**Overview of Current Issues and Future
Challenges in Maritime Safety**

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In Panel Segment 3: Experience and Challenges in Maritime Safety

Slide 1

1   My role today is to provide an **overview** of current issues and future challenges in Maritime Safety in **the short time** available.

2   This is a **challenge** in view of:

    –   wide ranging issues;
    –   significant amount of work.

3   Today, I can only briefly touch upon:

    –   Main issues and challenges;
    –   Main achievements and future challenges.

Slide 2

1   Before I come to substantial Safety Issues, I would just like to share with you some basic statistics which reflect:

      –   How international shipping has itself **expanded** and responding to the needs of **globalization** over the last 50 years which coincides with the period of IMO's activities.

2   The volume of World Seaborne Trade in 1960 was 4,000 BTM and this has been expanded **by 6 times** to 27.5 BTM in 2004.

3   Fleet Capacity corresponded to this expansion and also increased by 6 times over the last 4 to 5 decades.

4   An interesting feature is that over this period the number of ships has increased only 2.5 times. The fact is that the size of ships has enlarged significantly. (large crude oil carrier/large container ship).

Slide 3

1 Let's take a look at how ship registration changed:

- In 1970: developed market economy represents 65%
- In 2004: Open registries account for 45%

2 Supply of seafarers:

- Nowadays,
- OECD countries share 26%
- While other countries provide three-quarters of the world's seafarers: Workforce at sea.
- This clearly indicates that shipping is on track towards **globalization.**

3 This share of supply of seafarers by non-OECD countries indicates that the shipping industry is providing opportunities to developing countries for earning payment and income and this aspect has a dimension of assisting the Millennium Development Goals.

4 Let's take a look at Major Conventions adopted by IMO over the last 50 years.

5 1960s, IMO adopted three Technical Conventions:

- 1960 SOLAS,
- 1966 Load Lines and
- 1969 Tonnage Convention

which provide the framework of Safety Regulations.

6 1967 we encountered the Torrey Canyon Oil spill disaster and the 1973 MARPOL Convention was adopted.

7 1970s was **a busy decade** for IMO and – 1974 SOLAS, 1977 Torremolinos Fishing Vessel Convention, 1978 STCW Convention dealing with Qualification and Training of Seafarers and 1979 Search and Rescue Convention was adopted.

8 We also cannot forget the Amoco Cadiz oil spill accident.

Slide 4

1   In the beginning of the 1980s, SOLAS 74 came into force. The significance of this is that now safety regulations are regularly and constantly updated under the so-called "Tacit Acceptance Procedure" for amendments.

2   At IMO, the World Maritime University was established and in 1985, we saw the "Seajack" incident on the Achille Lauro which resulted in the adoption of the Convention for the Suppression of Unlawful Acts – SUA Convention in 1988.

3   In the 1990s, IMO embarked on a number of new frontier areas such as the ISM Code, dealing with the Safety Management of Shipping Companies, Air Pollution, Ballast Water, etc.

4   In 1994, the Estonia accident cost 852 lives.

5   At the turn of the century, Erika and Prestige accidents raised a serious concern on the structure of old single-hull tankers, which demanded action at IMO to phase-out single-hull tankers.

6   I do not need to mention why, but in 2002, under the compelling need to establish maritime security regulations, the ISPS Code was adopted.

7   This table also indicates the Al Salam Boccaccio 98 disaster in 2006 in the Red Sea which cost [1000] lives for which MSC adopted new regulations to increase the safety of ro-ro passenger ships.

8   This is a very quick run through of the activities of IMO on safety issues.

9   The IMO Convention was adopted in 1948 and last week in London, the 100th session of the IMO Council celebrated its 60th anniversary. The Convention came into force in 1958 and since then IMO's activities have been significantly expanded.

10   In the maritime safety field, throughout the history of 50 years' operation, numerous Conventions, Codes and Guidelines have been developed by IMO and have been implemented.   Effective compliance with the IMO measures by Governments and the Industry has resulted in an **overall improvement in safety** and a **steady decline in casualty rates**. The total number of ship losses at the beginning of the 1980s was over 200 annually, that number has gradually decreased, over 25 years, to an average of less than 100 most recently.

