INTERNATIONAL MARITIME ORGANIZATION

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MARITIME SAFETY COMMITTEE
83rd session
Agenda item 20

MSC 83/20/1
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GENERAL CARGO SHIP SAFETY

Submitted by Argentina

SUMMARY	
Executive summary:	It is proposed that consideration should be given to carrying out enhanced surveys on general cargo ships, in particular bulk carriers, on the basis of resolution A.744(18)
Action to be taken:	Paragraphs 12 and 13
Related documents:	MSC 82/84 and MSC/Circ.1199

Background

1 At its eighty-second session the Maritime Safety Committee decided to include in the agenda for MSC 83 an item entitled "General Cargo Ship Safety", with a view to evaluating the suitability of the current safety regulations applicable to those ships.

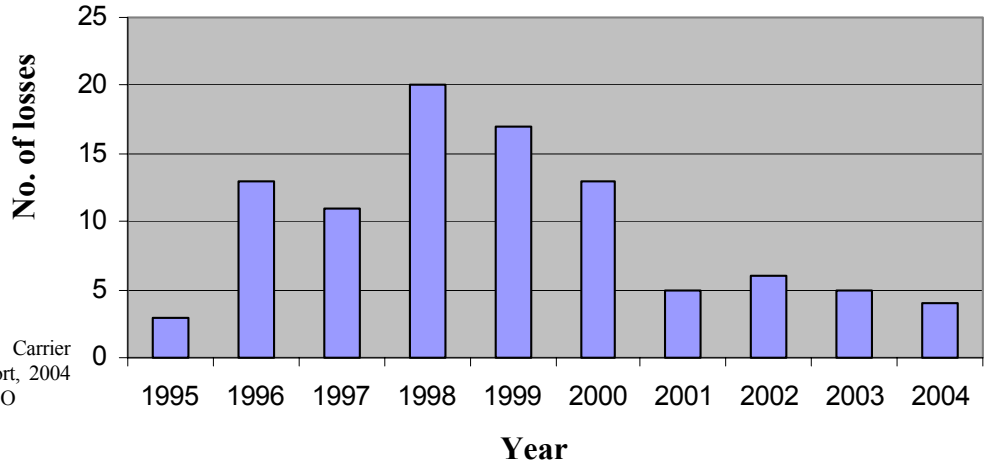
2 The type of evaluation envisaged is likely to require a global approach that embraces ship design and maintenance specifications as well as issues relating to the human factor, the environment and operational considerations.

3 This document does not seek to address all the required areas, but to prioritize issues relating to ship maintenance as an essential risk-control measure. To this end, a study has been made of asymmetries in survey levels for general cargo ships, as compared with other ship types such as bulk carriers, and of the reduction in total losses achieved through adopted measures, particularly the introduction of the enhanced programme of surveys for bulk carriers and oil tankers based on resolution A.744(18).

Introduction

4 During the past decade, the high casualty rate among bulk carriers has led to the introduction of the series of safety regulations contained in SOLAS chapters II-1, III, IX, XI-1, XI-2 and XII and in other IMO-related instruments, including resolution A.744(18) as amended.

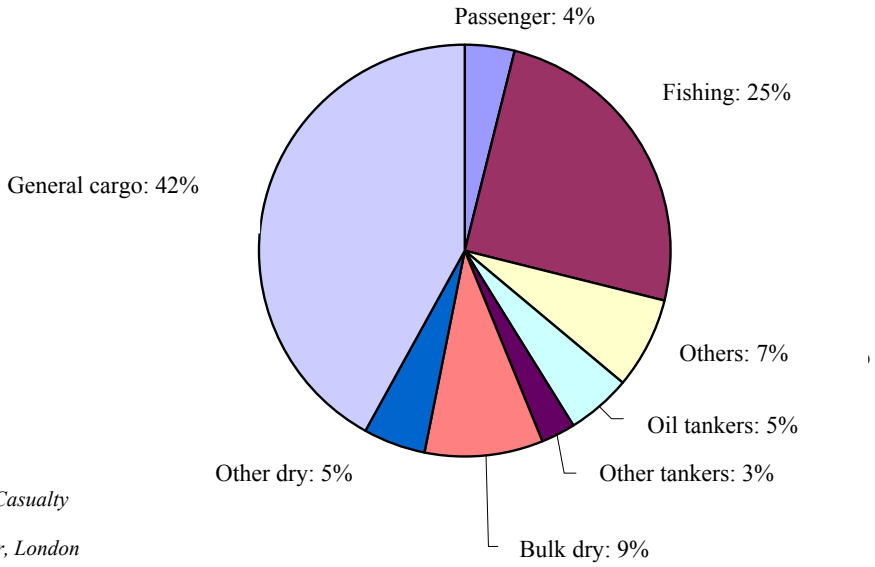
5 While it is recognized that the simultaneous application of various control measures has brought about an overall reduction in the risk level associated with bulk carriers, with the proportion of total losses between 1995 and 2004 due to structural faults and flooding standing at 28 per cent (*), there is no doubt that the enhanced inspection programme has been a key factor in reducing the level of structural faults in existing ships and thus the number of bulk carrier total losses, as shown in Figure 1.



