



REPORT

International Association of Drilling Contractors
Offshore Division

International Regulatory and Standardization Activities Affecting the Offshore Oil and Gas Industry 1 August 2017

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Paris Agreement under the United Nations Framework Convention on Climate Change

The Paris Agreement, also called the Paris Climate Accord, was adopted on 12 December 2015 at the 21st Session of the Conference of the Parties to the United Nations (UN) Framework Convention on Climate Change, held in Paris from 30 November to 13 December 2015. In accordance with its Article 20, the Agreement was open for signature at the UN Headquarters in New York from 22 April 2016 until 21 April 2017 to States and regional economic integration organizations that are Parties to the UN Framework Convention on Climate Change.

As of 1 August 2017, the Agreement has garnered the support of 197 parties to the convention, 149 of which have ratified the Agreement, far more than the minimum required to affect the entry into force of these provisions. Deposits of an instrument of ratification from at least 55 UNFCCC party nations that account for 55% of global GHG emissions were required to ratify the Agreement. China and the U.S. account for almost 40% of GHG emissions.

Taking effect on 4 November 2016, the Agreement aims to contain the average global temperature to less than 2°C above pre-industrial level with a target of limiting such increase to 1.5°C above pre-industrial levels via pursuit of mitigating efforts. These efforts include ways to encourage finance and investment toward lowering GHG emissions and increasing sustainable development.

On 1 June 2017, U.S. President Donald Trump announced plans for the U.S. to withdraw from the Paris Climate Accord. However, Article 28 of the Paris Agreement specifies that parties may only withdraw from the Agreement by submitting a written notification 3 years after the date the Agreement went into effect for that party (which was 4 Nov 2016 for the U.S.) and 1 year before the date the withdrawal may take place. Consequently, the earliest the U.S. could provide notice of withdrawal is 4 November 2019, and then the withdrawal would take effect 1 year from the date of the notice (4 Nov 2020). Until the 2020 date, the U.S. is expected to honor its obligation under international law.

Additional Paris agreement information may be found [here](#).

Intergovernmental Panel on Climate Change (IPCC)

In February 2015, the IPCC initiated its current - sixth cycle to compile the next climate change Assessment Report (AR6). Beginning in 1990, this series of periodic reports has provided an ongoing assessment of available scientific, technical, and socio-economic knowledge to better understand causes, impacts, and response strategies related to climate change. The meeting to begin scoping/drafting AR6 was held in Addis Ababa Ethiopia 1 – 5 May 2017 to focus on scientific findings that have been published since the last Assessment Report (AR5 completed in 2014). This current period of assessment is scheduled to be concluded in the first half of 2022. Once completed, the report will be received by the UNFCCC in 2023 when countries will review their performance in accordance with Paris Agreement climate change objectives.

At its 45th Session (28 – 31 March 2017), the IPCC Panel approved the outline of the Special Report on the Ocean and Cryosphere in a Changing Climate (SROCC) to be finalized in September 2019. Special Reports provide assessment of a specific issue related to climate change vs. the more expansive consideration of the continuing series of ARs.

This Special Report will comprise six chapters plus a case study section that will assess literature relevant to the report topic. The main sections of the report will consider:

- Scope – definitions of ocean and cryosphere domains & their components including consideration of assessment methodologies
- High mountain areas

- Polar regions
- Sea level rise
- Changing ocean marine ecosystems and dependent communities
- Extremes, abrupt changes and managing risks

Additional IPCC information may be found [here](#).

United Nations Framework Convention on Climate Change (UNFCCC)

The 23rd session of the Conference of the Parties (CoP23) will take place 6-17 November 2017 in Bonn, Germany. Leading up to the forthcoming Conference, the Fijian Prime Minister, President of CoP23, Frank Bainimarama expressed his disappointment regarding the Trump Administration's decision to withdraw from the Paris Agreement, stating that the rest of world remains fully committed to the implementation of the Paris Agreement.¹

Further information on the UNFCCC and its upcoming session may be found [here](#).

Convention on Biological Diversity (CBD)

On 20 March 2017, Dr. Cristiana Pasca Palmer assumed appointment as the new Executive Secretary of the Convention on Biological Diversity. Adopted in Rio de Janeiro in 1992 along with the UN Framework Convention of Climate Change, the CBD goals are the conservation of biodiversity, sustainable use of its components, and sharing of benefits arising from use of genetic resources.² Two protocols have been adopted under the Convention:

- Cartagena Protocol on Biosafety
- Nagoya Protocol on Access to Genetic resources and the Fair and Equitable Sharing of Benefits Arising from their Utilization

The 13th Convention of Parties met 4-17 December 2016. Highlighted decisions for further study include the following:

- Biodiversity and climate change
- Biodiversity and human health
- Marine spatial planning and training initiatives
- Addressing impacts of marine debris and anthropogenic underwater noise on marine and coastal biodiversity
- Marine and coastal biodiversity: ecologically or biologically significant marine areas

Further information concerning CBD activities may be found [here](#).

Montreal Protocol

The 10th meeting of the Ozone Research Managers (ORM) met 28-30 March 2017. Recommendations resulting from meeting deliberations comprised four topics: Research Needs, Systematic Observations,

¹ NFCCC. COP23 Presidency Deeply Disappointed with Trump's Decision to Withdraw from the Paris Agreement. June 1, 2017. <https://cop23.com.fj/statement-fijian-prime-minister-incoming-president-cop23/?platform=hootsuite>.

² Convention on Biological Diversity. "Information." June 2017. <https://www.cbd.int/decisions/cop/> (accessed June 2017).

