MARK ROSENKER TESTIMONY
U.S. Senate Committee on Commerce, Science, & Transportation
July 24, 2013

Chairman Rockefeller, Ranking Member Thune and distinguished members of the committee, thank you for inviting me to testify today. My name is Mark Rosenker and I am a Former Chairman of the United States National Transportation Safety Board and a retired United States Air Force Reserve Major General. I also served as Deputy Assistant to President George W. Bush and Director of the White House Military Office. I welcome the opportunity to testify before this committee, which served as my authorizing committee during my tenure as chairman of the National Transportation Safety Board.

I am testifying today in my capacity as a member of the independent Panel of Experts established by the Cruise Lines International Association, or CLIA. The independent Panel of Experts was put in place as part of the Global Cruise Industry Operational Safety Review, which was launched in January 2012 by the industry in the wake of the Concordia incident. The Review was introduced as part of the cruise line industry's efforts to execute on their stated commitment to continuous improvement and innovation in shipboard operations and safety. It focused on the critical human factors and operational aspects of maritime safety.

The Review was introduced to identify best practices and develop new policies that could be implemented rapidly on an industry-wide basis to further enhance the safety of passengers and crew. It took the lead in identifying additional best practices for industry-wide implementation and ultimately, formal submission to

the International Maritime Organization, as appropriate, that could strengthen the cruise industry's safety record. [See appendix] The International Maritime Organization is an international maritime regulatory body with 170 Member States including the United States, which mandates global standards for the safety and operation of cruise ships. The Review was guided by a task force consisting of senior industry executives from CLIA member lines with responsibility for maritime safety. To commence the Review, CLIA's member lines took a detailed look at existing safety procedures and practices. Senior cruise line executives undertook internal reviews of their own operational safety practices and procedures concerning issues of navigation, evacuation, emergency training, and related practices and procedures.

The independent Panel of Experts was formally appointed in April 2012 to provide an impartial assessment of the recommendations developed by the Review. Collectively, those of us on the Panel of Experts bring well over a century of experience in transportation and safety to the table. Our backgrounds include senior positions with a diverse mix of organizations. Each Panel member has deep experience in the maritime, regulatory and accident investigation fields and the Panel is balanced geographically with equal representation from the United States and Europe. The three other members of the panel are Rear Admiral (Ret.) Stephen Meyer, Dr. Jack Spencer, and Willem de Ruiter.

Stephen Meyer is a retired Rear Admiral in the Royal Navy. He is a former commander of a number of Royal Navy Ships and was the

former head of the United Kingdom Marine Accident Investigation Branch.

Dr. Jack Spencer is the former Director of the Office of Marine Safety at the National Transportation Safety Board. Dr. Spencer has more than 40 years of experience with the U.S. Coast Guard, American Bureau of Shipping, and National Transportation Safety Board. For 30 years, he has been on United States delegations to the International Maritime Organization.

Willem de Ruiter is former head of the European Maritime Safety Agency (EMSA). In 2003, Mr. de Ruiter was appointed as the first executive director of EMSA and charged with building up the organization. He joined EMSA after a distinguished career in the Dutch government and at the European Commission.

The independent Panel of Experts was formally appointed in April 2012 to provide an impartial assessment of the Review's recommendations. I took this panel extremely seriously and approached it with the same unwavering commitment that I had as NTSB Chair to raise the bar of safety even higher for this safe sector.

The Panel takes a very active view of the issues being discussed and policies being developed by CLIA that relate to all aspects of maritime safety. We are a deliberative body that is independent of CLIA's technical and regulatory advisory committees. Our advice, counsel and recommendations have covered a wide range of topics and are delivered to CLIA's Board of Directors, Executive Committee, and other advisory committees as appropriate. We are all experienced professionals and we find our views to be well-received

and that candor is a hallmark of our confidential deliberations. We are a group of highly critical and deeply committed experts and we are never bashful about sharing what we are thinking either as individuals or as a Panel. At times our deliberations between the Panel members have been very spirited. This has further assisted CLIA in highlighting for their members the various thoughtful perspectives of complex safety issues and the related policy implications.

As someone with four decades of experience in the transportation and technology industries, I've always known that the cruise industry is governed by an extremely extensive framework of safety regulations. Every aspect of the cruise industry is heavily regulated and monitored under United States, European Union, and international maritime law to protect the safety of passengers and crewmembers. Regulations start with the design and construction of the ship and extend to the operation of the vessel, the emergency equipment on board, and scenarios for emergency situations, including the evacuation of a ship. Cruise ships are also subject to multiple layers of enforcement at the international, flag State and port State level.

The Panel played an active role and provided many new and innovative ideas and recommendations that were incorporated into the final policies and other initiatives, in addition to providing independent, expert analysis of proposed policies. As the Panel gained more experience working together, our commitment to the process grew and the value of our role became even clearer over time, as our engagement in the issues and policy development began

to produce tangible results. It is without question that we are working with a talented and deeply committed group of cruise industry professionals that share the Panel's values toward maritime safety. If I did not believe this to be the case, I would most certainly not be associated with these efforts, nor would any of my colleagues that serve on the Panel.

During the course of the Review, my fellow panelists and I examined safety-related shipboard systems and observed safety drills aboard one of the world's largest cruise ships. We visited the state-of-the-art full bridge simulator at the Resolve Maritime Academy to see how technology can strengthen safety and supplement training on cruise ships. We held a session with officials at Airbus to draw from their efforts related to Crew Resource Management, Simulation Training, and Safety Culture. We met with leaders of the Review multiple times to review, analyze, and discuss recommended changes to cruise industry safety practices and offered our own ideas based on our individual and collective experiences.

As a member of the Panel of Experts during last year's Review, my role was to provide an impartial assessment of the recommendations developed by the established Task Force of cruise line experts, before they were ultimately implemented and then submitted for formal consideration to the IMO. Additionally, as Panel members we shared numerous, wide-ranging recommendations and suggestions that were incorporated into the industry's policies, as well as into other important ongoing efforts that have not specifically resulted in published industry-wide policies.

All ten policies that resulted from the Review were incorporated into IMO standards. Those ten policies, in the order in which they were introduced, are as follows:

The Passenger Muster Policy requires musters for embarking passengers prior to departure from port and was launched with immediate effect on February 9, 2012. On occasions when guests arrive after the muster has been completed, the policy dictates that they are promptly provided with individual or group safety briefings. This practice exceeds existing legal requirements – which require that musters occur within 24 hours of passenger embarkation.

Under the Passage Planning Policy, each passage plan is to be thoroughly briefed to all bridge team members who will be involved in execution of the plan well in advance of its implementation. The passage plan will be drafted by the designated officer and approved by the master. This policy was effective upon its announcement on April 24, 2012.

To minimize unnecessary disruptions and distractions on the bridge, the Bridge Access Policy requires bridge access be limited to those with operationally related functions during any period of restricted maneuvering or when increased vigilance is required such as arrival/departure from port, heavy traffic, or poor visibility. Further, member lines are to take steps to prevent distractions to watchkeeping during these periods. This policy was effective upon its announcement on April 24, 2012.

