NEW STANDARDS FOR PASSENGER SHIPS ADOPTED

SOUTH AFRICA MRCC CLOSES SAR GAPS

STRICter BULK CHEMICAL CARRIAGE RULES
ENTER INTO FORCE

IMO HQ IN MAJOR FACELIFT
The IMO passenger ship safety initiative

IMO HQ in major facelift

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The IMO comprehensive and
proactive review of passenger
ship regulations has now been
concluded. Turn to page 25
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Shipping: on course for a ‘green and clean’ future?

The glare of international publicity, fuelled by today’s global communication infrastructure, ensures that environmental issues are played out on a worldwide stage. The broader concerns of society mean that pressure to be “green and clean” is mounting. Increasingly, and whether they like it or not, shipowners will come under pressure to put safety, security and, particularly, environmental concerns higher up their list of priorities, as customers, consumers and the sheer weight of public opinion forces a new outlook on what is, and what is not, acceptable commercial behaviour.

In the last quarter of a century, shipping’s environmental credentials have come under sharper scrutiny than ever before and this is something that is set to continue and increase. What a thorough examination of the statistics reveals is that shipping is the least environmentally damaging form of commercial transport and, set against land-based industry, is a comparatively minor contributor, overall, to marine pollution from human activities.

Nevertheless, shipping, like every heavy industry, every major user of energy and every conspicuous polluter, has a responsibility to reduce its impact on the environment. As such, it must adapt and develop technologies to ensure that the impact that it has is as small as possible, and that it can be dealt with when accidents happen.

While there is no doubt that shipping, and IMO, still have massive work to do to ensure that the industry is fully prepared and equipped to deal with the new challenges it faces, there is also no doubt that shipping is on the right course for a ‘green and clean’ future.

A message from the Secretary-General Efthimios E. Mitropoulos

SAR boost for Atlantic and Indian Oceans as South African MRCC is inaugurated

A nother gap in the effective search and rescue coverage along the coast of Africa and out into the Indian and Atlantic Oceans has been filled with the inauguration of a new Maritime Rescue Coordination Centre (MRCC) in Cape Town, South Africa.

The MRCC was commissioned, on 16 January 2007 by IMO Secretary-General Efthimios E. Mitropoulos during an official visit to South Africa.

The commissioning of the centre was preceded by the formal signing of a Multilateral Agreement between the Governments of the Comoros, Madagascar, Mozambique and South Africa on the co-ordination of maritime search and rescue services in areas adjacent to their coast.

Mr. Mitropoulos, who unveiled a plaque at the new MRCC alongside South Africa’s Transport Minister, Mr. J G Stirling, described the centre as “a major step forward for this country and for this region, but also for the maritime and shipping world as a whole and for the international community of seafarers upon whom we all rely so much.”

“Situated at the hub of one of the world’s busiest trade routes, on the southern tip of the great continent of Africa, this regional Maritime Rescue Coordination Centre will plug one of the remaining gaps in the global search and rescue network and help to put at rest the minds of all those whose work takes them into its area of coverage, whether they be deep sea mariners or the 27,000 or more South Africans employed in the fishing industry,” he said, adding that, despite its benign name, the Cape of Good Hope frequently exposes seafarers to the extremes of weather and sea conditions.

More than 4,000 ships in transit pass by the Cape of Good Hope every year as they navigate South Africa’s coastline of nearly 3000km.

The opening ceremony was also attended by Dr. Lindwe Mabuza, Permanent Representative of South Africa to IMO and High Commissioner for the Republic of South Africa in London.

In addressing the staff of the Centre, Secretary-General Mitropoulos, having congratulated them for the humanitarian task they were asked to perform, 24 hours a day, 7 days a week, 365 days a year, gave them some advice: “Never be complacent, never allow routine and boredom to impair your actions and decisions, never underestimate the seriousness of any distress incident you handle and never consider any incident to be the same as others you dealt with in the past – because each has its own peculiarities and special characteristics that demand special attention. Remain focused and, every time you coordinate a SAR operation, give your undivided attention to the task in hand. And never forget that you represent the last hope of those seafarers for whom fate has in store the bitter experience of a shipwreck. You will be the first they will thank once rescued and safe on solid ground, and you will have their eternal gratitude and that of their families.”

The Cape Town MRCC is equipped with modern facilities and is manned by fully trained personnel. In addition to its primary function, it will also be able to offer training to personnel from the sub-regional Maritime Rescue Sub-Centres (MRSCs) planned to be located in Angola, Comoros, Madagascar, Mozambique and Namibia.

The MRCC, and its subsidiary sub-centres, will cover sea areas extending up to 3500 nautical miles into the Indian and Atlantic Oceans and to Antarctica in the south. The regional search and rescue system being put in place around the coasts of Africa is the result of a resolution adopted by the IMO Conference on search and rescue (SAR) and the Global Maritime Distress and Safety System (GMDS), held in October 2000, in Florence, Italy, proposing the establishment of five subregional MRCCs in western, southern and eastern parts of Africa, along with 26 sub-centres.

The first MRCC under this initiative, in Mombasa, Kenya, was inaugurated in May 2006, covering the east coast of Africa and out into the Indian Ocean. The Cape Town MRCC covers southern Africa, while three more, in West Africa (in Nigeria, Liberia and Morocco), are currently at the planning stage.

The successful fruition of the project has been based on a broad co-operation between the host Governments, IMO
and stakeholders from the international and non-governmental sectors. Its success has been underpinned by the contribution of the host countries, which have provided the facilities and personnel for the operation of the centres.

Private donors (through inmarsat plc and IMO) have contributed equipment, while IMO, as project leader within the framework of its Integrated Technical Co-operation Programme, has collaborated with all parties concerned, coordinated the various responsibilities in the provision of expert advice, training and infrastructure and provided the overall supervision. The establishment of MRCs and MRSCs in areas of the world lacking an adequate SAR infrastructure has been and is being supported by the International SAR Fund (ISAR Fund), a multi-donor trust fund, established in 2004 under the auspices of the IMO Secretary-General.

From an African perspective, the ISAR Fund’s aim is to ensure that a basic communications infrastructure, supported by trained personnel, is in place in order to co-ordinate search and rescue operations and to assist any person in distress at sea in the waters of the Atlantic, and Indian Ocean, adjacent to the African coast. It is designed to assist countries that do not have sufficient resources to establish an adequate national SAR infrastructure and, by coordinating their services with their neighbours, to fill any gap that may exist in the Global SAR Plan.

During his January visit to South Africa for talks with the Government and to巡察 the Cape Town sub-centre of the South African Maritime Safety Authority (SAMSA), the IMO Secretary-General was accompanied by South Africa’s High Commissioner in London and Permanent Representation to IMO, Dr. Lindile Mabuso.

**MARPOL revisions herald stricter veg oil and chemical rules**

Strict rules on carriage of vegetable oils in bulk by ship are among the changes introduced by amendments to the International Convention for the Prevention of Pollution from Ships (MARPOL), which entered into force on 1 January 2007.

The revised Annex II regulations on noxious liquid substances carried in bulk (including chemicals and vegetable oils) introduce significant changes to the way certain products may be transported, in order to protect the marine environment from harm. (See also page 10)


**Revised MARPOL Annex II (noxious liquid substances carried in bulk)**

The revised Annex II Regulations for the control of pollution by noxious liquid substances in bulk includes a new four-category system for noxious and liquid substances.

The new categories are:

- **Category A**: Noxious Liquid Substances which, if discharged into the sea from tank cleaning or deballasting operations, are deemed to present a major hazard to either marine resources or human health and, therefore, justify the prohibition of their discharge into the marine environment.

- **Category B**: Noxious Liquid Substances which, if discharged into the sea from tank cleaning or deballasting operations, are deemed to present a hazard to either marine resources or human health and, therefore, justify the prohibition of their discharge into the marine environment.

- **Category C**: Noxious Liquid Substances which, if discharged into the sea from tank cleaning or deballasting operations, are deemed to present a minor hazard to either marine resources or human health and, therefore, justify lesser restrictions on the quality and quantity of their discharge into the marine environment; and

- **Category D**: Noxious Liquid Substances which, if discharged into the sea from tank cleaning or deballasting operations, are deemed to present no hazard to either marine resources or human health and, therefore, do not justify any restrictions on their discharge into the marine environment.