Data Archiving and Stewardship, and Capacity Building. These topic processes were identified as the means to sustaining the group's work in achieving the Overarching Goals consisting of the following:

- Improving the understanding and accuracy of future projection of global ozone amounts
- Maintaining and enhancing existing observation capabilities for climate and ozone layer variables
- Continuing research via enhanced financing activities
- Building capacity to meet these goals

Further details related to this 10th ORM meeting can be found [here](#).

United Nations Convention on the Law of the Sea (UNCLOS)

From 15 to 19 May 2017, the 18th meeting of the United Nations Open-ended Informal Consultative Process on Oceans and the Law of the Sea was convened. Topics of consideration/discussion included *inter alia*:

- Ocean warming, ocean acidification and cumulative effects related to climate change
- Concern for effects on Least Developed Countries (LDCs) and Small Island Developing Countries (SIDS)
- Urgency mounting for need to meet Paris agreement commitments
- Mutual exchange of national/regional experience for contributions to meet climate change challenges
- Capacity-building and technology transfer

Additional Details concerning this meeting may be found [here](#).

International Court of Justice (ICJ)

Over Kenyan objections that the court lacked jurisdiction, on 2 February 2017, the ICJ issued its verdict allowing for Somalia to submit its application for a maritime delimitation ruling with neighboring Kenya for respective EEZ determination in the Indian Ocean. 18 December 2017 has been set as the time limit in which Kenya may file an objection to the court ruling before the case may progress.

Further information may be found [here](#).

Regional Marine Pollution Emergency Response Centre for the Mediterranean Sea (REMPEC)

The 12th meeting of the Focal Points of the Regional Marine Pollution Emergency Response Centre for the Mediterranean Sea (REMPEC) met in Malta from 23-25 May 2017. In attendance were the 18 contracting parties, and others including, *inter alia*, representatives from IMO, the International Maritime Law Institute, and the international Ocean Institute. Accomplishments of the meeting included the following:

- Endorsement of the draft Mediterranean guide on cooperation and mutual assistance for pollution incidents
- Draft guidance for the preparation National Action Plans (NAPs) for the implementation of the Regional Strategy for prevention of pollution from ships
- Proposed programme of work of TRMPEC for the 2018-19 biennium

Working documents containing of the above items may be accessed [here](#).

International Labour Organization (ILO)

On 18 January 2017, amendments to the Maritime Labour Convention, 2006 (MLC, 2006) addressing seafarer financial security entered into force as approved at the 103rd session of the International Labour Conference (June 2014). These amendments account for seafarer compensation related to abandonment and contractual disputes in the event of death or disability due to operational injury or illness.

After 18 January 2017, vessels subject to MLC 2006 will be required to possess certificates attesting to insurance/bonding coverage for seafarer expenses related to the following:

- Repatriation (e.g., travel)
- Essential needs on board the ship due to abandonment
- Wage arrearages up to four months

The 2nd meeting of the Maritime Labour Convention's Special Tripartite Committee (STC) convened from 3 to 5 April 2017. Items addressed included the following:

- Proposal for amendments to MLC 2006 for the protection of seafarers wages when held captive as a result of piracy against ships
- Proposed improvements to the process for preparing proposals for amendments to the Code of the MLC 2006
- Shipowner statement on the abandonment of seafarers

The above proposals would be subject to the MLC 2006 article XV process for approval and ratification.

See [here](#) for more information

International Maritime Organization (IMO)

The following IMO information is not provided in its entirety. It is intended to provide a summary of content that may be of interest to the offshore drilling industry. Further detail contained in the below referenced IMO reports may be found in the actual report documents maintained on IADC's Advocacy webpage at: <http://www.iadc.org/advocacy/#imo>

21 – 25 November 2016: 97th Session of the Maritime Safety Committee (MSC 97)

The ninety-seventh session of the Maritime Safety Committee was held at the IMO Headquarters from 21 to 25 November 2016, chaired by Mr. Brad Groves (Australia). The Vice-Chair of the Committee, Mr. Juan Carlos Cubisino (Argentina), was also present.

The session was attended by delegations from Members and Associate Members; by representatives from the United Nations Programs, specialized agencies and other entities; by observers from intergovernmental organizations with agreements of cooperation; and by observers from non-governmental organizations in consultative status; as listed in document MSC 97/INF.1. IADC was represented at this session by Jim Rocco, Senior Director, Policy & Regulatory Affairs.

The following is a summary of items addressed by the session that may be of interest to organizations engaged in offshore oil and gas activities.

Decisions of Other IMO Bodies

Minimum propulsion power to maintain the maneuverability of ships in adverse conditions

The 2013 *Interim Guidelines for Determining Minimum Propulsion Power to Maintain the Maneuverability of Ships in Adverse Conditions* (Resolution MEPC.262(68)) will be further reviewed at MEPC 71 as an MEPC “work in progress.” Thereafter, the draft will be forwarded to a future MSC Committee session to ensure that safety considerations will have been fully considered leading to adoption.

Implementation for ships to comply with the 0.5% m/m Sulphur content for fuel oil requirement with effect from 1 January 2020

The Committee invited MEPC 71 to provide relevant information for further review to assess that related safety issues will have been adequately addressed/identified/resolved by the implementation date of this MEPC 70 decision.

Consideration and Adoption of Amendments to Mandatory Instruments

Draft amendments to SOLAS chapter II-1 on subdivision and damage stability

The Committee confirmed contents of proposed amendments to Chapter II-1 from MSC 96. Further editorial improvements were identified to be finalized with a view to adoption at MSC 98.

Draft amendments to the introduction and part A of the 2008 IS Code

Noting that amendments to the subject parts of the IS code had been approved at MSC 95 & 96, the Committee recognized adoption of said amendments, with entry into force on 1 January 2020.

