

Guidelines for Safe Marine Navigation in Kashima Port (First Edition)

1. Past Marine Accidents and Their Relationship to Atmospheric Pressure Patterns
2. Frequency of Tidal Waves and Gales
3. Meteorological and Hydrographic Information for Kashima Port
4. Standards for Issuing Evacuation Alerts, and Evacuation Alert Communications Structure
5. Safety Guidelines For Navigating In and Around Kashima Port



Photo taken in February 2006

Liaison Conference on Grounding Accidents In
and Around Kashima Port

March 2007

Introduction

In October 2006, three successive grounding accidents, one involving mineral ore freighter “G” (98,587tons, registered in Panama), another involving cargo carrier “O” (88,853 tons, registered in Hong Kong), and a third involving coal freighter “E” (85,350tons, registered in Panama), occurred in and around Kashima Port in Ibaraki Prefecture.

In response to these and similar offshore incidents, local parties met and established the “Liaison Conference on Grounding Accidents In and Around Kashima Port” to discuss the sharing of information and possible measures to avoid the recurrence of such accidents. (Secretariat: Kashima Port and Airport Construction Office, Kanto Regional Development Bureau) As a result of this conference, a set of guidelines for safe marine navigation were created for users of the port and related organizations.

The “Kashima Port Disaster Preparedness Council” will amend the March 2007 Guidelines (first edition) as needed in the future.

1. Past Marine Accidents and Their Relationship to Atmospheric Pressure Patterns

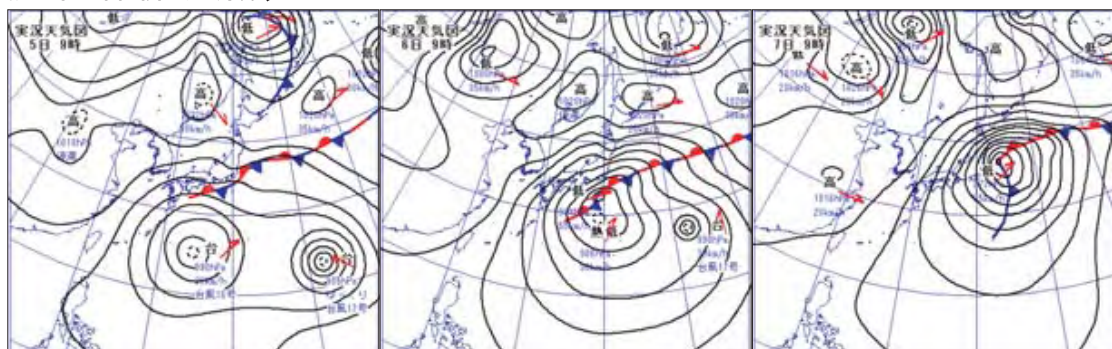
1.1 Examples of Past Marine Accidents

NO	Type	Year, month, day, and time of incident	Place	Name of vessel, etc.	Description
1	Collision	5:20 p.m. on September 14, 1996	“In port”	Vessel “V” registered in Saint Vincent, 3,986 tons	The vessel left Pier A of the South Public Wharf and began heading toward the Central Waterway. However, strong easterly winds made it difficult for the vessel to maintain the desired heading, causing it to collide with vessels “Y” and “K” (which were docked at the time) and strike the shore protection.
2	Grounding (dragging anchor)	11:30 p.m. on January 15, 1998	“In port”	Vessel “S” registered in Belize, 1,257 tons	While the vessel was anchored in the roadstead waiting for a berth, it dragged anchor and ran aground due to a developing low-pressure system.
3	Collision (dragging anchor)	3:39 a.m. on February 21, 1998	“Offshore”	Vessel “D” registered in China, 4,462 tons	While the vessel was waiting for a berth offshore from the South Breakwater Lighthouse, the weather worsened and the vessel dragged anchor, resulting in a collision with vessel “S” (14,147tons) anchored nearby.
4	Collision (dragging anchor)	3:39 a.m. on February 21, 1998	“Offshore”	Vessel “S” registered in Cyprus, 14147 tons	While the vessel was anchored offshore from the South Breakwater Lighthouse, it dragged anchor and collided with vessel “D”(4,462 tons.)
5	Grounding (dragging anchor)	2:00 a.m. on February 21, 1998	“In port”	Vessel “Z” registered in Japan (Ehime Prefecture), 497 tons	While the vessel was waiting for a berth offshore from the North Breakwater Lighthouse, it dragged anchor and ran aground.
6	Grounding (dragging anchor)	3:55 a.m. on March 8, 1999	“In port”	Vessel “M” registered in Japan (Ehime Prefecture), 498 tons	After being anchored in a quarantine anchorage, the vessel moved to a berth on the North Beach in order to have its hull cleaned. Strong northeasterly winds and tidal waves then caused the vessel to drag anchor and run aground.
7	Grounding (dragging anchor)	Late afternoon of October 6, 2006	“Offshore”	Vessel “G” registered in Panama, 98,587 tons	The vessel was anchored outside of Kashima Port. While raising anchor under strong winds, the vessel began dragging anchor. When the vessel executed club-hauling, however, handling became impossible and the vessel ran aground about five miles east of the South Breakwater Lighthouse. Wind-driven waves subsequently broke the vessel into three main sections at the bow, hull, and stern.
8	Grounding	Afternoon of October 24, 2006	“In port”	Vessel “O” registered in China, 88,853 tons	The vessel encountered strong winds during cargo operations and headed out to sea to avoid being damaged by foul weather. While leaving the port, the vessel became stuck off the tip of the South Breakwater. As its bow collided along the South Breakwater, strong winds drove the vessel aground.
9	Grounding	Night of October 24, 2006	“In port”	Vessel “E” registered in Panama, 85,350 tons	The vessel left port and headed out to sea to avoid damage from foul weather. Navigation became impossible due to strong winds, causing the vessel to run aground about a kilometer southwest from the tip of the South Breakwater.

