



International Civil Aviation Organization

**SEVENTEENTH MEETING OF THE METEOROLOGY
SUB-GROUP (MET SG/17) OF APANPIRG**

Bangkok, Thailand, 13 – 16 May 2013

**Agenda Item 6: Regional Implementation of International Tropical Cyclone Watch
(ITCW)**

PROGRESS ON GRAPHICAL TROPICAL CYCLONE ADOVISORY AT TCAC TOKYO

(Presented by Japan)

SUMMARY

TCAC Tokyo plans to provide tropical cyclone advisories in a graphical format according to MODEL TCG in Annex 3 within a few years. This paper presents progress on the graphical information at TCAC Tokyo and an example of the product.

1. Introduction

1.1 TCAC Tokyo has provided the graphical information regarding a tropical cyclone, such as the analysis and forecast for its center and maximum wind speed, on the Japan Meteorological Agency website whose URL <http://www.jma.go.jp/en/typh/> has been announced in Manual of Aeronautical Meteorological Practice (Doc 8896).

1.2 Amendment 75 to Annex 3 became applicable in 2010, in which provision of graphical advisories on a tropical cyclone (hereinafter referred to as TCG) from TCACs was recommended. In Annex3 Appendix1, MODEL TCG indicates the extent of gale force wind and FRQ CB in TCG along with the information included in the tropical cyclone advisories in text format.

1.3 In addition to the graphical tropical cyclone information put on the JMA website, TCAC Tokyo is moving ahead to provide the information on above new element, the extent of FRQ CB, and plans to provide TCG within a few years as reported in IP/46 of CNS/MET SG/16. In this paper, the progress at TCAC Tokyo and issues regarding the extent of FRQ CB in TCG are presented.

2. TCG under development by TCAC Tokyo

2.1 An example of TCG under development by TCAC Tokyo is shown in Figure 1. The extent of FRQ CB is automatically depicted using the technique called “Cloud Grid Information (CGI)” utilizing JMA satellite images from MTSAT, which enables prompt provision of the information on FRQ CB.

2.2 CGI includes the information on amount and type of clouds in a grid. Figure 2 shows satellite imagery (IR) of MTSAT and CGI (CB amount) used for making the FRQ CB in Figure 1.

2.3 In TCG, CB grids which meet the following conditions are determined as FRQ CB associating a tropical cyclone:

- a) CBs existing within the extent of the gale force wind
- b) CBs existing beyond the extent of gale force wind, but connect to CB grids within the extent of gale force wind

2.4 TCAC Tokyo is further improving the CB detection technique for TCG. After system upgrade necessary for making TCG and quality evaluation, TCAC Tokyo will start to provide TCG.

2.5 As the extent of FRQ CB in SIGMET shall be expressed as a radius from the center of a tropical cyclone, each MWO would be urged to carefully convert the extent of FRQ CB in TCG to that in SIGMET especially when CB areas exist far from the tropical cyclone center.

