



International Civil Aviation Organization

MIDANPIRG Air Traffic Management Sub-Group

Seventh Meeting (ATM SG/7)
(Virtual, 15 – 18 November 2021)

Agenda Item 3: Planning and Implementation issues related to ATM/SAR

ROUTE CATALOGUE

(Presented by IATA)

SUMMARY

This paper presents the MID Region ATS Route Catalogue for Review of the current process, and to create a revised environment to capture ‘immediate/short term requirements through a simplified process.

Action by the meeting is at paragraph 3

REFERENCES

- MIDANPIRG/16 Report, Conclusion 16/17
- MIDANPIRG/17 Report, Conclusion 17/18
- MID ATS Route Catalogue

1. INTRODUCTION

1.1 The sixteenth meeting of the MID-Air Navigation Planning and Implementation Regional Group (MIDANPIRG/16, February 2016), under decision 16/17, established the ATS Route Development Working Group (RDWG) under the ICAO ATM Sub-Group. The RDWG mandate is to be a platform for all stakeholders to discuss and implement enhancements to the MID ATS Route Network.

1.2 Recognizing the value of a consolidated reference document for the regional ATS routes, the RDWG decided to maintain the Middle East Route Catalogue as the primary repository for proposals emanating from State and/or airspace users. The Route Catalogue is maintained by IATA in close collaboration with the RDWG Core Team that consist of ICAO MID, IATA, and ACCO

1.3 The demands and flows on the airspace in the Mid Region are constantly changing, airlines from within the region prior to COVID –19 were experiencing growth with varying models/markets, thus creating an immediate, and dynamic demand for airspace utilization. As we recover from the pandemic there will continue to be a demand for greater flexibility

1.4 Slow progress in delivering regional route network improvements, ATS Routes, Flight Plannable Directs (DCTs), and FUA, has been realized,

1.5 Airline proposals have not been addressed in a timely manner (due current process) which results in lost opportunities for flight and fuel efficiencies, and emission reductions. (The COVID crisis has demonstrated the ability in the region to progress efficiencies and deliver tangible benefits in

the immediate and short term.

1.6 With both IATA and ICAO having clear priorities for the environment, opportunities present themselves to deliver significant efficiencies across the MID Region through a dynamic and collaborative approach between airspace user and Air Navigations Service Providers

1.7 The current ‘manual’ route catalogue, although successful, no longer meets the fast-paced, fluid operational environment within the region. Apart from major airspace change activities, there is potential for efficiencies to be realized on the current network through collaboration with States and the established ICAO Route Development Working Group.

2. DISCUSSION

2.1 To maximise on the opportunity presented through though the establishment of the regional ICAO Route Development Working Group and to establish an efficient, transparent collaborative process to meet the current and future airspace requirements for the region, IATA proposes to create a **web-based, “e-Route” portal** which would automatically manage the process (**Ref. Appendix A**) from submission to implementation. The e-Route platform would allow Airspace users to transparently submit quantifiable proposals for flight, Fuel, and/or, CO₂ efficiencies to States/ANSPs for immediate, short-term operational and environmental improvements.

2.2 States/ANSP’s will have the opportunity to review and engage airspace users on the proposals to collaboratively implement changes to realise the required operational and environmental efficiencies in a timely manner; and where such proposals cannot be accommodated, there is a transparent and valid history.

2.3 The **e-Route platform** would allow all role-players in the process to track the proposal progression, history, and operational/environmental performance in “real” time and through introducing automation in the process, in a timely and efficient period.

3. ACTION BY THE MEETING

3.1 The meeting is invited to:

- a) note the information contained in this working paper,
- b) discuss the proposal as presented; and
- c) agree to the following Draft Conclusion:

Why	To create an efficient, transparent collaborative process to meet the current and future airspace route requirements for the region
What	Development of web-based e -Route portal
Who	ATM SG/7
When	15 November 2021

DRAFT CONCLUSION 7/XX: DEVELOPMENT WEB-BASED, “E-ROUTE” PORTAL

That, the ATM SG /7 agrees to the implementation of the revised process through development of Web based e-Route” portal.