Draft amendments to part B of the 2008 IS Code

The Committee accepted modifications to the draft amendments to improve definition of “waters that are not exposed.” Entry into force should take effect on 1 January 2020.

Proposed Amendments to the STCW Convention

The Committee adopted the following resolutions:

- MSC.416(97) enacting amendments for special training/qualifications for crew on ships in Polar waters.
- MSC.417(97) enacting Part A amendments for further specifying competencies for safety training delivery to passengers

Measures to Enhance Maritime Security

Guidelines on maritime cyber risk management

The Committee recalled MSC 96 had approved MSC.1/Circ.1526 on *Interim Guidelines on Maritime Cyber Risk Management*. *Discussion* recognized work being performed by FAL for this guidance’s implementation and whether a need persists to further consider a new output for taking up mandatory provisions depending on the outcome of the FAL 41 report. Member states were invited to comment.

Communication of information through the Maritime Security module of GISIS

The Committee entertained document MSC 97/4/1 related to the development of a data transfer mechanism for Maritime Security module of the Global Integrated Shipping Information System (GISIS) with the intent of enhancing the communication of information as required by the SOLAS XI-2/13 and the ISPS Code. Member states supported this development as a higher level automated process would reduce administrative burdens and would better avoid reporting errors. The Secretariat will develop a draft scheme for further consideration by the Committee.

Goal-Based New Ship Construction Standards

At this Committee session, goal based standards evaluation continued as discussions transpired related to experience gained during the initial verification process conducted by ROs. Additionally, it was recognized that “room for improvement” existed for GBS standards related to bulk carriers and oil tankers. The timetable for GBS guideline implementation was extended out to November 2019. To date, MODUs have not been included by this effort as this undertaking largely remains in the “formulation stage.”

Mandatory Instrument and/or Provisions Addressing Safety Standards for the Carriage of More Than 12 Industrial Personnel on Board Vessels Engaged on International Voyages

The Committee endorsed the outlines of a draft new Chapter XV in SOLAS to address the carriage of more than 12 industrial personnel on board vessels engaged on an international voyage. Instructions to SDC 4 were to utilize the outline in MSC 96/WP.7 to continue work on the formulation of the subject SOLAS chapter.

Due to further legal clarification necessary for interim guidance on the carriage of industrial personnel, the committee was not able to finalize recommendations for such a “short-term” instrument while SDC continues to develop the “long-term” solution in the “to-be-developed” SOLAS Chapter 15. This issue of interim guidance will be revisited at SDC 4 once further legal recommendation for implementation can be delivered.

Navigation, Communications, Search and Rescue

Revised unified interpretation on Pilot transfer arrangements

The Committee approved MSC.1/Circ.1495/Rev.1 on the revised unified interpretation of SOLAS regulation V/23.3.3 on Pilot transfer arrangements, clarifying that SOLAS regulation V/23.3.3.1 prescribed an operational instruction that limited the climb to not more than 9 metres on a single ladder regardless of the trim or list of the ship.

Involvement of HTW 4 in the Development of the Modernization Plan of the GMDSS

The Committee instructed that work being done by the NCSR Sub-committee to modernize GMDSS include input from HTW 4.

Navigational Warnings Concerning Operations Endangering the Safety of Navigation

The Committee approved MSC.1/Circ.1551 on Navigational Warnings concerning operations endangering the Safety of Navigation to acknowledge that prior to certain activities being performed that could affect safe navigation, due navigational warnings be distributed to provide ample notice to all affected seafarers and vessel operations.

Ship Systems and Equipment

Amendments to the Guidelines on alternative design and arrangements for fire safety (MSC/Circ.1002)

The Committee approved MSC.1/Circ.1552 on *Amendments to the Guidelines on alternative design and arrangements for fire safety* (MSC/Circ.1002) consisting of a new Appendix A to provide a methodology for selection of the performance criteria to address survivability of persons onboard exposed to certain fire hazards.

MSC circular on Shipboard escape route signs and emergency equipment markings

The Committee approved MSC.1/Circ.1553 on Shipboard escape route signs and emergency equipment location markings. This interim guidance is intended to encourage the use of the ISO

standard 24409 series on a voluntary basis. The Secretariat was also instructed to prepare a draft resolution in cooperation with the ISO Central Secretariat containing graphical symbols from ISO 24409-2:2014 for consideration at the forth session of the Subcommittee on Ship Systems & Equipment (SSE 4).

Unified interpretation of chapter 9 of the FSS Code

The Committee approved MSC.1/Circ.1554 on *Unified interpretation of chapter 9 of the FSS Code*. This UI provides more specific guidance on sizing the emergency power source for the fire detection and alarm system

Unified interpretation of chapter 8 of the FSS Code and the Revised guidelines for approval of sprinkler systems equivalent to that referred to in SOLAS regulation II-2/12 (resolution A.800(19)) as amended by resolution MSC.265(84)

The Committee approved MSC.1/Circ.1556 on *Unified interpretation of chapter 8 of the FSS Code and the Revised guidelines for approval of sprinkler systems equivalent to that referred to in SOLAS regulation II-2/12 (resolution A.800(19)), as amended by resolution MSC.265(84)*.

Amendments to the Unified interpretation of SOLAS regulation III/31.1.4 (MSC.1/Circ.1490)

The Committee approved MSC.1/Circ.1490/Rev.1 on *Revised Unified interpretation of SOLAS regulation III/31.1.4 (MSC.1/Circ.1490)*. This UI provides more specific guidance on arrangement for remotely located survival craft.

