



International Civil Aviation Organization

**Seventh Meeting of CNS/MET Sub-Group of APANPIRG and
Tenth Meeting of CNS/ATM IC Sub-Group of APANPIRG**

Bangkok, Thailand, 15 – 21 July 2003

**Agenda Item 12: MET support for operations at aerodromes
and terminal areas**

DEVELOPMENT OF NEW MET PRODUCTS IN JAPAN

(Presented by Japan)

SUMMARY

This paper provides information on recent progress of planning of new products for supporting operations at aerodromes and terminal areas.

1. BACKGROUND

1.1 In order to implement comprehensive ATM services in line with ICAO's CNS/ATM concept, Japan Civil Aviation Bureau (JCAB) plans to establish a new ATM Center in 2005, which is the centralized operational center for ATM services in Japan. The Center will manage domestic and international traffic flows (ATFM), realize enhanced oceanic air traffic control (EOATC) and provide airspace management (ASM).

1.2 In order to support ATM operations of JCAB, the Japan Meteorological Agency (JMA) is planning to set up a MET office in the ATM Center. The planned MET office is to provide real time face-to-face briefings and specialized products for ATM operations in Japan

1.3 Close coordination between JMA and JCAB has been conducted to establish suitable MET systems to support ATM operations in Japan. JMA is now making every effort to develop specialized products to meet the ATM requirements

**2. IMPORTANCE OF MET INFORMATION AT AERODROMES AND
TERMINAL AREAS FOR ATM OPERATIONS**

2.1 Through the discussions between JCAB and JMA on MET support for ATM, the importance of MET information at aerodromes and terminal areas was highlighted.

2.2 Since major airports in Japan have almost saturating traffics, adverse weather conditions in an airport often cause nation-wide irregularities of air traffic flows. Present forecast products, such as TAF, are not always sufficient for supporting ATM operations to reduce such impacts.

3. DEVELOPMENT OF NEW PRODUCTS

3.1 One of the planned new products is a sequential aerodrome forecast (Fig.1). It provides a time series of aviation impact variables at an airport in graphical format. It is planned to be created by a forecaster, who modifies, as necessary, first guess values of forecast guidance derived from a meso-scale numerical prediction model.

3.2 Another product is thunderstorm nowcasting in a terminal area (Fig.2). This information is based on extrapolation of existing thunderstorm cells detected by a Radar and a lightning detection network. It is already available at the airports on an experimental basis.

4. ACTION BY THE MEETING

The Meeting is invited to note the information in this paper.

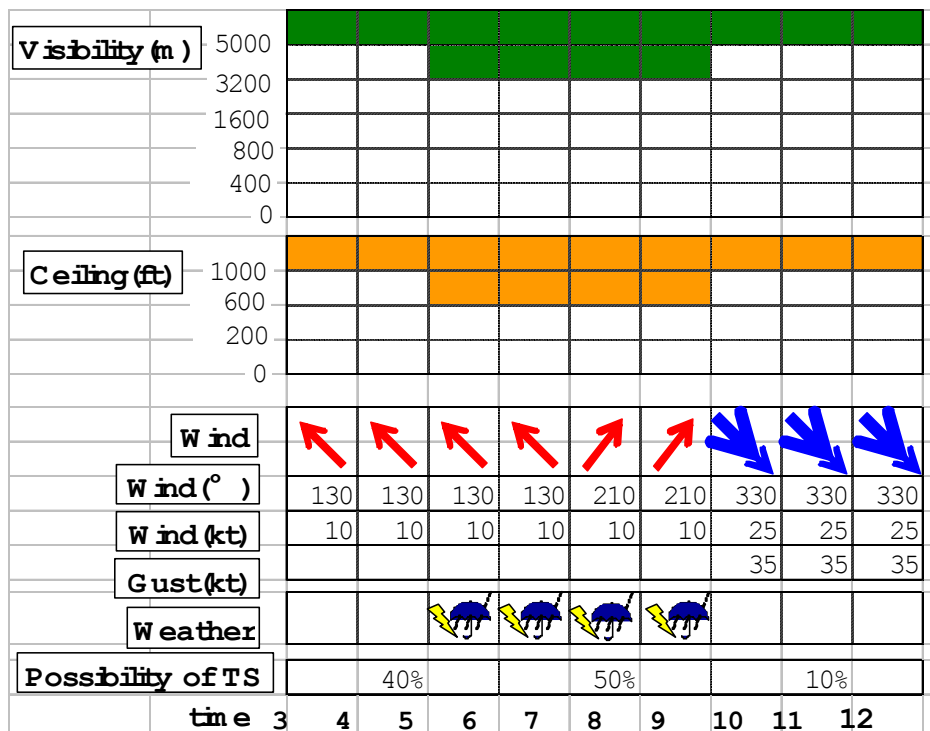


Fig. 1 A sample of sequential aerodrome forecasts for major international airports.

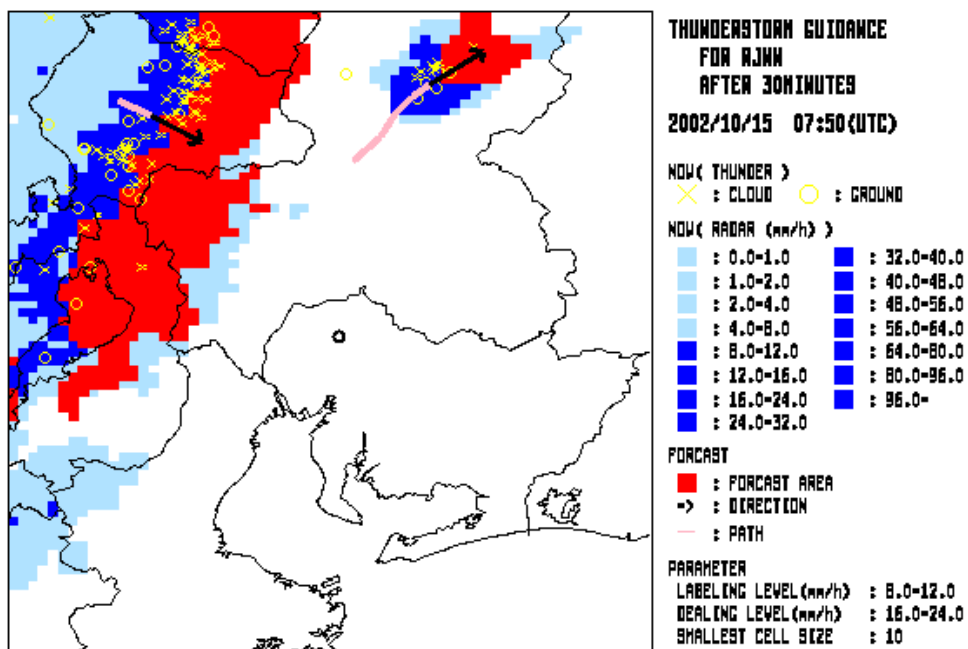


Fig. 2 A sample image of thunderstorm nowcasting in a terminal area.