Appendix A

MID ATS e-Route Catalogue Process

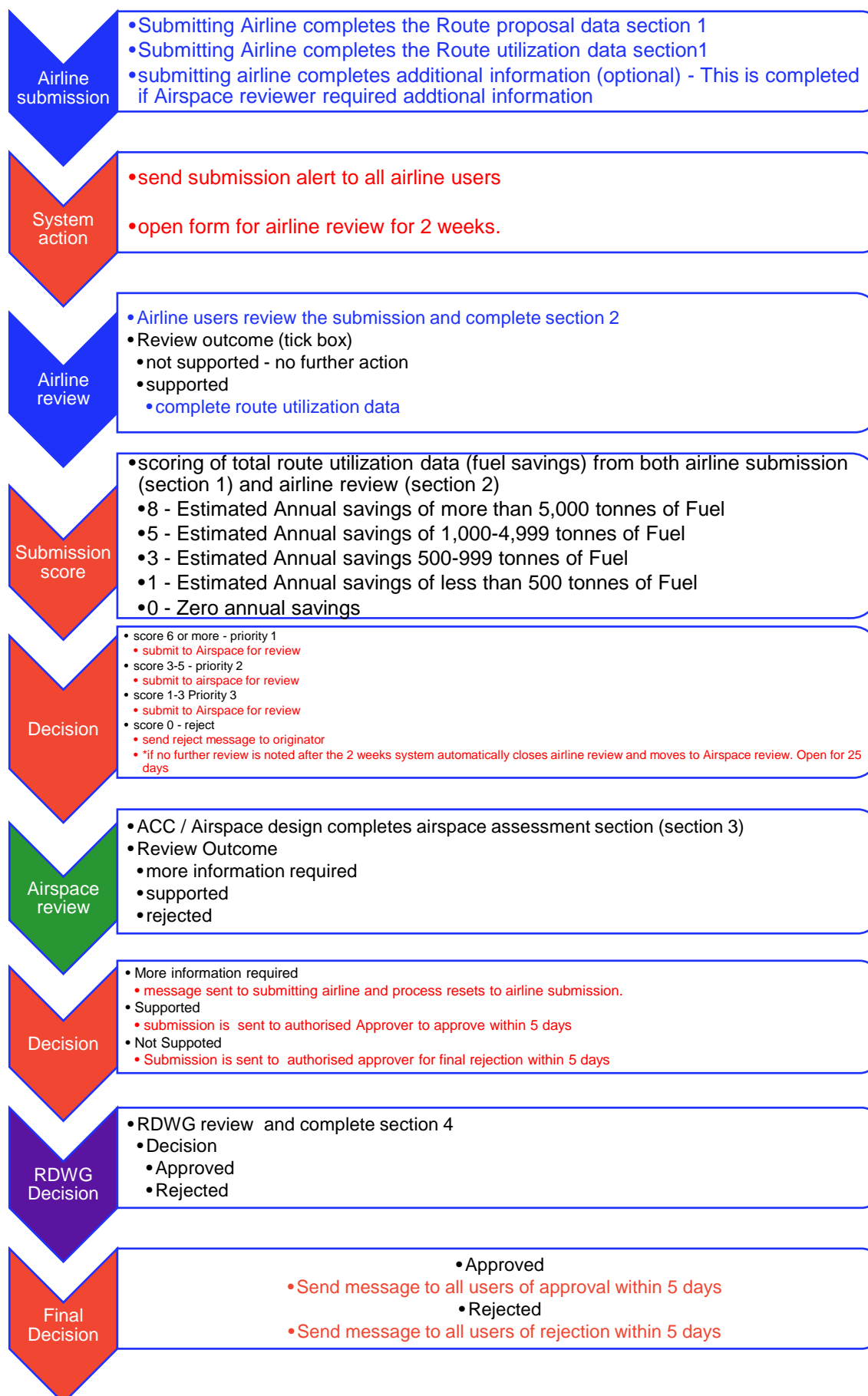
Route Prioritization Criteria

Item	Criteria	Description	Score
1.	Efficiency	Estimated Annual savings of more than 5,000 tonnes of Fuel	8
		Estimated Annual savings of 1,000-4,999 tonnes of Fuel	5
		Quick Win (Route can easily be implemented). (4months-internal-dct)(6 months-internal ATSR) (12 Months-external support)	5
		Estimated Annual savings 500-999 tonnes of Fuel	3
		Estimated Annual savings of less than 500 tonnes of Fuel	1
		Zero annual savings	0
2.	Increase capacity	Annual ground/en-route delay savings of more than 1,000hrs plus fuel savings due to better access of optimum FLs.	5
		Annual ground/en-route delay savings of less than 1,000 hrs or fuel savings due to better access of optimum FLs.	3
3.	Improve Safety Reduce Risk	% reduction of traffic over congested point (hot spot), Reduction of traffic complexity (feeder routes to the hotspot) and /or Safety occurrences that can support the proposal.	5
		% reduction of traffic over congested point (hot spot) or Reduction of traffic complexity (feeder routes to the hotspot) or Safety occurrences that can support the proposal.	3

Colour code in flow below)

- System actions in red
- Airline actions in blue
- Airspace Reviewer actions in Green
- RDWG actions in purple

Proposed Workflow



Electronic Form fields and explanation

Section 1 – Airline Submission

Submitting Airline	text	mandatory														
Main contact name and position	text	mandator														
e-mail	text	mandatory														
Secondary contact name and position	text	optional														
e-mail	text	optional														
Concerned FIR/s	<p>Should be a “dropdown” menu with the ability to select multiple selections or have all visible on the sheet with the ability to select (tick box) one or more from the below list This list must be editable by the admin (change, add, and delete)</p> <table border="1"> <tr><td>• OBBB</td></tr> <tr><td>• HECC</td></tr> <tr><td>• OIIX</td></tr> <tr><td>• ORBB</td></tr> <tr><td>• OJAC</td></tr> <tr><td>• OKAC</td></tr> <tr><td>• OLBB</td></tr> <tr><td>• HLLL</td></tr> <tr><td>• OOMM</td></tr> <tr><td>• OBBB</td></tr> <tr><td>• OEJD</td></tr> <tr><td>• OSTT</td></tr> <tr><td>• OMAE</td></tr> <tr><td>• OYSC</td></tr> </table>	• OBBB	• HECC	• OIIX	• ORBB	• OJAC	• OKAC	• OLBB	• HLLL	• OOMM	• OBBB	• OEJD	• OSTT	• OMAE	• OYSC	mandatory