*This table shows all marine accidents that occurred between 1996 and 2006

1.2 Atmospheric Pressure Patterns and Marine Accidents

<Marine Accident No.7>

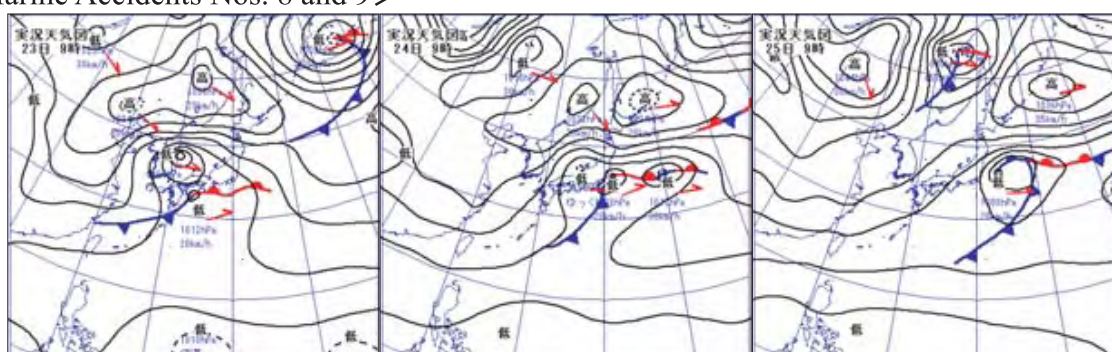


October 5, 2006

October 6, 2006

October 7, 2006

<Marine Accidents Nos. 8 and 9>



October 23, 2006

October 24, 2006

October 25, 2006

Figure 2.1 Meteorological Charts

<Marine Accident No.7>

A stationary front along the southern coast of Honshu suddenly became active due to an approaching typhoon.

A low-pressure system then rapidly developed offshore of Shikoku. The low-pressure system moved along the southern coast of Honshu and offshore of Sanriku, before heading out to sea east of Hokkaido.

<Marine Accidents Nos. 8 and 9>

A low-pressure system passed the south coast of Honshu. The low-pressure system remained relatively static (with a minimum central pressure of 1008 hPa), but as strong northerly winds continued, the constant-pressure lines between a high-pressure system northeast of Hokkaido and the area of low pressure became closer and closer together. This low-pressure system moved very slowly, and the strong winds continued for many hours.

- When a predominant high-pressure system develops north of Japan and a low-pressure system passes the southern tip of Honshu, strong northeasterly winds often continue to blow near Kashima Port.
- Special attention is required for this type of atmospheric pressure pattern because Kashima Port is entered from the northeast.

1.3 Wind and Wave Conditions

Table 1.3.1 Wind and Wave Observations at Kashima Port

Factors		Marine Accident No. 7	Marine Accidents Nos. 8 and 9
Wind Direction	(16 Directions)	N~NE	NW~N~NE
Maximum Wind Speed	(m/s)	14.1	15.8
Maximum Significant Wave	Wave Height (m)	5.89	6.78
	Period (s)	13.3	11.7

* These values are estimates. There were many missing observations, and the values may not reflect the peaks.

* Maximum Wind Speed: Maximum value of average wind speed measured.

* Maximum Significant Wave: Maximum value of significant waves observed.

* Significant Wave Height/Significant Wave Period: Average wave height and period for one-third of waves from the highest wave observed.

