



WORKING PAPER

ASSEMBLY — 36TH SESSION

TECHNICAL COMMISSION

Agenda Item 37: Other air navigation matters

OPERATION AND MODERNIZATION OF THE CROSS-POLAR AIR ROUTE STRUCTURE

(Presented by the Russian Federation)

EXECUTIVE SUMMARY

This paper contains proposals concerning an addition to the Resolving Clause of Resolution A33-13, “Use of cross-polar routes,” with respect to the role of the Council in the organization of inter-regional activities related to the operation and modernization of the cross-polar air route structure

Action: The Assembly is invited to consider adding the text proposed in Section 3 of this working paper to Resolution A33-13.

<i>Strategic Objectives:</i>	This working paper relates to Strategic Objective D: Efficiency – <i>Enhance the efficiency of aviation operations</i>
<i>Financial implications:</i>	N/A
<i>References:</i>	Doc 9848, <i>Assembly Resolutions in Force (as of 8 October 2004)</i> Doc 9750, <i>Global Air Navigation Plan for CNS/ATM Systems</i>

¹ English and Russian versions provided by the Russian Federation.

1. INTRODUCTION

1.1 With the announcement of the Aviation Authorities of the Russian Federation about the implementation, as of 1 February 2001, of a cross-polar airways system traversing the waters of the Arctic Ocean, a fundamentally new air route structure was established within the system of global air service, linking the North American continent with South East Asia and the Pacific region.

1.2 The establishment of this structure was the result of combined efforts made by concerned Contracting States and international organizations within the framework of the ICAO Informal Trans-Asia/Trans-Siberia/Cross-Polar Routes High-Level Steering Group (ITASPS), chaired by the President of the Council of ICAO.

1.3 In 2001, the 33rd Session of the ICAO Assembly recognized that the implementation of this airways structure using cross polar routes is an event of exceptional significance which holds considerable ecological benefits regarding environmental protection and significant economical advantages for passengers and airlines since it substantially reduces flight time between destinations in North America and South East Asia and the Pacific regions.

1.4 The Assembly adopted Resolution A33-13 "Use of cross-polar routes," which, inter alia, requested the Council, who is responsible for overall guidance during the establishment of the new international airways structure using cross-polar routes, "to take appropriate measures to mobilize the resources of States, international organizations and financial institutions so as to ensure the dynamic development of the new international airways structure using cross polar routes."

2. DISCUSSION

2.1 The results of the implementation of the international airways structure using cross-polar routes attest to the ever-growing need to develop and enhance the characteristics of cross-polar routes and to modernize the ATM systems responsible for such routes.

2.2 Since the implementation of the international airways structure using cross-polar routes in 2001, there has been a rapid and steady growth in the number of flights carried out over the North Pole and in the Russian airspace. The following represents the total yearly number of cross-polar flights over the Russian Federation:

- a) In 2003 – 883 flights;
- b) In 2004 – 2 053 flights;
- c) In 2005 – 3 731 flights; and
- d) In 2006 – 5 308 flights.

During the first four months of the current year 2007, 1 913 flights were carried out on these routes. During this same period in 2006, 1 447 flights had been carried out.

2.3 A set of measures to further enhance the configuration of cross-polar routes is being carried out in the Russian Federation. In addition to the four existing routes: Polar-1, Polar-2, Polar-3 and Polar-4, yet another cross-polar route has been opened up for flight operations since 7 June 2007 on Airway G226. By the end of 2007, an additional route will be added, bringing the number to six. It is planned to open turnoffs, linking the Polar-2 and Polar-3 routes, as well as the Polar-3 and Polar-4 routes. The cross-polar route structure within the airspace of the Russian Federation is provided in the Attachment to this paper.

2.4 Moreover, the experience in the operation of cross-polar airways confirms that there is an ever-growing need for a mechanism which coordinates the development of and enhancements to the characteristics of cross-polar routes, the development of an infrastructure, and the modernization of the ATM systems responsible for such routes on the basis of combined efforts made by member States of the global aviation community.

2.5 As an example, the establishment of time windows for entry into/exit from the airspace would eliminate the existing capacity limitations of the Anchorage Area Control Centre (ACC) and thereby double the capacity of the cross-polar routes which exist in the airspace of the Russian Federation. As another example, China may establish new, additional points of entry/exit and organize separate routes in order to meet the requirements of the ever-increasing flow of air traffic.

2.6 The requirements of such a mechanism must be met by the newly established inter-regional working group — the Trans-Regional Airspace and Supporting ATM Steering Group (TRASAS), established this current year within the framework of the joint activities of the European/North Atlantic, Asian/Pacific and North American/Central American/Caribbean regional ICAO offices. The terms of reference of TRASAS include activities related to the operation of cross-polar, trans-polar, trans-Siberian, and trans-Asian segments of international air routes and the modernization of ATM systems in the trans-regional airspace.

2.7 In view of the exceptional significance of the results achieved in 1998-2001 by the High-Level Steering Group ITASPS, the activities of which were monitored by the Council at the highest level, it should be assumed that the experience of ITASPS must be considered in the organization of the activities of the High-Level TRASAS Group, which is similar to ITASPS, as one of the forms of organization of inter-regional activities in this area.

3. PROPOSALS

3.1 In the light of the background stated above in Section 2, it is proposed to incorporate a new paragraph 4 after paragraph 3 of the Resolving Clause of Resolution A33-13, "Use of cross-polar routes", which states the following:

"The Assembly:

...

