JMA's Issuing Service of GMDSS
(Prepared by the Japan Meteorological Agency)

1. SafetyNET

1.1 Area of responsibility

The area of responsibility of the Japan Meteorological Agency (JMA) for the preparation and issuance of meteorological messages is METAREA XI (see Figure 1). Meteorological messages for METAREA XIII (south of 60N), are also included in the messages for METAREA XI issued by JMA.

1.2 Preparation and issuance of meteorological messages

In METAREA XI, meteorological messages are prepared by the JMA, Hong Kong Observatory and the Bureau of Meteorology of Australia (BoM). The messages are transmitted via the Inmarsat POR by JMA as the international SafetyNET services.

JMA prepares and issues the messages every six hours for the north of equator of METAREA XI. The messages prepared by the Hong Kong Observatory are added to the messages prepared by JMA four times a day. The messages for the south of equator of METAREA XI, are prepared by BoM, twice a day, and JMA issues the messages immediately after JMA receives them from BoM.

JMA prepares and issues tropical cyclone warnings every three hours when a tropical cyclone of tropical storm intensity or higher exists in the area of responsibility of JMA. Australia also prepares tropical cyclone warnings on their area of responsibility.

1.3 Contents and time schedule of meteorological messages

Meteorological messages in SafetyNET include the following information:

(a) Type of warning;
(b) Type of disturbance;
(c) Central pressure;
(d) Location of disturbance;
(e) Direction and speed of movement of disturbance;
(f) Maximum wind speed;
(g) Extent of affected area (wind speed more than 30kt);
(h) 24-hour forecast position of disturbance (only for Typhoon or Storm Warning); and (i) Synopsis.

The issuance schedule of the messages is shown in Table 1.

1.4 Implementation of issuing services
The implementation of issuing service in 2005 is summarized in Table 2.

2. NAVTEX

2.1 Area of responsibility

Area of responsibility for NAVTEX is within around 300 nautical miles radius from the coast of Japan and is divided into 12 parts, which are then subdivided into 37 regional areas (see Figure 3).

2.2 Preparation and issuance of meteorological messages

Meteorological messages of NAVTEX prepared by 12 Regional Forecast Centers of JMA are automatically collected and edited at the JMA Headquarters. The consolidated messages are transmitted via the Japan Coast Guard to five NAVTEX operation centers (shown in Figure 2) (G, H, I, J and K) for broadcasting on 518kHz. These five centers are parts of the second group of NAVAREA XI.

2.3 Contents and time schedule of meteorological messages

2.3.1 Warnings (Vital)

Vital Meteorological Warnings are issued for Typhoons, Storms and Gales, and include the following information:

(a) Type of disturbance;
(b) Central pressure;
(c) Location of disturbance;
(d) Direction and speed of movement of disturbance;
(e) Maximum wind speed;
(f) Extent of affected area (wind speed more than 30kt);
(g) Forecast position of disturbance (only for Typhoon or Storm Warning); and
(h) Maximum wind speed in the 37 subdivided regional areas.

The issuance schedule of Vital Meteorological Warnings is shown in Table 3.

2.3.2 Warnings (Important)

Important Meteorological Warnings are issued for Near Gales, Swell, Fogs, Icing and No Warnings with the following contents;

(a) Type of disturbance; and
(b) Warning contents for the 37 subdivided regional areas.

The issuance schedule of Important Meteorological Warnings is shown in Table 3. Important Meteorological Messages are included in the bulletin of Vital Meteorological Warnings when they are issued.

2.3.3 Forecasts (Routine)

Forecasts prepared for disturbances affecting 12 regional areas within 24 hours include the following information:

(a) Type of disturbance;
(b) Central pressure;
(c) Location of disturbance;
(d) Direction and speed of movement of disturbance;
(e) Maximum wind speed; and
(f) Type of warning (the strongest warning only).

Forecasts of other meteorological elements and ocean waves are not described in the messages because of the limit of the length of one bulletin (400 characters). The issuance schedule of Routine Meteorological Forecasts is shown in Table 3.

2.4 National NAVTEX

National NAVTEX Messages in Japanese are broadcast for Japanese vessels in a similar way to international NAVTEX messages on 424kHz.

Vital tropical cyclone warnings are also issued as National NAVTEX Typhoon Messages. The issuance schedule of vital tropical cyclone warnings in Japanese is shown in Table 4.

Marine meteorological information on JMA web site

The details of NAVTEX meteorological messages, prepared for 37 regional areas by 12 Regional Forecast Centers of JMA, are placed on the following web site of JMA.

In addition, Analysis and prognosis charts for the western North Pacific on the radio facsimile (JMH) are also placed on the web site of JMA shown below.

*Marine warnings: http://www.jma.go.jp/en/seawarn/
*Charts broadcast by JMH: http://www.jma.go.jp/jmh/jmhmenu.html

Table 1 - SafetyNET meteorological messages and their issuance schedule

Routine Messages:

Type of messages	Preparation Service	Issuance Time (UTC)	Broadcast Area
Tropical cyclone Warning	JMA	0110*, 0710* 1310*, 1910*	North of equator of METAREA XI
Meteorological Messages	JMA Hong Kong	0230, 0830 1430, 2030	same as above
Meteorological Messages	Darwin (BoM)	0815, 2015	South of equator of METAREA XI

Urgent Messages:

Type of messages	Preparation Service	Issuance Time (UTC)	Broadcast Area
Tropical cyclone Warnings for the intensity of Storm or more	JMA	0410*, 1010* 1610*, 2210*	Circular Area
Urgent Messages when unexpected changes are observed	JMA	0530, 1130 1730, 2330	Circular Area
Urgent Messages	Hong Kong	0500, 1100 1700, 2300	South China Sea
Urgent Messages	Darwin (BoM)	4 times/day for each disturbance	South of equator of METAREA XI

(Note) *Approximate time. JMA issues Tropical cyclone Warnings for each tropical cyclone immediately after completion of analysis based on observations of 0000, 0300, 0600, 0900, 1200, 1500, 1800 and 2100 UTC.