The Excess Lifejackets Policy ensures that the number of lifejackets carried is far in excess of the number of persons

actually onboard a ship. In addition to the statutory requirements of carriage of lifejackets for each person onboard and certain specified extras, the cruise industry adopted a policy of carrying additional adult lifejackets onboard each cruise ship in excess of current legal requirements. As a result, the number of additional adult lifejackets provided must not be less than the total number of persons berthed within the ship's most populated main vertical fire zone.

All of the additional lifejackets addressed in this policy are to be stored in public spaces, at the muster stations, on deck or in lifeboats, and in such a manner as to be readily accessible to crewmembers for distribution as may be necessary in the event of an emergency. This policy was effective upon its announcement on April 24, 2012.

The Nationality of Passengers Policy was developed in response to the request of governments at the May 2012 meeting of the IMO Maritime Safety Committee meeting. This policy prescribes that the nationality of each passenger onboard is to be recorded, kept ashore and made readily available to search and rescue personnel as appropriate. This policy was effective upon its announcement on June 26, 2012.

Under the Common Elements of Musters and Emergency Instructions Policy, member cruise lines have specified 12 common elements that are to be communicated to passengers in musters and emergency instructions. In addition to current legal requirements, this policy specifically requires that musters and emergency instructions are to include the following common elements:

1. When and how to don a lifejacket
2. Description of emergency signals and appropriate responses in the event of an emergency
3. Location of lifejackets
4. Where to muster when the emergency signal is sounded
5. Method of accounting for passenger attendance at musters both for training and in the event of an actual emergency
6. How information will be provided in an emergency
7. What to expect if the Master orders an evacuation of the ship
8. What additional safety information is available
9. Instructions on whether passengers should return to cabins prior to mustering, including specifics regarding medications, clothing, and lifejackets
10. Description of key safety systems and features
11. Emergency routing systems and recognizing emergency exits
12. Who to seek out for additional information

This policy was effective upon its announcement on June 26, 2012.

To facilitate training for lifeboat operations, the Lifeboat Loading for Training Purposes Policy requires that at least one lifeboat on each ship is to be filled with crewmembers equal in number to its certified number of occupants at least every six months. Under this policy, for safety considerations, the loading of lifeboats for training purposes is to be performed only while the boat is waterborne and the boat should be lowered and raised with only the lifeboat crew onboard essential for safe operation. All lifeboat crew and embarkation/boarding station crew are to be required to attend the lifeboat loading drill. If not participating inside the lifeboat, crew members are to observe the loading of the lifeboat to its certified number of people and its operation. Taking into account safety consideration, the policy also includes specific provisions for ships with crew sizes less than three hundred. This policy was effective upon its announcement on September 20, 2012.

Operational safety can be enhanced by achieving substantive consistency in bridge operating procedures among commonly owned

ships, for example by providing that bridge personnel who may rotate among such ships can be familiarized with a common set of procedures. The Harmonization of Bridge Procedures Policy requires that bridge operating procedures are to be harmonized as much as possible, both within individual companies and among brands within a commonly owned and operated fleet. Under this policy, each member operating multiple ships and each cruise line brand that is commonly owned and operated with another brand is to harmonize their respective procedures for bridge operations. This policy was announced on November 15, 2012 and its implementation has been completed.

The Location of Lifejacket Stowage Policy complements the Excess Lifejackets policy under which oceangoing cruise ships carry additional adult lifejackets onboard far exceeding the number of persons actually onboard the ship. Under this new policy lifejackets equal to or greater than the number required by international regulations and the ship's flag State are to be stowed in close proximity to either muster stations or lifeboat embarkations points on newly-constructed ships. Consequently, lifejackets will be readily accessible by crewmembers for distribution to passengers in the event of an emergency. This policy further enhances shipboard safety as passengers will have even greater access to lifejackets in the event of an emergency. This policy was announced on November 15, 2012 and goes into effect with newly-constructed cruise ships for which the building contract is placed on or after July 1, 2013.

The Securing Heavy Objects policy requires that oceangoing members include procedures in their Safety Management Systems to

secure heavy objects either permanently, when not in use, or during severe weather. This policy was announced on November 15, 2012 and its implementation is now complete

When I was Chairman of the National Transportation Safety Board, I closely monitored trends in safety across every sector of transportation. I've been able to apply my experiences and knowledge of transportation safety to the panel as we evaluated the suggested policy and best practice improvements. Each of the individual Panel members brings unique and in-depth strengths to the Panel as a whole; one of my greatest strengths is a broad view of transportation safety that includes but reaches far beyond the maritime sector.

I can say unequivocally that the cruise industry has been very receptive to our input. I've also been impressed with the level of collaboration of this industry with its regulators and other key stakeholders to enhance safety practices and procedures. The cruise industry works continually with the IMO, other global maritime authorities, classification societies, and shipbuilders to implement and enhance what are already stringent safety standards. My involvement on this panel has given me confidence that the industry is engaged in proactive and responsible relationships with regulators across the globe.

Along with the other members of the Panel of Experts, I've been extremely impressed with the speed with which the industry adopted the ten policies developed by the Review, all of which exceed current regulatory requirements. Further, I believe that CLIA's initiative to combine these ten policies related to the

Review with an additional ten new and existing industry-wide policies is a very positive and aggressive step for a trade association to take. We specifically advised CLIA as they considered this initiative, including with relation to developing a comprehensive Compendium of Policies; their methods of CEO-level verification of policy implementation; and their use of Safety Management Systems to ensure the sixteen policies related to safety and environmental protection were subject to a regulatory internal and external auditing scheme. These are exactly the types of proactive and innovative actions that I, and my fellow Panel members, have encouraged this industry to take. As an avid cruiser, I also feel it is important that consumers understand that cruise vacations are extremely safe. This industry is highly regulated that is continuously subjected to tremendous oversight, wherever they operate.

As members of the Panel of Experts, our work isn't done because the Operational Safety Review is completed. We continue to advise and assist the cruise industry in providing ideas, guidance and impartial analysis as it continues to review and seek improvements to shipboard operations and safety. We remain actively engaged by providing our advice through CLIA's Board of Directors, Executive Committee and other Advisory Committees. This has ensured that while the formal structure of the Operational Safety Review wound down, the cruise industry could still benefit from our active input and expertise.

So thank you again for the opportunity to testify today and I look forward to your questions.

APPENDIX TABLE OF CONTENTS

INTERNATIONAL MARITIME ORGANIZATION

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MARITIME SAFETY COMMITTEE
90TH Session
Agenda Item 27

MSC/90/27/1
February 29, 2012
Original: English

PASSENGER SHIP SAFETY
Cruise Industry Operational Safety Review
Submitted by Cruise Lines International Association (CLIA)

SUMMARY

Executive summary:	This document describes the work undertaken immediately following the Concordia incident, under the leadership of the Cruise Lines International Association, to address operational safety. This work will continue and recommendations will be provided to the industry, IMO, and governments on an ongoing basis.
Strategic direction:	5.1
High-level action:	5.1.1
Planned output:	None
Action to be taken:	Paragraph 16
Related document:	MSC 90/1/Rev.1; MSC 90/27

Background

1. In response to the Concordia incident, and as part of the industry's continuous efforts to review and improve safety measures, the Cruise Lines International Association (CLIA), speaking on behalf of the global cruise lines industry, announced the launch of a Cruise Industry Operational Safety Review on 27 January 2012, although it had begun prior to that date.

