Are Passenger Ships Getting Too Big?

A seminar to address this question, organised by the Southampton Master Mariners Club, was held at the Clubroom on Monday 26 April 1999. The proceedings were opened by Captain Eric Plowman, the Club Captain, with the Boatsteerer Captain Reg Kelso in the chair.

Captain David Carr, Marine Operations Manager, Cunard Line Ltd., spoke first. He pointed out that the "QE II" was now 30 years old. She is 70,000grt. and carries 1,700 passengers. She is almost the same physical size as P & O's "Grand Princess", which carries 2,600 passengers. The old "Queen Elizabeth" was 85,000grt and carried 2,300 passengers, although during WW II she carried up to 15,000 troops. There are 85 cruise ships in service now, many in the 70,000 grt. range, carrying about 2,000 passengers. 39 cruise ships are on order. Eleven of these are more than 100,000 grt., each carrying in excess of 3,000 passengers. The market is lucrative and growing fast. Over six million Americans take cruises annually. They prefer large new ships. Bigger ships are more profitable.

Captain Francesco Casarini, Senior Marine Co-ordinator, Technical Services Support Group P. & O. S. N. Co., spoke next. He illustrated the trends over the last 30 years to larger and better equipped cruise ships. There are more life saving appliances, more accommodation and more deck space. He stressed the need for risk analysis of passenger evacuation and then investment where the risk is real. A balance is required between damage stability criteria, fire resistance, the size and type of evacuation means and the physical constraints of people.

The final speaker was Mr. Alan Cubbin, Director, Marine Safety and Pollution Prevention, MCA. He repeated the need for risk assessment of major problem areas. He noted that high speed ferries had no lifeboats, but were fitted with rescue boats, escape apparatus and better fire resistant bulkheads. He emphasised the importance of crew training. Quality operators want some reward for their investment in extra safety equipment. There are problems getting new ideas accepted by IMO because it is a committee. Proposals for improvements are reduced to a standard that is acceptable to members.

During the second half of the Seminar, the speakers answered a wide range of questions from the audience of over 50 people. The majority of questions focused on safety measures.

The 1992 damage stability criteria was good, but prescriptive. The ship is the best lifeboat, sit tight if possible. 80% of WWII casualties to seamen occurred in the sea. Fire proof bulkheads and citadels are very effective, but often problems are caused by heat and smoke. Lifeboats still limited to a maximum of 150 people. This has not changed since the days when the "Queen Mary" was built, but there is no reason why they should not be bigger. Much of the equipment still provided in lifeboats is quite unnecessary (eg. fish hooks) as most rescues now occur in hours not days (with GPS and GMDSS we know roughly where most ships are). The concept of escape capsules is popular on ferries and rigs. Still often the case that lifeboats kill more during drills than they save. New ideas are needed for basic survival systems. All you need is something to sit in, with protection from the elements, and await rescue.
Speed of evacuation depends on number of people involved, survivability and area of operations. Over 2,5000 passengers were safely taken off the "Monarch of the Seas" in

under 2 hours after she hit a reef off St. Maarten and was beached by the Master. That would not have been so easy if the ship had been in difficulties in heavy weather in the North Atlantic. To stipulate an industry wide evacuation time would be unrealistic. Must be assessed on an individual ship basis. Risk assessment is the key area, but important that the data used is accurate. Identify the real problems areas and invest in these.

Another key area is manning. Lack of a career structure and company culture results in a high turn over of staff, particularly in the hotel services department. A common language is sometimes difficult to achieve with many nationalities among the crew. (Does nationality matter?). Training is improving, however if it is impossible to train all the crew properly, it may be better to train a few well. The USCG states all crew members have a duty of care towards the passengers. Experience is vital, so very important to retain good crew. Quality crew members becoming more difficult to find. Running out of Filipinos, now going to China for crews.

More questions covered design problems. Regulations do not keep up with rapidly evolving designs. As vessels become larger, the accommodation tends to become more complex. Even the crew get lost sometimes! Ship's length overall and beam has not increased much, but the freeboard is much higher on modem vessels. The number of lifeboats may influence the length of the parallel body of the ship. In some cases lifeboats can be boarded from enclosed decks, which are much less vulnerable, or from embarkation side doors near the water line, as is done when going ashore when anchored off a port. Lowering the position of the lifeboats would not be beneficial if crossing the North Atlantic in winter.

A number of other areas of concern were covered. Aspects of security on board. Whether some ports can handle the large influx of visitors. It was noted that Bermuda had limited the number of cruise ships calling at any time. The insurance markets view the large cruise ships as a good risk. The IMO is sometimes perceived as the weak link in the efforts to improve standards.

Mr. Walter Weyndling summed up the seminar by noting three particular areas of interest: Government policies are reactive; the difficulties of recruiting and retaining good staff; and the problems of what to do in the last resort. He concluded by congratulating the Club on selecting a very topical subject and the high quality of the presentations.