**Other Substances**: Substances which have been evaluated and found to fall outside Categories A, B, C and D because they are considered to present no harm to marine resources, human health, amenities or other legitimate uses of the sea when discharged into the sea from tank cleaning or deballasting operations.

The discharge of bilge or ballast water or other residues or mixtures containing these substances is not subject to any discharge requirements of MARPOL Annex II.

**SOLAS amendments enter into force**

A number of amendments to the International Convention for the Safety of Life at Sea (SOLAS) entered into force on 1 January 2007. They included the following:

- New SOLAS regulation II-1/3-7 to require ship construction drawings to be maintained on board and ashore.
- New SOLAS regulation II-1/3-8 concerning towing and mooring equipment. The regulation will require all ships to be provided with arrangements, equipment and fittings of sufficient safe working load to enable the safe conduct of all towing and mooring operations associated with the normal operation of the ship.
- New SOLAS regulation II-1/2-3 concerning water level detectors in the cargo holds of new single-hold cargo ships other than bulk carriers.

Amendment to SOLAS regulation II-1/31 concerning machinery control to restrict the application of propulsion control automation systems to new ships only.

In addition, amendments to the Guidelines for the enhanced programme of inspections and surveys of bulk carriers and oil tankers (resolution A.474(28), as amended) entered into force on 1 January 2007. The amendments incorporate some elements of the Conditional Assessment Scheme (CAS) required for certain single hull tankers under MARPOL Annex I and include re-organization and new sections to include a new section on survey guidelines for the inspection of double hull tankers.

**North Sea SECA to become effective in November 2007**

Ships operating in the North Sea have less than one year to demonstrate compliance with stringent new exhaust emission standards, following the entry into force of new air pollution regulations on 22 November 2006.

The North Sea SOx Emission Control Area (SECA) will come into effect on 22 November 2007, one year after the entry into force of related amendments to Annex VI Regulations for the Prevention of Air Pollution from Ships.

In a SECA, the sulphur content of fuel oil used onboard ships must not exceed 1.50% m/m. Alternatively, ships must fit an exhaust gas cleaning system or use any other technological method to limit SOx emissions. The Baltic Sea Area has already been designated as an SOx Emission Control area under the regulations. The Baltic Sea SECA has been implemented and operational since 19 May 2006.

Other amendments to Annex VI and the NOx Technical Code, which were adopted in July 2005 and entered into force on 22 November 2006, relate to the conduct of surveys and issuing of certificates.

The Regulations for the Prevention of Air Pollution from Ships are currently undergoing review by the Sub-Committee on Bulk Liquids and Gases (BLG). A BLG International Working Group on Air Pollution met in Oslo last November to prepare recommendations, based on new technological developments, on how further to reduce air pollution from ships, focusing on the reduction of emissions of SOx, NOx, volatile organic compounds and particulate matter.
New international standards for passenger ships adopted

A raft of new international standards for passenger ship safety were adopted when IMO’s Maritime Safety Committee (MSC) met in Istanbul, Turkey, for its 82nd session from 29 November to 8 December 2006. The package of amendments to SOLAS adopted at the session was the result of a comprehensive review of passenger ship safety initiated in 2000 with the aim of assessing whether the current regulations were adequate, in particular for the large passenger ships now being built. The work of developing the new and amended regulations has based its guiding philosophy on the dual premise that the regulatory framework should place more emphasis on the prevention of a casualty from occurring in the first place and that future passenger ships should be designed for improved survivability so that, in the event of a casualty, persons can stay safely on board as the ship proceeds to port. The amendments include new concepts such as the incorporation of criteria for the casualty threshold (the amount of damage a ship is able to withstand, according to the design basis, and still safely return to port) into SOLAS chapters II-1 and II-2. The amendments also provide regulatory flexibility so that ship designers can meet any safety challenges the future may bring.

In other issues on a packed agenda, the MSC made further progress on the development of goal-based standards, adopted a number of other SOLAS amendments, including measures to strengthen the fire protection arrangements in relation to cabin balconies on passenger vessels and discussed security and facilitation issues related to the carriage of containers by ships. (See page 14).

Montenegro becomes Member of IMO

Montenegro became an IMO Member State when it deposited its instrument of acceptance of the Convention on the International Maritime Organization, as amended, with the Secretary-General of the United Nations on 10 October 2006. With the accession of Montenegro, the number of IMO Member States stands at 167, with three Associate Members.
MARPOL revisions simplify and update key Annexes

By Javier Llorens and Stefan Micallef, Marine Environment Division, IMO

On 1 January this year, revised Annexes I and II of MARPOL entered into force after more than 10 years in the making. The decision to update these key instruments had been taken by IMO’s Marine Environment Protection Committee (MEPC) in 1995 when, at its thirty-seventh session, it adopted a “General Action Plan for the revision of Annexes I and II of MARPOL 73/78” and agreed to embark upon a comprehensive review of these cornerstones of the MARPOL Convention.

There was a clear recognition that elements of their layout were too complicated and that their chapters and regulations could be arranged in a simplified and more logical way. In addition, the review was designed to resolve any perceived inconsistencies and vague expressions in the text of the Annexes. The MEPC charged the then newly established Bulk Liquids and Gases (BLG) Sub-Committee with the job.

Annex I

From the start, it was decided that the scope of the revision with regard to Annex I, on Regulations for the prevention of oil pollution from ships, was to be mainly editorial, as it was acknowledged that there was no need to alter its substance, notwithstanding the fact that the Annex, as indeed all IMO instruments, is under continuous review.

Since its entry into force on 23 October 1983, Annex I had been the subject of numerous amendments. Among the most significant were the double hull requirements for oil tankers (regulation 13F) in 1992, the phase-out provisions for existing single hull oil tankers (regulation 13G) in 1992, further amendments to regulation 13G in 1997, 2001 and 2003 reinforcing the provisions or bringing forward the phase-out schedule for single hull oil tankers in the aftermaths of the Nakhodka, Erika and Prestige incidents, the Condition Assessment Scheme (CAS) for all tankers, the double bottom requirements for oil tankers’ pump-rooms and the double-bottom requirements for oil fuel tanks in all ships.

Today, it is generally recognized that Annex I of the MARPOL Convention has greatly contributed to a very significant decrease in oil pollution, both operational and accidental, from ships. Statistics developed by the industry show a consistent reduction since the 1970s. The 15 parts-per-million requirement for discharges from engine room bilges, the crude-oil-washing procedures or the double hull standard, to name but a few, together with the setting up of Special Areas and Particularly Sensitive Sea Areas where discharge requirements are more stringent, or discharges are banned altogether, form an important part of Annex I and have contributed greatly to this outcome.

For the revised Annex I, a more systematic approach was adopted with the aim of achieving greater clarity. The revised Annex now has 39 regulations (against 26 in the “old” Annex I), but this does not mean that the new revised Annex has grown in content or complexity. In fact, the opposite has occurred. Whereas the old Annex displayed long and complex regulations mixing up requirements for oil tankers with those applicable to all ships, or discharge provisions with construction and equipment ones, the new Annex splits those requirements into clear, separate regulations applicable to machinery spaces of all ships (split into construction, equipment and control of discharges) and cargo areas of oil tankers (also split into construction, equipment and control of discharges).

Clear distinction is also made between requirements applicable within and outside special areas, both for machinery spaces of all ships and cargo areas of oil tankers.

The final result is a much clearer picture for the end-user. Although the actual number of regulations is now greater, they have become leaner and, in some cases, vagueness and inconsistencies have been resolved.

Annex II

The revised Annex II to MARPOL also entered into force on 1 January this year, together with an amended version of the International Bulk Chemical Code (IBC Code). This ushered in a new era in the prevention of pollution by noxious liquid substances (NLS).

“Noxious liquid substances” is a term that encompasses any bulk liquid that does not encompass all chemicals that may be transported at sea in bulk. The revised Annex II improves the regulations covering ships such as this Panamax oil tanker (pic: Stena Bulk).