* Wind direction and wind speed observations were made 10 meters above ground in Izumikawa-Hamayashiki, Kashima Port.

1.4 Other Marine Accident Factors

The surface of the seabed along Kashima Port consists mainly of sand and gravel deposits left by coastal currents. Consequently, this area is inappropriate for use as a roadstead. Many vessels have experienced anchor dragging in foul weather.

2. Frequency of Tidal Waves and Gales

2.1 Cases Involving High Waves

Table 2.1.1 Frequency of Appearance of Wave Height/Period

Period : January 1996 to October 2006																	Number of Successful observations	45620	(96.1)
																	Number of missing observations	1864	(3.9)
Period (sec.)	Less than 3.0 sec.	3.0 to 4.0	4.0 to 5.0	5.0 to 6.0	6.0 to 7.0	7.0 to 8.0	8.0 to 9.0	9.0 to 10.0	10.0 to 11.0	11.0 to 12.0	12.0 to 13.0	13.0 to 14.0	14.0 to 15.0	15.0 to 16.0	16.0 to 17.0	17.0 sec. or more	Total	Accumulated total	
801~900																			
701~800							1 (0.0)										1 (0.0)	45620 (100.0)	
651~700																		45619 (100.0)	
601~650																		9 (0.0)	45619 (100.0)
551~600																		24 (0.1)	45610 (100.0)
501~550																		50 (0.1)	45586 (99.9)
451~500																		75 (0.2)	45536 (99.8)
401~450																		147 (0.3)	45461 (99.7)
351~400																		283 (0.6)	45314 (99.3)
301~350																		603 (1.3)	45031 (98.7)
251~300																		1500 (3.3)	44428 (97.4)
201~250																		3476 (7.6)	42928 (94.1)
176~200																		3224 (7.1)	39452 (86.5)
151~175																		4439 (9.7)	36228 (79.4)
126~150																		5890 (12.9)	31789 (69.7)
101~125																		8004 (17.5)	25899 (56.8)
76~100																		8877 (19.5)	17895 (39.2)
51~75																		7576 (16.6)	9018 (19.8)
26~50																		1442 (3.2)	1442 (3.2)
25 cm or less																			
Total	19 (0.0)	630 (1.4)	4024 (8.8)	8119 (17.8)	10287 (22.5)	9475 (20.8)	6257 (13.7)	3292 (7.2)	1978 (4.3)	926 (2.0)	391 (0.9)	157 (0.3)	44 (0.1)	16 (0.0)	5 (0.0)		45620 (100.0)		

Note: The upper columns show the number of appearances; the lower columns show the appearance ratio (%).

* Statistics at every even-numbered hour.

Significant wave height of 4 meters or higher: 0.67% \cong 2.4 times a year

Significant wave period of 10 seconds or longer: 14.93% \cong 54.5 times a year

Significant wave height of 4 meters or higher occurring together with significant wave period of 10 seconds or longer: 0.53% \cong 1.9 days a year

* Significant Wave Height/Significant Wave Period: Average wave height and period for one-third of waves from the highest wave observed.

