

*International Civil Aviation Organization*



**THIRTEENTH MEETING OF THE ASIA/PACIFIC REGIONAL OPMET  
BULLETIN EXCHANGE WORKING GROUP (ROBEX WG/13) and  
FIFTH MEETING OF METEOROLOGICAL HAZARDS TASK FORCE  
(MET/H TF/5)**

Seoul, Republic of Korea, 18 March 2015

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**Agenda Item (conjoint session) 2: SIGMET and advisory information**

**ADVISORY NUMBER OF TCA**

(Presented by Japan)

**SUMMARY**

TCAC Tokyo is considering providing tropical cyclone advisories every 3 hours. This paper presents the background of the enhancement and problems on TCA advisory number which may be caused.

**1. INTRODUCTION**

1.1 According to ICAO Annex3, tropical cyclone advisories (herein after TCA) shall be updated at least every 6 hours. The Japan Meteorological Agency (JMA) , as TCAC Tokyo, basically updates TCAs every 6 hours following this standard.

1.2 JMA also issues TC SIGMET. When tropical cyclones exist near Japan, JMA issues TC SIGMETs every 3 hours because they may affect the air traffic at congested airspace over Japan. Also, as their movement is rapid near Japan (in mid-latitude), the information on tropical cyclone analysis is expected to be updated frequently.

1.3 JMA performs analysis and forecast every 3 hours for tropical cyclones and tropical depressions which are expected to upgrade to tropical storm\* within 24 hours. Therefore, JMA is considering changing the interval of issuance of TCA from 6 hours to 3 hours to support the frequent provision of TC SIGMET.

**2. DISCUSSION**

2.1 TCA has its advisory number for each cyclone. According to ANNEX3 Table A2-2, the advisory number shall be set to 2 digits. For example, if the number is less than 10, it is described as "01", "02", etc. If TCA is issued every 3 hours, that is, 8 times a day, the advisory number will exceed 100 for long lived (more than 12.5 days) tropical cyclones. We cannot use the number more than 100 in accordance with ANNEX3.

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\* Tropical Storm: A tropical cyclone with its maximum surface wind speed (10-minute average) near the center is in the range of 34 knots to 47 knots.

2.2 As for tropical cyclones in the north west Pacific for the past 65 years, about 40 tropical cyclones' life duration were longer than 12.5 days. It means advisory number for more than one tropical cyclone per 2 years will exceed 100 if TCA is updated every 3 hours.

2.3 Therefore, JMA considers addressing this issue at appropriate meeting, such as MET Panel, etc. and discuss the solution for this problem. One of the possible solutions is to change the rule of numbering in Annex3 Table A2-2. For example, if Table A2-2 is changed as follows, the number can be selected from 1 to 999.

Element		Detailed content	Template(s)	Examples
5	Advisory number	Advisory number (starting with "1" for each cyclone)	NR: [nn]n	NR: 1

2.4 The reduction of issuance interval is beneficial especially when tropical cyclones move quickly or develop rapidly. Although 3-hourly issuance for tropical cyclones which move slowly may not add significant value in comparison to 6-hourly updates, to determine the threshold of when the issuance interval is changed is difficult matter. Also, it is not favorable for users to change the interval many times.

2.5 Furthermore, even TCA is updated every 6 hours, advisory number will exceed 100 if a tropical cyclone exists more than 25 days. Such long-lived tropical cyclone has not yet occurred in north west Pacific since records began in 1951. However, in other marine area, tropical cyclones which lived more than 25 days had been observed.

### 3. ACTION BY THE MEETING

3.1 The meeting is invited to note the information contained in this paper.

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