



WORKING PAPER

FOURTEENTH AIR NAVIGATION CONFERENCE

Montréal, Canada, 26 August to 6 September 2024

Agenda Item 3: Air Navigation System Performance Improvement

3.1: Proposals to improve the efficiency of air navigation services contributing to LTAG

ENHANCEMENT OF AIRSPACE OVER HIGH SEAS CONTRIBUTING TO LONG-TERM ASPIRATIONAL GOAL (LTAG)

(Presented by the Sultanate of Oman)

EXECUTIVE SUMMARY

This paper presents the strategic concerns addressed in MID Region referencing the traffic growth impacting the MID and Global Regions. This comes to support the objective of the Global Air Navigation Plan (GANP, Doc 9750) to further enhance safety, capacity and efficiency of the global civil aviation system whilst improving or at least maintaining safety and adopt the global long-term aspirational goal (LTAG) for international aviation of net-zero carbon emissions by 2050, as per the *Report of the Technical Commission of the 41st Session of the Assembly* (Doc 10186).

Action: The Conference is invited to take action as proposed in paragraph 3.

1. INTRODUCTION

1.1 As global air travel continues to expand, the airspace over the high seas at the interface between the Middle East and Asia/Pacific Regions has become a crucial transit corridor for flights connecting Europe and the Asia/Pacific Region. This strategic airspace facilitates efficient and safe passage for numerous airlines, enhancing connectivity between these two major parts of the world.

1.2 The 41st Session of the ICAO Assembly adopted a global long-term aspirational goal (LTAG) for international aviation of net-zero carbon emissions by 2050 in support of the United Nations Framework Convention on Climate Change (UNFCCC) Paris Agreement's temperature goal. The achievement of the LTAG will rely on the combined effect of multiple CO₂ emissions reductions, including the accelerated adoption of new and innovative aircraft technologies, streamlined flight operations, and the increased production and deployment of sustainable aviation fuels (SAF).

2. BACKGROUND

2.1 The MIDANPIRG/20 and RASG-MID/10: PIRG/RASG conclusion 6: coordination to enhance airspace over high seas between MID Region and Asia Pacific (APAC). ICAO MID is tasked to

initiate and foster inter-regional and sub-regional initiatives that aim to enhance the airspace at the interface with:

- a) Asia/Pacific Region; and
- b) States and aviation stakeholders are encouraged to collaborate and support airspace development initiatives aiming at enhancing safety, improve efficiency

2.2 Referring to the seventh meeting of the Directors General of Civil Aviation in the Middle East Region (DGCA-MID/7), which took place in Riyadh, Saudi Arabia from 19 to 20 May 2024, the ICAO Secretary General outlined the organization's current strategic objectives and priority focus areas in his keynote address. Highlighting the need for collaborative efforts to:

- a) achieve the global long-term aspirational goal (LTAG) of net-zero carbon emissions by 2050, noting the importance of sustainable aviation fuels, new technologies, and operational improvements; and
- b) importance of collaboration, stating, "Significantly strengthening our collective commitment, both politically and financially, to the programs and workstreams within each of these focus areas will directly enable us to drive meaningful, tangible progress in the Middle East region and beyond."

2.3 The MID Region is facing challenges in accommodating the air traffic growth primarily due to the route network structure and numerous route constraints at the interface with APAC Region. It is imperative for the MID Region to optimize the airspace structure to manage the rising traffic volumes while ensuring operational safety and efficiency.

2.4 Collaboration between MID and APAC Regions is essential to ensure seamless air traffic flow and to address regional and global air traffic growth effectively to optimize traffic flows to reach CO₂ emission reductions contributing to LTAG.

2.5 Harmonized efforts will facilitate the sharing of best practices, enhance interoperability of air navigation systems, and ensure consistent implementation of performance-based navigation across regions.

2.6 The Sultanate of Oman recognizes the *Regional Approach Collaboration* and initiatives have been actioned by the joint meetings that had taken place with:

- a) the United Arab Emirates;
- b) the Kingdom of Saudi Arabia;
- c) the Republic of India;
- d) the Islamic Republic of Pakistan;
- e) the State of Qatar; and
- f) the Islamic Republic of Iran

2.7 While States should be reconsidering the structure of their airspace to be able to accommodate the expected growth, optimization of air routes would require in most cases a regional

approach. This optimization is getting to be more critical in regions where the expected growth of traffic is above average. Oman, in coordination with Saudi Arabia and the United Arab Emirates are assessing and investigating best practises to achieve route network enhancements on a regional level.

2.8 Therefore, Oman has embarked on the Oman Airspace Strategic Project (OASP) initiative in June 2023, for airspace optimization, and part of its efforts to enhance airspace navigation via improved route network structure to accommodate regional and international flows considering the introduction of the free route airspace (FRA) concept, hence, improving traffic flows to reach CO₂ emission reductions and ultimately LTAG.

2.9 Major flows of traffic in the Middle East goes from Europe - Middle East - Asia and vice versa, Oman has instigated meetings and workshops with neighbouring countries in the Asia/Pacific Region on how to improve routings so as to provide efficient air traffic management (ATM) to the major traffic flows. Some of the measures that are being analysed and taken into consideration, is the introduction of new route structures as uni-directional parallel airways between Oman and neighbouring States to improve traffic throughput of EUR Region, MID Region and APAC.

3. ACTION BY THE CONFERENCE

The Conference is invited to:

- a) take note of the initiatives exposed, including the ones initiated by Oman;
- b) emphasize the importance of optimizing the operations and airspace routings as a low hanging fruit to reduce CO₂ emissions in the short, medium and long term, so as to finally reach the long-term aspirational goal (LTAG);
- c) recognize that long range routings efficiency would be a substantial contributor to optimize operation;
- d) identify the optimization of major traffic flows as a priority for States and ICAO, and request ICAO to include this effort in the next Business Plan and the budget proposals; and
- e) request ICAO, to initiate close coordination's with States and airspace users involved, to launch Inter-Regional Office initiatives to address the long-range routings based on major traffic flows.

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