2. As best practices are identified via this Review, they will be shared on an ongoing basis among CLIA members and any appropriate recommendations will be shared with the IMO.

Support for the Secretary-General's Efforts

3. In expressing his condolences to the families of those lost in the Concordia incident, the Secretary-General stated his determination to work with others to ensure that such an accident could be prevented in the future and has pledged that the Organization will consider seriously the lessons to be learned and will take action, as appropriate, in the light of those findings.

4. CLIA specifically supports the views expressed by the Secretary-General in his 30 January 2012 press statement on this subject.

5. The Secretary-General indicated in that statement that he had opened a channel of communication with passenger ship operators – through the Cruise Lines International Association (CLIA) – and that he welcomed the response to his request to hold meetings with him to discuss the safety of cruise passenger ships in general and, in particular, any findings and recommendations from their own internal review of current - practices and safety procedures in the operation of passenger ships.

6. This Review is intended to complement the efforts and goals of the Organization and to also be completely consistent with the Secretary-General's description of the on-going communications and operational safety initiatives of the global cruise industry.

Description of the Cruise Industry Operational Safety Review

7. The Review will include a comprehensive assessment of the critical human factors and operational aspects of maritime safety.

8. Key components of the Review include:

.1 An internal review by CLIA members of their own operational safety practices and procedures concerning issues of navigation, evacuation, emergency training, and related practices and procedures.

.2 Consultation with independent external experts.

.3 Identification and sharing of industry best practices and policies, as well as possible recommendations to the IMO for substantive regulatory changes to further improve the industry's operational safety.

.4 Collaboration with the IMO, governments and regulatory bodies to implement any necessary regulatory changes.

9. More specifically, an example of how one major cruise line intends to proceed with their internal review in three distinct phases might be useful for the Committee:

- First Phase: Bridge operating procedures; Emergency response procedures; and Abandon ship
- Second Phase: Lessons learned; Communications shoreside and with local authorities; Remote monitoring of voyages and status of ship; and Newbuild implications
- Third Phase: Emergency responses to fire, flooding, collision, and grounding; Damage control equipment; Training; Safety Management System; Audit procedures; and Corporate emergency response

10. Each cruise line will conduct their internal review in accordance with their own Safety Management System.

Outputs of the Cruise Industry Operational Safety Review

11. The first output of the Review was the cruise industry's Passenger Muster Policy, announced on 9 February 2012 and made immediately effective, serves as an example of the type of best practices and procedures that may be expected as outputs from the Review.

12. That Passenger Muster Policy is offered to this Committee for them to consider and reads as follows:

> "Current legal requirements for conducting a muster of passengers are found in the International Convention for the Safety of Life at Sea (SOLAS) and mandate that a muster for embarking passengers occur within 24 hours of their embarkation. Notwithstanding the legal requirement, CLIA's member cruise lines have identified a best practice effective immediately that calls for conducting the mandatory muster for embarking passengers prior to departure from port. On occasions when guests arrive after the muster has been completed, CLIA's policy is that they be promptly provided with individual or group safety briefings that meet the requirements for musters applicable under SOLAS. This practice exceeds existing legal requirements and has been adopted by CLIA's membership as a formal policy to help ensure that any mandatory musters or briefings are conducted for the benefit of all newly embarked passengers at the earliest practical opportunity."

13. Additional outputs from the Review will be provided as appropriate to the Organization via its relevant Committees and Sub-committees.

Conclusion

14. CLIA is fully committed to understanding the factors that contributed to the Concordia incident and is proactively responding to all maritime safety issues.

15. The Cruise Industry Operational Safety Review will enable the industry to do so in a meaningful and expedited manner.

Action requested of the Committee

16. The Committee is invited to consider the information provided in this submission and take action as appropriate.

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INTERNATIONAL MARITIME ORGANIZATION

E

MARITIME SAFETY COMMITTEE
90th session
Agenda item 27

MSC 90/27/2
13 March 2012
Original: ENGLISH

PASSENGER SHIP SAFETY
Cruise Industry Operational Safety Review
Submitted by the Cruise Lines International Association (CLIA)

SUMMARY	
Executive summary:	This document describes certain specific initial outputs from the Cruise Industry Operational Safety Review, which was undertaken immediately following the Concordia incident, under the leadership of the Cruise Lines International Association, to address operational safety. This work will continue and recommendations will be provided to the industry, IMO, and governments on an ongoing basis.
Strategic direction:	5.1
High-level action:	5.1.1
Planned output:	None
Action to be taken:	Paragraph 9
Related document:	MSC 90/1/Rev.1; MSC 90/27; MSC 90/27/1; MSC-MEPC.3/Circ.3; and Res. MSC255(84)

Background

1. In response to the Concordia incident, and as part of the industry's continuous efforts to review and improve safety measures, the Cruise Lines International Association (CLIA), speaking on behalf of the global cruise lines industry, announced the launch of a Cruise Industry Operational Safety Review on 27 January 2012, although it had begun prior to that date.

2. As best practices are identified via this Review, they will be shared on an ongoing basis among CLIA members and any appropriate recommendations will be shared with the IMO.

3. In CLIA's previous submission, MSC 90/27/1 we described the basic framework for the Review and reported on the first output, which was our Passenger Muster Policy.

Outputs of the Cruise Industry Operational Safety Review

4. The first output of the Review was the cruise industry's Passenger Muster Policy, announced on 9 February 2012 and made immediately effective, serves as an example of the type of best practices and procedures that may be expected as outputs from the Review.

5. In the interim, the cruise industry has developed three additional outputs which CLIA wishes to share with this Committee:

   i. The cruise industry is of the view that we, along with the rest of the maritime community, would benefit from increased reliability and transparency with regard to marine casualty information. Specifically, we believed the relevant information contained in the IMO database would benefit from some additional verification. Accordingly, CLIA recently undertook an effort with the IMO Secretariat to harmonize the information in Annex I of the GISIS Marine Casualties and Incidents module to ensure that no recent and known "very serious casualties," alternatively referred to as "very serious marine casualties," involving one or more fatalities on a cruise passenger ship were inadvertently omitted. This action resulted in adding and verifying basic information on a total of fifteen marine casualties in the database, but did not result in the removal of any existing marine casualties or associated data.

   ii. Consistent with the above actions regarding Annex I of the GISIS Marine Casualties and Incidents module, CLIA is of the view that a mandatory obligation to provide information on the occurrence of very serious casualties is beneficial to Member States, the maritime industry, and the public at large. As we worked through reconciling existing IMO casualty data with the best data presently available to our industry, we found substantial inconsistency in reporting. Thus, to assist Member States in their ongoing efforts to consider improvements to maritime safety through examination of casualties, we respectfully wish to draw attention to the existing provisions in the mandatory IMO Casualty Investigation Code (Res. MSC.255(84)) and those in MSC-MEPC.3/Circ.3.

   iii. Thus, recognizing that it is not procedurally appropriate for CLIA to propose an amendment to a mandatory instrument, we request that Member States consider revising SOLAS Chapter XI-1, Regulation 6 to expressly and more clearly emphasize the mandatory reporting requirements regarding "very serious casualties." We believe that Member States would find this to improve the breadth and depth of reporting, providing them a better foundation for prevention of future casualties.

6. Additional outputs from the Review will be provided as appropriate to the Organization via its relevant Committees and Sub-committees.