It is generally acknowledged that MARPOL Annex II constitutes a body of legislation that has reached maturity. More than 30 years after its inception, and 23 years since its coming into effect, its importance for the protection of the marine environment cannot be underestimated. However, as has happened since its inception, this does not mean that it cannot be improved. In the past, the “reactive” approach prevailed and new, groundbreaking provisions were only adopted in the aftermath of well-known pollution disasters. Henceforth, a more pro-active approach will prevail. Issues such as prevention of corrosion in the double hull spaces of oil tankers, for example, need to be addressed before there is a structural failure of a double hull VLCC. The first generation of double-hullers will soon reach the 15-year-old threshold where it is widely recognized that corrosion and other problems start to become noticeable.

We may expect that other issues will also be dealt with, such as improving the capacity and efficiency of available oily water separating equipment, thus facilitating one of the most difficult jobs facing today’s crews, tackling the long-standing problem of inadequate reception facilities and enhancing implementation and enforcement policies, both by flag and port States in Special Areas and Particularly Sensitive Sea Areas, with stringent associated protective measures, are likely to be created, although delicate negotiations will certainly take place to ensure the consistency of such measures with the UN Convention on the Law of the Sea.

Annex II

The revised Annex II to MARPOL also entered into force on 1 January this year, together with an amended version of the International Bulk Chemical Code (IBC Code). This ushered in a new era in the prevention of pollution by noxious liquid substances (NLS).

“NLS” is a term that encompasses any bulk liquid that does not encompass all chemicals that may be transported at sea in bulk.
The revised Annex II, therefore, identifies only one special area, namely the Antarctic, where all discharges are prohibited. This has helped to simplify the Annex, which was one of the terms of reference given to the group charged with the revision.

These changes to MARPOL Annex II meant that it was necessary to define new criteria for assigning ship types on pollution grounds, and this led to a complete revision of chapters 17 and 18 of the IBC Code, which deal with the lists of products that can be carried in bulk, together with their carriage requirements.

### Vegetable Oils and Animal Fats

Under the old Annex II, vegetable oils and animal fats, on the assumption that they would probably pose little threat to the environment, had been allocated under a generic name to a low pollution category, which meant that very little restriction was placed on their discharge into the marine environment. It was agreed, however, that all products carried under the revised Annex II must have a full hazard profile and be evaluated individually. Somewhat to the surprise of the scientists evaluating the data, many of these products showed far higher levels of toxicity than previously thought, but the deciding factor in their hazard profiles was that all are defined as “persistent floaters”, meaning that they have slick-forming properties similar to those of mineral oil. This means that all vegetable oils and animal fats have been assigned to Ship Type 2, in other words, these products, which hitherto could be carried on simple product tankers and discharged into the sea with impunity, must now be carried on more sophisticated tonnage and are subject to more stringent requirements with regard to their discharge into the marine environment.

Concerns were expressed about the availability of such tonnage to carry these high volume products, and a relaxation was agreed whereby individually identified vegetable oils may continue to be carried in Ship Type 3 vessels provided they have double sides meeting the requirements for Ship Type 2 vessels and double bottoming meeting the requirements of Annex I. Chapter 17 of the IBC Code will therefore show individual vegetable oils as requiring carriage in Ship Type 2 spaces, but with a footnote directing the reader to regulation 4.1.3 of the revised MARPOL Annex II, where the provisions for relaxation can be found. The Certificate of Fitness of relevant vessels will be required to indicate that this exemption has been granted.

To conclude: with these new revisions, MARPOL Annexes I and II are currently in the best of good health, but the duty of parties to MARPOL, and the industry, working through the MEPC and with the assistance of the IMO Secretariat, remains to ensure that they stay at the forefront of the protection of the marine environment for many years to come.

The views expressed in this paper are those of the authors and may not represent those of the IMO Secretariat.
Istanbul meeting agrees new passenger ship standards

The MSC adopted a package of amendments to SOLAS as a result of the comprehensive review of passenger ship safety initiated in 2000. The amendments include new concepts such as the incorporation of criteria for the casualty threshold (the amount of damage a ship is able to withstand and still safely return to port) into SOLAS chapters II-1 and II-2. The amendments also provide regulatory flexibility so that ship designers can meet future safety challenges.

The amendments include alternative designs and arrangements; safe areas and the essential systems to be maintained while a ship proceeds to port after a casualty, which will require redundancy of propulsion and other essential systems; on-board safety centres, from where safety systems can be controlled, operated and monitored; fixed fire detection and alarm systems, including requirements for fire detectors and manually operated call points to be capable of being remotely and individually identified; fire prevention, including amendments aimed at enhancing the fire safety of abatiums, the means of escape in case of fire and ventilation systems; and time for orderly evacuation and abandonment, including requirements for the essential systems that must remain operational in case any one main vertical zone is unserviceable due to fire. The amendments are expected to enter into force on 1 July 2010.

Fire regulations for balconies

The MSC adopted amendments to SOLAS chapter II-2 and to the International Code for Fire Safety Systems (FSS Code) to strengthen the fire protection arrangement in relation to balconies on passenger vessels, in response to the fire aboard the cruise ship Star Princess, in March 2006, which began on an external balcony and spread over several decks. The amendments to SOLAS chapter II-2 are aimed at ensuring that existing regulations 4.4 (Primary deck covering), 5.3.12 (Ceilings and linings), 5.3.2 (Use of combustible materials in smoke generation potential and toxicity) are also applied to balconies on new passenger ships.

For existing passenger ships, relevant provisions require that furniture on cabin balconies be of restricted fire risk unless fixed waterspraying systems, fixed fire detection and fire alarm systems are fitted and that partitions separating balconies be constructed of noncombustible materials, similar to the provisions for new passenger ships. The amendments are expected to enter into force on 1 July 2008.

Accidents involving lifeboats

An amendment to SOLAS regulation III/19.3.4 concerning provisions for the launch of free-wheel lifeboats during abandonment drills was adopted. The amendment will allow, during the abandonment drill for the lifeboat to either be free-fall launched with only the required operating crew on board, or lowered into the water by the means of the secondary means of launching without the operating crew on board, and then manoeuvred in the water by the operating crew. The aim is to prevent incidents with lifeboats occurring during abandonment drills. The amendment is expected to enter into force on 1 July 2008.

Protective coatings

A Performance standard for protected coating rings of deck coaters with ballasted tanks on all new ships and of doublé-de-skinned spaces of bulk carriers, which will be made mandatory by way of amendments to SOLAS regulation II-2/2, was adopted. The SOLAS amendments are expected to enter into force on 1 July 2008 and the performance standard will apply to ships for which the building certificate is issued after 1 July 2008; or, in the absence of a building contract, the keels of which are laid on or after 1 January 2009, or the delivery of which is on or after 1 July 2012.

IMSO appointed to oversee new satellite providers

The Committee agreed that the International Mobile Satellite Organization (IMSO) was the appropriate Organization to oversee future satellite service providers in the global maritime distress and safety system (GMDSS) and invited IMSO to undertake the role forthwith. The MSC would determine the criteria, procedures and arrangements for evaluating and recognizing satellite services for participation in the GMDSS, while services recognized by the Committee would be subject to oversight by IMSO. The MSC instructed the Sub-Committee on Radiocommunications and Search and Rescue (COMSRAR) to redraft resolution A.888(21) Criteria for the provision of mobile-satellite communication on systems in the GMDSS, to reflect the decision and to submit to MSC 83 with a view to adoption by the 25th IMO Assembly. COMSRAR 11 was also invited to finalize any corresponding amendments to SOLAS chapter IV.

Goal-based new ship construction standards

The MSC established the Working Group on Goal-based Standards and further progressed the work on the issue. The Committee has worked on the basis of a prescriptive approach for GBS for provisions for hull construction for bulk carriers and oil tankers and of a safety level approach for all other ship types.

With regard to the GBS for bulk carriers and oil tankers, the MSC has already agreed on a five-tier system, consisting of goals (Tier I), functional requirements (Tier II), verification of compliance criteria (Tier III), technical procedures and guidelines, classification rules and industry standards (Tier IV) and codes of practice and safety and quality systems for shipbuilding, ship operation, maintenance, training, manning, etc. (Tier V). Tier I goals and Tier II functional requirements have been agreed in principle.

