

WORLD METEOROLOGICAL ORGANIZATION

RA II/ICM-GTS 2002/Doc. 2.3/3.4 (1)  
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REGIONAL ASSOCIATION II

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ITEM 2.3 & 3.4

IMPLEMENTATION - CO-ORDINATION  
MEETING ON THE GTS  
IN RA II (SOUTHERN PART)

NEW DELHI, 7 - 10 JANUARY 2002

ENGLISH only

**STATUS OF HF RADIO BROADCAST (JMH) AT RTH TOKYO**

*(Submitted by Hiroyuki Ichijo (Japan) )*

*Summary and purpose of document*

This document includes the report on the status of the HF radio broadcast named JMH at RTH Tokyo, and the summary of replies to a questionnaire about services for maritime meteorological information from ship users.

**ACTION PROPOSED**

The meeting is invited to provide information and advice on HF broadcasts for ship users and the possibility of the discontinuation.

### 1. An outline of JMH

JMH is the HF facsimile broadcast providing weather charts for mainly ship users on the Pacific Ocean and WMO Members in Region II. It has been operated by JMA since 1958. About 50 charts are broadcasted daily according to the precise schedule. Most of the charts are produced automatically by JMA's NWP system. JMA uses radio transmission facilities and broadcasting services provided by NTT-East (Nippon Telegraph and Telephone East Corporation). The radio transmission conditions are shown in Table1. Figure 1 shows the configuration of JMH.

Table 1 Radio transmission conditions of JMH

Call sign	Frequency	Power	Type of emission
JMH	3622.5 kHz	5 kW	F3C
JMH2	7305 kHz	5 kW	F3C
JMH3	9970 kHz	5 kW	F3C
JMH4	13597 kHz	5 kW	F3C
JMH5	18220 kHz	5 kW	F3C
JMH6	23522.9 kHz	5 kW	F3C

### 2. Current status of JMH

With deterioration in budgetary conditions, enormous rental cost for NTT-East radio facilities and broadcasting services is a burden on other telecom plans. Furthermore nowadays it is more difficult and more expensive to maintain the current superannuated JMH system.

Therefore JMA has been considering the possibility of discontinuation of JMH broadcast, and seeking the more cost-effective and modern alternative since 1997.

For users over the land, there are alternatives such as providing charts via Internet, satellite multicast, GTS and so on. However for ship users, any reasonable solution has not been found so far. That is a problem.

### 3. Questionnaire about services for maritime meteorological information

JMA surveyed ship user requirements through a questionnaire in 2000 in order to improve the maritime meteorological services. The questionnaire includes 18 questions categorised into five. 243 received replies are summarised as graphs in Figures 2 to 6. The results of questions about JMH are shown in Figure 5. In addition, Table 2 shows a summary of various comments about JMH and related issues.

According to the survey, most of ship users think that JMH broadcast is useful for marine navigation. On the other hand, there are requirements of other improved and modern means such as Internet access to web servers and e-mail services (refer to NOAA marine product dissemination information "<http://www.nws.noaa.gov/om/marine/home.htm>", especially NOAA FTPMAIL service "<http://weather.noaa.gov/pub/fax/ftpmail.txt>").

