



SAFETY RECOMMENDATION No: 59/2013

Text of Safety Recommendation:

Review your Company's Safety Management System by supplementing procedures for acquiring and elaborating shore up to date wind data as well as weather bulletins for ship borne operations related to navigation, primarily issued by National Meteorological Services.

No of Safety Investigation Report:

09/2013: Impact of MSC Magnifica on Piraeus Port entrance breakwater.

(See the full Report [here.](#))

Safety Recommendation addressed to:

Vessel's managing company

Date of publication:

05/08/2015

Comments-Remarks:

INFORMATION OF ACCIDENT

Type of vessel: Passenger cruise vessel
Year of built: 2010

Impact of MSC Magnifica on Piraeus Port entrance breakwater

Course of events

A cruise ship was underway in Piraeus Traffic Separation Scheme, approaching Piraeus Port being on a scheduled round cruise at Mediterranean Sea.

According to the weather bulletin issued by the National Meteorological Service prevailing winds for the Saronic Gulf were forecasted to be South force 4- 5 bfrs to Southwest force 5 bfrs.

However, the aforementioned weather bulletin included a general notice, drawing the attention to Mariners that wind gusts can be 40% stronger than those given in the bulletin and max wave height up to twice the significant.

Actual weather conditions were reported to be moderate; prevailing winds in the Saronic Gulf were South-southeastern force 5 to 6 bfrs and sea state was moderate with swell. It was also reported that weather was unstable with squalls, showers and gusts from 30-35 knots.

The pilot had requested form the Master to proceed further from the embarkation position 1.5 nm off the port, as the pilot boat was encountering difficulties for approaching due the swelling sea South-southeast directed.

By the time the pilot entered the bridge the cruise ship was less than 200 m for Piraeus Port entrance under 5.7 knots whilst the wind was gusting at 39.1 knots southeast directed. The Master was under maneuvering on an effort to avoid the imminent danger of impacting on the port breakwater's head as the cruise ship was drifting rapidly to port.

At approximately two minutes after pilot's embarkation the port bow of the cruise ship impacted on the head of the breakwater and the concrete round-hut red light, located on it, was detached and collapsed into the sea.

The cruise ship sustained a crack at the point of impact while her port underwater shell plating close to the waterline sustained deformations and intends lengthwise due the contact with the breakwater under the sea level. Her port stern quarter sustained an indent caused by port tug stem post during maneuvering to assist her.

Following, the cruise ship continued with the berthing operation that was completed at 0700. No injuries to passengers or crew were reported as well as no pollution.

Repairs were carried out while in berth by a marine service company and following her Class inspection, she departed from the port at morning hours on the next day of her arrival and continued her planned cruise voyage.



Figure 1: MSC Magnifica.

Extent of damage

1. structural damages :
 - crack on port bow section above the waterline
 - deformation and intends and scratches on port side shell plating lengthwise under the waterline
 - indent at port aft quarter close to stern post
2. Piraeus' port entrance breakwater
 - Port entrance breakwater's head damaged
 - concrete round-hut red light detached and collapsed into the sea

Related causes

1. The weather bulletin that was utilized for the risk assessment process was obtained through a web meteorological service provider, forecasted more moderate wind conditions than the prevailing and consequently misguided the process whilst the official weather forecast issued by the National Meteorological Service, although forecasted the actual weather conditions through a

warning notice, was not taken under consideration.

2. The Safety Management System implemented was not incorporating:
 - explicit instructions for promptly obtaining weather bulletins and shore up to date wind data to be evaluated prior to arrival procedures,
 - instructions for promptly obtaining weather bulletins from National Meteorological Services as primary weather information input to be utilized and evaluated for shipborne operations.

Lessons to be learned

- the weather bulletins for shipborne operations related to navigation should be primarily obtained from National Meteorological Services.
- The shore up to date wind data should be acquired promptly by vessels for evaluating and processing pre arrival procedures for identifying related risks.



Figure 2: *The damaged head of the breakwater.*



Figure 3: *The damaged port bow section of MSC Magnifica*