Slide 5

1   Over the next two slides, I would like to indicate how the scope of IMO's safety measures has been expanded, over the last 20 years.

2   Under SOLAS 74:

-      We have adopted the ISM Code dealing with management in companies;
-      Measures for Recognized Organizations such as classification societies;
-      Requirements for IMO ship number;
-      Measures for High Speed Craft;
-      Measures for Bulk Carriers, in response to the loss of a large number of Bulk Carriers in 1990s (average 14 annually: over 100 in the decade);
-      Generally speaking, the safety record of ships has been improving over the last few decades but we still have to recognize that, for example, on average, 8 bulk carriers are lost annually nowadays, even if we recall that the average annual loss of bulk carriers at the beginning of the 1990s was 14. Overloading and excessive loading rates are just two elements among many other factors of operation and we must carry out further work in this sector;
-      We have recently adopted measures for Passenger Ships in view of the arrival of Huge Cruise Ships with thousands of passengers in a proactive manner (without waiting for casualties);
-      They are significant safety initiatives under SOLAS.

3   In 1995, the STCW Convention was amended and a new mechanism of initial and regular verifications over performance of Contracting Parties was established – the so-called White List.

Slide 6

1   In operational fields, IMO's activities for establishing new Ships' Routeing Measures and designating Particularly Sensitive Sea Areas have been intensified.

Since 1990, IMO has designated more than 10 PSSAs, for example:

-	the Great Barrier Reef, Australia	1990 first
-	Sabana – Camaguey Archipelago, Cuba	
-	Western European Waters	2004
-	Galapagos Archipelago, Ecuador	2005
-	Papahanaumokuuken, Hawaii	2008 most recently

The proliferation of PSSAs has a dimension of operational restriction, but we must preserve the fragile marine environment. IMO is eager to strike the right balance.

2   Security field, IMO adopted the SUA Convention, the ISPS Code and the SUA Protocol in 2005.

3   Piracy and armed robbery, Stowaway and Persons Rescued at Sea: are fields IMO has been putting a lot of effort into and Now, the IMO Guidelines on Piracy and Armed Robbery is under review and:

- IMO has established a Focal Point for the Industry and Member Governments for Stowaway incidents, on a trial basis;
- Recently a new work programme item was established on the issue of Persons rescued at sea.

Slide 7

1   We are very pleased with comments by Member Governments and the Industry that "IMO has an efficient mechanism"

2   In this slide, I indicated a number of factors which allowed IMO to be recognized by many as an efficient forum to handle safety issues

   i.   First, participation by experts:

           –   In our meetings, IMO ensures participation by true experts on technical issues

   ii.   Consultation with the Industry:

           –   The Shipping Industry is always represented by industry representatives in NGOs with consultative status such as ICS.

   iii.   Co-operation with UN Agencies/IGOs:

           –   We have long and established co-operation with Agencies such as ILO, FAO, IHO etc.

   iv.   Mechanism of actual implementation:

           –   Outcome of IMO meetings is not just on paper
           –   Under SOLAS and MARPOL and their mechanism of Tacit Acceptance Procedure, measures adopted by MSC/MEPC will be:

                  o   Put into force within an allocated time;
                  o   Implemented by flag State Administration and the shipping industry; and
                  o   Checked by port State control measures.

   v.   Our measures are global, we stick to the value of the universality of regulations; and

   vi.   IMO's meeting and support system from the Secretariat have been so established in order to ensure efficient work.

Slide 8

Now, I come to the point where I will speak about challenges and I would like to present my view on these fields of activities: namely,

- Development of new measures;
- Implementation; and
- Regional/Sub-regional developments and capacity building.

Slide 9

Challenges for the development of new measures.

Goal Based Standards is:

−   A new approach to rule making; and
−   Developed based on the discussion of structural requirements under classification societies;
−   In the wake of the *Estonia/Prestige* accidents:

     GBS will set goals under the SOLAS Convention and
     leave means to achieve goals to –
       o Classification societies
       o Ship designers;

−   Evaluation process for Rules of Classification Societies, e.g. Common Structural Rules will be activated; and

−   An Experts Group will be established to verify future rules;
−   We will adopt Amendments to SOLAS in 2009; and
−   We will Implement GBS for tankers and bulk carriers in 2010.