Following consideration of the matter, the MSC approved a Plan for a pilot project on trial application of the Tier III verification process using the IACS Common Structural Rules for oil tankers and bulk carriers to validate the Tier III verification framework, identifying shortcomings and making proposals for improvement. The MSC agreed to include ergonomic principles as functional requirements in Tier II, and the Group prepared revised Tier II functional requirements.

Measures to enhance maritime security

The MSC approved a circular on Interim Guidelines for mariners to undertake self assessment by Companies and companies security officers (CSOs) for ship security.

The MSC also approved amendments to the Rearmed recommendations on the safe transport of dangerous cargoes and related activities in port areas (MSC/Circ.675), to include provisions intended to address the security of the transport of dangerous goods by sea.

It also approved amendments to the IMO/DUINECE Guidelines for packaging of cargo transport units (MSC/Circ.787) to broaden the scope of the guidelines to address the need for vigilance and the need for security procedures to be developed and followed by all concerned. The latter amendments will be forwarded to ILO and the UNEC for their consideration and approval.

Non-SOLAS and ISPS Code ships

The MSC began consideration of issues relating to the security aspects of the operation of ships which do not fall within the scope of SOLAS chapter XI-2 and the ISPS Code (including cargo ships of less than 500 gross tonnage which travel on international routes). The Committee agreed that non-SOLAS vessels shared the same operational environment as ships which fall within the scope of SOLAS chapter XI-2 and the ISPS Code and the operations of the former affect the security of the latter. Thus, it was necessary to address the security aspects of the operation of non-SOLAS ships in a systematic and analytical manner, so as to achieve a tangible enhancement of the global security net which the provisions of SOLAS chapter XI-2 and the ISPS Code were seeking to establish.

It was agreed also that any guidelines developed should be non-mandatory and that their application should be under the purview of the individual Contracting Governments concerned and proportionate to the assessed levels of threat and risk.

A correspondence group was established to undertake a study to determine the scope of the issues and threats involved and to develop recommendatory guidelines on measures to enhance maritime security to complement measures required by SOLAS chapter XI-2 and the ISPS Code.

Long Range Identification and Tracking - technical specifications and guidelines

Progress was made on the development of technical specifications of the components of the Long Range Identification and Tracking (LRIT) System, including the International LRIT Data Exchange, the International LRIT
Data Centre and for communication within the LRIT System network, protocols for the development testing of the LRIT System and for the testing of the integration into the system of new personnel and cargo carriers; and guidance on setting up and maintaining the Data Distribution Plan.

It was agreed that the ad hoc Working Group on environmental aspects of LRIT should be reconvened to further develop the draft technical specifications; update the required technical documents; prepare a technical costing and billing standard for LRIT; consider technical issues and develop technical criteria to be taken into account when establishing the International LRIT Data Centre and the International LRIT Data Exchange; liaise with the IMO Secretariat regarding consistency, security and other aspects of the Data Distribution Plan with the technical specifications; and ensure that the testing documents completely address the Performance Standards.

The Group was scheduled to meet in the week before the Sub-Committee on Radiocommunications and Search and Rescue (COMSAR 31, scheduled for 12-16 February 2007), and COMSAR was also instructed to consider issues relating to LRIT, particularly matters other than the specific engineering aspects.

In considering the role of performance review and audit of certain aspects of the LRIT system, the MSC appointed the International Mobile Satellite Organization (IMSO) as the LRIT Coordinator.

Role of the human element

The Joint MSC/MEPC Working Group reviewed the report of the Inter-Industry Working Group (IIGW) and the Human Factors Task Group (HFTG) on incidents of explosions on chemical and product carriers and agreed that it was difficult to draw conclusive analysis from existing casualty reports due to the lack of human element considerations during these investigations. Nonetheless, the industry’s review of its procedures and guidelines was seen as a very positive step towards addressing the issue. Member States were urged to provide reports of casualty investigations to the Sub-Committee on Flag State Implementation (FSI) expeditiously, with a view to arriving at constant and consistent analysis to ensure that such accidents and incidents do not recur.

It was agreed that there was a need to review and strengthen requirements for Dangerous Cargo Endorsements (DCEs) and proposals were invited with regard to the need for extending the requirements for DCEs to operational shore staff, including terminal personnel and cargo surveyors.

The Sub-Committee on Standards of Training and Watchkeeping (STCW) was invited to review the requirements leading to DCEs for seafarers, under its agenda item “Comprehensive review of the STCW Convention and the STCW Code”.

Impact of ISM Code

The Human Element Working Group also agreed the report of the Group of Independent Experts (GIE) established to analyze the impact of the ISM Code and its effectiveness in the enhancement of safety of life at sea and protection of the marine environment.

The Committee agreed with the recommendations made by the GIE, in particular that guidelines for Administrations should be reviewed to make them more effective and user-friendly; and guidelines and associated training should be developed to assist companies and seafarers in improving the implementation of the Code. It also agreed that the results of the study should be given wide publicity throughout the industry.

In discussing the GIE’s conclusions, the MSC agreed that the framework that supports ISM compliance should be proportionate to the size, type and operation of the company, and include user-friendly, and relevant to the operations related to safety and environmental protection.

The Committee noted that the industry had identified common areas between the ISM and ISPS Codes and that resolution A.852(20) on Guidelines for the structure of an integrated system of contingency planning for shipboard emergencies, may provide guidance to handle or manage common areas of the ISM and ISPS Codes.

It was noted that, in order to motivate seafarers properly, companies should take into account feedback from shipboard personnel, including the outcome of shipboard safety committees, to improve their operations and procedures relating to safety and environmental protection and it was essential for the company to respond in a constructive and timely fashion to any feedback received from seafarers operating the safety management system (SMS).

Seafarers are integral to the effective operation of the SMS, they should, therefore, be involved in the development and improvement of the system in order to ensure that the manual is proportionate, concise and relevant.

Near misses

The meeting agreed there was a need to encourage companies and seafarers to document and record “near misses” and hazardous situations. It invited Member Governments, intergovernmental and non-governmental organizations in consultative status to submit proposals to the next session of the Joint MSC/MEPC Working Group on the Human Element, which is scheduled to be reconvened at MEPC 56 (9 to 13 July 2007).

Implementation of the revised STCW Convention

The list of Parties deemed to be giving full and complete effect to the provisions of the International Convention on Standards of Training, Certification and Watchkeeping for Seafarers (STCW), 1978, as amended, was updated when the Secretary-General submitted his report on those countries whose reports of independent evaluations had been completed since the previous MSC meeting. The list of confirmed Parties to the STCW convention now has 117 Parties (MSC.1/Circ.1144Rev.2).

Other amendments endorsed by MSC 82

- to the GIE Code relating to fire extinguishers, specifically portable foam applicators; fixed fire extinguishing systems; fixed pressure water-spraying and water-mist fire-extinguishing systems, fixed fire detection and fire alarm systems for cabin bascines. Entry into force on 1 July 2007.
- to the International Life-Saving Equipment Code (LSA Code), including those related to life rafts, life boats and rescue boats, particularly in relation to stowage and release mechanisms. Entry into force on 1 July 2008.
- to the International Code for the Construction and Equipment of Ships Carrying Dangerous Chemicals in Bulk (IBC Code), relating to fire protection and fire extinction, and the revised chapters 17 (Summary of minimum requirements), 18 (List of products to which the Code does not apply) and 19 (Index of Products Carried in Bulk). Entry into force on 1 January 2009.
- to the International Code for the Construction and Equipment of Ships Carrying Liquefied Gases in Bulk (IGC Code), to update the references to SOLAS regulations and to add two more chemicals to the list of products in chapter 19 (Summary of minimum requirements). Entry into force on 1 July 2008.
- to the Protocol of 1988 relating to the International Convention for the Safety of Life at Sea, 1974, to include in the Record of equipment for the relevant safety certificate an entry regarding the long-range identification and tracking system. Entry into force on 1 July 2008.
- to the Dynamically Supported Craft (DSC) Code to update it in line with relevant amendments to SOLAS. Will become effective on 1 July 2008.
- to the Gas Carrier (GC) Code, to update it in line with certain amendments to SOLAS. Will become effective on 1 July 2008.
- to the Revised recommendation on testing of life-saving appliances (resolution MSC.81(70)), including revisions to prototype tests for lifehooks, liferafts, lifejackets, immersion suits, and exposure suits and thermal protective aids, lifearms, lifeboats, rescue boats and fast rescue boats, launching and embarkation appliances, positions and lighting lights for life-saving appliances and hydrostatic release units, and revisions to production and installation tests for survival craft, launching and storage arrangements. The amendments will become effective on 1 July 2008.

