INTERNATIONAL MARITIME ORGANIZATION

IMO

E

SUB-COMMITTEE ON STANDARDS OF TRAINING AND WATCHKEEPING
33rd session
Agenda item 11

STW 33/INF.6
16 November 2001
ENGLISH ONLY

LARGE PASSENGER SHIP SAFETY

Submitted by the United States

SUMMARY

Executive summary:	This document describes the process utilized for conducting the gap analysis for those IMO instruments that are applicable to the tasks assigned to the STW Sub-Committee by MSC 74 on "Large Passenger Ship Safety."
Action to be taken:	None, information only
Related documents:	MSC 74/24, MSC 74/WP.6, and MSC 73/WP.20

INTRODUCTION

1 The Maritime Safety Committee, at its seventy-fourth session, agreed to include in the Sub-Committee's work programme an item on "Large passenger ship safety," and assigned various tasks (MSC 74/WP.6, annex 3) to be considered and resolved within two sessions.

2 In reviewing the tasks assigned to the Sub-Committee, the United States assembled a panel of experts to conduct a gap analysis of the IMO instruments (conventions, resolutions, codes, guidelines and circulars) applicable to the tasks, to identify those instruments where additional safety improvements can be made.

3 This information paper provides the detailed discussion of the process used to perform the gap analysis described in document STW 33/11 (United States), which sets a course of action based upon the results of the gap analysis.

ACTION REQUESTED OF THE SUB-COMMITTEE

4 The Sub-Committee is invited to take note of this information.

***

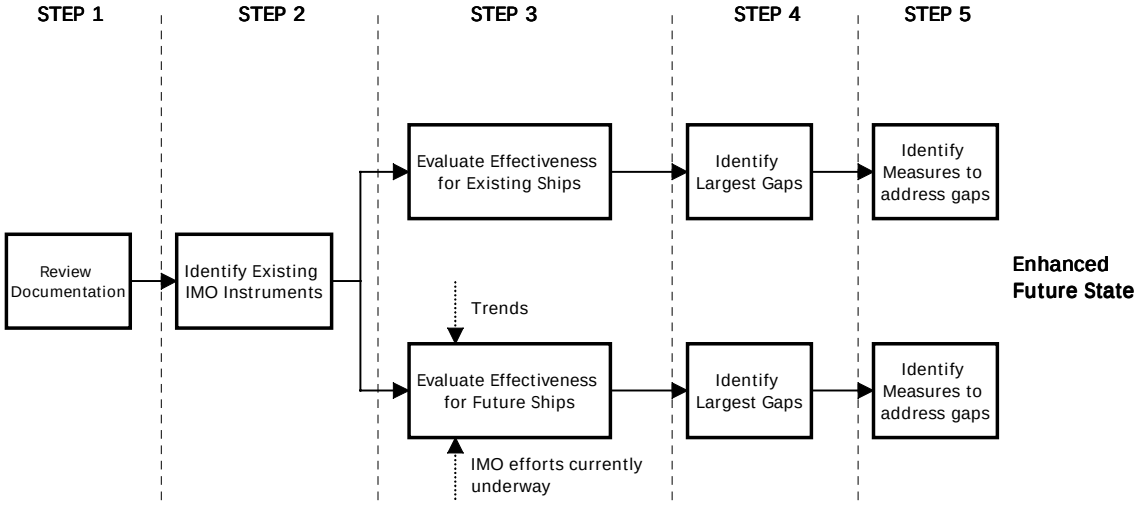
ANNEX

GAP ANALYSIS - PROCESS

I. APPROACH

1. Utilizing the process shown in Figure 1, the United States conducted a gap analysis to analyze the assigned tasks (MSC 74/WP.6, annex 3) in terms of the existing requirements' effectiveness, both with respect to existing large passenger ships, as well as with respect to future large passenger ships, in light of emerging trends in the industry. The process relied on expert knowledge of the tasks, the existing IMO instruments, current IMO efforts pertaining to the tasks, and industry trends. Furthermore, the process is based on the principles set in the guiding philosophy, strategic goals, and objectives contained in Annex 1 of MSC 74/WP.6.