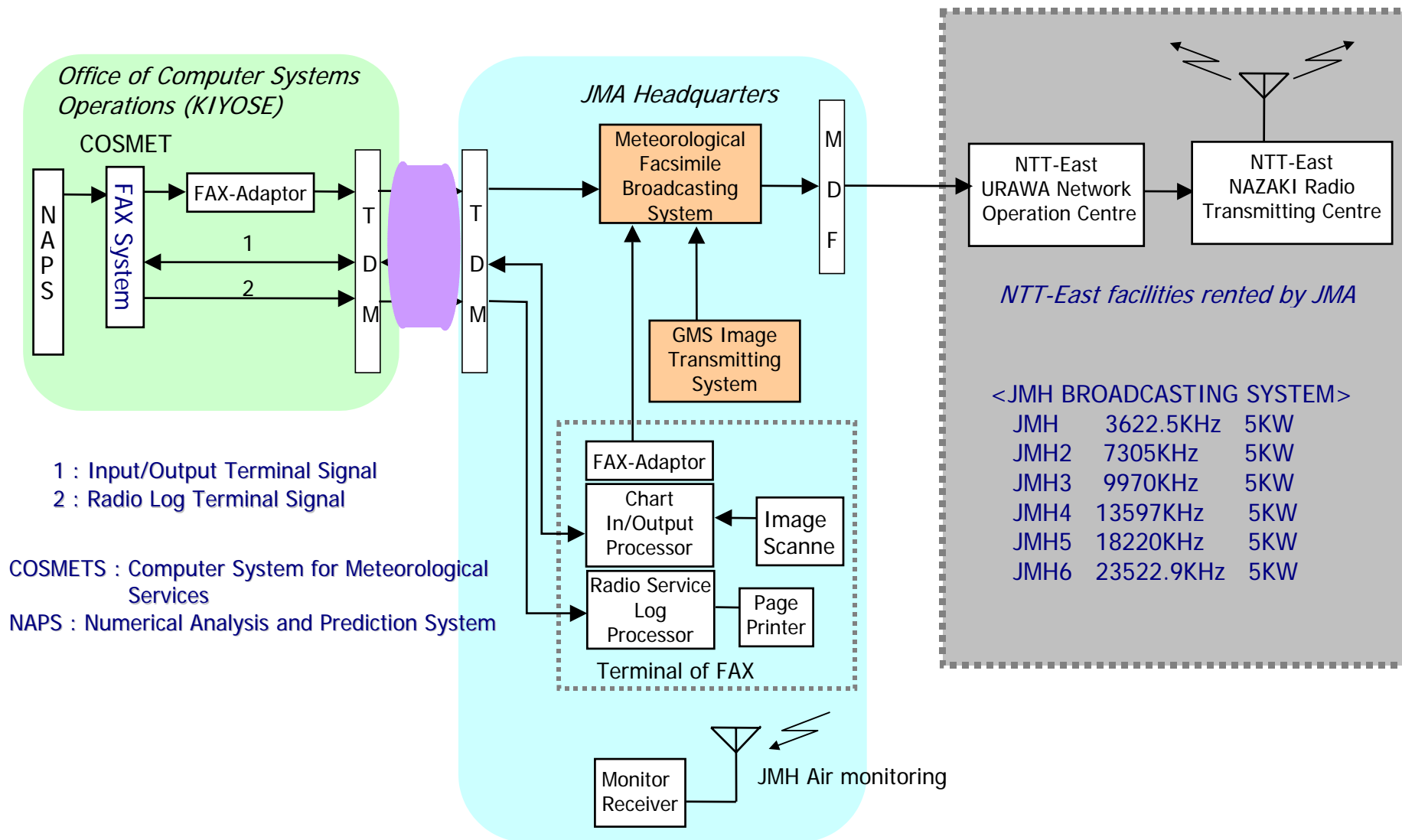


Figure 1 Configuration of JMH broadcast

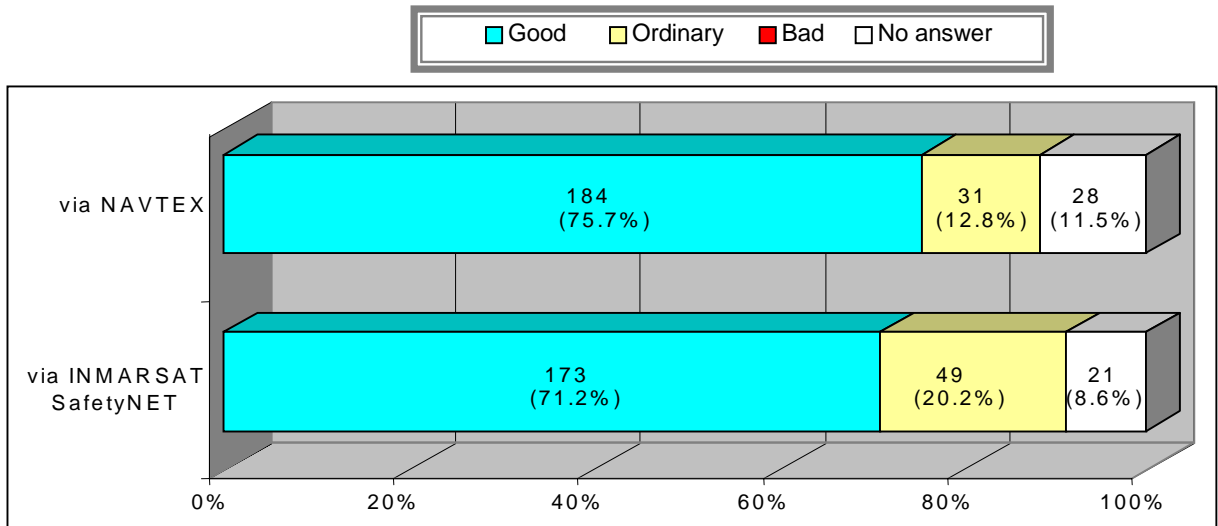