Issues arising from the reports of Sub-Committees and other bodies

The MSC considered other issues arising from the reports of Sub-Committees and other bodies, and adopted:

- new and amended traffic separation schemes, including new amended routing measures other than traffic separation schemes, as well as new and amended mandatory ship reporting systems;
- revised performance standards for Electronic Chart Display and Information Systems (ECDIS). The aim behind the revision is to ensure the operational reliability of such equipment, taking into account technological progress and experience gained. The revised performance standards are more detailed than the current version and include references to newer equipment such as automatic identification systems. It is expected that the new revised performance standards would apply to ECDIS equipment installed on or after 1 January 2009;
- Performance Standards for shipborne Galileo Equipment. Recal valid for equipment installed on or after 1 January 2009.
- revised GMDSS guidelines for the design and construction of offshore support vessels; amendments to the Guidelines for the transport and handling of limited amounts of hazardous and noxious liquids in bulk on offshore support vessels (LNHS Guidelines);
- amendments to the Code of safe carriage of cargoes and persons by offshore support vessels (OSV Code);
- amendments to the Code of safe practice for the safe loading and unloading of bulk carriers (BLU Code); and
- revised GMDSS guidelines for the prevention and suppression of the smuggling of drugs, psychoactive substances and precursors (Resolution A.872(20)). The revised guidelines will be put forward to the Facilitation Committee for adoption at its next session.
Sub-Committee begins comprehensive STCW review

The Sub-Committee began its comprehensive review of the STCW Convention and the STCW Code, by reviewing general regulatory, and the related proposals for amendments or new regulations which had been submitted. The Sub-Committee prepared a consolidated list of the issues to be reviewed, for approval by MSC 83, and agreed the review should embrace the following principles:

- retain the structure and goals of the 1995 revision;
- do not down-scale existing standards;
- do not down-scale existing standards;
- do not scale back existing standards;
- address inconsistencies, interpretations, and outdated provisions, MSC instructions, clarifications already issued and technological advances;
- address requirements for effective communication;
- provide for flexibility in terms of compliance and for required levels of training and assessment for maritime watchkeeping arrangements due to circumstances of the incident and the administration.

There should also be an emphasis on environmental awareness, in particular, the use of oily water separators;

The review of STCW Chapter II, dealing with the Master and deck department, will take into account any recent changes in equipment, technology and terminology and include familiarization training to understand the limitations of automatic systems.

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Regulation VIII/2 on Watchkeeping

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Introduction of mandatory alcohol limits

Requirements in Tables A-III/1 and A-STCW Code,

Regulations V/2 and V/3, to combine

Chapter VI - Emergency,

Chapter VIII – Watchkeeping

From the meetings

20 IMO

The meetings of the Sub-Committee on Standards of Training and Watchkeeping observed, with a view to updating the term radio operator to GMDSS operator;

- Introduction of mandatory alcohol limits during watchkeeping and other shipboard duties;
- STCW Code, to include any consequential amendments;
- STCW Code Sections A-II/1 master and deck department and A-III/1 engine department, to increase emphasis on enhanced navigation and, in particular, on the berth-to-berth requirements, and of modern developments for integrated bridge systems, including ECDIS;
- include training recommendations on bridge resources and engine room resource management; provide training on maritime legislation to assist in protecting the crew, owner/operators and ships from breaching the increasing legislative requirements; promote a “safety culture” to embrace all levels and further emphasis on management training, including enhanced knowledge of occupational health and safety issues; and increase emphasis on fatigue management;
- Requirements in Tables A-II/1 and A-
- III/2, relating to knowledge and demonstration of competence, to ensure that engineers have sufficient knowledge and competence in the operation, testing, fault diagnosis and maintenance of automation, electronic and electrical systems and equipment;
- Relevant requirements with a view to determining that the master should not be considered a watchkeeping officer when deciding the composition of the navigational watch;
- The need to develop a clear system by which not only the work schedule, but all actual hours worked, could be easily verified, to address concern over enforcement and a need for a consistent system for verification of actual hours worked or rest taken, which is practical and enforceable especially in the context of flag State and port State control; and
- The need for the development of qualifications and training of seafarers operating pleasure yachts and commercially operated yachts, including the definition of a yacht in relation to a passenger ship.

Training of ratings

The Sub-Committee developed amendments to the STCW Convention and the STCW Code related to training and certification of ratings.

It was agreed that they should be adopted after the comprehensive review of the STCW Convention and the STCW Code is completed, to facilitate implementation as well as to avoid any inconsistencies that may arise due to the review.

Security training

Amendments to the STCW Convention and the STCW Code to provide security familiarization training for all crew members and specific training for personnel with security duties were developed by STW 38.

The Sub-Committee agreed a three-tiered approach, consisting of basic training or instruction for security awareness, additional training specifically prepared for those with designated security duties, and on-board familiarization training on each ship. The proposed amendments to the STCW Convention and the STCW Code are intended to address all types and sizes of ships to which SOLAS chapter XI-2 applies.

Special measures to enhance maritime security by the International Ship and Port Facility Security (ISPS) Code apply.

It was agreed that the proposed amendments should be reviewed in conjunction with the comprehensive review of the STCW Convention before being presented to the Maritime Safety Committee (MSC) for approval and subsequent adoption. In the meantime, the Sub-Committee prepared a draft MSC circular on Guideline on security-related training and familiarization for shipboard personnel, for approval by the Committee when it meets in October for its 83rd session.

The guidelines are intended to provide information to SOLAS Contracting Governments and STCW Parties on the direction that issues related to the training and familiarization for shipboard personnel are expected to take, so as to enable them to adjust their national requirements, programmes and practices in advance of the adoption of the amendments to the STCW Convention and Code.

Review of the principles for establishing the safe manning levels of ships

The Sub-Committee gave preliminary consideration to proposals relating to the review of the principles for the safe manning levels of ships and established a correspondence group to review resolution A.890(21) Principles of Safe Manning as amended, to identify possible needs for revision and prepare a comprehensive report for submission to STW 39.

Unlawful practices associated with certificates of competency

The Sub-Committee agreed a draft revised reporting format for reporting fraudulent certificates detected, for approval by the MSC. The aim is to assist in focusing the fight against unlawful certificates on the prevalent types of fraud reported.

The Sub-Committee also noted that the certification verification facility, provided through the IMO website, had been used 6,300 times during the year 2006.

Model courses

The Sub-Committee validated the following model courses: Liquified natural gas (LNG) cargo and ballast handling simulator; Liquified gas tanker (LNG) cargo and ballast handling simulator; and Chemical cargo and ballast handling simulator, as well as two revised model courses related to specialized training for Oil and Chemical tankers, which take into account the revised MARPOL annexes I and II which entered into force on 1 January 2007.

The Sub-Committee also noted that three other new model courses had been developed: Skipper of fishing vessel; Chief and 2nd Engineer Officer of fishing vessel, and Officer in Charge of a Navigational Watch of fishing vessel.

An emphasis on environmental awareness, in particular, the use of oily water separators, is to be included in the

Labour Convention, 2006; sanitation and

requirements of the ILO Maritime

representatives, reflecting the

training standards for shipboard safety

arrangement and principles to be

limited to addressing safety issues; and

information provided in the ship’s

Occupational safety, medical care

and survival functions,

and increase emphasis on fatigue

training, including enhanced knowledge

of modern developments for integrated

bridge systems and equipment;

demonstration of competence, to ensure

that the ship’s officers and crew have sufficient knowledge and competence in the operation, testing, fault diagnosis and maintenance of those prevalent types of fraud reported.