2.2 Cases Involving Strong Winds

Table 2.2.1 Frequency of Appearance of Wind Direction and Wind Speed

Point: Kashima

Period: January 1996 to October 2006

Marine Accidents Nos. 8 and 9

Marine Accident No. 7

Wind direction Wind speed (m/s)	N	NNE	N E	ENE	E	ESE	S E	SSE	S	SSW	S W	WSW	W	WNW	N W	NNW	All directions	Accumulated total
More than 15.0 m/s	2 (0.0)	1 (0.0)		2 (0.0)		1 (0.0)	3 (0.0)	1 (0.0)	3 (0.0)							1 (0.0)	14 (0.0)	45467 (100.0)
14.0~15.0	2 (0.0)	1 (0.0)	6 (0.0)		1 (0.0)	3 (0.0)		1 (0.0)	2 (0.0)								16 (0.0)	45453 (100.0)
13.0~14.0	2 (0.0)	2 (0.0)	5 (0.0)	1 (0.0)		4 (0.0)		1 (0.0)	4 (0.0)	10 (0.0)	1 (0.0)	1 (0.0)			1 (0.0)		32 (0.1)	45437 (99.9)
12.0~13.0	4 (0.0)	4 (0.0)	9 (0.0)	6 (0.0)	4 (0.0)	1 (0.0)	2 (0.0)	1 (0.0)	9 (0.0)	6 (0.0)					1 (0.0)		47 (0.1)	45405 (99.9)
11.0~12.0	14 (0.0)	11 (0.0)	8 (0.0)	5 (0.0)	3 (0.0)	2 (0.0)		1 (0.0)	12 (0.0)	13 (0.0)					2 (0.0)	1 (0.0)	72 (0.2)	45358 (99.8)
10.0~11.0	15 (0.0)	16 (0.0)	33 (0.1)	12 (0.0)	6 (0.0)	11 (0.0)	2 (0.0)	3 (0.0)	17 (0.0)	43 (0.1)	4 (0.0)				5 (0.0)		167 (0.4)	45286 (99.6)
9.0~10.0	26 (0.1)	39 (0.1)	76 (0.2)	18 (0.0)	13 (0.0)	10 (0.0)	3 (0.0)	5 (0.0)	38 (0.1)	81 (0.2)	14 (0.0)		2 (0.0)	7 (0.0)	7 (0.0)		339 (0.7)	45119 (99.2)
8.0~9.0	40 (0.1)	115 (0.3)	204 (0.4)	59 (0.1)	21 (0.0)	20 (0.0)	7 (0.0)	10 (0.0)	70 (0.2)	160 (0.4)	40 (0.1)	3 (0.0)	4 (0.0)	17 (0.0)	18 (0.0)	10 (0.0)	798 (1.8)	44780 (98.5)
7.0~8.0	90 (0.2)	268 (0.6)	458 (1.0)	118 (0.3)	53 (0.1)	28 (0.1)	33 (0.1)	17 (0.0)	115 (0.3)	309 (0.7)	76 (0.2)	13 (0.0)	14 (0.0)	46 (0.1)	40 (0.1)	22 (0.0)	1700 (3.7)	43982 (96.7)
6.0~7.0	217 (0.5)	595 (1.3)	778 (1.7)	245 (0.5)	103 (0.2)	70 (0.2)	82 (0.2)	32 (0.1)	175 (0.4)	485 (1.1)	136 (0.3)	31 (0.1)	32 (0.1)	94 (0.2)	81 (0.2)	46 (0.1)	3202 (7.0)	42282 (93.0)
5.0~6.0	399 (0.9)	907 (2.0)	969 (2.1)	466 (1.0)	217 (0.5)	227 (0.5)	166 (0.4)	52 (0.1)	216 (0.5)	685 (1.5)	156 (0.3)	81 (0.2)	102 (0.2)	183 (0.4)	166 (0.4)	91 (0.2)	5083 (11.2)	39080 (86.0)
4.0~5.0	842 (1.9)	1204 (2.6)	1131 (2.5)	624 (1.4)	425 (0.9)	415 (0.9)	322 (0.7)	109 (0.2)	242 (0.5)	1003 (2.2)	177 (0.4)	155 (0.3)	222 (0.5)	345 (0.8)	580 (1.3)	236 (0.5)	8032 (17.7)	33997 (74.8)
3.0~4.0	1331 (2.9)	1285 (2.8)	1103 (2.4)	731 (1.6)	620 (1.4)	448 (1.0)	398 (0.9)	198 (0.4)	289 (0.6)	1536 (3.4)	229 (0.5)	202 (0.4)	355 (0.8)	452 (1.0)	1417 (3.1)	507 (1.1)	11101 (24.4)	25965 (57.1)
2.0~3.0	1217 (2.7)	882 (1.9)	809 (1.8)	564 (1.2)	640 (1.4)	392 (0.9)	389 (0.9)	243 (0.5)	245 (0.5)	1233 (2.7)	190 (0.4)	111 (0.2)	221 (0.5)	308 (0.7)	1483 (3.3)	772 (1.7)	9699 (21.3)	14864 (32.7)
1.0~2.0	486 (1.1)	417 (0.9)	405 (0.9)	329 (0.7)	371 (0.8)	324 (0.7)	246 (0.5)	165 (0.4)	238 (0.5)	238 (0.5)	71 (0.2)	21 (0.0)	46 (0.1)	113 (0.2)	440 (1.0)	430 (0.9)	4340 (9.5)	5165 (11.4)
Less than 1.0 m/s	64 (0.1)	55 (0.1)	67 (0.1)	70 (0.2)	85 (0.2)	67 (0.1)	67 (0.1)	67 (0.1)	71 (0.2)	49 (0.1)	20 (0.0)	8 (0.0)	10 (0.0)	25 (0.1)	53 (0.1)	47 (0.1)	825 (1.8)	825 (1.8)
Total	4751 (10.4)	5802 (12.8)	6061 (13.3)	3250 (7.1)	2562 (5.6)	2023 (4.4)	1720 (3.8)	906 (2.0)	1746 (3.8)	5851 (12.9)	1114 (2.5)	626 (1.4)	1008 (2.2)	1590 (3.5)	4294 (9.4)	2163 (4.8)	45467 (100.0)	

Note: The upper columns show the number of appearances; the lower columns show the appearance ratio (%).