Conclusion

7. CLIA is fully committed to understanding the factors that contributed to the Concordia incident and is proactively responding to all maritime safety issues.

8. The Cruise Industry Operational Safety Review will enable the industry to do so in a meaningful and expedited manner.

Action requested of the Committee

9. The Committee is invited to consider the information provided in this submission and take action as appropriate.

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INTERNATIONAL MARITIME ORGANIZATION

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MARITIME SAFETY COMMITTEE
90th session
Agenda item 27

MSC 90/27/11
10 April 2012
Original: ENGLISH

PASSENGER SHIP SAFETY
Cruise Industry Operational Safety Review
Submitted by the Cruise Lines International Association (CLIA)

SUMMARY

Executive summary:	This document describes a specific additional output from the Cruise Industry Operational Safety Review, which was undertaken immediately following the Concordia incident, under the leadership of the Cruise Lines International Association, to address operational safety. This particular output relates to the subject of Carriage of Additional Lifejackets onboard. This work will continue and recommendations will be provided to the industry, IMO, and governments on an ongoing basis.
Strategic direction:	5.1
High-level action:	5.1.1
Planned output:	None
Action to be taken:	Paragraph 10
Related document:	MSC 90/1/Rev.1; MSC 90/27; MSC 90/27/1; MSC 90/27/2; and MSC 90/27/12

Background

1. In response to the Concordia incident, and as part of the industry's continuous efforts to review and improve safety measures, the Cruise Lines International Association (CLIA), speaking on behalf of the global cruise lines industry, announced the launch of a Cruise Industry Operational Safety Review on 27 January 2012, although it had begun prior to that date.

2. As best practices are identified via this Review, they will be shared on an on-going basis among CLIA members and any appropriate recommendations will be shared with the IMO.

3. In the first of CLIA's previous submissions, MSC 90/27/1, we described the basic framework for the Review and reported on the first output, which was our Passenger Muster Policy.

4. In MSC 90/27/2 and 90/27/XX, CLIA reported upon a series of additional outputs of the Review.

Outputs of the Cruise Industry Operational Safety Review

5. The first outputs of the Review, as mentioned above, were reported in MSC 90/27/1, 90/27/2, and 90/27/12.

6. The cruise industry has developed an additional output of the Review, applicable to all of the oceangoing ships we represent, which CLIA wishes to share with this Committee:

Carriage of Additional Lifejackets Onboard:

.1 The International Convention for the Safety of Life at Sea (SOLAS), as well as flag State regulations, require that passenger ships on international voyages carry an approved lifejacket (Personal Flotation Device–PFD) for every person onboard the ship.

.2 SOLAS requires that lifejackets suitable for children must also be carried in a number equal to 10% of the number of passengers onboard, provided that the number of children's lifejackets carried must not be less than the number of children onboard.

.3 Lifejackets must also be carried for the persons on watch and must be stored on the bridge, in the engine control room and at any other manned watch station.

.4 An additional number of lifejackets equal to 5% of the persons onboard must also be carried and stored in conspicuous places on deck or at muster stations.

.5 Under certain circumstances, additional lifejackets must also be carried, and stored at muster stations or in public spaces, when it is likely that persons may not be able to return to their staterooms to retrieve the lifejacket stored there.

.6 Some flag States have similar requirements for domestic or non-international voyages.

.7 CLIA's members have adopted a policy of carrying additional adult lifejackets onboard each cruise ship in excess of these legal requirements.

.8 Under this policy the number of additional adult lifejackets to be provided must not be less than the total number of persons berthed within the ship's most populated main vertical fire zone.

.9 Implementation of this policy ensures should result in spare lifejackets being carried are far in excess of the number required by SOLAS.

.10 Some smaller cruise ships may be constructed with only one main vertical fire zone that is utilized for accommodation spaces.

.11 For these vessels, CLIA's policy is that the maximum number of excess lifejackets provided need not exceed fifty percent of the total number of persons carried by the vessel.

.12 Extra lifejackets for children in excess of legal requirements, in a number equal to 10% of the number of passengers berthed within the most populated main vertical zone, must also be carried on international voyages under this policy.

.13 All of the additional lifejackets addressed in this policy are to be stored in public spaces, at the muster stations, on deck or in lifeboats, and in such a manner as to be readily accessible to crewmembers for distribution as may be necessary in the event of an emergency.

.14 Lifejackets carried for persons on watch, and at remotely located survival craft stations, are to be carried in accordance with SOLAS and other applicable flag State regulations.

7. Additional outputs from the Review will be provided as appropriate to the Organization via its relevant Committees and Sub-committees.

Conclusion

8. CLIA is fully committed to understanding the factors that contributed to the Concordia incident and is proactively responding to all maritime safety issues.

9. The Cruise Industry Operational Safety Review will enable the industry to do so in a meaningful and expedited manner.

Action requested of the Committee

10. The Committee is invited to consider the information provided in this submission and take action as appropriate.

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INTERNATIONAL MARITIME ORGANIZATION

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MARITIME SAFETY COMMITTEE
90th session
Agenda item 27

MSC 90/27/12
10 April 2012
Original: ENGLISH

PASSENGER SHIP SAFETY
Cruise Industry Operational Safety Review
Submitted by the Cruise Lines International Association (CLIA)

SUMMARY

Executive summary:	This document describes certain specific additional outputs from the Cruise Industry Operational Safety Review, which was undertaken immediately following the Concordia incident, under the leadership of the Cruise Lines International Association, to address operational safety. These particular outputs relate to the subjects of Passage Planning and Personnel Access to the Bridge. This work will continue and recommendations will be provided to the industry, IMO, and governments on an ongoing basis.
Strategic direction:	5.1
High-level action:	5.1.1
Planned output:	None
Action to be taken:	Paragraph 10
Related document:	MSC 90/1/Rev.1; MSC 90/27; MSC 90/27/1; and MSC 90/27/2

Background

1. In response to the Concordia incident, and as part of the industry's continuous efforts to review and improve safety measures, the Cruise Lines International Association (CLIA), speaking on behalf of the global cruise lines industry, announced the launch of a Cruise Industry Operational Safety Review on 27 January 2012, although it had begun prior to that date.

2. As best practices are identified via this Review, they will be shared on an ongoing basis among CLIA members and any appropriate recommendations will be shared with the IMO.

3. In the first of CLIA's previous submissions, MSC 90/27/1, we described the basic framework for the Review and reported on the first output, which was our Passenger Muster Policy.

4. In MSC 90/27/2, CLIA reported upon a series of additional outputs of the Review, which were all related to reporting of marine casualties.

Outputs of the Cruise Industry Operational Safety Review

5. The first outputs of the Review, as mentioned above, were reported in MSC 90/27/1 and 90/27/2.

6. The cruise industry has developed two additional outputs of the Review, applicable to all of the oceangoing ships we represent, which CLIA wishes to share with this Committee:

Passage Planning:

.1 Since 1999, CLIA's member lines have been subject to international guidance concerning passage planning in accordance with IMO Resolution A.893(21), Guidelines for Voyage Planning, adopted on 25 November 1999.

.2 CLIA has adopted a policy that the guidance elements set forth in this resolution are deemed to be the mandatory minimum requirements in the development of passage plans by all member lines.