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Fire safety - performance testing and approval standards agreed

The Subcommittee also agreed to draft amendments to the Revised Guideline(s) for approval of equivalent valved water-based fire-extinguishing systems for machinery spaces and cargo pump rooms (MSC/Circ.1365), also for submission to MSC 83 for approval. The draft amendments to figures 2, 3 and 9 in MSC/Circ.1365 have been reviewed to clearly show the specified recommended fire test configurations and spray fire locations.

The Subcommittee agreed that the approval of such systems on passenger ships installed before 1 July 2008 should be left to the satisfaction of the Administration. The Sub-Committee also agreed that the approval of such systems on passenger ships installed before 1 July 2008 should be left to the satisfaction of the Administration.

The draft revised FIP Code prepared by a correspondence group, which was re-established to continue the work inter-sessioally. The correspondence group will develop the complete text of the draft revised FIP Code; and, in particular, develop draft amendments to the Guideline(s) for the application of plastic pipes on ships (resolution A.753(18)) to accommodate fire safety requirements for synthetic rubber pipes. The draft SOLAS requirements for the control of the installation of fire doors with three-sided frames; and develop a unified interpretation of part 3 of the FIP Code concerning large fire doors. The correspondence group was also invited to consider issues relating to the fire resistance of ventilation doors.

The review of the Fire Test Procedures Code is aimed at updating the various fire test standards and accommodating developments in fire protection technologies, enhancing its user-friendliness and providing a more uniform approach. The draft code, application of the Code through the inclusion of appropriate interpretations approved by the MSC.

The Sub-Committee also agreed that related ISO standards should be incorporated by reference into the revised test standards. The Guidelines for fixed water spraying, fire detection and fire alarm systems for cabin balconies are sufficiently flexible to provide for the capability of suppressing typical fires expected in such areas, and preventing them from spreading to the adjacent cabins and to other balconies. The Guidelines provide a detailed test method intended for evaluating the effectiveness of fixed pressure water spraying and water-based fire-extinguishing systems for cabin balconies, developed for ceiling or sidewall mounted nozzles, located to protect internal cabin balconies that are open to the atmosphere with natural wind conditions.

The latter draft guidelines note that fixed fire detection and fire alarm systems, as required by SOLAS regulation II-17.2, for the protection of cabin balconies where furnishing and furnishings other than those of restricted fire risk are used, should be shown by test to have the capability of detecting typical fires expected in such areas before they spread to the adjacent cabin and to other balconies. The draft standards were based on full scale testing conducted by Finland and the United States to provide a sound technical basis for their development.

Review of fire safety of external areas on passenger ships

As instructed by MSC 81, the Sub-Committee finalised its work on the fire safety of cabin balconies on passenger ships. The SOLAS Amendments are expected to be adopted by MSC, with a view to their submission to the Committee for adoption as SOLAS Amendments. The draft SOLAS requirements for the fire safety of cabin balconies on passenger ships, which were prepared following the fire on board the Star Princess in March 2006, the Sub-Committee finalised its work on the fire safety of cabin balconies on passenger ships. The SOLAS Amendments are expected to be adopted by MSC, with a view to their submission to the Committee for adoption as SOLAS Amendments. The draft SOLAS requirements for the fire safety of cabin balconies on passenger ships, which were prepared following the fire on board the Star Princess in March 2006, the Sub-Committee finalised its work on the fire safety of cabin balconies on passenger ships.
The IMO passenger ship safety initiative

By Jack Westwood-Booth
Maritime Technology Section, Maritime Safety Division, IMO

All too often, domestic and international shipping regulations are developed in reaction to a casualty to prevent a similar accident from reoccurring. The image of a large number of people in distress at sea is very unsettling and rightly results in public demand for quick action. It should therefore be no surprise that the world’s first international convention for addressing safety of life at sea – the SOLAS Convention – was developed in response to the Titanic disaster in 1912.

Many of the international passenger ship safety regulations in force today were developed in response to passenger vessel tragedies. However, ensuring that the international regulatory framework retains its relevance in light of technical advancements is a huge and complex undertaking and, therefore, contrary to public perception, much of this work is proactive.

Technological developments over the past twenty-five years have affected all sectors of the shipping industry and have literally altered the fundamental nature of passenger shipping. This sector of the industry has witnessed phenomenal growth on all fronts – numbers of passengers, numbers of ships, new destinations and, perhaps most startlingly of all, in ship sizes and the types of amenities on board.

This phenomenal success is largely attributed to the economic growth in many parts of the world and the resulting capital investment in the building of new cruise ships. In 1992, Titanic was considered one of the largest ships afloat, but today the largest cruise ships are twice the size of Titanic and are far exceeding the capabilities of any of the world’s current generation of lifeboats. As a result, many of the regulations developed in response to the Titanic disaster are unsuitable to contemporary cruise ships.

Consequently, in May 2000, the entire IMO Membership, as well as the cruise industry, agreed to undertake a holistic consideration of safety issues pertaining to passenger ships, with particular emphasis on large cruise ships.

The outcome of this procedure initiative has resulted in an entirely new regulatory philosophy for the design, construction and operation of passenger ships that will better address the future needs of the passenger ship industry.

From the outset, the Maritime Safety Committee (MSC), the IMO body responsible for the work to be undertaken, decided to establish an ad hoc Working Group on Passenger Ship Safety to facilitate the deliberations on the complex issues to be considered. To assist the group in its deliberations, the MSC approved a guiding philosophy and strategic goals to provide unambiguous instructions on the objectives to be achieved.

The following guiding philosophy was agreed to guide the group in its deliberations:

1. The regulatory framework should place more emphasis on the prevention of a casualty from occurring in the first place.

2. Passenger ships should be designed for improved survivability so that, in the event of a casualty, persons can stay safely on board as the ship proceeds to port.

3. The regulatory framework should permit alternative designs and arrangements in lieu of the prescriptive regulations, provided that at least an equivalent level of safety is achieved.

The phenomenal growth on all fronts witnessed in the passenger ship sector prompted a comprehensive review of its regulatory framework (p. Victoria Harbour Authority)
Passenger ships should be crewed, equipped and have arrangements to ensure the safety of persons on board for survival in the area of operation, taking into account climatic conditions and the availability of SAR functions.

Passenger ships should be crewed and equipped to ensure the health, safety, medical care and security of persons on board until more specialized assistance is available.

The guiding philosophy formed the foundation of the group's work and primarily focused on improving the survivability of future passenger ships. Of course, prevention is always the first goal in achieving any safety objective. Nevertheless, casualties will happen and mitigating the consequences is essential to saving lives. In this regard, the MSC agreed that the best way to avoid having thousands of persons in survival craft was to ensure that future passenger ships were robustly designed so that, after a casualty, the passengers and crew would normally be able to access a safe area on board as the ship proceeds back to port under its own power.

A more detailed explanation of the "casualty threshold", "safe return to port" and "safe area" concepts related to the guiding philosophy is discussed later in this article.

After six years of complex and extensive deliberations, the draft regulations and draft guidelines for implementation were adopted at MSC 82 in November 2006 in Istanbul, Turkey. Taking into account the five main pillars of the guiding philosophy (in bold), the following has been achieved:

**Prevention**: Draft amendments to SOLAS chapter II-1 and II-2 adopted and supporting guidelines on essential system redundancy, management of emergencies and casualty mitigation were approved.

**Regulatory flexibility**: Draft amendments to SOLAS chapters II-I and III were adopted and supporting guidelines to provide the methodology for the approval of new safety technologies and arrangements were approved.

**Operations in areas remote from SAR facilities**: Action taken to develop amendments to SOLAS chapter III by 2023 to address the time it takes to recover persons from survival craft and the water. Guidelines were also approved on external support from SAR Authorities as well as guidance to assist seafarers taking part in SAR operations.

**Health safety and medical care**: Supporting guidelines that focus on establishing medical safety programmes and a revised Guide on Cold Water Survival were approved.

It should be noted that the MSC did not develop the above mandatory and non-mandatory standards in isolation but relied on the expertise and work carried out by other expert bodies within IMO as well as by the cruise industry.

The new SOLAS regulations are expected to enter into force on 1 July 2010 and to apply to passenger ships having a length of 120 metres or more or three or more main vertical (fire) zones.