* Statistics at every even-numbered hour.

* Wind direction and wind speed observations were made 10 meters above ground in Izumikawa-Hamayashiki, Kashima Port.

N to NE wind direction and wind speed of 10 m/s or more: 0.3% \div 1.0 day a year

2.3 Cases Involving High Waves and Strong Winds

According to data recorded over the past 35 years (1972 to 2006), wave and wind conditions more serious than those in the case of marine Accidents Nos. 8 and 9 have occurred only once. This suggests that such disturbances occur on average only once every two decades.

Duration (From year, month, day, and time to year, month, day, and time)				Maximum Significant Wave Height (m)				Maximum Significant Wave Period (sec.)				Most Frequent Wave Direction (16 directions)				Maximum Wind Speed (m/s)			
1975	11	10	6	—	1975	11	13	18	7.09	14.8	—	—	—	—	—	13.7			
1980	10	3	6	—	1980	10	5	18	6.52	14.9	—	—	—	—	—	10.6			
1980	11	26	12	—	1980	12	3	10	7.06	13.7	—	—	—	—	—	11.7			
1980	12	23	20	—	1980	12	27	4	6.32	13.4	—	—	—	—	—	12.1			
1986	3	23	4	—	1986	3	25	22	6.67	12.7	—	—	—	—	—	20.2			
1992	11	7	10	—	1992	11	9	22	6.69	12.7	ENE	—	—	—	—	14.7			
1993	3	8	0	—	1993	3	10	22	6.70	13.8	NE	—	—	—	—	11.8			
2001	1	26	4	—	2001	1	28	20	7.33	12.3	ENE	—	—	—	—	14.8			
2005	1	15	14	—	2005	1	18	16	6.21	13.5	NE	—	—	—	—	12.7			
2006	10	23	12	—	2006	10	26	12	6.47	12.0	ENE	—	—	—	—	15.8			

* Values for 2006 are estimates.

* Wind direction and wind speed observations were made 10 meters above ground in Izumikawa-Hamayashiki, Kashima Port.

Conditions for Extraction

1. Maximum significant wave height of 6 meters or higher,
2. Maximum significant wave period of 12 seconds or longer, and
3. Maximum wind speed of 10 m/s or greater.

* Maximum Significant Wave: Maximum value of significant wave height observed.

* Significant Wave Height/Significant Wave Period: Average wave height and period for one-third of waves from the highest wave observed.

* Maximum wind speed: Maximum value of average wind speed measured.

3. Meteorological and Hydrographic Information for Kashima Port

Information Sources

(1) NOWPHAS (Nationwide Ocean Wave information network for Ports and HAbourS)

NOWPHAS is an information network providing wave information for Japan's coastline. It was established and is jointly operated by the Ports and Harbours Bureau of Japan's Ministry of Land, Infrastructure and Transport, the Hokkaido Regional Development Bureau (as well as other regional development bureaus), the Okinawa General Bureau, the National Institute for Land and Infrastructure Management, and the Port and Airport Research Institute.

Real-time wave information for Kashima Port can be obtained via the Kashima Port and Airport Construction Office's homepage at the following URL:

<http://www.pa.ktr.mlit.go.jp/kashima/>



(2) Weather information for marine navigation is provided by the Ibaraki Coast Guard Office at the following URL:

<http://www6.kaiho.mlit.go.jp/ibaraki/>

Areas between Miyagi and Ibaraki (Fukushima Coast Guard Office)

Areas between Fukushima and Chiba (Ibaraki Coast Guard Office)

Areas between Chiba and Ibaraki (Choshi Coast Guard Office)

Tokyo Bay (Yokohama Coast Guard Office)

Weather information accessible by mobile phone is provided at the following URL:

<http://www6.kaiho.mlit.go.jp/ibaraki/m/>

Weather information can also be obtained over the phone by calling: 029-264-0177 (Japanese language only)

(3) Marine weather information around Kashima by the Japan Meteorological Agency

The Japan Meteorological Agency (JMA) provides marine warnings, tropical cyclone information, sea wave analysis and forecast, weather forecast, weather observational data and relevant information around Kashima.

The following information is available on JMA's website.