Additional performance and test standards for the equipment and systems on board ships operating in polar waters

The Committee endorsed the SSE Sub-Committee's decision that additional performance and test standards for the equipment and systems on board ships operating in polar waters should be developed. The SSE Sub-Committee was tasked to consider test and performance standards as "add-ons" to relevant instruments addressing equipment in polar environments. This work will be included in existing work already being performed related to the Polar Code.

Hazardous Area Classification

The Committee approved MSC.1/Circ.1557 on Unified interpretation of SOLAS regulation II-1/45.1. This Circular provides a comparison between SOLAS, IBC and IGC Codes, and IEC 60092-502. It also states in applications where IEC does not align with these other instruments, such instruments will take precedent over the IEC standard.

Implementation of IMO Instruments

Guidelines for port State control officers on certification of seafarers, hours of rest and manning

The Committee instructed HTW 4 to finalize the draft Guidelines for PSCOs on certification of seafarers, hours of rest and manning, for approval by MSC 98. III 4 was tasked to implement Guidelines as a replacement for exiting appendix 11 content of the annex to Resolution A.1052(27) in preparation for adoption consideration at 30th session of the IMO Assembly (A 30) in the Fall of 2017.

Unified Interpretation on the expiration date of statutory certificates

The Committee approved MSC-MEPC.5/Circ.13 on *Unified Interpretation on the expiration date of statutory certificates*. This UI provides more specific guidance on the application of the relevant requirements of the SOLAS 1974, Load Lines 1966, and MARPOL Conventions and associated mandatory codes in relation to assigning the expiration date of statutory certificates, including mandatory documents of compliance.

List of certificates and documents required to be carried on board ships

The Committee approved, subject to concurrent approval by the Facilitation Committee (FAL 41) and Legal Committee (LEG 104), the consolidated draft FAL.2-MEPC.1-MS.1-LEG.1 circular on *List of certificates and documents required to be carried on board ships*.

Carriage of Cargoes and Containers

Interim recommendations for carriage of liquefied hydrogen in bulk

The Committee adopted resolution MSC.420(97) on *Interim recommendations for carriage of liquefied hydrogen in bulk*.

Implementation of the STCW Convention

Ending of the transitional provisions of the 2010 Manila Amendments to the STCW Convention

Due to the transitional provisions of the 2010 Manila Amendments ending on 31 December 2016, several Member states expressed concern over not being able to issue STCW certificates in accordance with requirements of the Convention by 1 January 2017. As a result, the Committee agreed to the issuance of MSC.1/Circ.1560 on *Advice for Parties, Administrations, port State control authorities and recognized organizations on action to be taken in cases where not all seafarers carry certificates and endorsements meeting the 2010 Manila Amendments to the STCW Convention and Code from 1 January 2017*. In addition, the Committee instructed HTW 4 to further consider this circumstance and report back to the Committee at the 98th session.

Piracy and Armed Robbery against Ships

The Committee considered the Secretariat report that provided for the following highlights through 5 September 2016:

- A reduction of 35% of piracy and armed robbery related incidents compared to 2015 data
- A 96% increase of incidents in West Africa compared to 2015 data
- Credible reports indicated that commercial ships remained a target of Somali pirates
- Merchant shipping should continue to take protective measures against possible piracy attacks in the Gulf of Aden and the western Indian Ocean
- The EU Naval Force Operation Atlanta, which operates off the coast of Somalia, had recently had its counter-piracy mandate extended to the end of 2018
- On 22 October 2016, the remaining 26 crewmembers of the fishing vessel NAHAM 3 were released after 1672 days in captivity; however, ten seafarers taken from the fishing vessel DHOW SIRAJ in March 2015 are still being held in captivity in Somalia.

The Committee noted that a new "Maritime Domain Awareness for Trade – Gulf of Guinea" (or MDAT-GoG), established by the Governments of France and the United Kingdom, went live on 20 June 2016 from centers in Brest, France, and Portsmouth, England (Circular Letter No.3684). The aim of the MDAT-GoG is to contribute to maritime security and safety in the Gulf of Guinea and help to protect regional and intercontinental trade.

Work Program

The Committee agreed to add the following items to its work program:

- "Review the Model Agreement for the authorization of recognized organizations acting on behalf of the Administration" with a target completion year of 2018: Assigned to the Sub-Committee on Implementation of IMO Instruments (III).

- "Develop new requirements for ventilation of survival craft", with a target completion year of 2018: Assigned to the Sub-Committee on Ship Systems and Equipment (SSE).
 1. the amendments to be developed should apply to newly installed survival craft on or after the date of application, unless exempted according to SOLAS regulation III/1.4.2 in relation to replacement of launching appliances;
 2. the instruments to be amended are the LSA Code and the Revised recommendation on testing of life-saving appliances (resolution MSC.81(70)), as amended; and
 3. the amendments to be developed should enter into force on 1 January 2020, provided that they are adopted before 1 July 2018, and will be applied immediately or after an appropriate period for development of new design of survival craft.
 4. the requirements related to the ventilation of totally enclosed lifeboats are to be given the highest priority, and thereafter requirements for other survival craft are to be considered.

16 – 20 January 2017: 4th Session of the Sub-Committee on Pollution Prevention and Response

The fourth session of the Pollution, Prevention and Response Sub-Committee was held at the IMO Headquarters from 16-20 January 2017, chaired by Mr. Sveinung Oftedal (Norway). The Vice-Chair of the Committee, Mr. Flavio Da Costa Fernandes (Brazil), was also present.

The session was attended by delegations from Members and Associate Members; by representatives from the United Nations Programs, specialized agencies and other entities; by observers from intergovernmental organizations with agreements of cooperation; and by observers from non-governmental organizations in consultative status; as listed in document PPR 4/INF.1.

