotiated with relevant authority to be established in the future (currently not available).

2.7   However, it must still be noted that there are still a number of challenges, such as ATS limitations in adjacent FIRs, Traffic congestion in UL223 (3 peak-times within 24 hours: 03:30 to 07:00 - 09:30 to 12:30 - 17:00 to 20:30 local time), Application of longitudinal 10-minute separation and level restriction in Karachi FIR, variable level restrictions in Kabul FIR.

2.8   In order to enhance the ATM infrastructure further, the Iran Airport Company (IAC) has prepared the implementation of ATFM capacity managements and sector splits from the existing 7 ATC sectors up to a 17 ATC sectors, depending on the traffic complexity.
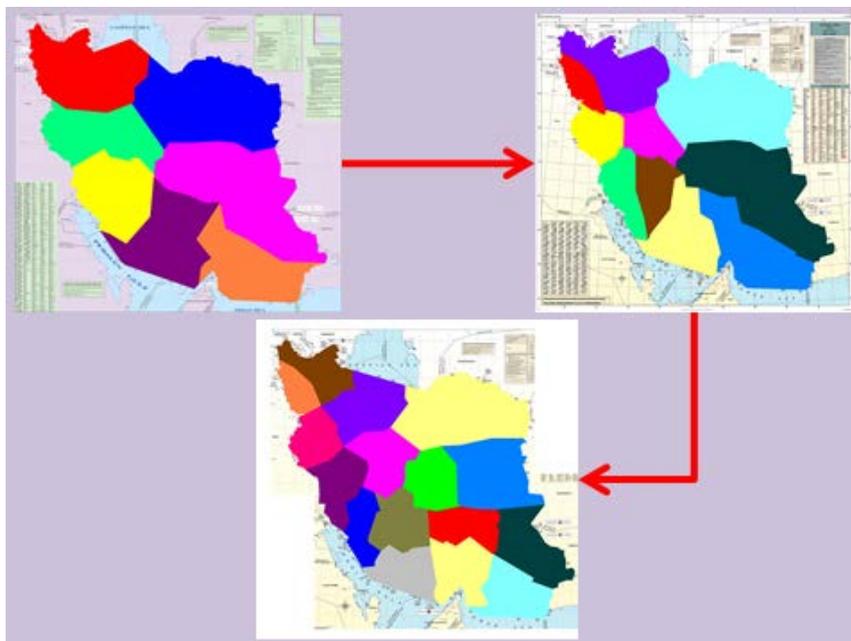
2.9   The RDGE took note of the information from the State Report of **Turkey** and the traffic situation update. The total traffic figures for the time period from January to September 2015 increased by 8.1% (6317199 flights) when compared to the figure for the same time period in 2014. A number of new ATS routes and ATS route related changes were implemented since RDGE/22 and several ATS route proposals are foreseen for discussion in the upcoming subgroup session.

2.10   The RDGE was informed that following ICAO letter (Ref. EUR/NAT 15-023.TEC (HAS/CUP)) dated 16th of April 2015 regarding the Romanian objection to the PfA for ATS Route Network Changes over the High Seas, Turkey suspended the airspace changes related with 16 ATS routes (W/UW 90, L/UL601, L/UL621, L/UL746, L/UL852, M/UM688, M/UM859 and P/UP975) made by AIP Amendment wef 28 May 2015. The amendment of the ICAO Air Navigation Plan for the European Region as proposed by Bulgaria and Turkey is of the prime importance for the improvement of the airspace capacity not only in Turkish Airspace but also in South East Region, Black Sea Region and the European Route Network as a whole. As a result of the conflicts around Turkish Airspace, major traffic flows have been changed and number of transit traffic increased by 28.7% (from 212.440 (SEP2013) to 273.352 (SEP2015)) in two years' time. In order to reduce the negative effects of the airspace closures and following the negotiations with Bulgarian, Iranian and Georgian ANSPs, DHMI had already signed updated LoAs and agreed on an eastern interface area. However due to the objection from Romania, DHMI was unable to complete the necessary airspace improvements at western interface area, especially over the Black Sea. All the statistics indicate that, summer 2016 season will be much tougher and thus we need to implement the required airspace changes as soon as possible. Consequently, in order to re-start the negotiations, as a first step, DHMI is awaiting the withdrawal of the objection.