- JMA's website (<http://www.jma.go.jp/jma/indexe.html>)
- Marine Warnings (<http://www.jma.go.jp/en/seawarn/index.html>)
- Tropical Cyclone Information (<http://www.jma.go.jp/en/typh/>)
- Sea Wave Analysis (http://www.data.kishou.go.jp/kaiyou/db/wave/chart/awjp_e.html)
- Sea Wave Forecast (http://www.data.kishou.go.jp/kaiyou/db/wave/chart/fwjp_e.html)
- Weather Warnings/Advisories: Ibaraki (<http://www.jma.go.jp/en/warn/314.html>)
- Daily Forecasts: Ibaraki (<http://www.jma.go.jp/en/yoho/314.html>)
- Three-hourly Forecasts: Ibaraki (<http://www.jma.go.jp/en/jikei/314.html>)
- Table of Hourly Weather Observations (Today/Yesterday): Ibaraki (http://www.jma.go.jp/en/amedas_h/map26.html)
- Table of Hourly Weather Observations (Today/Yesterday): Station Kashima (http://www.jma.go.jp/en/amedas_h/today-40406.html?groupCode=26&areaCode=000)
- Explanatory information about JMA's forecasting service including Marine Forecasts and Warnings (<http://www.jma.go.jp/jma/en/Activities/forecast.html>)

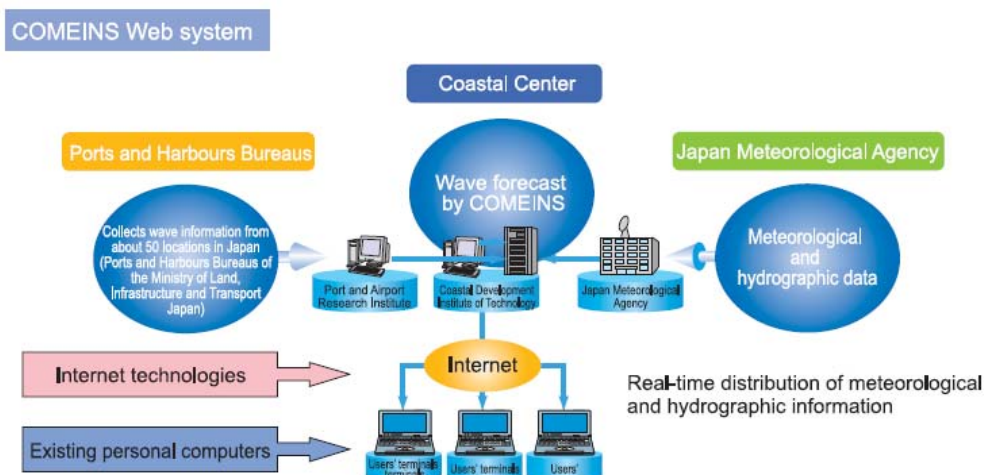
(4) COMEINS (Coastal Oceanographic and MEteorological INformation System) [fee-based service]

COMEINS provides highly accurate online wave forecast information* and live information on waves** and related weather information 24 hours a day via personal computer at the following URL:

<http://www.cdit.or.jp/comeins/>

*Licensed Forecast Operator No. 54 by the Japan Meteorological Agency

**The Ports and Harbours Bureaus of Japan's Ministry of Land, Infrastructure and Transport provides information for about 50 locations. The Japan Meteorological Agency provides information for about 10 locations.



4. Standards for Issuing Evacuation Alerts, and Evacuation Alert Communications Structure

4.1 Standards for Issuing Evacuation Alerts

(1) Standards for Issuing Evacuation Alerts When a Low Pressure System is Approaching

Hydrographic information for Kashima Port is provided by the Japan Weather Association whenever forecasts call for wave heights of 4 meters or higher in the N to E direction (0 to 120 degrees) and average wind speeds of 10m/s or more.

Whenever there is preliminary information indicating the above conditions, evacuation alerts shall be issued to subject vessels at least 24 hours before the major forecast.

Regardless of the standards above, similar alerts shall be issued whenever the Captain of Kashima Port and Section Head decide that such instructions are necessary.

Evacuation Alerts

- 1) Vessels of DWT 3,000 tons or more shall evacuate the port (unless told to do otherwise).
- 2) Vessels of DWT 3,000 tons or more anchored outside the port shall immediately raise anchor and evacuate to safe coastal waters.
- 3) Vessels less than DWT 3,000 tons anchored inside or outside Kashima Port shall moor along the quay side or evacuate to another port or berth, upon discussion with their agents.
- 4) Agents with vessels destined for Kashima Port shall contact their vessels and have them evacuate to another port or berth.

(2) Standards for Issuing Evacuation Alerts When a Typhoon is Approaching

Standards For Issuing Alerts

- Timing of alerts

First State of Alert: 3 hours before the Second State of Alert

Second State of Alert: 6 hours before the gale is expected to arrive.

(Alerts to vessels of DWT 3,000 tons or more to evacuate the port)

If the alert is to be issued sometime during the night (*), alert documents shall be issued by 16:00.

