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## **Maritime Security of Passenger Ships: What Can be Done?**

*By Sam Bateman*

### **Synopsis**

*2014 saw its fair share of tragedies with cruise liners and passenger ferries highlighting the problem of ensuring the safety and security of these vessels. What can be done?*

### **Commentary**

SINGAPORE HAS a major stake in ensuring the safety and security of passenger ships. It has become an important hub port for cruise liners. A new cruise terminal opened in 2012, and the world's biggest cruise liners now visit the port. Singapore has also accepted a large responsibility for search and rescue in the region, and would be heavily involved in rescue operations in the event of a major passenger ship accident in regional waters.

More cruise liners with large numbers of passengers now sail in regional waters, while passenger ferries operate extensively in the region, particularly in the Indonesian and Philippine archipelagos and across the Malacca and Singapore Straits. Human error is a major cause of shipping accidents, including faulty operation of equipment leading to a fire. Apart from the risks of a fire or other accident, passenger ships are potentially an attractive target for terrorists. Terrorist bomb attacks have occurred in the past to ferries in Indonesia and the Philippines.

### **Assessing the risk**

Every year sees tragedies around the world involving passenger ships with hundreds losing their lives at sea. The past year was no exception. In December 2014 alone, three people died in a fire on a cruise liner in the Caribbean, and a fire on a Greek passenger ferry in the Mediterranean killed at least 11 people with others still missing. In September, eight people died after a ferry in the Philippines capsized and sank while Bangladesh experienced two major ferry disasters during the year with over one hundred people drowning on each occasion.

The worst disaster during the year involving a passenger ship occurred in April when the ferry *Sewol* capsized off the South Korean coast, killing 304 people, many of them secondary school students. Subsequent investigations revealed a litany of problems, including poor seamanship, illegal

modifications to the ship affecting her seaworthiness, overloading, lack of proper evacuation procedures, and a delayed search for survivors.

This series of tragic accidents highlights the importance of ensuring the safety and security of passenger ships. Piracy is well appreciated as a maritime security threat but less attention is given to the risks to passenger ships despite the loss of life often involved when these ships have an accident.

Ensuring their safety and security is not easy. There are two main difficulties: first, to make sure all on board know what to do in the case of an emergency; and secondly, to evacuate large numbers of people safely from a ship in the event of an accident, particularly a fire which may lead to smoke-filled passages cutting off normal exit routes.

### **New requirements**

The largest cruise liners can now accommodate over 5000 passengers. They are over 350m long and nearly as high above the water line as a twenty storey building. While passengers in a large liner will normally use lifts, these will be unavailable in the event of a fire or other emergency. Past accidents have shown that when a fire occurs on a passenger ship, it is not so much the fire itself that causes deaths but panic, as people try to escape or are trapped below.

Effectively a cruise liner or passenger ferry is a steel box containing a large crowd of people many of whom have no good idea about how to get out. In the event of an accident, passengers will try to escape through crowded and restricted passages that may already be blocked by fire or flood. Or the vessel might be listing with decks becoming walls and vice versa. Many will not know safe exit routes and become totally disoriented.

The International Maritime Organisation (IMO) has been active in recent years in developing new requirements for the safety and security of passenger ships. These efforts were spurred on by the grounding and loss of the large cruise liner *Costa Concordia* off the coast of Italy in January 2012 with the loss of 32 lives.

New IMO requirements for musters of newly embarked passengers prior to or immediately upon departure came into force on 1 January 2015. These include the requirement to ensure that passengers undergo safety drills, including mustering at the lifeboat stations, before the ship departs or immediately on departure.

### **What can be done**

Previously, the requirement was for the muster of passengers to take place within 24 hours of their embarkation. The IMO Secretary-General has also called for every avenue to be explored so that the loss of life in domestic ferry accidents around the world, is minimized. The IMO has initiated a number of capacity building and technical cooperation programmes to address this need.

The most basic requirements are at the individual ship level. Everyone onboard must know what to do in the event of a fire or other emergency. Passengers must be properly briefed and individually aware of alternative exit routes from their cabins that may be well away from the upper deck. Every crew member must know his or her duty – past accidents have shown this is not always the case. Fire drills and evacuation procedures should be regularly exercised.

At a national level, appropriate regulations are required to ensure the safety and security of passenger ships. Spot checks should be carried out on ships to ensure they are complying with regulations.

At a regional level, cooperative contingency arrangements are required for managing a major disaster involving a cruise liner or ferry, including a terrorist attack. An incident involving a passenger ship would be extremely demanding for local authorities and would require close cooperation between regional countries. The multi-agency Maritime Incident Response Groups (MIRG) adopted in Europe to provide specialized fire and rescue services for dealing with incidents at sea, are a possible model for Singapore and the region generally.

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