Substances in Bulk on Offshore Support Vessels

The Sub-Committee endorsed the draft Code for the Transport and Handling of Hazardous and Noxious Liquid Substances in Bulk on Offshore Support Vessels (OSV Chemical Code), which is to be submitted to MSC 98 and MEPC 71 for approval with a view to adoption at the thirtieth session of the Assembly (A 30). The Sub-Committee noted that these provisions may be considered for mandatory application at some point in the future.

Revised Guidance on Ballast Water Sampling and Analysis

The Sub-Committee noted the current entry into force date of 8 September 2017. Also noted was interest in amending the Guidelines for ballast water sampling (G2).

To provide more time for further consideration of the guidance for ballast water sampling, the Sub-Committee invited MEPC 71, which met 3 – 7 July 2017, to extend the target completion year to 2019.

Review of the Guidelines for Approval of Ballast Water Management Systems (G8)

After review of the Drafting Group submission compiled at this session, the Sub-Committee endorsed the draft BWM circular on Guidance on methodologies that may be used for enumerating viable organisms for type approval of ballast water management systems, for submission to MEPC 71 with a view to adoption.

Production of a Manual Entitled “Ballast Water management – How to do it”

After review of the Drafting Group’s report regarding finalization of the draft manual, the Sub-Committee invited MEPC 71 to instruct the Review Group to convene during the Committee’s session in July 2017 to finalize sections 12.2.3 and 17.2 of the draft manual and subsequently to adopt it.

Consideration of the Impact on the Arctic of Emissions of Black Carbon from International Shipping

Upon completing the convening of this Working Group tasked with: 1) Further developing reporting protocol for voluntary measurement studies to collect black carbon data and; 2) developing a timeline for finalization of this work. The Subcommittee took the following action:

- Extended completion of this work to PPR 5 due to the Working Group's inability to finalize technical elements of the measurement protocol. Some delegations thought further investigation of control measures was necessary prior to finalization.
- Invited MEPC 71 to extend the completion date of this output to 2019.

Standards for Shipboard Gasification of Waste Systems and Associated Amendments to Regulation 16 of MARPOL Annex VI

Following the completion of Working Group deliberation at this session to finalize the draft standards for shipboard gasification of waste systems and related amendment of regulation 16 of MARPOL Annex VI, the Sub-Committee took the following action:

- Established a Correspondence Group to progress this matter due to Working Group time constraints preventing completion of Terms of Reference during this session
- It was also recognized that other provisions under MARPOL Annex VI would have to be considered (e.g., IAPP) to ensure consistent applicability
- Invited the correspondence to report progress to PPR 5

Guidelines for the Discharge of Exhaust Gas Recirculation

Following completion of the subject Working Group at this session, the Subcommittee endorsed the draft MEPC resolution on 2017 Guidelines for the discharge of exhaust gas recirculation (EGR) bleed-off water for submission to MEPC 71 for adoption. These guidelines discuss recommendations for discharge or retention on board of "bleed-off water" produced from EGR water treatment systems based on whether fuel oil consumed onboard meets or exceeds current Sulphur limits as stated in regulation 14 of MARPOL VI.

Updated IMO Dispersant Guidelines (Part IV)

The Sub-Committee recalled an intersessional Correspondence Group was established at PPR 2 to develop a draft of part IV of the Guidelines for the use of dispersant for combatting oil at sea (IMO Dispersant Guidelines), devoted to sub-sea dispersant application.

The Correspondence Group was re-established during this session, under the direction of the U.S., with a view to finalize the dispersant guidelines and submit the results to PPR 5 with a view to adoption at MEPC 73.

The Sub-Committee invited the Committee to extend the target completion for this output to 2019.

Use of Electronic Record Books

The Sub-Committee requested the Secretariat to prepare draft amendments to MARPOL to progress the use of electronic record books along with an updated version of the draft guidance for the use of electronic record books under MARPOL, related unified interpretations of MARPOL, and draft amendments to the Procedures for Port State Control, 2011 (resolution A.1052 (27)), for consideration at PPR 5. The Committee extended the target completion year for this project to 2019.

Revision of the 2011 SCR Guidelines

The Sub-Committee endorsed the draft MEPC resolution on *2017 Guidelines addressing additional aspects of the NOx Technical Code 2008 with regard to particular requirements related to marine diesel engines fitted with selective catalytic reduction (SCR) systems*. This work consisted of bringing Scheme B up to parity with Scheme A testing criteria contained in the code. These amendments allow for additional latitude when engine manufacturers are faced with choosing the most appropriate testing protocol to obtain the pre-certification of engine systems fitted with SCRs. Prior to these amendments, Scheme B of the code has been subordinated to Scheme A such that manufacturers are obliged to consider Scheme A unless otherwise demonstrating the greater suitability of Scheme B.

30 January – 3 February 2017: 4th Session of the Sub-Committee on Human Element, Training & Watchkeeping (HTW 4)

The fourth session of the Human Element Training and Watchkeeping Sub-Committee was held at the IMO Headquarters from 30 January to 3 February 2017 and was chaired by Ms. Mayte Medina (United States). The Vice-Chair of the Sub-Committee, Ms. Farrah Fadil (Singapore), was also present.

The session was attended by delegations representing IMO Members and Associate Members; by representatives from the United Nations Programs, specialized agencies, and other entities; by observers from intergovernmental organizations with agreements of cooperation; and by observers from non-governmental organizations in consultative status, as listed in document HTW 4/INF.1.