Long Range Identification and Tracking System (LRIT)

This is a new satellite tracking system established under SOLAS Chapter V regulation 19-1 for:
       o Ships under SOLAS;
       o Cargo ships above 300 GT; but
       o Not applicable for fishing vessels;

−   Position of ships tracked by satellite –
       o 4 times a day (6 hours intervals)
       o 1000 miles from the coast;
−   Target of implementation is end of 2008;
−   And we expect gradual implementation in the course of 2009;
−   National/regional Data Centres are under preparation; and
−   Developmental testing will take place over the summer of 2008.

E-Navigation

This is an emerging concept for:

− Making use of new communication/IT technologies;
− Making use of Electronic Navigational Charts:
− ECDIS; and
− AIS (which is a radar transponder to transmit general information on ships).

E-navigation will:

− Support decision-making by ships' masters; and
− E-Navigation Strategy is under preparation for approval by MSC 85.

Comprehensive review of STCW Convention

− Last major amendments were in 1995;
− We are aiming to hold a Diplomatic Conference in 2010;
− All Chapters of the STCW Code will be reviewed; and
− Amendments will come into force in 2012 and provide a basis for training requirements for 2010s until future opportunity and needs for major revision may arise.

According to the most recent study, we will encounter a shortage of seafarers to the order of 27,000 in 2015.

We **must find people to work in the future** in international shipping. In this context, we must debate at IMO fatigue and working hours, living conditions on present and future shipping and, on top of these, we must discuss how to ensure that seafarers careers at sea would provide a positive basis for seafarers to work, after their time at sea, on shore. These issues may go beyond the scope of the STCW Convention, but it is important to recognize them as the most fundamental issues surrounding the Convention. The ILO Maritime Labour Convention of 2006 should be supported and this must also be taken into account in the process of the comprehensive review of the STCW Convention.

Formal Safety Assessment

This methodology has been successful in nuclear and offshore industries and IMO is following this.

This is in essence:
−   Risk management technology; and
−   A scientific, casualty-date dependent approach.

Ships Routeing

−   NAV Sub-Committee will continue to provide a forum to assess the need for future ship routeing measures and to report to MSC for adoption under the provisions of UNCLOS.

Casualty database for Risk Based Approach

−   Essential for future regulatory activities;
−   We must start now in constructing a solid database for the future.

Casualty investigation mechanism

−   New Code of Casualty Investigation was adopted by MSC 84;
−   IMO intends to establish a global system of casualty investigation with the harmonized procedures.

Slide 10

Challenges for Implementation

Voluntary IMO Member States Audit Scheme

−   IMO started this scheme 3 years ago;
−   Experience of 2 years with 20 Member Governments among 167 States have been audited;
−   It is expected that 40 Member Governments will be audited by 2009 and, according to responses from already audited Governments;
−   The audit is beneficial for any IMO Member States acting in the capacity of:
    o   Flag State;
    o   Port State; or
    o   Coastal State,
    We need to encourage more.

Code for Recognized Organization

−   A new Proposal to consider the Code was approved by MSC 84; and
−   This will deal with measures to control performance of classification societies as Recognized Organizations.

1993 Torremolinos Protocol

−   So far, 15 States have ratified; but
−   The condition for fleet requirements is far from promising
        (3,237 against 14,000); and
−   MSC will explore any option to ensure early entry into force of the Torremolinos Protocol to the Torremolinos International Convention for the Safety of Fishing Vessels, 1977.

Slide 11

Challenges: Regional/Sub-Regional/Sub-Regional Developments and Capacity Building

PSC Regional MOUs:

−	currently 9 Regional MOUs have been established;
−	harmonization of PSC procedures is a challenge.

IMO is supporting African countries to establish Maritime Rescue Co-ordination Centres (MRCCs):

−	2006 Mombassa MRCC
−	2007 Cape Town MRCC
−	2008 Lagos MRCC
−	work in progress for Liberia and Morocco.

A hydrographic capability for ENCs is essential to cover all coasts of the world by ENCs.

Marine Electronic Highway Project:

−	with a grant of 8 million dollars from GEF, World Bank, the Demonstration Project has started implementation;
−	with a view to drawing up a blueprint for the future full-scale MEH Project which may cost tens of millions of dollars for the Malacca and Singapore Straits.

