INTERNATIONAL CIVIL AVIATION ORGANIZATION

TWENTY FIFTH MEETING OF THE ASIA/PACIFIC AIR NAVIGATION PLANNING AND IMPLEMENTATION REGIONAL GROUP (APANPIRG/25)

Kuala Lumpur, Malaysia, 8 – 11 September 2014

Agenda Item 3: Performance Framework for Regional Air Navigation Planning and Implementation

3.5: MET

PLANNING FOR VOLCANIC ASH EXERCISE IN APAC REGION

(Presented by Japan)

SUMMARY

This paper discuss the need for the region to work together to conduct the Air Traffic Management Volcanic Ash exercise in APAC Region led by ICAO.

Strategic Objectives:

A: ***Safety*** *– Enhance global civil aviation safety*

B: ***Air Navigation Capacity and Efficiency****—Increase the capacity and improve the efficiency of the global aviation system*

1 INTRODUCTION

1.1 Volcanic ash spewed by volcanic eruption would have huge impact on aircraft operations. Unless aircraft detour adequately, the encounter with volcanic ash would sometimes cause in-flight engine shut down, which would be a significant problem for the safety.

1.2 It is necessary to establish a regional scheme of information-sharing and countermeasures for volcanic ash and its impact on air traffic among all stakeholders such as Meteorological agency, Air Navigation Service Providers, AIS, aircraft operators and aerodrome operators. The regional scheme is essential to maintain safe and efficient air traffic flow.

2. DISCUSSION

2.1 ICAO established the International Volcanic Ash Task Force (IVATF) in May 2010 and the Task Force developed a Volcanic Ash Contingency Plan (VACP) Template to facilitate implementation of VACPs in each ICAO Regions in a harmonized manner. Based on the volcanic eruption event which impacted aircraft operation in Europe, Volcanic Ash Exercise (VOLCEX) coordinated by ICAO EUR/NAT Regional Office has been conducted twice a year so far.

2.2 Since 2013, ICAO EUR/NAT Regional Office has conducted the Volcanic Ash Exercise in Kamchatka (VOLKAM) for the (far) eastern part of the EUR Region. These two exercises in 2013 and 2014 under the auspices of ICAO were attended by ANSPs, Meteorological agencies aircraft operators, from three States: Russian Federation, the United States and Japan.

2.3 VOLKAM has demonstrated effective information-sharing regarding volcanic eruption and volcanic ash via teleconferences and dedicated website. For example, countermeasures taken by Air Traffic Management, such as alternative route change procedures for in-flight and pre-flight re-routes in order to avoid volcanic ash coordinated between ANSPs and aircraft operators were shared among the stakeholders through these communication means. The participants of VOLKAM have acquired many lessons learned, and have also been engaging in many challenges that were brought up from those lessons learned. Listed below were achieved important outcomes of operational improvement.

a. Tokyo VAAC usually provided VA information every 6 hours and they had decided to provide VA information every 3 hour on the basis of the requirement of aircraft operators in case of significant volcanic eruption. In fact, Tokyo VAAC had provided VA information every 3 hours when Mt. Shiveluch had erupted on 27th May, 2014. It was very helpful and effective improvement for the route planning of aircraft operators.

b. The teleconference was held at appropriate intervals so that the stakeholders were able to gain the latest VA information, alternative routes and ATC contingency procedures. Thus, all stakeholders were able to set their operational plans with strategic perspective.

c. Special ATC Coordination procedures had been established between Petropavlovsk-Kamchatsky ACC and Japan ATMC for the first time during the exercise, since there were no ATC coordination procedures and dedicated line among two facilities so far. It was a landmark operation for Air traffic services among both States.

d. At the VOLKAM steering group meeting in August 2014, Tokyo VAAC informed that it had just started a trial for providing VA dispersion forecast until 24 hours later from 1st JUL, 2014, in addition to the official VAA/VAG up to 18 hours, in response to the Conclusion 18 at the IAVWOPSG/8 meeting which requests requirement from ANSPs and aircraft operators handling a lot of long-distance flights.

2.4 There are many active volcanoes in the APAC Region. Actually, some volcanoes have erupted sometimes significantly in recent years. The implementation of effective contingency procedures for significant volcanic eruption will also help improve the regional capability for other contingency procedures other than volcanic eruption and the ash.

2.5 At ATM/SG/2 and MET/SG/18, Japan suggested the implementation of regional volcanic ash exercise in APAC Region, which was supported by many States. It was agreed that both MET and ATM will make efforts to establish volcanic ash exercise in APAC Region as Draft Conclusion MET/SG/18/8. It is important that both MET and ATM technical experts would build exercise plan collaboratively and cooperatively. Japan has many experience through the past volcanic ash exercises, and also prepared well to contribute to the exercise led by ICAO APAC Regional Office.

3. ACTION BY THE MEETING

3.1 The Meeting is invited to:

a) note the information contained in this paper;

b) encourage discussion of Volcanic Ash Exercises led by ICAO APAC Office; and

c) consider a Conclusion as follows:

That, ICAO is urged to plan Volcanic Ash Exercises in APAC Region with consultation of both MET and ATM technical expert related and to encourage the states of APAC Region to improve the capability for crisis management skills through volcanic ash exercises with the cooperation of neighboring FIRs.

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