



International Civil Aviation Organization

ICAO

**Tenth Meeting of the Air Traffic Management Sub-Group
(ATM/SG/10) of APANPIRG**

Video Teleconference, 17 – 21 October 2022

Agenda Item 6: ATM Coordination (Meetings, Route Development, Contingency Planning)

**PROPOSAL TO STRENGTHEN INTERNATIONAL COORDINATION
FOR SAFETY OF CIVIL AIRCRAFT AND SPACE LAUNCH VEHICLES**

(Presented by the Republic of Korea)

SUMMARY

To secure safety of civil aircraft and space launch vehicles when space vehicle launching/re-entry activities take place, the Republic of Korea proposes to strengthen the international coordination procedure, and also suggests States/Administrations to take appropriate measures in accordance with ICAO Asia/Pacific Seamless ANS Plan and related guidance materials.

1. INTRODUCTION

1.1 Space programs including ballistic launch and space re-entry activities have increased around the world with States and commercial organizations launching space launch vehicles more frequently. Such developments have led to high possibilities of affecting the safety of civil air navigation, which makes it essential for the States concerned to engage in prior consultations and share relevant information to ensure safety of civil aircraft and space launch vehicles.

1.2 It is prescribed in ICAO Annex 11 2.19 that States should coordinate with the appropriate air traffic services authorities with regard to activities potentially hazardous to civil aircraft, whether over the territory of a State or over the high seas. The procedures for this coordination are set forth in Asia/Pacific Seamless ANS Plan (hereinafter “the seamless ANS Plan”)

1.3 In addition, the 29th and 30th APANPIRG meetings have discussed this issue and formulated guidance materials and a planning checklist for States conducting ballistic launches or space re-entry activities to minimize impact on affected airspace users and ANSPs.

1.4 In this regard, the Republic of Korea (ROK) made a proposal to improve the international coordination procedures for safety and efficiency of ballistic launch vehicles under Agenda Item 4 (Air Navigation) during the 57th APAC DGCA. At this meeting, the ROK shares its experience of conducting a space vehicle launching through international coordination in compliance with ICAO procedures and suggests improvements to the international communication and cooperation processes based on the problems it faced during the launch experience.

2. DISCUSSION

Areas for improvement

2.1 In accordance with the seamless ANS Plan and the planning checklist, the ROK launched the first “Korean space launch vehicle” in 2021 and the second in 2022, receiving support from ICAO APAC RO in identifying the persons in charge of the affected States for international coordination.

2.2 However, in the coordination process, the ROK faced difficulty in providing relevant information in a timely manner and could not conduct a conference call for pre-tactical launch coordination recommended in the planning checklist, because of the absence of a unitary point of contact or person in charge for information sharing and impact analysis on space vehicle launching/re-entry activities, with no single area designated for this matter among different areas of ATM including ADM, ATFM, ATC, AIS and etc.

2.3 The ROK plans to conduct four additional space vehicle launches until 2027 and other States are also expected to actively engage in space programs going forward, which calls for a more systematic and efficient coordination procedure.

Proposals

2.4 The ROK proposes that: ICAO recommend States in the APAC region to designate a point of contact (POC) in ADM (or another ATM area as deemed appropriate) as the person and area in charge of international coordination for space vehicle launching/re-entry activities, and publish and manage the list of the POCs of States on the ICAO website;

2.5 each State provide updates on POC information to ICAO APAC RO;

2.6 a Launch State share relevant information and communicate with the Affected States/FIRs via conference calls in compliance with ICAO Annex 11 and the seamless ANS Plan; and

2.7 an Affected State/FIR share relevant information and actively cooperate with the Launch State, and if necessary, take follow-up measures such as NOTAM issuance and detour route designation.

Expected outcomes

2.8 ICAO and States will have a robust regional coordination system through efficient management of State POCs on ICAO website.

2.9 Launching States will be able to identify and locate POCs of the Affected States/FIRs through the ICAO website and promptly share information. Also, communication between the Launching and Affected States/FIRs through conference calls, etc. will ensure both sides to have common situational awareness which will result in ensuring the safety of civil aircraft and space launch vehicles.

2.10 Affected States/FIRs participating in conference calls will be informed of the details of space vehicle launching/re-entry activities of the Launching State, including specific regions/areas affected by the activities, the degree of the impact, etc., and ensure safety of their flights. In case of contingencies, Affected States/FIRs can directly contact the POC of the Launching State.

3. ACTION BY THE MEETING

3.1 The meeting is invited to take note of the following proposals of the ROK:

- a) ICAO to recommend States to designate a POC in ADM (or another ATM POC as deemed appropriate) to be charge of space vehicle launch/re-entry activity coordination, and publish and manage the list of the POCs of States on the ICAO APAC website;
- b) each State to provide updates on POC information to ICAO APAC RO; and
- c) Launching States to share information and engage in prior coordination via conference call, etc. with Affected States/FIRs in accordance with ICAO seamless ANS Plan and relevant guidance materials, and Affected States/FIRs to provide active cooperation;

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