2.11   The report gave information on the latest development regarding training and recruitment. The report addressed also the opening of Ordu-Giresun Airport on 22 May 2015, the opening of Hakkari Yüksekova Selehaddin Eyyubi Airport on 17 September 2015 and the plans for the new İstanbul Airport (Construction works started, 4 phases planned, 1st by the end of 2017, when all phases completed; 6 RWYs, 240 aircraft traffic per hour and 150 million passengers per year). The report also presented information on recent RNAV/RNP developments and addressed the issues related to regional coordination and improved coordination mechanisms in conflict/crisis situations

2.12   Based on the RDGE Action plan , an action to **Removal of distinction between lower and upper in route designations** was agreed at RDGE/11 and so far only Romania and Turkey have not completed this action item. Romania informed the meeting that they will implement the project in Spring 2016. The representative from Bulgaria highlighted the potential safety issues that could arise with the use of the same route designators for different routes in States that have FIRs adjacent to the interface area with another ICAO Region. In this particular case, it was noticed that the same RNAV non-regional ATS route designators (prefixes: Q, T, Y, Z) were used by a number of States in the ICAO Middle East (MID) Region as those used in States in the Black Sea and South Caucasus area. The ICAO Secretariat was requested to investigate possible solutions to this issue with ICAO Headquarters and other ICAO Regional Offices.

2.13   The Black Sea and South Caucasus area and its interface Subgroup met during RDGE/23 with experts from the following States Armenia, Azerbaijan, Belarus, Bulgaria, Georgia, Islamic Republic of Iran, Republic of Moldova, Romania, Russian Federation and international organisations IATA and EUROCONTROL. **Mr. Evgeni Tavadze** from Georgia was the Rapporteur of the Sub-group supported by **Mr. Tihomir Todorov** from EUROCONTROL.

2.14   The work of the Sub-group was based mainly on the following documents: WP/04. The Sub-group reviewed 57 route proposals and 16 new proposals were inserted. The results of sub-group work are reflected in the following table. Only proposals which were updated or changed are reflected below:

Proposal number	Changes to be made
79.008b/18.002 and 79.029b/18.012b	To combine both proposals into one new proposal with description: *New bidirectional route T916 MATAL - SUBUT - LEYLA.*
85.027/22.029	To remove word "*certain*" and add "*285*" after word "*FL*" in Description box
80.038/19.009	To be deleted from catalogue
22.034	To update Impl. Status: *Planned 07 Jan. 2016*
22.033	To be removed from catalogue new proposal to be studied

Following discussions between Azerbaijan and George, the following new definition of proposal **76.019b / 16.014b** was agreed:

Proposal number	Changes to be made

76.019b / 16.014b	**New Description:**
	 1. To allow bidirectional use of point **BARAD** by changing to bidirectional existing eastbound ATS route **M747** LAGAS - BARAD.
	 2. To allow bidirectional use of point **ADEKI** by changing to bidirectional the following existing eastbound ATS routes:
	     ▪ **N644** LEYLA - ADEKI;
	     ▪ **L850** BEKIR - ADEKI;
	     ▪ **N319** EDELU - ADEKI;
	     ▪ **T921** POLAD - ADEKI.
	 3. To re-align existing bi-directional ATS route **N644** LAGAS - ADEKI as LAGAS - **AAAAA 4129N 04522E** – ADEKI.
	 Objective: To further improve ATS route network within South Caucasus Area between Baku FIR and Tbilisi FIR.
	 Impl. Status: Summer 2016
	 State(s) & Org. AZE & GEO
	 New Comments as follows:
	 Proposals for implementation of sub-proposal 1:
	 Option 1: Establishment of NEVEB as new TCP between Baku ACC and Tbilisi ACC. ATC on M747 BARAD - NEVEB and M737 DISKA - NEVEB will be provided by Tbilisi ACC including responsibility of NEVEB westbound traffic separation.
	 Option 2: No change in TCPs and introduction of FL allocation on BARAD for westbound traffic depending on loads. For example BARAD only FL340 / FL360 on Primary Permission Request procedure.