(*) Source: Bulk Carrier Casualty Report, 2004 INTERCARGO

Figure 1: Bulk carrier total losses, 1995-2004

6 Despite the efforts of IMO to increase safety levels, especially on passenger ships, tankers and bulk carriers, the various published statistics show that general cargo ships account for 42 per cent of total losses (Fig. 2).



Source: *World Casualty Statistics, 2000*
Lloyd's Register, London

Figure 2: Total loss by ship type, 1995-2000

7 Although the total loss rate by ship-year (i.e. the number of casualties per year divided by the number of ships of a given type) between 2000 and 2005 has been in overall decline (Fig.3), in relative terms it is evident that the rate for general cargo ships is three or four times greater than that for bulk carriers and oil tankers.

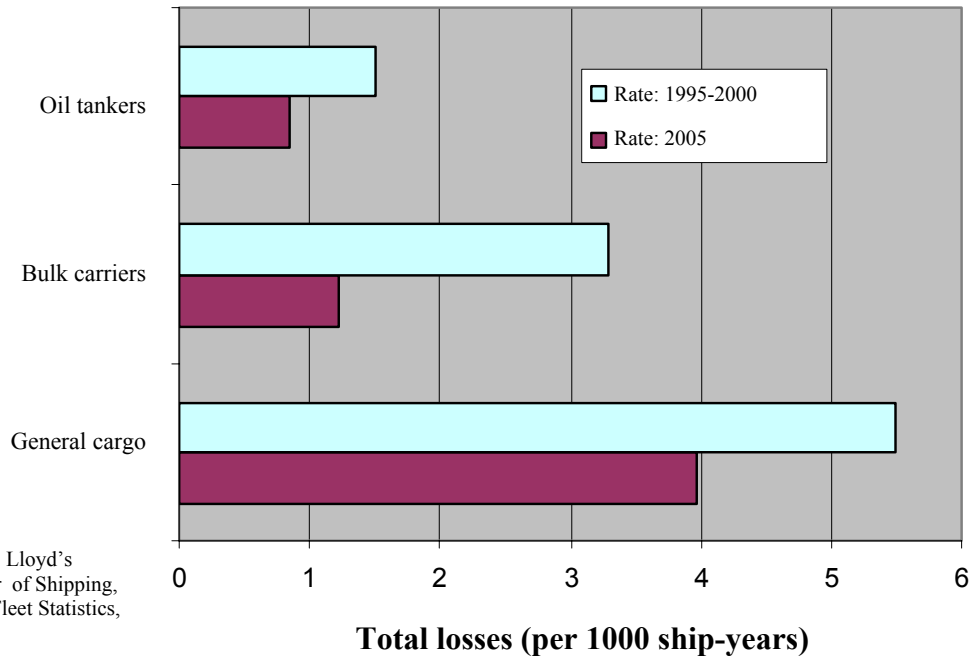


Figure 3: Total loss rate between 1995 and 2000 and in 2005

8 Figure 3 also confirms that, despite the general downward trend in total loss rates for the three types of ship mentioned, the decrease was markedly greater for bulk carriers and oil tankers, probably reflecting the impact of the risk-control measures implemented for those ship types under the various IMO instruments. In Figure 1 in particular, a consistent decline is noticeable in the number of losses recorded from 1998, coinciding with the first periodic surveys carried out in accordance with resolution A.744(18) after its entry into force in 1996.

9 Irrespective of the questions relating to a harmonized definition of "bulk carrier" raised in document MSC/Circ.1199, it is acknowledged that many general cargo ships carry loads identical to those of bulk carriers. While it is clear that most of the provisions of chapter XII were developed for a possible fault sequence characterizing bulk carriers of single side-skin construction, it is no less certain that the effects of corrosion caused by certain types of bulk cargo, the structural forces generated by high-density loads and the structural damage arising from hold loading and unloading processes all have consequences for the structure of general cargo ships that are similar to those experienced with bulk carriers.

Conclusions

10 On the basis of the foregoing and this Administration's experience of statutory ship survey, it seems probable that an appreciable reduction in cargo ship losses could be achieved through effective control of hull maintenance which allowed for early detection of structural faults and scrupulous follow-up of structural weakening resulting from corrosion – particularly if

a system of continuous checks was introduced which took into account the ship's age, appropriate preparation and access to all the spaces to be inspected.

11 It would also be advisable if, in addition to analysis of other factors that might help reduce risk level, resolution A.744(18) was studied as a matter of priority to determine which of its provisions might be applicable to general cargo ships, particularly those that carry bulk solids, as a first step towards achieving risk control that is highly effective by virtue of its low impact and its ease of introduction to new and existing ships. Also, in order to improve the conditions for thorough general inspections and to facilitate the required measurement of structural elements, the possibility of fitting new ships with suitable means of access to cargo and other spaces should be examined.

Action requested of the Committee

12 The Committee is invited to consider the above-mentioned conclusions and to examine, if necessary through an *ad hoc* working group, the provisions of Annex A of resolution A.744(18) that might be applied/adapted for general cargo ships, particularly those that carry bulk solids, and likewise resolution MSC.167(79) on *Standards for owners' inspection and maintenance of bulk-carrier hatch covers*.

13 It is also proposed that the Committee should evaluate the possibility of trying to ensure that new cargo ships of a specified size should henceforth provide adequate means of access to cargo and other spaces, so as to permit effective and thorough general inspection as well as the measurement of thicknesses necessary to guarantee hull structural integrity.