Validated Model Training Courses

The Sub-Committee accepted the principles for revision of model courses as proposed by the Secretariat. Also endorsed was the prioritization of model course categories as follows:

- Priority 1) New model courses to be developed as a result of new or amended IMO instruments
- Priority 2) Existing model course that require significant changes due to amended IMO instruments or substantial industry/technological changes

Two Drafting Groups were convened to consider nine draft model courses submitted for validation to this session. Once Drafting Group work was complete, the Sub-Committee validated four new model courses on:

- Basic training for ships operating in polar waters
- Advanced training for ships operating in polar waters
- Ratings forming part of a watch in a manned engine-room or duties performed in a periodically unmanned engine-room
- Ratings as able seafarer deck

Revised four model courses on:

- Assessment, examination, and certification of seafarers
- Training course for instructors
- On-board assessment
- Engine-room simulator

The secretariat was instructed to finalize and publish validated courses for access to the Member States.

Reports on Unlawful Practices Associated with Certificates of Competency

The Sub-Committee noted the information reported to the IMO detailing fraudulent certificates found on board ships for the years 2015 and 2016. 16 cases were documented by the Secretariat in total and categorized as “forged” or “fraudulent.”

Guidance for the Implementation of the 2010 Manila Amendments

The Sub-committee was instructed that MSC 96 recognized a need for guidance to be developed to account for the necessary clarity for implementation of the 2010 Manila Amendments. A Working Group was established to address the following concerns, *inter alia*:

- Guidance relating to the provision of documentary evidence required under the STCW Convention by seafarers to Port State Control officers and other 3rd-party inspection regimes
- Guidance on the training requirement for Electronic Chart Display and Information Systems (ECDIS)
- Certificates referring to STCW 1995 amendments and response to requests for verification
- Officers being required to have separate STCW Chapter VI documentary evidence
- Delay in issuance of Electro-Technical Officer (ETO) and Electro-Technical Rating (ETR) certification

As a result of Working Group deliberations, the Sub-Committee approved the following guidance circulars:

- STCW.7/Circ.24 on *Interim Guidance for Parties, Administrations, port State control authorities, recognized organizations and other relevant parties on the requirements under the /STCW Convention, 1978, as amended*
- MSC.1/Circ.1503 on *ECDIS – Guidance for Good Practice*

The Sub-Committee will address remaining concerns at HTW 5 when implementation dates may be discussed for future amendments.

Revision of the Guidelines on Fatigue

The Sub-Committee agreed to recognize the work progressed at this session as the basis for continuing work on these guidelines at HTW 5. Due to time constraints at this session, the target completion of this work was extended to 2018. Member States are invited to submit relevant proposals addressing these guidelines to the next session of the Sub-Committee. The working group did not recommend a Correspondence Group to progress this work intersessionally.

Guidelines on the Training and Experience of Key DP Personnel (MSC.1/Circ.738/Rev.1)

The Sub-Committee instructed the Secretariat to prepare the draft MSC.1/Circ.738/Rev.2 *Guidelines on the Training and Experience of Key DP Personnel* and draft STCW.6 circular on amendments to part B of the STCW Code to reflect the reference to the revised DP personnel guidance provided by IMCA's M117.Rev 2 standard *Training and Experience of Key Dynamic Positioning (DP) Personnel*.

13 – 17 February 2017: 4th Session of the Sub-Committee on Ship Design and Construction (SDC 4)

The fourth session of the Ship Design and Construction Sub-Committee was held at the IMO Headquarters from 13 to 17 February 2017, chaired by Mr. Kevin Hunter (United Kingdom). The Vice-Chair of the Sub-Committee, Ms. Turid Stemre (Norway), was also present.

The session was attended by delegations from Members and Associate Members; by representatives from the United Nations Programs, specialized agencies and other entities; by observers from intergovernmental organizations with agreements of cooperation; and by observers from non-

governmental organizations in consultative status; as listed in document SDC 4/INF.1. IADC was represented at this session by Jim Rocco, Senior Director, Policy & Regulatory Affairs.

Decisions of other IMO Bodies

The Sub-Committee noted decisions and comments pertaining to its work were undertaken at:

- Maritime Safety Committee (MSC 96 & MSC 97)
- Marine Environment Protection Committee (MEPC 70)

Finalization of Second Generation Intact Stability Criteria

The Sub-Committee acknowledged that MSC 97 did not agree to the modifications proposed for amendments to Part B of the International Code on Intact Stability, 2008 (2008 IS Code) for ships engaged in lifting operations regarding equal level of safety independent of a calculation method, as developed at previous SDC Sub-Committee sessions,.

The Working Group established at this session progressed intended modifications to the 2008 IS Code as follows:

- Further developed draft guidelines for stability assessment procedures
- Invited member States and international organizations to submit proposals for application of operational limitations and/or operational guidance within the framework of 2nd generation intact stability criteria for SDC 5 consideration
- Acquired Sub-Committee approval for revised action plan leading to SDC 5

The Sub-Committee reestablished the Correspondence Group to progress work on, *inter alia*, direct stability assessment, quantitative standards for validation, and treatment/consideration of loading equipment. Forthcoming work completed intersessionally will be submitted via report to SDC 5.

Mandatory Instrument and/or Provisions Addressing Safety Standards for the Carriage of More Than 12 Industrial Personnel on Board Vessels Engaged on International Voyages

The subcommittee recalled that SDC 3 agreed that the development of safety standards concerning the carriage (transport and/or accommodation) of more than 12 industrial personnel on board vessels engaged on international voyages would not affect MODUs.