Figure 2 GMDSS receiving condition

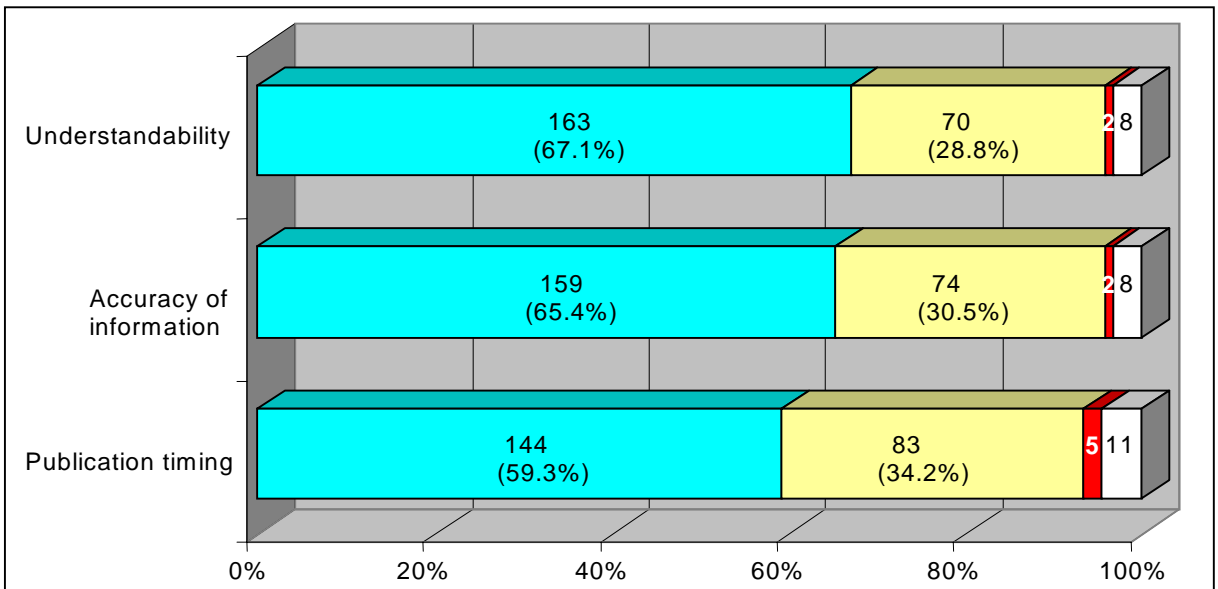


Figure 3 about warning information

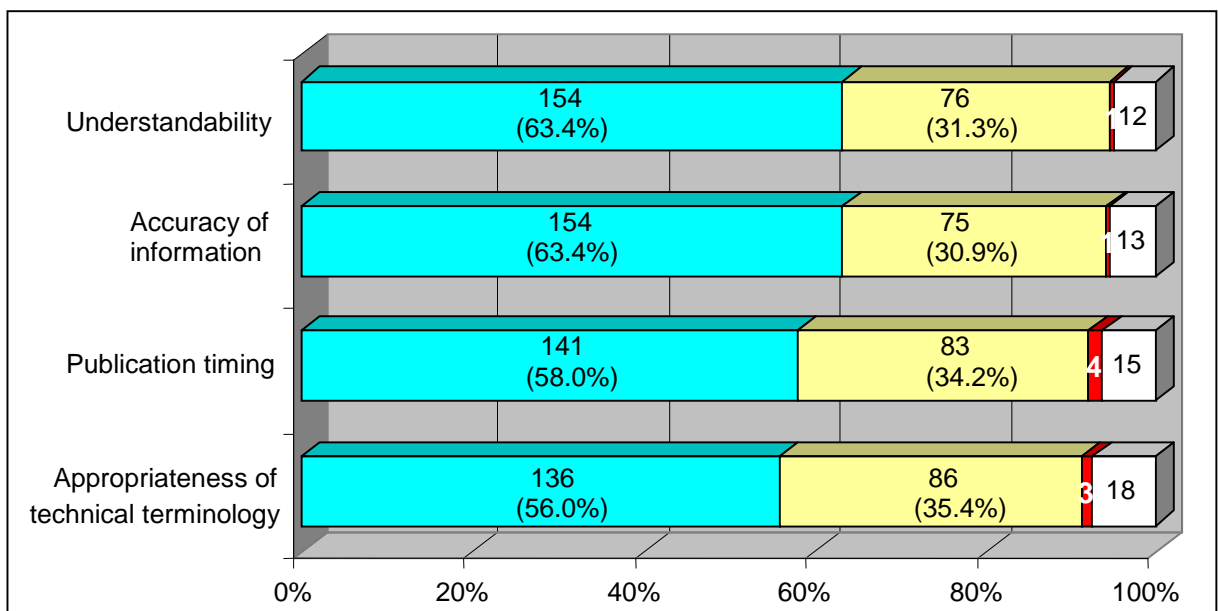