.3 In addition, CLIA's policy recognizes the Bridge Procedures Guide published by the International Chamber of Shipping as a compilation of best practices valuable resource that should are to be utilized by all ship operators, either as a component of their Safety Management Systems or Bridge Resource Management procedures.

.4 Under this policy each passage plan is to be thoroughly briefed to all bridge team members who will be involved in execution of the plan well in advance of its implementation.

.5 The passage plan will be drafted by the designated officer and approved by the master.

.6 CLIA's policy is that all members are to take steps to help ensure bridge team members are asked and encouraged to raise any operational concerns without fear of retribution or retaliation.

Personnel Access to the Bridge:

.7 To minimize unnecessary disruptions and distractions to bridge team members in accomplishing their direct and indirect duties during any period of restricted maneuvering, or while maneuvering in conditions that the master or company bridge procedures/policy deems to require increased vigilance (e.g. arrival/departure from port, heavy traffic, poor visibility), CLIA's members have adopted a policy that bridge access is to be strictly limited to those with operational functions only during these periods.

.8 Further, member lines are to take steps to prevent distractions to watchkeeping during these periods.

.9 Any deviation from this policy requires prior approval of senior management ashore.

7. Additional outputs from the Review will be provided as appropriate to the Organization via its relevant Committees and Sub-committees.

Conclusion

8. CLIA is fully committed to understanding the factors that contributed to the Concordia incident and is proactively responding to all maritime safety issues.

9. The Cruise Industry Operational Safety Review will enable the industry to do so in a meaningful and expedited manner.

Action requested of the Committee

10. The Committee is invited to consider the information provided in this submission and take action as appropriate.

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INTERNATIONAL MARITIME ORGANIZATION

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MARITIME SAFETY COMMITTEE
91st session
Agenda item 7

MSC 91/7/1
24 September 2012
Original: ENGLISH

PASSENGER SHIP SAFETY
Cruise Industry Operational Safety Review
Submitted by Cruise Lines International Association (CLIA)

SUMMARY

Executive summary:	This document provides additional outputs from the Cruise Industry Operational Safety Review and proposes a revision to include these additional outputs in the annex to MSC.1/Circ.1446.
Strategic direction:	5.1
High-level action:	5.1.1
Planned output:	None.
Action to be taken:	Paragraph 14
Related documents:	MSC 90/27

Background

1 In response to the Concordia incident, and as part of the industry's ongoing efforts to review and improve safety measures, the Cruise Lines International Association (CLIA), speaking on behalf of the global cruise lines industry, announced the launch of a Cruise Industry Operational Safety Review (hereinafter "Review") on 27 January 2012, although it had begun prior to that date. As best practices are identified via this Review, they will be shared on an on-going basis among CLIA members and as appropriate to the Organization.

2 In the first paper on this subject (MSC 90/27/1), CLIA provided the Committee with an overview of the basic framework of the Review and also reported on the first output, a CLIA policy on passenger muster prior to departure from port. Since then, we have provided the Committee with additional outputs, including:

.1 The need for consistent reporting and additional verifying of marine casualties and incidents, in particular very serious casualties, with a concomitant recommendation that Member States consider revising SOLAS regulation XI-1/6 to emphasize the mandatory reporting requirements of very serious casualties (MSC 90/27/2);

.2 CLIA policies on passage planning and personnel access to the bridge (MSC 90/27/12); and

.3 CLIA policy on carriage of additional lifejackets on board (MSC 90/27/11).

3 The Committee, having considered the information provided in the Cruise Industry Operational Safety Review, invited Member Governments to recommend that passenger ship companies conduct a review of operational safety measures with the aim to enhance the safety of passenger ships, taking into consideration the recommended interim measures of an operational character listed in the *Recommended interim measures for passenger ship companies to enhance the safety of passenger ships* (MSC.1/Circ.1446), on ships flying their flag, on a voluntary basis and with all possible urgency and efficiency (Resolution MSC.336(90)).

Outputs of the Cruise Industry Operational Safety Review

4 As part of the ongoing Review, the cruise industry has developed three additional outputs as laid out below in paragraphs 5-9.

Common Elements of Musters and Emergency Instructions

5 Regulations 8 and 19 of SOLAS Chapter III require musters and emergency instructions to be provided for passengers. In addition to the legal requirements, CLIA oceangoing members have adopted a policy that musters and emergency instructions are to include the following common elements:

.1 When and how to don a lifejacket.

.2 Description of emergency signals and appropriate responses in the event of an emergency.

.3 Location of lifejackets.

.4 Where to muster* when the emergency signal is sounded.

.5 Method of accounting for passenger attendance at musters both for training and in the event of an actual emergency.

.6 How information will be provided in an emergency.

.7 What to expect if the Master orders an evacuation of the ship.

.8 What additional safety information is available.

.9 Instructions on whether passengers should return to cabins prior to mustering, including specifics regarding medications, clothing, and lifejackets.

.10 Description of key safety systems and features.

.11 Emergency routing systems and recognizing emergency exits.

.12 Who to seek out for additional information.

* The terms “muster” and “assembly” are used interchangeably and therefore are synonymous for this purpose.

Recording the Nationality of Passengers

6 Regulation 27 of SOLAS Chapter III requires that all persons on board be counted prior to departure; details of those who have declared a need for special care or assistance in an emergency be recorded and communicated to the Master prior to departure; names and gender of all persons on board, distinguishing between adults, children and infants be recorded for search and rescue purposes; and that all of this information be kept ashore and made readily available to search and rescue services when needed.

7 To further facilitate the effective and immediate availability of key information in the event of an emergency situation, CLIA oceangoing members have adopted a policy that, in addition to the information required by SOLAS, the nationality of each passenger onboard is also to be recorded, kept ashore and made readily available to search and rescue services when needed.

Life Boat Loading for Training Purposes

8 To facilitate training for lifeboat operations, CLIA oceangoing members have adopted a policy that at least one lifeboat on each ship is to be filled with crewmembers equal in number to its certified number of occupants at least every six months. Under this policy:

.1 for safety considerations, the loading of lifeboats for training purposes is to be performed only while the boat is waterborne and the boat should be lowered and raised with only the lifeboat crew onboard;

.2 lifejackets should be worn;

.3 all lifeboat crew and embarkation/boarding station crew are to be required to attend the lifeboat loading drill; and

.4 if not placed inside the lifeboat, those crew members are to observe the filling of the lifeboat to its certified number of people.

9 This policy applies to ships with crew sizes of three hundred or greater, with lifeboats installed. Ships with crew sizes of less than three hundred are to conduct similar and equivalent training evolutions, at appropriate intervals, that are consistent with operational and safety considerations.

Proposed revision to MSC.1/Circ.1446

10 CLIA recommends the Committee consider revising MSC.1/Circ.1446 such that these three additional outputs (paragraphs 5-9) would be included among the other recommended interim measures contained in the annex to that circular.

Conclusion

11 CLIA is fully committed to understanding the factors that contributed to the Concordia incident and is proactively responding to all maritime safety issues. The Cruise Industry Operational Safety Review has enabled the industry to do so in a meaningful and expedited manner.

12 Since the Review began, CLIA has provided the Committee with several outputs, including 7 new policies regarding passenger muster prior to departure from port; passage planning; personnel access to the bridge; carriage of additional lifejackets on board; common elements of musters and

emergency instructions; recording the nationality of passengers; and life boat loading for training purposes. In addition, CLIA has provided the Committee with an output of the Review regarding marine casualty reporting.

