

# **General Cargo Ship Lucky Major Marine Occurrence**

## **Executive Summary**

At approximately 1840 on 28 October 2021, the Lucky, a general cargo ship, registered in the Republic of Sierra Leone and owned by a foreign private entity, with her port of registry at Freetown, a gross tonnage of 720 and IMO No. 8890671, experienced flooding and developed a list while located approximately 2.8 nautical miles west of Wenzhi Fishing Harbor, Xianxi Township, Changhua County. The ship was manned by one master and six crew members. Following the master's decision to abandon ship, the ship subsequently sank. No fatalities or environmental pollution were reported in this occurrence.

In accordance with the Transportation Occurrence Investigation Act, Taiwan, and the definition of major transportation occurrences specified therein, the Taiwan Transportation Safety Board was the independent agency in charge of investigating the marine accident. The organizations and agencies invited to participate in the investigation included the Maritime and Port Bureau of the Ministry of Transportation and Communications, Coast Guard Administration, Ocean Affairs Council, LW Maritime Service Co., Ltd., and ASA Shipping Co., Ltd.

After comprehensive investigation and analysis of the factual data, a total of 9 findings and 4 safety recommendations were obtained.

### **The finding related to probable causes is as follows:**

1. Continuous wave impact on the bow caused the bow shell plating to exceed its structural limits, resulting in progressive damage and ongoing flooding, which ultimately led to the ship's sinking.

**The findings related to risk are as follows:**

1. To avoid head seas, the master of Lucky adopted a zigzag crossing maneuver through the swell, transiting across the Changhua Offshore Wind Farm Traffic Separation Scheme into the southbound channel, thereby increasing the risk of collision with other ships.
2. Lucky was a substandard ship with no record of Port State Control inspections. The onboard Safety Management System manuals were only available in Chinese, which the foreign crew could not read or properly implement. The International Safety Management (ISM Code) Safety Management System was therefore ineffective, rendering the ship a high-risk vessel.
3. Taiwan's ship risk-based inspection regime under Port State Control is not fully aligned with the Tokyo Memorandum of Understanding "black, grey, and white list" system for foreign-flagged ships. As a result, there is a risk that substandard ships are underestimated, and the system may be unable to effectively eliminate or mitigate the risks posed by such ships, thereby compromising the safety of life at sea and protection of the marine environment.
4. If the Maritime and Port Bureau of the Ministry of Transportation and Communications does not take appropriate supervisory actions against ships violating navigation route marking regulations or the Changhua Offshore Wind Farm navigation guidance, the effectiveness of Vessel Traffic Services (VTS) in vessel traffic monitoring and safety management at Changhua may be adversely affected.

**The other findings are as follows:**

1. Lucky held a Provisional Safety Management Certificate issued by the

flag State, the Republic of Sierra Leone. The document indicated that the ship was managed by LW Maritime Service Co., Ltd.

2. From October to December 2021, the Changhua Offshore Wind Farm VTS, in accordance with regulations, submitted daily reports to the Maritime Safety Division of the Maritime and Port Bureau regarding violations of the Changhua Offshore Wind Farm traffic route. A total of 84 violation cases were reported during this period, including ship information and Automatic Identification System (AIS) track plots. However, no penalties were imposed by the Maritime and Port Bureau on the violating ships or their operators during this period.
3. In the preceding year, Lucky operated in the Taiwan Strait, offshore waters near the Zhoushan Islands of Zhejiang Province, offshore waters of Sansha Bay in Fujian Province, west of the Penghu waters, and in waters around Kaohsiung Port.
4. The Changhua Offshore Wind Farm VTS was only capable of receiving AIS signals from transiting ships and was not equipped with radar surveillance capability. Radar installation was not scheduled for completion until 2023.

### **Safety Recommendations**

#### **To LW Maritime Service Co., Ltd.**

1. Strengthen the implementation of ship safety management systems to ensure the safe operation and navigation of ships.

#### **To Maritime and Port Bureau of the Ministry of Transportation and Communications**

1. Ensure enforcement of the Regulations on Aids to Navigation and the

Changhua Offshore Wind Farm Navigation Guidelines. Appropriate measures shall be taken against ships that do not comply with the designated navigation routes within the Changhua Offshore Wind Farm traffic lane, in order to enhance navigational safety in the area.

2. Strengthen the information collection and response mechanism for navigational safety within the Changhua Offshore Wind Farm traffic lane, in order to effectively monitor navigational risk information, and ensure timely dissemination to relevant competent authorities and organizations.
3. Incorporate flag States classified as “black-listed” under the annual performance report of the Tokyo Memorandum of Understanding on Port State Control into the risk assessment criteria of Taiwan’s Port State Control risk-based inspection system, in order to align with international standards and accurately reflect the actual risk profile of ships.

**Note:** The final report of this occurrence investigation is published in Chinese. To facilitate understanding for non-Chinese readers, the Executive Summary has been translated into English. While every effort has been made to ensure accuracy, discrepancies may occur. In the event of any inconsistency, the Chinese version shall prevail.