MSC 96 endorsed the outline of a new SOLAS Chapter 15 and development of a new Industrial Personnel Code. Consequently, previous work/output undertaken to address a non-mandatory code for offshore construction support vessels was deleted. Further consideration for offshore construction support vessel provisions will be addressed via the industrial personnel work plan.

MSC 97 adopted MSC.418(97) on *Interim recommendations on the safe carriage of more than 12 industrial personnel on board vessels engaged on international voyages*. Proposed definitions of industrial personnel and offshore industrial activities contained in this resolution are intended as a basis for development of mandatory requirements.

The new code is intended to take into account SOLAS, the 2000 High Speed Craft (HSC), the 2008 Special Purpose Ship (SPS), and the OSV Codes

The Sub-Committee established a Correspondence Group to address the following:

- Development of a matrix to ensure to-be-developed provisions are complimentary to existing SOLAS and other instruments
- Develop draft SOLAS Chapter 15
- Set up formatting & organization of the new IP Code

- Develop preamble for the new draft code
- Provide a report to SDC 5 next year

Revised SOLAS Regulation II-1/3-8 and Associated Guidelines (MSC.1/Circ.1175) and New Guidelines for Safe Mooring Operations for All Ships

The Sub-Committee reviewed/acknowledged the work that had progressed thus far with the following items of note:

- The concept of the term “towing” should be taken to mean “harbor tug operations related to mooring”
- Document SDC 3/15 should be used as the base document for further progress in establishing the targeted guidelines
- The Sub-Committee reestablished a Correspondence Group to meet intersessionally to address the following:
 - Revisions of SOLAS regulation II-1/3-8
 - Further consideration of draft guidelines
 - Review of MSC.1/Circ.1175
 - Consider consequential effects of this work on other existing IMO instruments
 - Report to SDC 5 next year

It is understood that “mooring” does not refer to the mooring of offshore installations at their operating locations.

Guidelines for Use of Fiber Reinforced Plastic (FRP) Within Ship Structures

The Subcommittee established a working group at this session to finalize the draft Interim guidelines for use of Fiber Reinforced Plastic (FRP) elements within ship structures.

Considerations/recommendation for progressing this issue were as follows:

- Four years were considered a suitable timeframe for gathering experience on the use of interim guidelines before further review of these guidelines would be conducted to ascertain their efficacy.
- The Sub-Committee invited the Committee to maintain this output on its post-biennial agenda as these guidelines are intended to be revisited four years hence.

The Sub-Committee endorsed the draft interim Guidelines for use within ship structures for submission to MSC 98 for adoption.

6 – 10 March 2017: 4th Session of the Sub-Committee on Navigation, Communications, and Search & Rescue (NCSR 4)

The fourth session of the Navigation Communications and Search and Rescue Sub-Committee was held at the IMO Headquarters from 6-10 March 2017, chaired by Mr. R. Lakeman (Netherlands). The Vice-Chair, Mr. N. Clifford (New Zealand), was also present.

The session was attended by delegations from Members and Associate Members; by representatives from the United Nations Programs, specialized agencies and other entities; by observers from intergovernmental organizations with agreements of cooperation; and by observers from non-governmental organizations in consultative status; as listed in document NCSR 4/INF.1.

Routing Measures and Mandatory Ship Reporting Systems

The following Amendments to Traffic Separation Schemes, areas to be avoided (ATBA), and recommended routes were proposed and approved by the Sub-Committee to go into effect on 1 January 2018 as follows:

- United Kingdom's request for amendment to the existing Long Sand Head two-way route and adjacent SUNK Inner precautionary area comprising the Northern approaches to the Thames Estuary
- Japan's request to establish a recommended route off the western coast of Izu O Shima Island
- Costa Rica's request to establish an ATBA in Bahia De Coronado and a two-way route in Golfo Dulce, both off of the country's Pacific coast
- Philippine's request to establish an ATBA and adjacent two-way routes with a precautionary area to protect the Tubbataha Reefs natural Park Particularly Sensitive Sea Area (PSSA) in the Sulu Sea

Revised Guidelines and Criteria for Ship Reporting Systems

Due to perceived administrative burdens associated with records and daily reporting as required by SOLAS Chapter V Regulations 11 & 28, a "test bed" exercise was conducted by Norway and Singapore, since the convening of NCSR 3, to demonstrate automated capabilities that could be employed to streamline compliance with these regulations. A working group was convened to deliberate on the details/finding of the test bed exercise. The resulting output of the working group yielded draft *Revised Guidelines and Criteria for Ship Reporting Systems* intended to supersede MSC.43(64), MSC.111(73) and MSC.1898(79). Revisions include the option for automated functions to satisfy SOLAS Chapter 5 requirements. The Sub-Committee approved draft guidelines for recommended adoption at MSC 98. As per Chapter 11 of the MODU Code, all units should comply with SOLAS Chapter 5.

Draft Modernization Plan of the Global Maritime Radio-Communication Systems and Technology

NCSR 3 had established a Correspondence Group to further consider the Modernization of GMDSS. The report of the Correspondence Group proposed three outputs to progress the work of this effort:

- Revision of SOLAS Chapters III and IV
- Revision of Criteria for the provision of mobile satellite communication systems in the Global Maritime Distress and Safety System (GMDSS)(resolution A.1001(25) and MSC.1/Circ.1414)

Develop performance standards for the digital Navigational Data System (NAVDAT)

The Sub-Committee agreed with these CG recommendations, which resulted in the NCSR 4 drafting group producing a draft Modernization Plan and draft output addressing the revision of SOLAS Chapters III and IV. The Sub-Committee endorsed these drafting group results for adoption at MSC 98. Once adopted, detailed work will progress beginning at NCSR 5 and likely run for 2-3 years. MODU Code Chapters 11 and 12 reference adherence to SOLAS Chapters III and IV, as applicable.