13 Additional outputs from the Review will be provided as appropriate to the Organization via relevant Committees and Sub-Committees.

Action requested of the Committee

14 The Committee is invited to:

.1 consider the information provided in this document;

.2 consider revising the annex to MSC.1/Circ.1446 (paragraph 10); and

.3 take action as appropriate.

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INTERNATIONAL MARITIME ORGANIZATION

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MARITIME SAFETY COMMITTEE
92nd session
Agenda item 6

MSC 92/6/1
13 February 2013
Original: ENGLISH

PASSENGER SHIP SAFETY
Cruise Industry Operational Safety Review
Submitted by Cruise Lines International Association (CLIA)

SUMMARY

Executive summary:	This document provides additional outputs from the Cruise Industry Operational Safety Review and proposes a further revision to include these additional outputs in the annex to MSC.1/Circ.1446/Rev.1.
Strategic direction:	5.1
High-level action:	5.1.1
Planned output:	None.
Action to be taken:	Paragraph 17
Related documents:	None.

Background

15 In response to the Concordia incident, the global cruise industry launched a comprehensive Cruise Industry Operational Safety Review (hereinafter "Review") and identified a number of best practices, which have been shared among CLIA members and with the Organization.

16 In the first paper on this subject (MSC 90/27/1), CLIA provided the Committee with an overview of the basic framework of the Review and also reported on the first output, a CLIA policy on passenger muster prior to departure from port. Since then, we have provided the Committee with additional outputs, including:

.1 The need for consistent reporting and additional verifying of marine casualties and incidents, in particular very serious casualties, with a concomitant recommendation that Member States consider revising SOLAS regulation XI-1/6 to emphasize the mandatory reporting requirements of very serious casualties (MSC 90/27/2);

.2 CLIA policies on passage planning and personnel access to the bridge (MSC 90/27/12);

.3 CLIA policy on carriage of additional lifejackets on board (MSC 90/27/11);

.4 CLIA policies on musters and emergency instructions (MSC 91/7/1);

.5 CLIA policy on recording the nationality of passengers (MSC 91/7/1); and

.6 CLIA policy on life boat loading for training purposes (MSC 91/7/1).

17 The Committee, having considered the information provided, invited Member Governments to recommend that passenger ship companies conduct a review of operational safety measures with the aim to enhance the safety of passenger ships, taking into consideration the recommended interim measures of an operational character listed in the *Recommended interim measures for passenger ship companies to enhance the safety of passenger ships* (MSC.1/Circ.1446/Rev.1), on ships flying their flag, on a voluntary basis and with all possible urgency and efficiency (Resolution MSC.[…](91)).

Outputs of the Cruise Industry Operational Safety Review

18 As part of the Review, the cruise industry has developed three additional outputs as laid out below in paragraphs 5-13.

Securing Heavy Objects

19 CLIA's oceangoing members have adopted a policy to incorporate procedures into their Safety Management Systems (SMS) to help ensure the securing of heavy objects either permanently, when not in use, or during heavy/severe weather, as appropriate. Under this policy, a person or persons are to oversee a deck by deck inspection to identify unsecured and potentially hazardous heavy objects. Integral to the procedures is a list of identified objects which have a significant potential to cause injury.

20 Shipboard personnel should apply good seamanship in identifying additional items to be secured. Attention should be given to muster* stations, evacuation routes, and lifeboat embarkation stations as a ship emergency could give rise to conditions that differ from ship motions caused by heavy/severe weather.

21 Consideration should also be given to development of a guidance document to assist in the identification of heavy objects and the most adequate methods for securing them. An example of this guidance document is attached in the annex. This annex is only intended to provide an example for one method of implementing this policy.

22 Practices and procedures for securing heavy objects should be monitored by each Head of Department and/or as otherwise specified by the ship's command structure, and during routine shipboard inspections and audits.

* The terms "muster" and "assembly" are used interchangeably and therefore are synonymous for this purpose.

23 Heavy/severe weather should be clearly defined under the company policy taking into account the size of the ship, operational profiles, and other information. In defining heavy/severe weather, appropriate deference should be given to the judgment of the Captain.

Harmonization of Bridge Procedures

24 Operational safety can be enhanced by achieving substantive consistency in bridge operating procedures among commonly owned ships, for example by providing that bridge personnel who may rotate among such ships can be familiarized with a common set of procedures.

25 CLIA's oceangoing members have adopted a policy that bridge operating procedures are to be harmonized as much as possible, both within individual companies and among brands within a commonly owned and operated fleet. Under this policy and best practice, each CLIA member operating multiple ships and each cruise line brand that is commonly owned and operated with another brand is to harmonize their respective procedures for bridge operations, taking into account any unique operating characteristics of specialty ships (e.g., expedition ships; sail powered ships; etc.)[*]

Location of Lifejacket Stowage

26 In addition to CLIA's policy on excess lifejackets (MSC 90/27/11), CLIA's oceangoing members have adopted an additional policy to reflect best practices for the stowage of lifejackets onboard newly-constructed cruise ships (e.g., cruise ships for which the building contract is placed on or after 1 July 2013). Under this policy, a number of lifejackets equal to or greater than the number required onboard under the relevant international and flag State regulations, are to be stowed in close proximity to either muster[†] stations or lifeboat embarkation points, and be readily available for use in case of emergency.

27 Implementation of this policy will continue to result in spare lifejackets being carried in excess of the number required by the International Convention for the Safety of Life at Sea (SOLAS).

Proposed revision to MSC.1/Circ.1446/Rev.1

28 CLIA recommends the Committee consider revising MSC.1/Circ.1446/Rev.1 such that these three additional outputs (paragraphs 5-13, annex) would be included among the other recommended interim measures contained in the annex to that circular.

Conclusion

29 Since the Review began, CLIA has provided the Committee with several outputs, including 10 new policies regarding various operational safety matters. In addition, CLIA has provided the Committee with an output of the Review regarding marine casualty reporting.

30 CLIA is fully committed to understanding the factors that contributed to the Concordia incident. Ongoing innovation in safety has been a hallmark of our industry for decades and we are fully committed to continuous improvement of shipboard operations and safety. The global cruise industry continuously reviews operational safety and works closely with the Organization as well as flag States, Recognized Organizations and others to enhance maritime safety.

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[*] And giving due regard to any relevant flag State requirements.

[†] The terms "muster" and "assembly" are used interchangeably and therefore are synonymous for this purpose.

Action requested of the Committee

31 The Committee is invited to:

.1 consider the information provided in this document;

.2 consider revising the annex to MSC.1/Circ.1446/Rev.1 (paragraph 14); and

.3 take action as appropriate.

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ANNEX

**SAMPLE STRUCTURE OF A GUIDANCE DOCUMENT
TO ASSIST IN THE IDENTIFICATION OF HEAVY OBJECTS
AND THE MOST ADEQUATE METHOD FOR SECURING THEM**

Guidance document(s) should consider the following three elements, in addition to any other relevant information.