Figure 4 Meteorological information except for warning

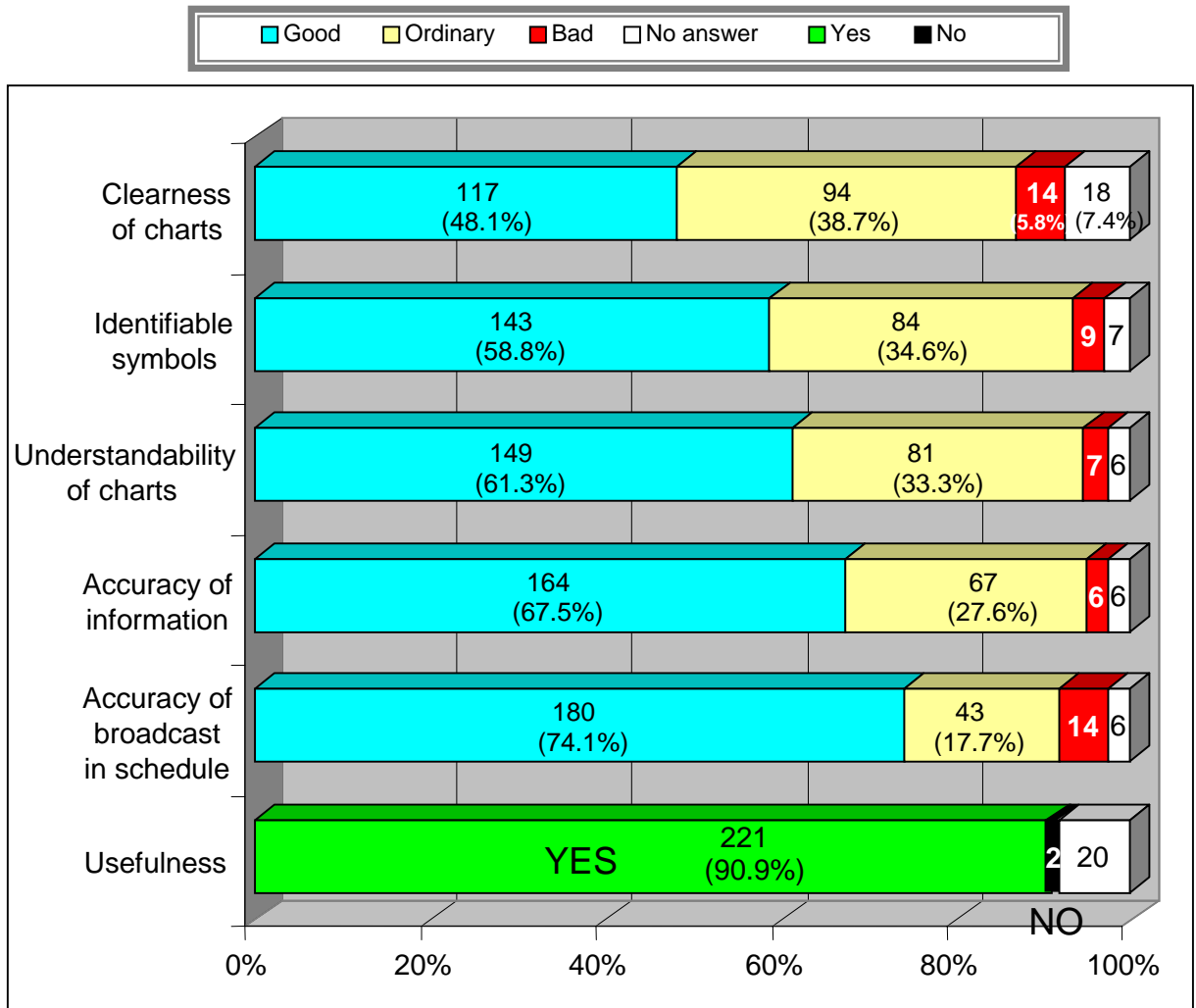


Figure 5 HF facsimile broadcast (JMH)