* Time period for such an exception: Around 17:00 to 9:00 the next day. (Night)

Seasonal weather conditions have been taken into consideration in deciding the timing of alerts. Requests for evacuation using pilot ships or requests for early evacuation by vessels that desire evacuation to a remote area shall be handled on a case by case basis.

- Cargo Handling Alerts (points to be confirmed)

During the first state of alert the handling of hazardous cargo and all construction work will be stopped unless otherwise authorized.

(1) Standard Procedures to be Executed During an Alert Issued by the Captain of Kashima Port (in case of a typhoon)

First State of Alert (Preparatory Stage)

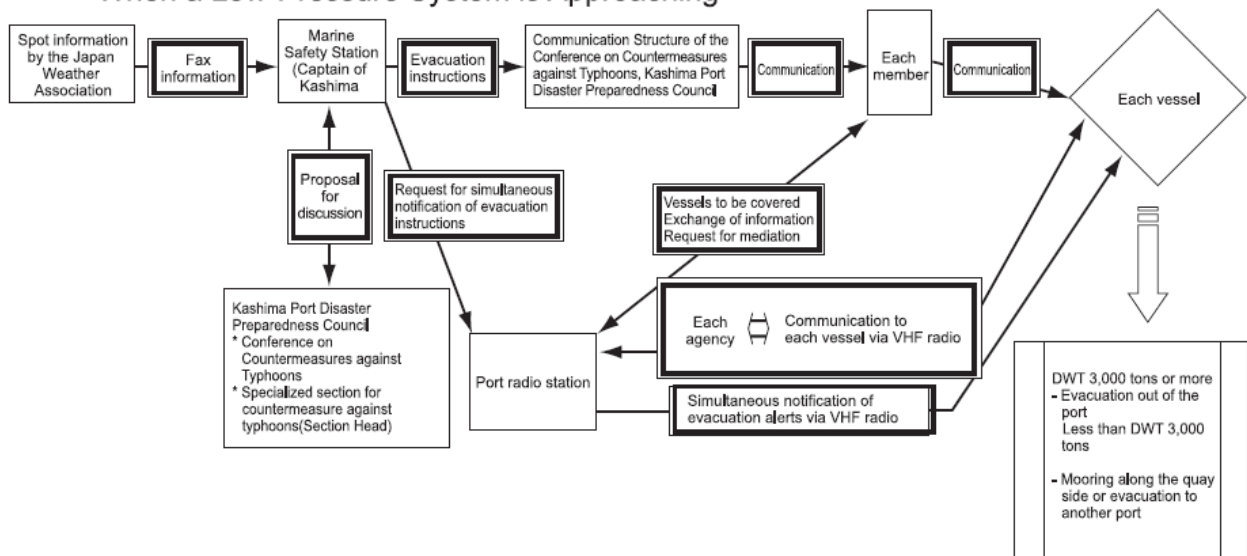
- 1) Vessels in the port shall prepare for foul weather and be ready to move immediately as necessary.
- 2) The handling of hazardous cargo and all construction work shall be stopped (unless otherwise authorized).
- 3) Vessels that cannot move shall anchor at a specified place and prepare for foul weather.
- 4) Administrators of temporarily stored articles shall take necessary measures to prevent any outflow, etc..
- 5) Agents with vessels destined for Kashima Port shall contact their vessels and have them evacuate to another port or berth.

Second State of Alert (Evacuation Instructions)

- 1) Vessels of DWT 3,000 tons or more shall evacuate the port (unless told to do otherwise).
- 2) Vessels of DWT 3,000 tons or more anchored outside the port shall raise anchor immediately and evacuate to safe coastal waters.
- 3) Vessels less than DWT 3,000 tons anchored inside or outside Kashima Port will moor along the quay side or evacuate to another port or berth upon discussion with their agents.
- 4) Small vessels and other miscellaneous vessels shall evacuate to specified safe havens.
- 5) Vessels that cannot move shall be strictly alerted at the specified place.
- 6) Administrators of temporarily stored articles shall take necessary measures to prevent any outflow and visually confirm the status of each article.

4.2 Evacuation Alert Communications Structure

Chain of Communication for Evacuation Alerts Issued When a Low-Pressure System is Approaching



Conference on Countermeasures against Typhoons, Kashima Port Disaster Preparedness Council - Communications Structure



TRAFFIC INFORMATION CHART IN KASHIMA PORT

NO VESSELS ARE PERMITTED TO ENTER OR DEPART EXCEPT THOSE AUTHORIZED BY THE CAPTAIN OF THE PORT.









In case of the EVACUATION ALERT
issued for a low pressure or a typhoon
Vessel DWT3,000 or over shall refuge
out of the port as a principle.