**New prevention measures**

The work associated with the new prevention measures focused on matters related to the human element such as operations, management and training. Existing training standards were modified and new guidance developed to support matters primarily related to navigation, resource management and training. To this end, the following prevention measures were approved and endorsed by the MSC:

- Guidelines on voyage planning for passenger ships in remote areas, for adoption by the IMO Assembly
- Amendments to the STCW Code on guidance on engine-room management
- Amendments to the STCW Code to provide additional guidance to Administrations, shipping companies and training institutions regarding training of seafarers of large passenger ships in advanced firefighting and damage control
- Revision of the IMO model courses on crowd and crisis management to incorporate the "safe area" concept

**Improved survivability**

Draft amendments to SOLAS chapters II-1 and II-2 were adopted and supporting guidelines on "casualty thresholds" and "safe areas" were incorporated into the new SOLAS regulations. The new "casualty threshold" provisions specify the design criteria for the extent of damage future passenger ships must be able to withstand and still safely return to port under their own power. If this casualty threshold is exceeded (i.e., the damage is such that return to port under power is not possible), then the ship is to remain viable for a minimum of 3 hours to allow for safe and orderly abandonment.

During the development of the "safe return to port" criteria, a number of questions began to surface, such as where the passengers and crew go during such a casualty, bearing in mind that the fire and/or flooding may still be active (but contained) as the ship races to the nearest port, which could take more than a day to reach. To deal with the above concern, the "safe area" concept was developed.

The latest generation of cruise ships is appealing to a new market with more modern sensibilities and expectations (pic: US Coast Guard).

The new "safe area" provisions establish that the person on board after fire must be protected from hazards to life or health and provided with basic services. Essentially, a safe area is any space which is not flooded or any space outside the main vertical (fire) zone in which a fire has occurred. The basic services, which include such necessities as water, medical care, protection from weather, etc., must be available in the safe areas.

The MSC adopted new amendments to SOLAS chapters II-I and II-2 and associated guidelines to support the above concepts. These new regulations focus on essential system redundancy, management of emergencies and casualty mitigation.

**Safe return to port and time for evacuation**

The new SOLAS regulation II-2/1 (Casualty threshold, safe return to port and safe areas) establishes the design criteria for a passenger ship's safe return to port under its own propulsion, which includes functional requirements and performance standards for "safe areas". In the future, new passenger ships will have to be designed to be capable of safely returning to port after flooding damage that has rendered any one space or watertight compartment a complete loss (e.g., the main propulsion space, navigation bridge, etc.). To be deemed "capable of returning to port", the following essential systems are to remain operational after the casualty:

- Propulsion systems
- Auxiliary propulsion systems
- Steering systems and steering control systems
- Navigational systems
- Fire main systems
- Systems for fill, transfer and service of fuel oil
- Internal communication between the bridge, engine control room, fire centre, firefighting and damage control teams, and as required for passenger and crew notification and muster
- External communication
- Fixed fire-extinguishing systems
- Fire and smoke detection systems
- Bilge and ballast systems
- Power-operated watertight and semi-watertight doors
- Systems intended to support "safe area" concept

For the sake of simplicity, the new regulation essentially requires that all of the above systems must remain operational after the loss of any one space enclosed by "A" class boundaries (e.g., steel bulkheads, etc.). Therefore, for example, if the propulsion space is lost due to fire, an alternative means of propulsion must still be available on board to bring the ship to the nearest port.

In order to meet the "safe area" requirements, the following basic services are to be available to ensure that the persons on board the ship are maintained as the ship proceeds to port:

- Sanitation
- Water
- Food
- Alternate space for medical care
- Shelter from the weather
- Means of preventing heat stress and hypothermia
- Light
- Ventilation

**Safety centres on passenger ships**

To assist with the management of emergency situations, new regulations have been adopted to require safety centres on or adjacent to the navigation bridge. These new provisions were based on recent cruise industry practices. The operation, control and monitoring of the following safety systems will be available from the safety centre:

- All powered ventilation systems
- Fire doors
- All emergency alarm systems
- Public address system
- Electrically powered evacuation guidance systems
- Watertight and semi-watertight doors
- Indicators for shell doors, loading doors and other closing appliances
- Water leakage of inner/outer bow doors, stern doors and any other shell door
- Surveillance systems
- Fire detection and alarm systems

The severe impact in particular of what conventional methods of ship evacuation were still appropriate (pic: IMCA)
From the very outset of this passenger ship safety initiative, the MSC was of the view that any future requirements should incorporate mechanisms to allow for the approval of new technologies and concepts in ship design, deemed essential for addressing future safety challenges. Examples of similar regulatory regimes include the philosophies used in the development of the revised SOLAS chapter II-2 (fire safety) and the revision of the High-Speed Craft Code (2000). New “alternative design and arrangements” regulations and guidelines were developed to provide a methodology for approving designs that do not strictly meet the prescriptive requirements in SOLAS chapters II-1, II-2 and III, but still provide an equivalent level of safety than, that required in the prescriptive requirements. This new approach will require significantly more time in calculation, testing and documentation than a traditional prescriptive design because of the increased engineering rigor required by the new regulations. The potential benefits include more design flexibility to address safety issues, cost effective designs for unique applications, promotion of the latest safety technologies and an improved knowledge of loss potential.

Operations in areas remote from SAR facilities

One of the most difficult issues that had to be addressed as part of the passenger ship safety initiative related to search and rescue. Rescuing a large number of persons at sea is difficult even under ideal conditions, not to mention the growing industry trend to take large passenger ships into remote areas with scarce shipping traffic and varying weather conditions.

From the outset, the MSC and the IMO Sub-Committee on Radiocommunications and Search and Rescue vigorously debated what constituted a “remote area of operation”. The basic consensus was that it depends on the number of people at risk, the capacity and capability of SAR facilities (additional SAR facilities in particular) and other assistance available, and the weather and sea conditions, which affect both survival times and recovery capability. It also depends on the effectiveness of possible mitigation strategies.

Therefore, the solution was multi-faceted and covered a wide range of issues. The work on this issue resulted in the approval of the following recommendations and guidelines by MSC 81:

- Voyage planning for passenger ships operating in remote areas
- Amendments to the International Aeronautical and Maritime Search and Rescue (IAMSAR) Manual
- Guidance on recovery techniques
- External support provided to ships by SAR Authorities
- Contingency planning for ships operating in areas remote from SAR facilities
- Guidance on cold water survival
- Training of SAR service personnel

The work on this initiative has prompted the development of standards to also address some aspects of the safety of other types of ships. Bearing in mind that all ships are required to assist in SAR operations for all types of new and existing ships.

Health safety and medical care

Last, but not least, was the approval by the MSC of guidelines to address health safety programs and a revised Guide on cold water survival, which had not been updated since 1992. The new medical safety guidelines provide for the establishment of medical and sanitation-related programmes for all passenger ships.

Conclusion

There is more consequential work that remains to be accomplished, not the least being the completion of the mandatory performance standards for recovery systems for all types of ships. However, it is safe to say that cruise ship passengers, and the passenger ship industry as a whole, are better served today than ever before. Whilst not allowing for any complacency, we can feel proud of the transformation of this vibrant sector of the shipping industry into a safer and cleaner one than ever before.
IMO HQ in major face-lift

In 2005 the IMO Council agreed to the Host Government’s proposal for a major refurbishment of the IMO Headquarters building to provide secure accommodation, of a stature in keeping with its international status, to provide delegates and staff with a safe, comfortable and healthy working environment for the next 30 years.

In the summer of 2006, the IMO Secretariat moved to temporary premises in Victoria Street, London, SW1, and the scheduled programme of IMO meetings relocated to other venues in London and also abroad. The first phase of the refurbishment work is now well underway and the Council has approved a continuation of the work to include Phase 2, which was originally planned for 2010 or beyond. The full refurbishment of the HQ building will provide enhanced meeting, catering and office facilities for both delegates and staff to meet the Organization’s current and future needs.
IMO at work

Model safety regulations for non-convention ships in Gulf region adopted

The preliminary investigation highlighted the lack of technical safety regulations for small ships in Bahrain and the need to develop such regulations urgently. The Government of Bahrain, along with the Cooperation Council for the Arab States of the Gulf (GCC) which includes Bahrain, Kuwait, Oman, Qatar, Saudi Arabia and the United Arab Emirates, requested the assistance of IMO to develop such regulations.