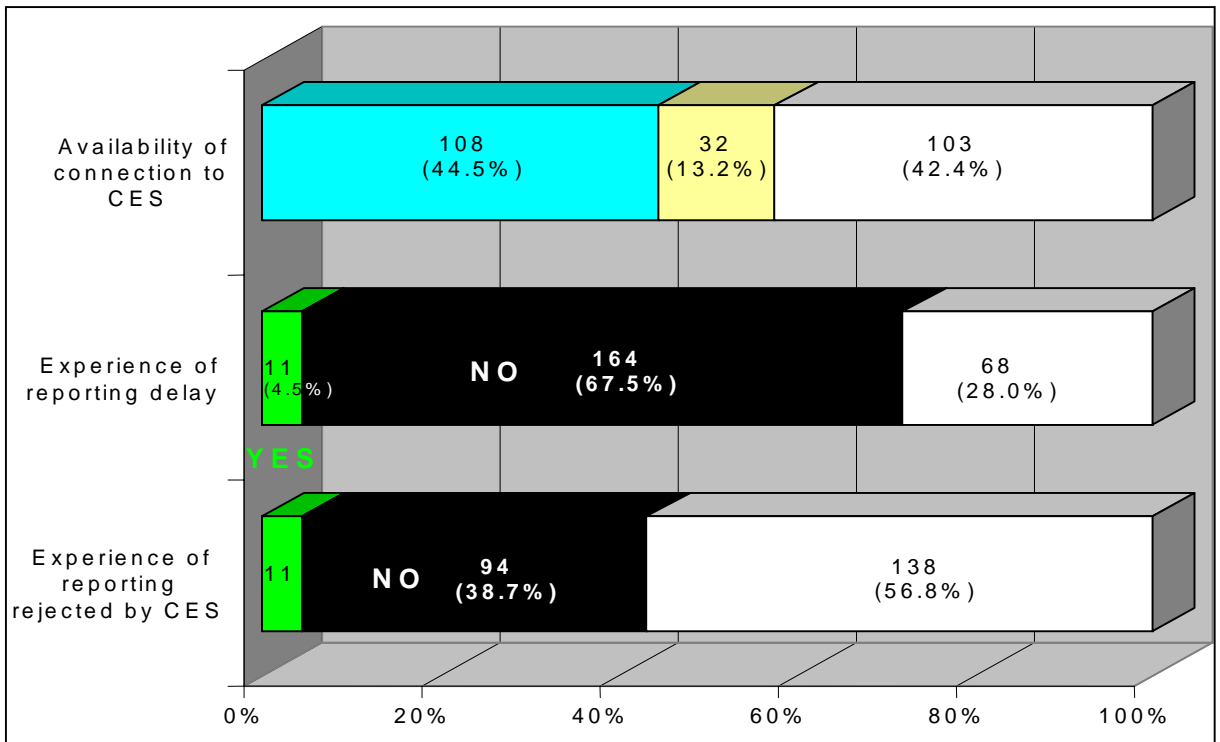


Figure 6 Reporting via CES (Coastal Earth Station)

Table 2 Summary of comments from ship users

Items	Keywords of comments
Usefulness	<ul style="list-style-type: none"> <li>• Free of charge</li> <li>• A great choice of useful information (surface analysis and forecast, upper air, typhoon, surface wave charts and so on)</li> <li>• Reliable availability in schedule and clearness</li> <li>• Sole means to obtain weather maps out of radio telephone coverage</li> <li>• Visibility in chart form is more understandable than character information</li> <li>• Necessity for all ships sailing in the Northwest Pacific till other alternatives</li> <li>• High-level of weather charts in quality, accuracy and understandability</li> <li>• Severe weather in winter, typhoon and tropical cyclone information is indispensable for safe navigation</li> </ul>
Problems and requirements	<ul style="list-style-type: none"> <li>• In rough seas, unclearness due to bad receiving conditions</li> <li>• Check pattern signals for two minutes before a surface analysis chart</li> <li>• Expansion of the map area of surface analysis to cover all the North-Pacific</li> <li>• Global weather charts using meteorological satellites</li> <li>• Further information in the South China-sea and the Indian ocean</li> <li>• Further information of ocean currents</li> </ul>
Related issues	<ul style="list-style-type: none"> <li>• Nowadays e-mail communication is available on a voyage</li> <li>• Possibility to use e-mail for meteorological purposes such as ship reporting</li> <li>• Requirement of a web site to enable to obtain weather charts (surface analysis), typhoon information and so on anytime via Internet</li> </ul>