Regional mechanism to fight against piracy:

IMO is promoting a regional mechanism and appreciates Asian countries for the establishment of ReCAAP.

As I informed yesterday, the IMO Assembly, by its resolution A.1002(25), called upon a Regional Mechanism of Co-operation and to conclude a regional Memorandum of Understanding and we organized a sub-regional meeting in Tanzania in April which prepared the draft MoU.

With the positive outcome of the Tanzania meeting, the IMO Council last week endorsed the holding of a high-level meeting to conclude the MoU for the Western Indian Ocean.

The IMO Secretariat is considering holding this high-level meeting in Autumn this year.

− IMO has been working on the issue of Piracy over 20 years;
− We encouraged Member Governments to establish a mechanism of co-operation;
− Having seen positive developments through IMO-sponsored meetings, in Jakarta/Kuala Lumpur/Singapore, with ReCAAP, IMO adopted resolution A.1002(25) on piracy issues off the coast of Somalia;
− IMO Assembly invited the Federal Transitional Government of Somalia to provide consent to accept support from countries which have maritime forces around the coast and invited the Secretary-General of the UN to take action with the UN Security Council; and
− We are pleased with the recent adoption of UNSC resolution 1816.

The Cooperative Mechanism is the first mechanism established for Malacca and Singapore Straits must be continuously supported and IMO has also established the IMO Malacca and Singapore Straits Fund.

The Cooperative Mechanism was established in the spirit of Article 43 of UNCLOS and IMO is grateful for co-operation among the littoral States and user States.

In the field of co-operation among coastguards, IMO is encouraging the African countries in the western coast to establish a mechanism of co-operation.

IMO is currently putting significant effort into improving the safety of domestic ferries with the pilot project in Bangladesh.

− Last weekend, we encountered the **news** of the capsizing of the Princess of the Stars in the Philippines, obviously in severe weather conditions;
− Among the, more than 800, people onboard, so far some [70] survivors have been rescued and a search and rescue operation is still going on;
− I would like to take this opportunity to express our **sympathy and condolences** to those people in the Philippines who lost loved ones and who are still suffering;

–   Hundreds of people **annually** have lost their lives off the Bangladeshi/Indonesian and African coasts;

–   Safety of domestic ferries is still high on the agenda of IMO; and

–   We need to put more efforts into **helping** those countries which are suffering to improve their safety systems for the operation of domestic ferries.

Final note

The environment in which the shipping industry worked 50 years ago is completely different from that at present. The availability of modern technology for ships and terminals, extensive use of IT and communications, expected efficiency in cargo logistics such as the "just-in-time" requirements and even expanded fleets rushing into only limited port facilities, over-loading and excessive loading rates – all these have put enormous pressure on ship operators. Combined with tightened control over seafarers, in view of security measures, seafarers are put under constant pressure and even ships are suffering unbearable structural strain as was indicated in the case of the *Napoli* accident.

Concluding remarks

−	As I said in the beginning, shipping is **expanding** and on the way to **globalization**;
−	This will provide the **opportunity** to people in **developing countries** to work at sea;
−	We must find the **right** people to work at sea, **qualified people** on board;
−	And in this context, we must **ensure**:

1	**Safety, security** and **anti-piracy measures** to protect seafarers; and also **ensure**
2	**Proper working conditions** are always there.

−	These are the responsibilities of IMO and ILO and we will continue to do our best **with other UN Agencies**;
−	However, the biggest challenge, in my view, is **maritime education and training**.

−	At the Council meeting last week in London the Chairman of the MSC, Mr. Ferrer of the Philippines, stated that "Centres of excellence" should be established. We have a number of excellent education and training centres, such as:

o	Arab Academy in Alexandria, Egypt;
o	Dalian, China;
o	Istanbul, Turkey
o	Manila, Philippines,

But we need excellent training facilities in all parts of the World, and we need to do more and more and more in this field.

IMO should work more on operational aspects of an ever-changing shipping industry, with an emphasis on the human element, in order to ensure that:

.1   We can find the right people to work on board ship, so that -

.2   We can sustain the availability of a shipping service for the world economy and the welfare of mankind.

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