RA II Pilot Project to Develop Support for Developing Countries in Aeronautical Meteorology Programme

C.M. Shun & M.Y. Jiao*

Commission for Aeronautical Meteorology (Thirteenth Session),

Geneva, Switzerland, 23 November - 1 December 2006

*China Meteorological Administration, China

World Meteorological Organization

CAeM-XIII/Rep. 8(4)

COMMISSION FOR AERONAUTICAL METEOROLOGY

Submitted by:	China
Date:	2.XI.2006
Original Language:	English
Agenda Item:	8

THIRTEENTH SESSION
Geneva, Switzerland
23 November to 1 December 2006

CROSS-CUTTING ISSUES

RA II PILOT PROJECT TO DEVELOP SUPPORT FOR DEVELOPING COUNTRIES IN AERONAUTICAL METEOROLOGY PROGRAMME

PROGRESS/ACTIVITY REPORT

SUMMARY

Reference: CAeM-XIII/Doc. 8(4)

CONTENT OF DOCUMENT:

Appendix:

- Progress/Activity Report

PROGRESS/ACTIVITY REPORT

1.   INTRODUCTION

1.1   In the thirteenth session of RA II held in Hong Kong, China during 7-15 December 2004, a "Pilot Project to Develop Support for Developing Countries in Aeronautical Meteorology Programme" was established. The Pilot Project aims at making available numerical weather guidance products over the Internet to NMHSs of developing countries in RA II for providing aviation weather service, including the preparation of TAF, SIGMET and flight documentation.

1.2   To coordinate the work, a Coordination Group comprising experts from ten Members (Cambodia; China (Coordinator); Hong Kong, China; Iran; Japan; Lao; Mongolia; Myanmar; Nepal; and Yemen) was formed. Observers from ICAO and the two World Area Forecast Centres (WAFCs) were also invited.

2.   PROGRESS

2.1   A list of the guidance products to be made available for the Pilot Project has been drawn up in consultation with members of the Coordination Group

2.2   A test version of the Website for the Pilot Project providing the guidance products was launched by China in August 2005 for further review and comment by the Coordination Group. The Website is accessible at: www.aamets.org (see Figure 1 for homepage) and the username/password for accessing the guidance products are available from the Coordinator. The Website includes the following guidance products:

(a)   Flight meteorological documentation – SIGWX forecasts (see example in Figure 2), upper-wind and temperature forecast (see example in Figure 3) and aeronautical meteorology reports;
(b)   Guidance products for SIGMET – including icing and clear-air turbulence forecasts (see example in Figure 4), convective parameters, and dust storm forecasts (see example in Figure 5);
(c)   Guidance products for TAF – T+48 hr city forecasts in time series (see example in Figure 6); and
(d)   Other products – including FY2C satellite imageries (see example in Figure 7), weather radar imageries from China and other Members in RA II, and synoptic analysis.

2.3   After the test Website for the Pilot Project was launched, another round of surveys to collect feedback from the Coordination Group was conducted in late 2005. Member's support was received for further development and quick implementation of the Website for use by aviation weather forecasters. Some suggestions were made on advancing the lead time and spatial resolution of the forecasts, and the importance of guidance products for SIGMET was also highlighted.

2.4   In response to the Member's support to implement the Website for use by aviation weather forecasters in RA II, China plans to organize, jointly with WMO, a training seminar for aviation weather forecasters in the Region on aeronautical meteorological service and the use of the guidance products on the Pilot Project Website. The training seminar is tentatively scheduled to last 2½ days and to be held in Beijing, China in March 2007. The topics to be covered by the seminar include developments and international standards of aeronautical meteorology, preparation of en-route weather forecasts, TAF and SIGMET, overview of the Pilot Project Website and the use and interpretation of the guidance products. Limited funding support will be made available by WMO and China Meteorological Administration to support participants from Members of developing countries in RA II.

