



International Civil Aviation Organization

**FIRST MEETING OF THE ASIA/PACIFIC METEOROLOGICAL
ADVISORIES AND WARNINGS IMPLEMENTATION TASK FORCE
(METWARN/1 TF/1)**

Bangkok, Thailand, 23 – 25 March 2011

Agenda Item 2: Review educational material

- a) **Monitor the developments of IAVWOPSG and METWSG with reference to guidance on radioactive cloud and Tsunami**

GLOBAL PROGRESS ON GUIDANCE ON TSUNAMI

(Prepared by the Secretariat)

SUMMARY

This paper presents an update on the global progress to provide guidance on aerodrome warnings for Tsunami.

This paper relates to:

Strategic Objectives:

A. Safety

Global Plan Initiatives:

GPI-18 Aeronautical information

GPI-19 Meteorological Systems

1. INTRODUCTION

1.1 The Twentieth Meeting of the Asia/Pacific Air Navigation Planning and Implementation Regional Group (APANPIRG/20) Conclusion 20/69 calls for further guidance on aerodrome warnings for Tsunami. The Meteorological Warnings Study Group (METWSG) determined that an ad-hoc group consider the development of guidance material on the provision of aerodrome warnings for Tsunami based on existing capabilities of States (METWSG/3 Action Agreed 3/16). This action agreed as well as progress made is provided in the **Attachment**.

2. DISCUSSION

2.1 The ad-hoc group fulfilling METWSG/3 Action Agreed 3/16 is drafting guidance material that will be considered at the METWSG/4 meeting in May 2012. Three States (Australia, Japan and the United States) on the METWSG ad-hoc group are expected in this meeting and may further advise the group of developments on this guidance.

3. ACTION BY THE MEETING

3.1 The meeting is invited to

- a) note the information in this paper, and
- b) obtain updates by States who are members of the METWSG ad-hoc group drafting guidance material on the provision of aerodrome warnings for Tsunami.

were expected to cause problems with the inclusion of the mandatory reporting of moderate turbulence, as well as severe turbulence, in special air reports as a part of Amendment 75 to Annex 3. The group agreed that, in the short term, these non-compliant reports should be treated as “severe” by meteorologists responsible for SIGMET/AIRMET, but that the long-term solution would be to provide appropriate guidance to pilots to ensure that the air reporting provisions were implemented correctly. To this end, the group noted that work was ongoing by the International Federation of Air Line Pilots’ Associations (IFALPA) to address this problem for turbulence, and agreed the following actions:

Action Agreed 3/15 — Guidance on the manual observation and reporting of turbulence

- a) that **Carole** provides a report on progress made to assist pilots in the reporting of turbulence, with particular regard to the severity, by 15 January 2012 for consideration by the METWSG/4 Meeting, and
- b) the **Secretary** provides a report on any guidance to pilots currently available from ICAO on the reporting of turbulence and icing, for consideration at the METWSG/4 Meeting.

4.3 Forecast algorithms for turbulence for use in SIGMET (deliverable 7)

4.3.1 This item was discussed under agenda item 5.1, paragraph 3.1.29 refers.

4.4 Tsunami warnings (Deliverable 8)

4.4.1 The group noted that the ASIA/PAC Air Navigation Planning and Implementation Regional Group (APANPIRG), at its twentieth Meeting held in Bangkok, Thailand, 7 to 11 September 2009 had formulated its Conclusion 20/69 b). This conclusion had requested that ICAO consider developing Annex 3 provisions and guidance material, as necessary, related to the issuance of aerodrome warnings on tsunami, as the implementation of the existing provisions had been considered to be problematic.

4.4.2 The group agreed that, the intent of the inclusion of tsunami in the list of phenomena in aerodrome warnings was simply to relay any notification of an impending impact from a State emergency response structure to those concerned at an aerodrome, so that emergency measures could take place. It was noted that tsunami was not a meteorological phenomena, but also recognized that the aerodrome warning was a convenient pre-existing means to get such information to the authorities concerned. With this in mind, the group agreed that an ad hoc group could consider the form of any appropriate guidance that could be provided to assist States in this respect. Furthermore, the group agreed that in order to prepare appropriate guidance, a better understanding of the existing capabilities of the States involved would be necessary. The group, therefore, agreed the following action:

Action Agreed 3/16 — Guidance on the issuance of tsunami warnings

That, an ad hoc group (C) consisting of **Bill; Herbert, Juan, Jun, Ndiw a, Steve (co-rapporteur) and Shona (co-rapporteur)** is develop guidance on the provision of aerodrome warnings for tsunami, and in particular:

- a) examine existing capabilities of relevant countries to issue public tsunami warnings and the processes for States to forward them to meteorological service providers;
- b) determine the capabilities of meteorological service providers to extract tsunami information specifically relating to aerodromes (including land inundation) from public tsunami warnings;
- c) recommend how information on tsunami warnings can be included in aerodrome warning;
- d) establish guidance material to support meteorological service providers on the issuance of aerodrome warning for tsunami; and
- e) produce a report by 15 January 2012 for consideration by the METWSG/4 Meeting.

5. AGENDA ITEM 7: FUTURE WORK PROGRAMME – DELIVERABLES

5.1 The group was informed that the expected deliverables of the group would be updated accordingly and placed on the group's website.

6. ANY OTHER BUSINESS

6.1 A report was provided to the group that ice particles had caused a number of engine flame-outs and that it could be expected in the future that concerns would be expressed about prolonged flight through dense cirrus.

6.2 The meeting noted that, at a recent meeting of the UK House of Commons Select Committee on Science and Technology, a review had been conducted on the use of scientific advice and evidence in emergencies following the Eyjafjallajökull eruption. The committee had received evidence

No.	Title/Action	Follow-up action (target/ completion dates in brackets)
3/16	<p>Guidance on the issuance of tsunami warnings</p> <p>That, an ad hoc group (C) consisting of Bill; Herbert, Juan, Jun, Ndiwa, Steve (co-rapporteur) and Shona (co-rapporteur) is develop guidance on the provision of aerodrome warnings for tsunami, and in particular:</p> <ul style="list-style-type: none"> a) examine existing capabilities of relevant countries to issue public tsunami warnings and the processes for States to forward them to meteorological service providers; b) determine the capabilities of meteorological service providers to extract tsunami information specifically relating to aerodromes (including land inundation) from public tsunami warnings; c) recommend how information on tsunami warnings can be included in aerodrome warning; d) establish guidance material to support meteorological service providers on the issuance of aerodrome warning for tsunami; and e) produce a report by 15 January 2012 for consideration by the METWSG/4 Meeting. 	<p>Shona and Steve</p> <p>Report</p> <p>(January 2012)</p>
3/17	<p>Ice particles</p> <p>That, members provide details of any research into the effects of ice particles on engines by 15 January 2012, for consideration by the METWSG/4 Meeting.</p>	<p>Members</p> <p>Reports</p> <p>(January 2012)</p>
3/18	<p>Future information-based dissemination and display for hazardous meteorological conditions</p> <p>That, members provide reports on progress made in the dissemination and display of information concerning hazardous meteorological conditions, including the use of object-based techniques.</p>	<p>Members</p> <p>Reports</p> <p>(January 2012)</p>