1 Heavy Objects. The following list is an example of some heavy objects that may be identified and secured in accordance with company policy. In this sample listing, the objects are grouped by those that should be permanently secured, always secured when not in use, and those to be secured in heavy weather. Heavy objects that have been identified include, but are not limited to, the following:

1.1 Heavy objects that should be permanently secured.

1.1.1 Heavy plant pots, sculptures, TVs, cash machines, laundromat equipment, slot machines, and game machines such as in teen recreation areas.

1.1.2 Display stands and racks.

1.1.3 Treatment tables, heavy standalone product displays, treadmills, exercise weight racks, and weight lifting machines.

1.1.4 Pianos, lounge speakers, and back-stage scenery equipment.

1.2 Heavy objects that should be secured at all times when not in use.

1.2.1 Trolleys and forklift trucks.

1.2.2 Paint rafts, gangways, and deck trash containers.

1.2.3 X-ray scanners.

1.2.4 Cylinder heads, pistons, charge air coolers, heavy chemical containers, and heavy fan impellers.

1.2.5 Gas bottles (refrigerant, oxygen, acetylene, CO_2, etc.)

1.3 Heavy objects not otherwise secured that should be secured for heavy weather.

1.3.1 Loose objects on display.

1.3.2 Temporary decorations.

1.3.3 Items brought aboard temporarily as part of shows.

1.3.4 Materials/equipment onboard as part of repairs/refurbishment.

2 Securing Methods.

2.1 Consideration should be given to the strength and appropriateness of each point of attachment to which the heavy objects are secured.

2.2 Consideration should be given to the following list of securing methods. Additional securing methods appropriate to the objects to be secured should be identified and used as necessary. Examples are as follows; however, additional methods should be identified and included as appropriate.

A−Latch type gate hook and eye bracket mounted on bulkhead or vertical surface.

B−Ratchet strap and eye brackets mounted on bulkhead or vertical surface.

C−Rope secured to object and adjacent suitable securing surface.

D−Contained in metal rack-type shelving system.

E−Suction cup and bracket, ratchet strap, chain, etc.

F−Permanent securing such as bolting to bulkhead or deck.

3 Various. A list of specific heavy objects that have been identified by the company during surveys and inspections and that require particular attention.

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INTERNATIONAL MARITIME ORGANIZATION

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MARITIME SAFETY COMMITTEE
92nd session
Agenda item 6

MSC 92/6/9
24 May 2013
Original: ENGLISH

PASSENGER SHIP SAFETY

Comments relating to the Costa Concordia incident: The importance of shoreside management to maintaining shipboard safety

Submitted by Cruise Lines International Association (CLIA)

SUMMARY

Executive summary:	This document provides comments relating to the Costa Concordia incident.
Strategic direction:	5.1, 5.2, 5.4
High-level action:	5.1.1, 5.1.2, 5.1.3, 5.2.1, 5.2.2, 5.4.1
Planned output:	None
Action to be taken:	Paragraph 25
Related documents:	MSC 92/6/1; MSC 92/6/3; MSC 91/7/1; MSC 90/27/1; MSC 90/27/2; MSC 90/27/11; MSC 90/27/12

Background

1 This document is submitted in accordance with paragraph 6.14 of the *Guidelines on the organization and method of work of the Maritime Safety Committee and the Marine Environment Protection Committee and their subsidiary bodies* (MSC-MEPC.1/Circ.4/Rev.2), and provides comments relating to the Concordia incident and in particular the importance of shoreside management to maintaining shipboard safety.

2 Comments related to Italy's report on the safety technical investigation regarding the Concordia marine casualty investigation are in document MSC 92/6/10.

Discussion

3 The role of shoreside management is critical to the proper development and function of an effective Safety Management System. An integrated approach is used by the cruise industry to maintain shipboard safety; one that recognizes an essential connection with senior shoreside officials.

4 Notwithstanding substantive progress made to date, the cruise industry continues to establish and implement operational and management measures that are robust enough to minimize the potential for a recurrence of the type of navigational incident recounted in document MSC 92/6/3. For example, the cruise industry takes very seriously its responsibility to address issues surrounding the authority of the Master with regard to maneuvering a large cruise ship and the naturally related responsibility in management of the company to ensure safety. These efforts are ongoing and take the form of both industry-wide cooperation and company-specific actions.

5 Some specific elements that have already been addressed and will continue to be evaluated on an ongoing basis via the cruise industry's efforts include:

.1 senior management level of engagement in safety-related matters;

.2 senior management commitment to a company-wide culture of safety;

.3 integration of shoreside management responsibilities into the company's Safety Management System; and

.4 CEO-level direct engagement in CLIA's Member Policy Verification Program.

6 Recall the prior CLIA submissions to the Committee on various outputs from the Cruise Industry Operational Safety Review[5]. As part of the cruise industry's ongoing efforts to continually improve operational safety, a wide range of additional items were also considered but have not to this point resulted in industry-wide policies. Instead, with regard to these items, information and best practices have been shared among our members and incorporated into their own relevant policies and procedures as appropriate.

7 Efforts to evaluate and improve in these areas remain ongoing within our standing committee structure and other appropriate mechanisms within our industry. Examples of areas, closely related to the role of shoreside management, that continue to be under consideration include:

.1 discretion of the Master with regard to non-safety related voyage modifications;

.2 bridge procedures during maneuvering and shipboard emergencies;

.3 voyage plan change and general bridge procedure review practices and policies;

.4 hiring, evaluation, and training practices for Masters; and

.5 expectations and policies on when a Master may personally abandon their ship.

[5] See MSC 92/6/1; MSC 91/7/1; MSC 90/27/1; MSC 90/27/2; MSC 90/27/11; and MSC 90/27/12 (CLIA).

8 It is the cruise industry's approach that these types of issues are very much the responsibility of shoreside management to develop and successfully implement via effective shipboard practices and procedures. For a Safety Management System to be genuinely effective and within the true spirit of the ISM Code, it must carefully integrate the roles carried out by both professional shipboard staff and the shoreside management that both lead and support them. The cruise industry continues to fully embrace such an approach and commits to continuous improvement in this regard.

Conclusion

9 The cruise industry looks forward to working with all engaged stakeholders to identify and prioritize areas where additional improvements can be made and to develop any necessary standards that will further the shared goal of continuous improvement of maritime safety.

Action requested of the Committee

10 The Committee is invited to consider the comments provided in this document and take action as appropriate.

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INTERNATIONAL MARITIME ORGANIZATION

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MARITIME SAFETY COMMITTEE
92nd session
Agenda item 6

MSC 92/6/10
24 May 2013
Original: ENGLISH

PASSENGER SHIP SAFETY

Comments relating to the Costa Concordia incident: Specific comments on Italy's recommendations

Submitted by Cruise Lines International Association (CLIA)

SUMMARY

Executive summary:	This document provides comments relating to the Costa Concordia incident.
Strategic direction:	5.1, 5.2, 5.4
High-level action:	5.1.1, 5.1.2, 5.1.3, 5.2.1, 5.2.2, 5.4.1
Planned output:	None
Action to be taken:	Paragraph 25
Related documents:	MSC 92/6/1; MSC 92/6/3; MSC 91/7/1; MSC 90/27/1; MSC 90/27/2; MSC 90/27/11; MSC 90/27/12

Background

1 This document is submitted in accordance with paragraph 6.14 of the *Guidelines on the organization and method of work of the Maritime Safety Committee and the Marine Environment Protection Committee and their subsidiary bodies* (MSC-MEPC.1/Circ.4/Rev.2), and provides comments relating to the Concordia incident and in particular Italy's Report on the safety technical investigation regarding the Concordia marine casualty investigation, as presented in the Marine Casualty and Incident Module of GISIS under Incident Reference No. C0008482 (hereafter "the Report").