Asian Aeronautical Meteorology Service

Pilot Project to Develop Support for Developing Countries in WMO
In Aeronautical Meteorology Programme

WMO
RAII

- Flight Meteorological Documentation
- Aeronautical Forecast Products
- Guidance Material for TAF
- Convective Parameters
- Synoptic Analysis
- Dust & Thunder Storm
- Composite Radar Image
- FY-2C Satellite Product

The web site is developed and maintained by the NMC and BMC. If you have any suggestions, please send us an e-mail.

INTRODUCTION

On the 13th session of WMO RA II held in Hong Kong 7~15 December 2004, the Association acknowledged the importance of weather information for the safe operation of aviation and that numerical weather guidance products would help the NMHSs of developing countries, and in particular LDCs, in building their capacity in the provision of aviation weather services. In this regard, the Pilot Project to Develop Support for Developing Countries in the Aeronautical Meteorology Programme was introduced in close coordination with WMO and ICAO.

To coordinate the implementation of the pilot project, the Pilot Project Coordination Group was composed of experts from China, Cambodia, Hong Kong(China), Iran, Japan, Lao PDR, Mongolia, Myanmar, Nepal and Yemen as Members. Also ICAO and the 2 WAFCs were invited to participate as observers.

The product items displayed in this website were amended and adjusted according to the feedbacks from Coordination Group members. Continual supports and suggestions are expected for further development and improvement.