Table 2 - Issuance of meteorological messages in 2005

Month	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Amount

Routine (JMA, Hong Kong)	124	112	124	120	124	120	124	124	120	124	120	124	1460
T.C. Warning (JMA)	23	0	15	34	0	77	146	215	255	110	44	0	919
Routine (BoM)	62	56	62	60	62	60	62	62	60	62	60	62	730
Amount	209	168	201	214	186	257	332	401	435	296	224	186	3109

Each number includes issuance of corrections.

Table 3 - Issuance time and interval of NAVTEX Meteorological Messages

NAVTEX Meteorological Messages		Issuance Interval	Issuance Time (Observation Time) (UTC)
Vital Meteorological Warnings	Typhoon Warning	3 hours	0020(21), 0320(00) 0620(03), 0920(06) 1220(09), 1520(12) 1820(15), 2120(18)
	Storm Warning		
	Gale Warning		
Important Meteorological Warnings	Near Gale, Swell, Fog, Icing	6 hours	0320(00), 0920(06) 1520(12), 2120(18)
	No warning		
Forecasts (Routine)		12 hours	0045(21), 1245(09)

Table 4 - Issuance time of National NAVTEX Typhoon Messages

In case of	Issuance Time (UTC)	
(a) A tropical cyclone of storm intensity or higher within around 150 nm of the coast of Japan	Location and Forecast	0050, 0350, 0650, 0950 1250, 1550, 1850, 2150
	Location	0150, 0250, 0450, 0550 0750, 0850, 1050, 1150 1350, 1450, 1650, 1750 1950, 2050, 2250, 2350
(b) A tropical cyclone of gale intensity within around 150 nm of the coast of Japan	Location and Forecast	0050, 0350, 0650, 0950 1250, 1550, 1850, 2150
(c) A tropical cyclone of tropical storm intensity or higher expected to be in the distance from 150 to 300 nm of the coast of Japan within 24 hours	Location and Forecast	0130, 0430, 0730, 1030 1330, 1630, 1930, 2230
(d) Gale, Storm or Typhoon warning by any typhoon other than (a), (b) and (c)	Location and Forecast	0430, 1630

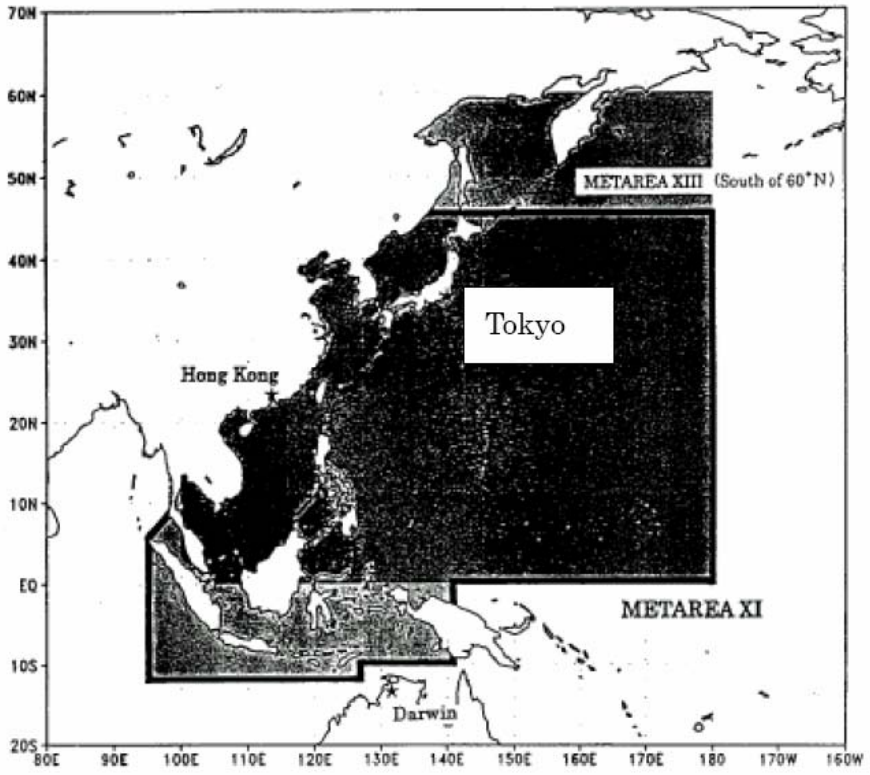

Fig.1 The area of METAREA XI

Fig.2 Area of responsibility for the NAVTEX of Japan and locations of the NAVTEX operation centers

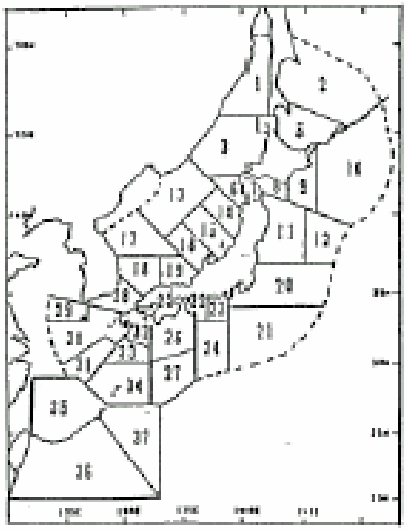

Fig.3 Subdivided areas for meteorological messages of NAVTEX.