2 Comments related to the importance of shoreside management to maintaining shipboard safety are in document MSC 92/6/9 (CLIA).

Discussion

3 The Report contains 20 recommendations grouped into 6 functional areas covering stability; vital equipment & electrical distribution; emergency power generation; operational matters; evacuation analysis; and search and rescue. Seven are for new ships only, while 11 are for both new and existing ships. The two SAR recommendations, which are external to the ship, will not be discussed in this document. CLIA welcomes the opportunity to discuss the Report, consider the recommendations made by Italy, and develop a comprehensive way forward to further improve safety.

4 Below is a summary of CLIA's preliminary comments regarding Italy's recommendations as contained in the Report.

Stability (Section 6.2.1.)

5 Double skin. Future discussions regarding the need for double skin to protect compartments containing equipment vital for the propulsion and electrical propulsion should also take into consideration requirements and guidance relating to SOLAS Safe Return to Port and Probabilistic Damage Stability, as appropriate.

6 Limiting down flooding points. If this recommendation is aimed at mitigating progressive flooding, CLIA is of the view that it may need to be clarified. CLIA notes that the Report indicates the water reached the bulkhead deck in the aft area after about 40 minutes following the incident.

7 Computerized stability.

.1 In the discussion of computerized stability support for the master in case of flooding, it is important to distinguish between systems having static inputs (manual, by crew) from those having dynamic inputs (automated, in near real time).

.2 Many cruise ships currently have computerized stability support systems on board that are based primarily on static inputs. Such systems require manual intervention and input by ship's crew in order to display damage stability information.

.3 Dynamic simulation would likely entail *inter alia* fitting and interfacing of flooding sensors on existing ships. CLIA believes that such a proposal needs an in-depth discussion among subject matter experts. To our knowledge, such systems are currently not available to handle dynamic inputs, in near real time, displaying predictive dynamic damage simulation.

8 Interface between flooding detection and stability computer. See paragraph 7.

Vital equipment and electrical distribution (Section 6.2.2.)

9 Discontinuity between compartments. This recommendation relates to new ships. In addition, CLIA members have initiated a preparedness risk assessment to *inter alia* identify ways to preserve functional integrity of essential systems for existing ships.

10 Bilge pumps. The recommendation regarding bilge pumps is far too vague e.g., "huge quantities of water" cannot be defined. Also, there may be additional aspects to consider when discussing this proposal such as power source and requirements to feed additional pumps.

11 Relocation of main switchboard. CLIA notes that there are existing regulatory constraints regarding location of main switchboards in relation to other spaces/equipment. Such requirements may affect aspects of this recommendation regarding relocation of main switchboards. Any future development of new/revised requirements would need to be discussed by experts and carefully considered.

12 Relocation of UHF radio switchboard. CLIA agrees in principle that the preservation adequate communications in an emergency is required. CLIA is of the view that the basis of the Italy proposal to relocate the UHF switchboard above the bulkhead deck is not clear. Therefore, CLIA believes that other more effective and efficient options may exist to accomplish the intended goal. A number of different solutions should be discussed and evaluated by experts.

Emergency power generation (Section 6.2.3.)

13 Increasing EDG capacity. It should be clarified whether increasing EDG capacity would apply to existing certified emergency diesel generators or to the "second emergency diesel generators" mentioned in paragraph 14.

14 Second EDG. CLIA agrees in principle with providing increased emergency power supply to support additional selected services. However, the recommendation regarding a second EDG is not clear whether the intent is to apply existing regulations (statutory EDG) to the second EDG or to allow for flexibility in the requirements applicable to the second EDG. When establishing new requirements for the "second emergency diesel generator," this proposal should be carefully considered in relation to the multiple technical and operational aspects involved. Therefore, CLIA recommends that any further consideration of this item be made by the relevant technical sub-committee(s).

15 EDG functional tests. Italy proposes that both emergency diesel generators be tested weekly for at least two hours under a load of at least 50%. While generally in favor of enhancing functional testing aimed at improving reliability of EDGs during emergencies, the basis for Italy's proposal is not clear and therefore further consideration is needed in the relevant technical sub-committee(s), including input from engine manufacturer(s).

16 Emergency light in cabins. Italy's proposal regarding emergency light in cabins suggests that these lights should be fed by both UPS and emergency power. Although cruise ships are provided with such emergency lights in cabins, CLIA would like to inform the Committee that not all of the lights are fed by the emergency source of power. In some installations, a light is powered by stand-alone battery. CLIA is of the view that as long as the goal is achieved (e.g., lighting the exit) and that a process is in place to ensure that lights work in an emergency, that a requirement for feeding from emergency power is not necessary.

Operational matters (Section 6.3.4.)

17 Bridge management. CLIA supports consideration of development of training requirements that reflect established principles such as function-based bridge management and collective decision making. CLIA is looking forward to considering this matter, perhaps in the STW sub-committee.

18 Bridge team management certification. Italy's recommendation regarding bridge team management certification is unclear.

19 Principles of minimum safety manning. CLIA notes there is a lack of details in Italy's recommendation. Nevertheless, CLIA agrees that the current principles of Minimum Safe Manning do not adequately reflect reality on passenger ships and therefore supports in principle the need for further consideration on this matter.

20 Muster list. CLIA does not support the Italy proposal to show certification requirements in muster lists. CLIA notes that under the ISM Code, the Company is already required to ensure crewmembers are duly certified according to the duties and responsibilities assigned onboard. Cruise ships already have procedures/processes in place that ensure compliance with such requirements. In addition, robust systems are in place to ensure that those responsible for assigning emergency duties to the crew can easily verify the certifications required to cover such duties. CLIA believes that this proposal could result in the addition of unnecessary and redundant information to an already "over-populated" document.

21 Inclusion of inclinometer data in VDR. CLIA agrees in principle with the Italy proposal to include inclinometer data in the VDR.

Evacuation analysis (Section 6.3.4.)

22 Evacuation analysis at early stage of project. CLIA notes that evacuation analysis is currently not on any sub-committee agenda, and that MSC 92 may consider whether to send a new work item to FP. CLIA looks forward to participating in the discussion at the relevant sub-committee, should the Committee decide to place this on the work programme.

23 Embarkation ladders. CLIA supports in principle consideration for additional embarkation ladders. However, CLIA believes that in this regard careful consideration should be given to a number of important aspects, such as:

.1 the positioning of additional ladders that could impact other LSA;
.2 the difficulties for un-trained persons to utilize the ladders in conditions other than Concordia high-side, etc.; and
.3 "blanket" requirements may be difficult to meet.

CLIA suggests that other individual means of evacuation should also be included in the discussion on how to achieve the goal, with the focus of identifying improvement in their design and functions, if needed.

Conclusion

24 The cruise industry looks forward to working with all engaged stakeholders to identify and prioritize areas where additional improvements can be made and to develop any necessary standards that will further the shared goal of continuous improvement of maritime safety.

Action requested of the Committee

25 The Committee is invited to consider the comments provided in this document and take action as appropriate.

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