Flight and Weather

Figure 1 – Homepage of the Pilot Project Website (www.aamets.org) developed and maintained by the China Meteorological Administration (CMA)
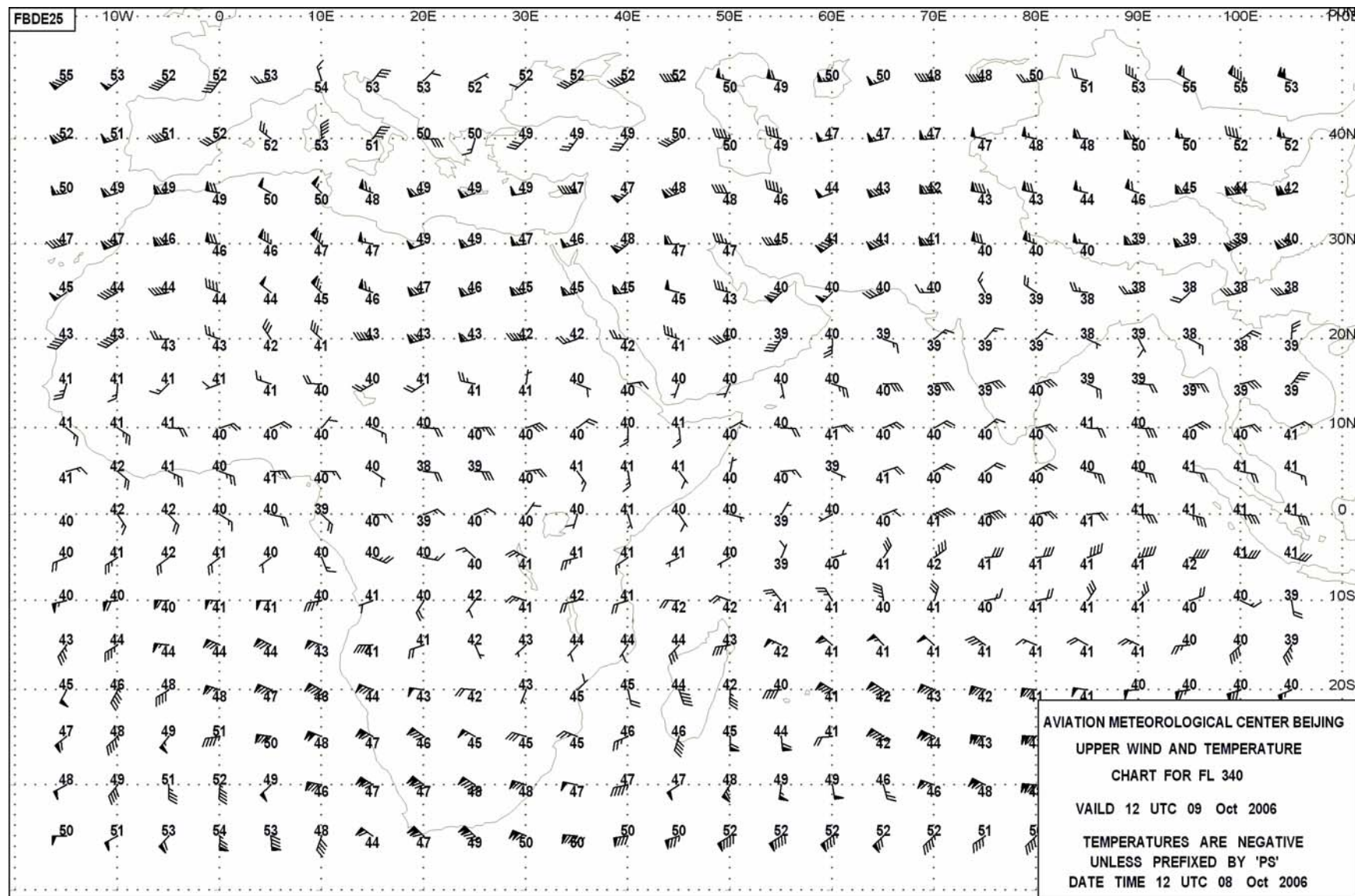
Figure 2 – High-level SIGWX forecast chart
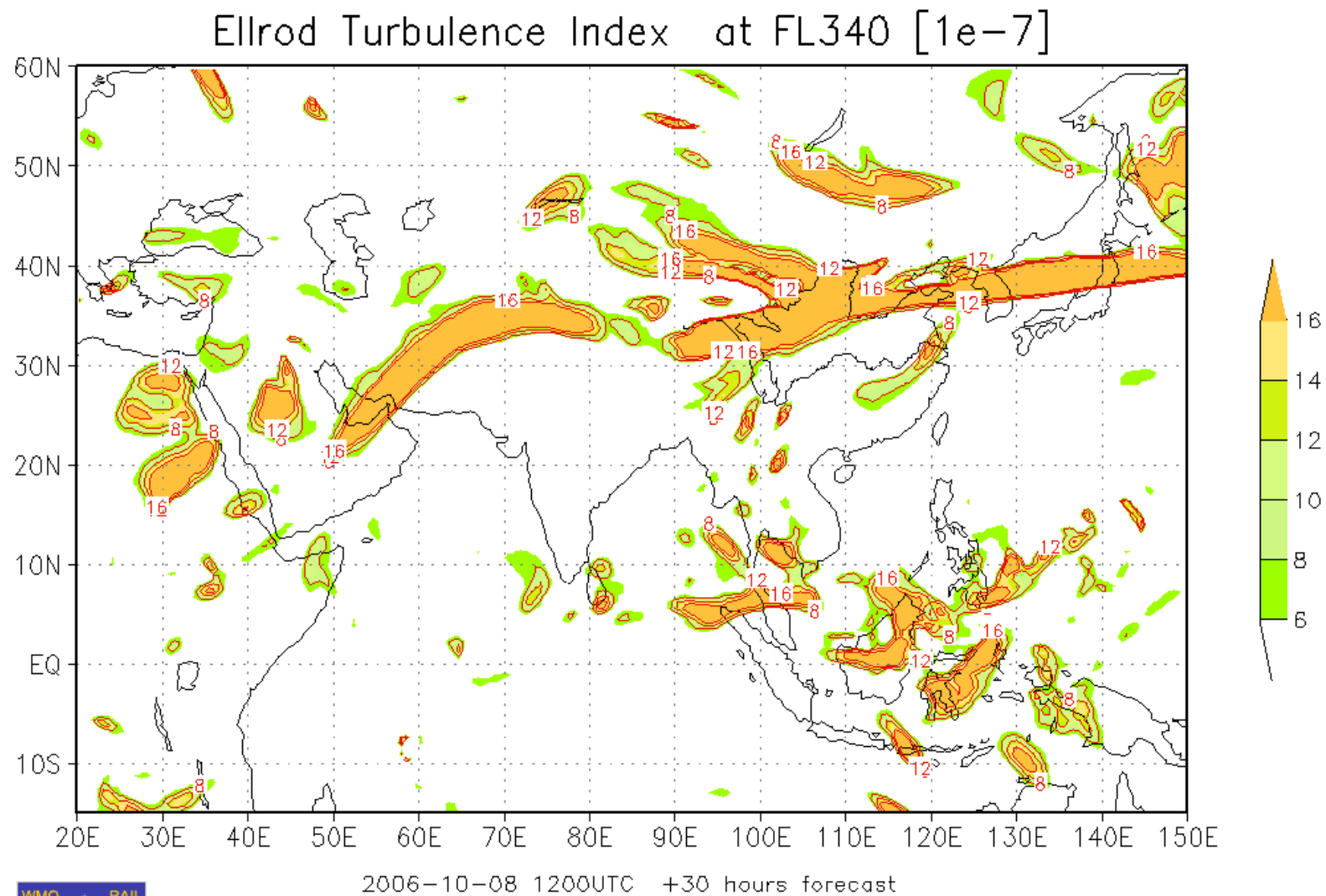
Figure 3 – Upper-wind and temperature forecast chart