The following are new proposals from I. R. Iran:

Proposal number	Changes to be made
BLK 22.033	**New Description:** To implement bidirectional ATS route **DANOV - AAAAA – NH** **Impl. Status:** Proposed **State(s) & Org.** IRN & PAK **New Comments:** AAAAA - will be a new boundary point between Tehran FIR and Karachi FIR. IRN: Ready to implement. Secretariat requested to coordinate with ICAO Bangkok Office and provide progress at RDGE/24.
BLK23.001	**Description:** 1. To implement new bi-directional ATS routes: **CRM - BBBBB - CCCCC – ZAJ** 2. To implement new bi-directional ATS routes: **CRM - BBBBB - CCCCC – UMH** 3. To implement new bi-directional ATS route **ROVON - DDDDD (OITK) - DASIS**. **Impl. Status:** Proposed **State(s) & Org.** IRN & TUR **Comments:** BBBBB - will be a new boundary point between Tehran FIR and Ankara FIR. IRN: Ready to implement.

Proposal number	Changes to be made
BLK23.002	**Description:** To allow bi-directional use of point **AGINA** by changing to bidirectional existing eastbound ATS route **UP146 ARI - AGINA.** **Impl. Status:** Proposed **State(s) & Org.** IRN & TUR **Comments:** UP146 AGINA - RST is bi-directional within Tehran FIR. IRN: Ready to implement.

The following is a new proposal from Armenia, Azerbaijan and Turkmenistan (for Black Sea Subgroup and MIDASIA Subgroup):

Proposal number	Changes to be made
BLK/MID23.003	**Description:** To implement bidirectional ATS route **P130** MAMED-BODKA-ELSIV (403752N0452214E)-REBLO **Impl. Status:** Planned 07 JAN 2016 **State(s) & Org.** ARM & AZE & TKM **Comments as follows:** ELSIV will be a new boundary point between Baku FIR and Yerevan FIR All States are ready to implement. Progress report expected at RDGE/24.

The following are new proposals from EUROCONTROL:

Proposal number	Changes to be made
BLK23.004	**Description:** Implementation of westbound ATS route **RASAM - ADEKI** for DEP UBBB. **Impl. Status:** Summer 2016 **State(s) & Org.** AZE
BLK23.005	**Description:** Allowance of DEP UGTB via DISKA (Saving for example for city pair UGTB - UBBB is around 60NM). **Impl. Status:** Summer 2016 **State(s) & Org.** AZE & GEO **Comments:** Further discussions on allowance of ADEKI for city pair UGTB - UBBB shall be considered by both States.
BLK23.006	**Description:** Implementation of the following ATS routes: 　1.　M737 GUSLI - DF southbound and M737 GND - NETON - ULDUS or new boundary point between Baku FIR and Tehran FIR bi-directional (DF - TBS - DISKA - GND is an existing bi-directional ATS route segment M737) 　2.　DISKA - LAPTO northbound (straitening of existing dog-leg option M737/N82 DISKA - TBS - DF - LAPTO) **Impl. Status:** 4 Feb 2016 **State(s) & Org.** AZE & GEO & IRN

2.15　　　　A number of scenarios addressing the issues at the interface area between Ankara FIR and Tehran FIR (waypoints ALRAM, BONAM, DASIS, AGINA) were presented, but could unfortunately not be further discussed due to the absence of the Turkish delegation. A considerable number of airspace improvements, contingency arrangements, and ATS Route proposals were not addressed due to the last minute cancellation of the Turkish delegation.

3.   **ACTION BY THE MEETING**

3.1   The meeting is invited to:

a)   note the content of this paper;

b)   discuss the aspects in the interface area between the EUR and the MID Region; and

c)   address the importance of continuous participation/support from States to ICAO meetings in order to progress the optimization of the ATS route network.

- END -