FOR FURTHER INFORMATION

1. IBARAKI COAST GUARD
(1) URL: <http://www.kaiho.mri.go.jp/03kanku/ibaraki/>
(2) URL: <http://www.kaiho.mri.go.jp/ibaraki/m/> (by mobile phone)
2. CHOSHI COAST GUARD
(1) Broadcasting frequency 1665 KHz by wave (H3E)
(2) Telephone service: 0479-2-6494
(3) TEL: 0479-22-0244
3. KASHIMA PORT TRAFFIC CONTROL
TEL 0299-92-2602
4. KASHIMA COAST GUARD STATION
TEL 0299-92-2601
0299-92-4999 (For emergency only)

Let's make the safe and clean Port of Kashima

<p>A RED FLASH flashed every 2 seconds</p> 	<p>Flashing all Lateral</p> 	<p>SIGNAL FOR DEPARTURE (No.2 Signal)</p> <p>(1) Vessels may depart. (2) Vessels of 1,000 gross tons or more intending to enter shall wait outside the passage keeping away from the courses of departing vessels. (3) Vessels of less than 1,000 gross tons may enter.</p>
<p>A RED FLASH flashed every 3 seconds</p> 	<p>Flashing all Lateral</p> 	<p>SIGNAL FOR PROHIBITING ENTRY AND DEPARTURE (No.3 Signal)</p> <p>(1) Vessels of 1,500 gross tons or more (3: in case of tanker, 1,000 gross tons or more) intending to enter shall wait outside the passage, away from the courses of departing vessels. (2) Vessels of 1,500 gross tons or more (3: in case of tanker, 1,000 gross tons or more) intending to depart shall stop and wait. (3) Vessels of less than 1,500 gross tons (3: in case of tanker, less than 1,000 gross tons) may enter or depart.</p>
<p>A RED FLASH flashed every 6 seconds</p> 	<p>Flashing all Lateral</p> 	<p>SIGNAL FOR PROHIBITING ENTRY AND DEPARTURE (No.4 Signal)</p> <p>No vessels except those authorized by the Captain of the Port, are permitted to enter or depart.</p>

※ Oil tanker says the inflammable dangerous cargo loading tanker that flashpoint is under 23-degree centigrade.
(The tanker which has not carried out the gas freeing operation after discharging is included)

CAUTION FOR NAVIGATION IN HARBOUR

1. Please observe following navigation rules when navigate in Kushinai.
(1)When two vessels are meeting on reciprocal courses within a passageway shall pass on the port side of the other.
(2)A vessel shall proceed at such a speed as not cause a hazard to a dangerous cargo operating vessels and smaller vessels at berth.
(3)A vessel shall navigate as far as apart from dangerous cargo vessel and bunkering vessel.
(4)A vessel may berth and directly depart in principle.
Therefore please does not stay within a Waterway as much as possible.

CAUTION FOR ANCHORING IN HARBOUR

4. No vessel may anchor in Kashima Waterway, Central Waterway, South and North Waterway except in the following cases.
(When the vessel is necessary to anchor urgently to avoid marine accident,
5. When the vessel has obtained the permission from the Captain of the Port under special reasons.
6. The vessel shall not anchor in the vicinity of Kashima Waterway, Outer Waterway and harbor limit where inward and outward course of the huge vessel.
7. An accident of dragging anchor has occurred frequently in the front water area of north beach. Therefore, when rough weather or stormy weather are expected a vessel shall not anchor.

COAST GUARD ASSOCIATION, KASHIMA BRANCH
THE SHIP'S AGENCY ASSOCIATION OF KASHIMA PORT
KASHIMA PORT DISASTER COUNCIL
KASHIMA PORT FOREIGN VESSEL SAFETY COUNCIL
Japan Coast Guard Association, Kashima Branch
The Ship's Agency Association of Kashima Port
Port of Kashima Disaster Preparedness Council
Port of Kashima Council for the Contact and Safety of

EDITED BY KASHIMA COAST GUARD STATION

Kashima Coast Guard Station Supervisor

2007 MAR.



Members of the Local Liaison Conference

Kashima Port and Airport Construction Office, Kanto Regional Development Bureau

Kashima Marine Office, Ibaraki Transportation Branch, Kanto Regional Development Bureau

Ibaraki Coast Guard Office

Ibaraki Prefecture Kashima Port Office

Kashima Licensed Pilots' Association

Kashima Futo Co., Ltd.

The Ship's Agency Association of Kashima Port

Ibaraki Port Radio Station

(Secretariat: Kashima Port and Airport Construction Office, Kanto Regional Development Bureau)