Figure 1 – Gap Analysis



Existing and Future Large Passenger Ships

2. This process is conducted in parallel, as shown in figure 1, for existing and future large passenger ships (LPS). For existing ships, only existing IMO instruments are considered.

3. For future ships, both existing IMO instruments and current work under consideration at IMO at the Committee and Sub-Committee level are considered. The large passenger ships of the future are characterized in light of the emerging trends obtained by analyzing data from various sources.[1] The inventory of trends included changes to ships, passengers, and the industry as a whole. The following changes were considered:

    1. Increasing capacity of ship (number of passengers);
    2. More passenger ships;
    3. Increasing variety of destinations;
    4. Increasing remoteness of destinations;
    5. Changing passenger demographics;
    6. Increasing size and complexity of public spaces;

[1] MSC 73/INF.13; MSC 73/INF.11; MSC 73/INF.12

7. Increasing ship size (width and length);
8. Changing ratio of crewmembers qualified to provide emergency assistance to the number or passengers; and
9. Increasing exposure to environment.

II. PROCESS

1. The process shown in Figure 1 involves the following steps:

STEP 1 -Review Documentation

1. Review tasks, objectives, goals and philosophy agreed on by the Large Passenger Ship Safety Working Group at MSC 74. Specifically, the following documentation: MSC 73/WP.20 and MSC 74/WP.6 (Working Group Reports).

2. Review the tasks assigned (MSC 74/WP.6 annex 3) and consolidate tasks where necessary and appropriate.

STEP 2 – Identify Existing IMO Instruments

1. Identify the regulations that address each individual task (MSC 74/WP.6, annex 3). This review was restricted to the following:

   a. IMO instruments – convention, guidelines, etc. (i.e. SOLAS, Load Lines Convention, STCW Convention, Assembly resolutions, Circulars, etc.)

   b. Current work under consideration at IMO at the Committee and Sub-Committee level, where applicable.

STEP 3 - Evaluate Effectiveness of Existing IMO Instrument for LPSs and Identify Gaps

1. Evaluate the effectiveness of existing IMO instruments for each task (MSC 74/WP.6, annex 3) in the five areas of equipment, design, operations, management and training with the following five performance measures.

   a. Flexibility – How well do the existing regulations allow for alternative designs, new concepts, technologies, etc.
   b. Prevention – To what extent do the existing regulations "Prevent the casualty from occurring in the first place?"
   c. Performance – How well do the existing regulations address safety concerns?
   d. Ease of Compliance – How clear are the existing regulations?
   e. Comprehensive – Do the existing regulations address all issues with regard to the area being considered?

   The score for each of the five performance measures ranges from 0 (non-existing regulation) to 5 (effective coverage) or N/A if not applicable.

2. Results for each performance measure are averaged and tabulated using the matrix shown in Figure 2 to identify the degree of effectiveness of the regulations for each task as it relates to existing and future large passenger ships. The maximum number of points is 25.

Task Title

Evaluate the effectiveness of existing regulations for each task in light of the criteria shown below.

Applicable Regulations		Flexibility	Prevention	Performance	Compliance	Comprehensive	
	Equipment						
	Design						
	Operations						
	Management						
	Training						
							SCORE
	Average						

Figure 2

STEP 4 - Identify Largest Gaps

1. Compare results for each task's evaluation. Lower scores indicate larger gaps. The evaluation results could fall into any of several categories:

    a. No real gap;
    b. Small gap, that is not a priority compared to other gaps; or
    c. Larger gap, for which measures to address gap should be considered.

Tasks with large gaps (low scores) are prioritized for the development of additional safety measures. There is no expectation that measures will be developed for every task.

STEP 5 - Identify Measures to Address Gaps

1. Take into account guidance from MSC (MSC 74/WP.6, paragraph 16) and risk management approaches (i.e. eliminate hazards, prevent initiating events, make safeguards more reliable, reduce consequences, and reduce effects) to develop measures to address gaps for:

    a. Existing LPSs – with emphasis on operations, management and training.
    b. Future LPSs – with emphasis on equipment, design, operations, management and training.

2. Evaluate the measures to address the gaps in terms of the following attributes: feasibility, flexibility, prevention, performance, ease of compliance, and comprehensiveness.