• OBBB																
• HECC																
• OIIX																
• ORBB																
• OJAC																
• OKAC																
• OLBB																
• HLLL																
• OOMM																
• OBBB																
• OEJD																
• OSTT																
• OMAE																
• OYSC																
Route proposal Provide waypoints, airways, DCT segments. Use 'XXXXX' if a new 5LNC waypoint is required	Text and graphic	mandatory														
Reason for Proposal	Select one or more from the Dropdown/tick box selection. This list must be editable by the admin (change, add, and delete)	mandatory														

	<ul style="list-style-type: none"> Enhance efficiency (Time, Fuel, CO₂, Cost) Increased capacity Reduce demand on sector/route Reduce ground / en-route delays Improve safety / reduce operational risk Contingency purposes 																						
Route Utilization	<table border="1"> <thead> <tr> <th>Sector(s) DEP/DEST</th> <th>Frequency (number of Flights per year)</th> <th>Time of the Day Route is required</th> <th>Aircraft Type(s) (IATA Code)</th> <th>Expected Distance saved per year (nautical miles)</th> <th>Expected fuel saved per year (tons)</th> <th>Expected CO₂ saved per year (Kg)</th> </tr> </thead> <tbody> <tr> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> </tbody> </table> <p>*must be able to add lines</p>	Sector(s) DEP/DEST	Frequency (number of Flights per year)	Time of the Day Route is required	Aircraft Type(s) (IATA Code)	Expected Distance saved per year (nautical miles)	Expected fuel saved per year (tons)	Expected CO ₂ saved per year (Kg)															mandatory
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Additional Information	text	optional																					

Section 2 - Airline review

*Note – submitting airline does not have to complete section 2.

*Note – the reviewing airlines cannot make amendments to section 1.