Figure 4 – Clear-air turbulence forecast chart
Ave. Dust Concentration [μg/m^3]   Below 3000M level

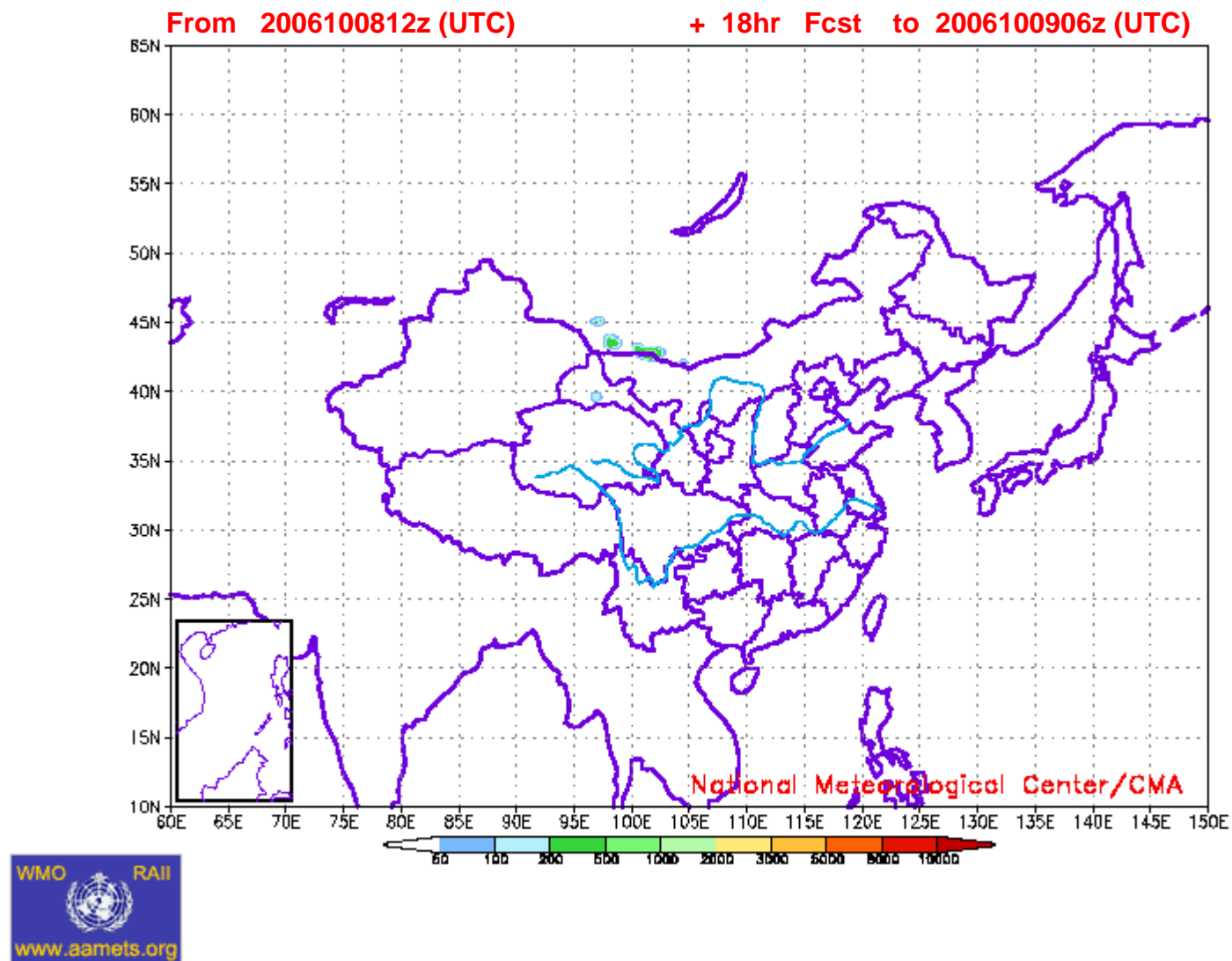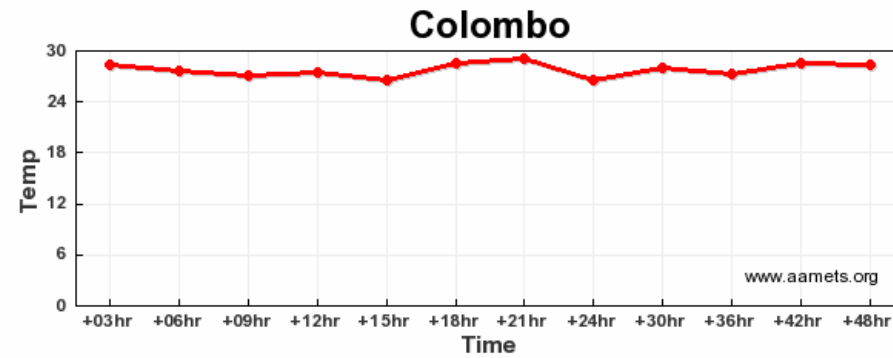**From   2006100812z (UTC)   + 18hr   Fcst   to 2006100906z (UTC)**