4. *Requests* the Council to maintain its coordinating role and initiatives in the organization of inter-regional activities related to the operation of the international trans-regional airways structure using cross-polar routes and to the modernization of the ATM systems responsible for such routes in the trans-regional airspace."

APPENDIX

A33-13: USE OF CROSS-POLAR ROUTES

Whereas a new air route structure over the North Pole, linking the North American continent with South East Asia and the Pacific region, has been established within the framework of ICAO;

...

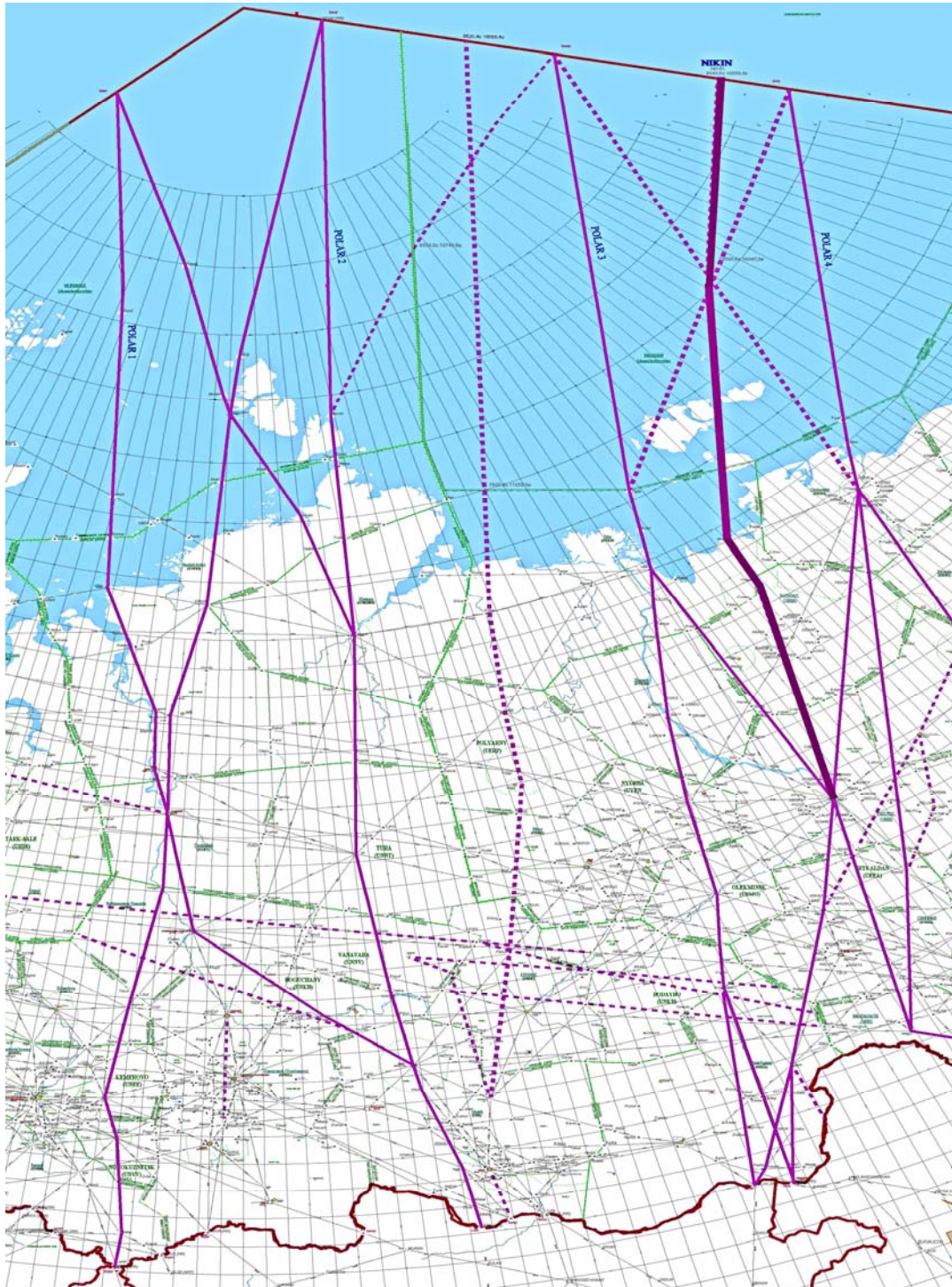
The Assembly:

1. *Declares* that, in order to reap the maximum benefits from the implementation of cross polar routes, it is necessary for the States providing air traffic services within the framework of the new international airways structure using cross polar routes to endeavour to achieve the utmost extent of coordinated planning to increase the capacity of that structure;

2. *Requests* the Council to take appropriate measures to mobilize the resources of States, international organizations and financial institutions so as to ensure the dynamic development of the new international airways structure using cross polar routes;

3. *Requests* the Council, as a priority, to monitor the development of the new international airways structure using cross polar routes, and if necessary, to elaborate recommendations relating to the operation and development of that structure; **and**

4. *Requests* the Council to maintain its coordinating role and initiatives in the organization of inter-regional activities related to the operation of the international trans-regional airways structure using cross-polar routes and to the modernization of the ATM systems responsible for such routes in the trans-regional airspace.”



- - existing “Polar 1, 2, 3, 4” routes
- - the newly opened Airway G226
- - routes and turn-offs planned for opening

The Cross-Polar Route Structure within the Airspace of the Russian Federation