*Note – System should be able to insert multiple user reviews and record submitter name and date/time

Review decision	Dropdown /tick box Supported *if supported Route utilization data must be supplied Not supported	mandatory																					
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Additional Comments / Suggestions	text	optional																					

Section 3 - Airspace Review

Note - To be completed by ANSP's/CAA's listed in the "Concerned FIR/s" in section 1

Note – System should be able to insert multiple reviews inserts and record submitter name/date/time

Reviewer Name and Organization	text	mandatory						
e-mail	text	mandatory						
Benefits	<p>Select one or more from the Dropdown/tick box selection. This list must be editable by the admin (change, add, and delete)</p> <table border="1"> <tr><td>• Enhance efficiency</td></tr> <tr><td>• Increased capacity</td></tr> <tr><td>• Reduce demand on sector/route</td></tr> <tr><td>• Reduce ground / en-route delays</td></tr> <tr><td>• Improve safety / reduce operational risk</td></tr> <tr><td>• Contingency purposes</td></tr> </table>	• Enhance efficiency	• Increased capacity	• Reduce demand on sector/route	• Reduce ground / en-route delays	• Improve safety / reduce operational risk	• Contingency purposes	mandatory
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• Increased capacity								
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• Reduce ground / en-route delays								
• Improve safety / reduce operational risk								
• Contingency purposes								
Constraints	<p>Select one or more from the Dropdown/tick box selection. Each selected item must have a text box where details can be inserted.</p> <table border="1"> <tr><td>• Political/Security. (Political/security issues exist within the airspace/adjacent FIRs or political/security issues are foreseen).</td></tr> <tr><td>• Military Restricted/Danger areas. (Proposal crosses one or several Military Danger and Restricted areas, there is no mechanism for Civil/Military cooperation).</td></tr> <tr><td>• ATC Capabilities. (There are known Communication, Navigation and Surveillance deficiencies)</td></tr> <tr><td>• Impact to existing Traffic Flows. (Proposal is crossing major air traffic flow (s) and is expected to have a negative effect.)</td></tr> <tr><td>• Terrain/Emergency Airports. (Proposal is crossing high terrain area and is likely to have an impact on aircraft performance) or there are no adequate En-route (Emergency) airports.</td></tr> <tr><td>• Other (details to be inserted)</td></tr> </table>	• Political/Security. (Political/security issues exist within the airspace/adjacent FIRs or political/security issues are foreseen).	• Military Restricted/Danger areas. (Proposal crosses one or several Military Danger and Restricted areas, there is no mechanism for Civil/Military cooperation).	• ATC Capabilities. (There are known Communication, Navigation and Surveillance deficiencies)	• Impact to existing Traffic Flows. (Proposal is crossing major air traffic flow (s) and is expected to have a negative effect.)	• Terrain/Emergency Airports. (Proposal is crossing high terrain area and is likely to have an impact on aircraft performance) or there are no adequate En-route (Emergency) airports.	• Other (details to be inserted)	Mandatory
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• Other (details to be inserted)								
Review Decision	<p>Dropdown /tick box</p> <table border="1"> <tr><td>• Supported</td></tr> <tr><td>• Not supported</td></tr> <tr><td>• Additional Information Required (refer to “additional Information required field above)</td></tr> </table>	• Supported	• Not supported	• Additional Information Required (refer to “additional Information required field above)	mandatory			
• Supported								
• Not supported								
• Additional Information Required (refer to “additional Information required field above)								
Additional Information Required	text	Mandatory when Additional Information is						

		required is selected in Review Decision. This is the text that must go back to the airline submitter
Reason for not supported	text	Mandatory if Not supported is selected in review decision.
Additional comments	text	Optional

Section 4 - Final Decision

To be completed by RDWG (core members and concerned States)

Note – System should be able to insert multiple decisions and record submitter name/date/time

Reviewer Name and Organization	text	mandatory
e-mail	text	mandatory
Review Decision	Dropdown /tick box <ul style="list-style-type: none"> • Approved • Not approved 	mandatory
Reason for Non-approval	text	Mandatory if not approved is selected
Comments	text	optional

- END -