National Meteorological Center/CMA

2

Figure 5 – Dust storm forecast chart

Colombo Weather Forecast   **12UTC 20061009**

Colombo

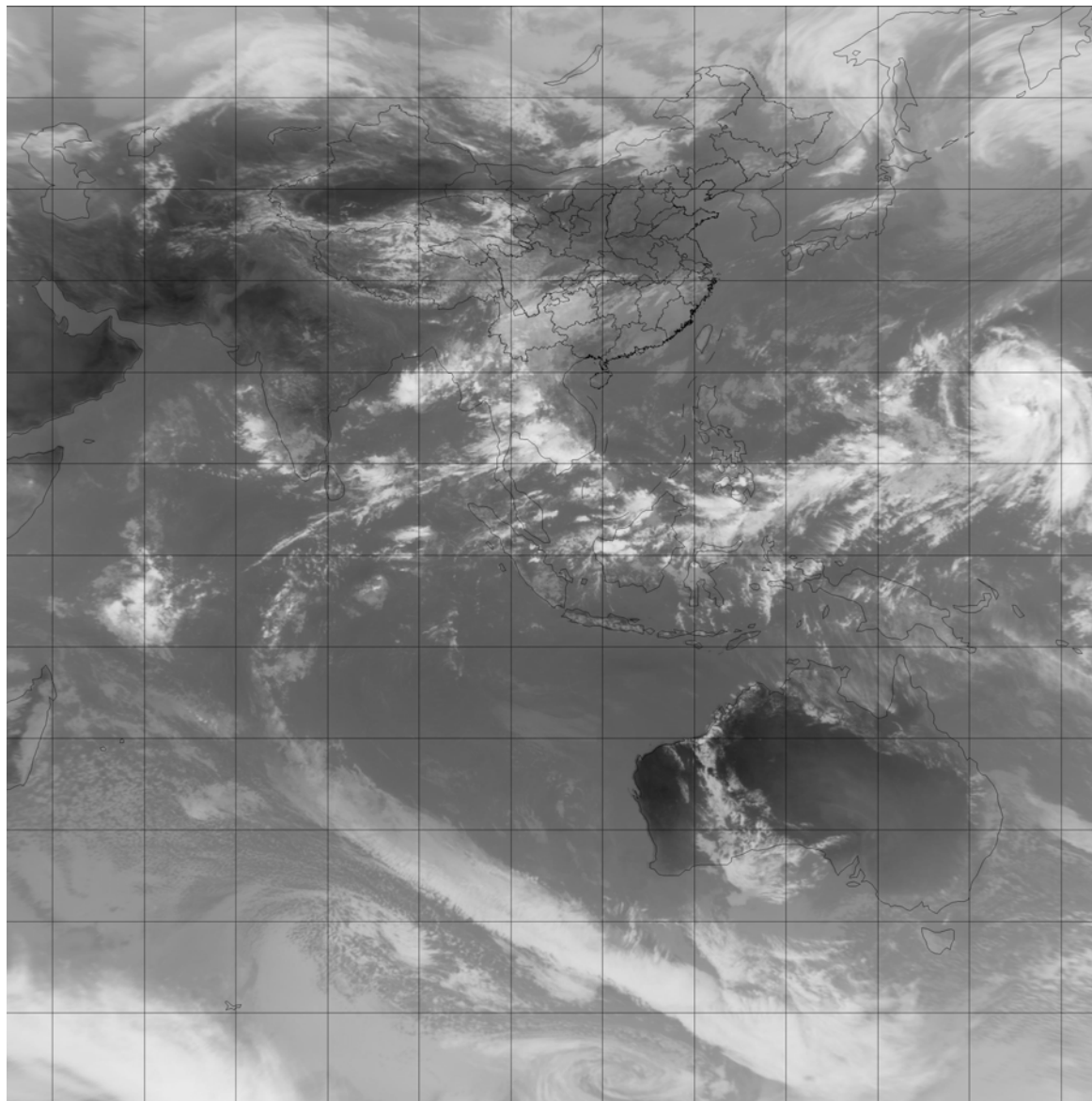| Time(Hr)	Temp(°C)	RH(%)	Wind Speed(m/s)	Wind Direction	Precipitation(mm)	Cloud Cover
+03hr	28.3	73.4	7.3	N	1.4	◗
+06hr	27.6	76.0	6.7	N	1.7	◗
+09hr	27.1	77.0	6.3	N	1.1	◗
+12hr	27.5	75.2	6.0	N	1.0	◗
+15hr	26.6	74.4	6.1	N	0.5	◗
+18hr	28.5	72.7	6.2	N	0.6	◗
+21hr	29.1	75.1	5.9	N	0.4	◗
+24hr	26.5	75.1	7.0	N	0.1	◗
+30hr	28.1	74.1	6.7	N	1.6	◗
+36hr	27.3	77.6	6.9	N	0.5	◖
+42hr	28.6	73.8	6.2	N	0.5	◗
+48hr	28.4	78.8	6.9	N	2.6	◗

Figure 6 – City weather forecast in time series

Figure 7 – FY2C infrared satellite imagery