3. Action by the Meeting

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

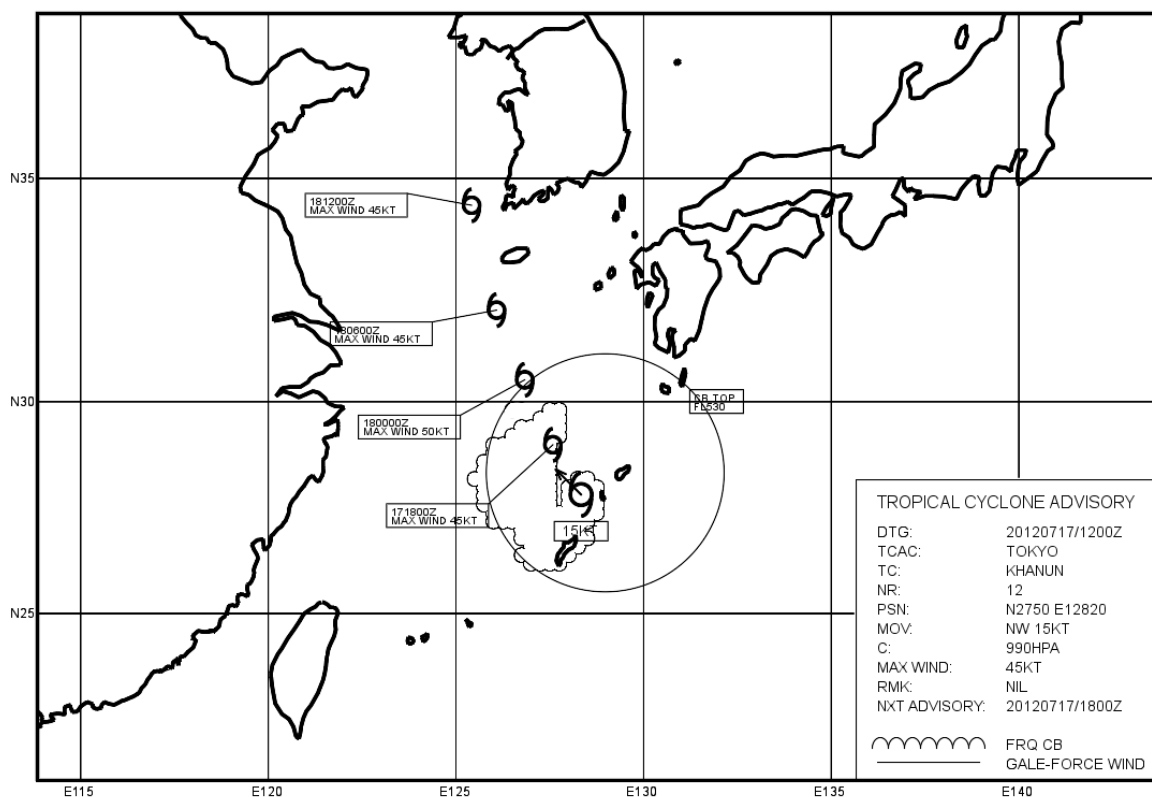


Figure1. Example of TCG

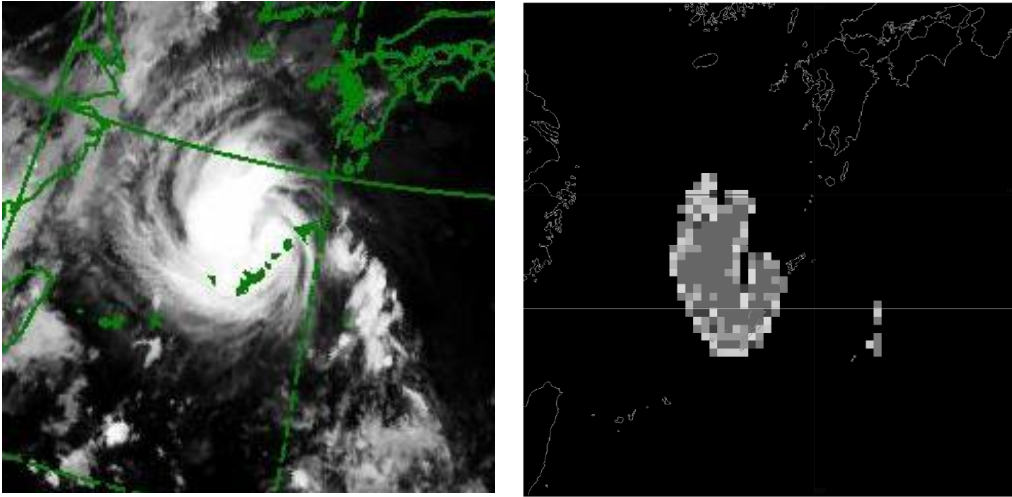


Figure 2. Satellite imagery and CGI used for making FRQ CB in Figure 1
left: satellite imagery(IR), right: SCGID(CB)