Following a fact-finding mission to Bahrain, undertaken by IMO in June 2006, the draft Regulations for Cargo Ships and Small Passenger Ships not covered by the Provisions of International Maritime Conventions in the Co-operation Council for the Arab States of the Gulf (GCC) Region, Djibouti and Yemen, were developed. The November regional workshop was attended by representatives from Bahrain, Kuwait, Oman, Qatar, Saudi Arabia, the United Arab Emirates, Djibouti and Yemen.

The model standards are intended to be used by each country and adopted into national law. Each country has the right to amend them as needed. IMO has also assisted in the development of regional legislation covering non-convention vessels, including: Safety regulations for cargo ships not covered by the provisions of IMO Conventions in the Mediterranean region; Safety Regulations for non-Convention Sized Ships in Asia; Code of Safety for Small Commercial Vessels Operating in the Caribbean Sea (SCV Code); and Model safety regulations for inland waterways vessels and non-convention craft in Africa.

IMO-Interferry pilot project set for 2007

A pilot project to address the safety of domestic passenger ferries in Bangladesh is set to be launched this year, following a Working Group Meeting held in Dhaka, Bangladesh, in December 2006. The pilot project is intended to be part of a larger programme under which IMO and the non-governmental industry organization Interferry will work together towards enhancing the safety of ferries, which are not covered by IMO’s international conventions (non-Convention ferries). Collaboration with Interferry’s Integrated Technical Co-operation Programme, on specific capacity-building activities within developing countries, IMO and Interferry signed a Memorandum of Understanding (MoU) to launch the project in January 2006.

The Dhaka meeting, attended by representatives from IMO, Interferry and the Bangladesh Maritime Administration, was attended by 18 representatives from Bangladesh and the non-governmental industry organization Interferry. The meeting was facilitated by Mr. Yvon Vasseur, Director of Interferry’s Technical Co-operation Programme.

Focus on new generation at Greek shipping awards

MO Secretary-General, Efthimios M. Mitropoulos, has established a new sub-division within the IMO Secretary-General’s Maritime Safety Division to reinforce the high priority given by the Organization to matters of maritime security.

The new sub-division will provide a stronger focus on security matters and will address the complementary issue of facilitating maritime traffic under the leadership of Mr. Nicolas Charalambous, who becomes Deputy Director. IMO is also taking steps to monitor the effectiveness of the new sub-division, Mr. Mitropoulos said that it reflected the continuing need for the Organization, and the maritime world as a whole, to sustain efforts to enhance and improve levels of security in all aspects of ship and port operations, while at the same time facilitating the innocent movement of people and goods by ships. Meanwhile, Mr. Miguel Palomares has stepped up to become Director of the Secretariat’s Marine Environment Division following the appointment of Mr. Jean-Claude Sainlos, Mr. Stefan Micallef becomes Deputy Director of that Division and Head of its Sub-Division on Pollution Response and Technical Co-operation Co-ordination.

IMO to run port security seminar

IMO is to organise a seminar focused on the vital role of ‘Port Facility Security Compliance’ within the wider context of maritime security, alongside the Transac 2007 event in June 2007. The World Customs Organization and the European Commission are also to stage a Supply Chain Security Seminar alongside the Transac event, which is dedicated to all aspects of transport security.

REMPREC organizes MARPOL training course in Albania

Twenty participants attended a National Training Course on the MARPOL Conventions organized by the Regional Marine Pollution Emergency Response Centre for the Mediterranean Sea (REMPREC) in Durres, Albania between 25 and 27 October 2006. The training course, which was organized in close cooperation with the Ministry of Public Works, Transport and Telecommunications of Albania and with the collaboration of the Durres Port Authority, was held within the framework of the Mediterranean Action Plan (MAP) and in conformity with REMPREC’s training programme to develop the national capacities of Mediterranean coastal States for the prevention of, preparedness for and response to marine pollution.

The objectives of the training course were to familiarize participants with IMO and to provide the necessary knowledge and information that is required to implement the Convention in view of Albania’s future planned accession to the MARPOL Convention.

The Hon. Mr Armad Telti, Deputy Minister at the Ministry of Public Works, Transport and Telecommunications, who presided over the closing session of the training course and distributed certificates of attendance to the participants, expressed his appreciation to REMPREC for organizing the training course and confirmed his Government’s commitment to adhere to international maritime standards.

Places of Refuge under spotlight in SAFEMED workshop

Fifty-two government officials from the Mediterranean region participated in a Regional Workshop on Places of Refuge, organized last November by the Regional Marine Pollution Emergency Response Centre for the Mediterranean Sea (REMPREC), in collaboration with Spanish Authorities, in Barcelona. The main objectives of the workshop were to familiarize participants with the issues related to the designation and planning of places of refuge for ships in need of assistance, to discuss methodologies and best practices that could be followed in identifying and planning refuge areas for ships in need of assistance, to provide the necessary knowledge and information to facilitate decision making when planning and designating places of refuge and to discuss appropriate procedures and guidelines that could be used by the Mediterranean coastal States to facilitate the decision-making when designating places of refuge in accordance with IMO Assembly Resolutions A.949(23) and A.950(23).

Eleven speakers, including officials from IMO, REMPREC, the European Commission, government officials from Spain, the United Kingdom, France and Cyprus and other experts delivered presentations during this three-day event. The workshop was part of the framework of the European Union (EU) funded MEDA Regional Project “Euromed Co-operation on Maritime Safety and Prevention of Pollution from Ships – SAFEMED”, which is currently being implemented by REMPREC in ten European Mediterranean Partners, namely Algeria, Egypt, Israel, Jordan, Lebanon, Morocco, the Palestinian Authority, Syria, Tunisia and Turkey.

In IMO News issue 4/2006, the Ambassador of Greece was wrongly identified in a photo caption. It should have referred to His Excellency Mr. Anastase Scopelitis, then Ambassador of Greece to the Mediterranean Organization.

In the image of the cook islands should have referred to Captain Melrose Johnson. The photograph showing the guests from the Cook Islands should have referred to Captain Melrose Johnson.
Major contributors settle IMO payments

A number of major contributors to the IMO budget have now settled their IMO budget payments for 2007.

In January and February, both Bahamas and Liberia presented the Secretary-General with their countries’ contribution to the IMO budget.

The Secretary-General welcomed these commitments and said, “This is an excellent example for all to follow. The timely payment of assessments is essential for the Organization’s financial wellbeing and recognizes the critical contribution of the Organization’s work programme to enhancing global maritime safety, security and environmental standards in the interests of the global maritime community and civil society at large.”

IMO hosts Equasis signing ceremony

A ceremony for the signing of a new MoU for Equasis, marking the accession of Australia, Norway and the European Maritime Safety Agency (which now acts, within the system, on behalf of the European Commission), to the agreement, has taken place during the 38th meeting of the IMO’s Sub-Committee on Standards of Training and Watchkeeping.

IMO has always been a strong supporter of Equasis since its inception, at the initiative of France and the European Commission, in 2000. Speaking at the ceremony, IMO Secretary-General Panagiotis Mitropoulos described Equasis as a success story in the fight against substandard ships - providing transparent, readily available information relating to ships and their operators, on a free-to-view basis. IMO participates in Equasis as a data provider for information relating to oil tankers’ Condition Assessment Scheme and for comments provided by Flag States concerned.

Mr Mitropoulos also took the opportunity to highlight the continuing co-operation between the IMO Secretariat and Equasis to develop the port State control module of the IMO Global Integrated Shipping Information System (GISIS), for the organizations’ mutual benefit and for that of the wider maritime community.

“Developments such as these seem set to ensure that a well co-ordinated and harmonized international policy for data transparency - which is also a key objective of IMO’s Strategic Plan - will continue to provide the shipping industry and its customers with a valuable service and an important aid in the overall drive towards better quality and higher standards”, he said.
An overview of the International Maritime Organization: What It Is, What It Does, How It Works

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