Annual testing of the VDR, S-VDR, AIS, and EPIRB

The Sub-Committee agreed to circulate a UI as an MSC.1 circular for adoption by the Committee which establishes a "time window" by which such testing is required to be completed – within the period allowed by annual/periodical/renewal survey/inspection

Application of COLREGS with respect to the placement of sidelights

The Sub-Committee endorsed a draft UI for adoption by the Committee that further clarify vertical and horizontal placement of sidelights as an interim measure until such time as an amendment to the COLREGS (Annex I/9(a)(i) and I/10(a)(i)) could be affected.

Consequential work Related to the New Polar Code

The Sub-Committee considered information provided by Germany regarding development of amendments addressing performance standards for navigation and communication equipment used in Polar Waters to support implementation of the Polar Code. Ensuing discussion resulted in the Sub-committee establishing a Correspondence Group with a view to providing a report to NCSR 5 addressing the following Terms of Reference:

- Develop a work plan identifying all performance and test standards for revision
- Include evaluation of specific additional conditions to be considered for approving equipment for use in Polar Waters
- Consider interim solutions to address important matters to assist Member States on short notice
- Consider alternatives to address this effort including consideration for development of separate consolidated performance standards, “add ons” to existing standards, or a resolution

20 – 24 March 2017: 4th Session of the Sub-Committee on Ship Systems and Equipment (SSE 4)

The fourth session of the Ship Systems and Equipment Sub-Committee was held at the IMO Headquarters from 20-24 March 2017, chaired by Dr. S. Ota (Japan). The Vice-Chair, Mr. U. Senturk (Turkey), was also present.

The session was attended by delegations from Members and Associate Members; by representatives from the United Nations Programs, specialized agencies and other entities; by observers from intergovernmental organizations with agreements of cooperation; and by observers from non-governmental organizations in consultative status; as listed in document SSE 4/INF.1. IADC was represented at this session by Jim Rocco, Senior Director, Policy & Regulatory Affairs. Also attending this session with IADC were Mr. John Flynn, Marine Superintendent for Stena Drilling Limited and Mr. Mike Lindsley, Head of Marine Operations for Seadrill.

Safety Objectives and Functional Requirements for the Guidelines on Alternative Design and Arrangements for SOLAS Chapters II-1 and III

The Sub-Committee received the report of the subject Correspondence Group and noted the progression of the work completed that involved identifying expected performance derived from functional requirements intended to provide a performance based alternative to existing SOLAS Chapter III provisions. The Correspondence Group also established a comparative matrix that illustrates how new functional requirements may align/correspond to the current more prescriptive specifications of Chapter III.

The Sub-Committee subsequently established a working group to further refine expected performance of functional requirements. However, it was agreed by the working group and endorsed by the Sub-Committee that upon completion of this working group’s efforts, the ability to deliver a more quantifiable set of associated expected performances was yet to come.

The Sub-Committee proceeded to provide its general endorsement of work completed so far and invited the Committee to note the progress made with a view to furthering development of expected performances that yields more quantifiable elements. The Committee was also invited to extend the completion date of this output to 2019.

Making the Provisions of MSC.1/Circ.1206/Rev.1 Mandatory

It was noted by the Sub-Committee that work intended during this session was to review the draft MSC Circular on *Guidelines on safety during abandon ship drills using lifeboats* (Annex 2 from MSC.1/Circ.1206/Rev.1) and; draft amendments for inclusion in MSC.1/Circ.1205 *Guidelines for developing operation and maintenance manuals for lifeboat systems* to identify possible inconsistencies with the new MSC.402 (96) resolution.

Upon completion of the above-mentioned work undertaken at this session by the Life Saving Appliances LSA working group, the Sub-Committee endorsed these draft guidelines and amendments and invited the committee to approve them at MSC 98.

Uniform Implementation of Paragraph 6.1.1.3 of the LSA Code

Also considered by the LSA working group was the issue of amending paragraph 6.1.1.3 of the LSA code to account for “hand-operating” functionality when deploying a rescue boat. This proposal was originally introduced due to some vessel operators encountering incidences of Port State non-compliance when such capability was provided where current LSA Code provisions do not expressly reference an allowance for manual arrangements.

At the conclusion of working group efforts, the Sub-Committee endorsed its outcome for proposing text to the subject LSA paragraph allowing for rescue boats not exceeding 700 kg to be provided with a manual means of launching. The Committee was invited to adopt this proposal and note the completion of this output.

Review of the MODU Code, LSA Code, and MSC.1/Circ.1206/Rev.1

The Sub-Committee endorsed the draft MSC resolution that would implement amendment provisions to account for, *inter alia*, the following in the 2009 MODU Code:

- Recognizing “H” class division criteria that meet hydrocarbon fire test parameters when conducting material testing in accordance with the Fire Test Procedures Code
- Providing more thorough consideration of Dynamic Positioning “shutdown” logic when encountering emergency conditions during drilling operations
- Improving measures to account for maintenance/integrity of equipment, including portable equipment, in hazardous zones
- Establishing “H” Class boundaries where hazardous areas may be adjacent to accommodations and other spaces containing vital equipment and machinery
- Additional protection of escape routes
- Deluge water extinguishing systems on the drill floor
- Providing for differences in average body mass for calculation of life boat capacity
- When assigned, clarifying the Master as the person in charge at all times
- Enhancing lifesaving drill requirements

The Sub-Committee invited the committee to adopt these amendments and note that work on this output has been completed.

Amendments to the FSS Code for CO2 Pipelines in Under-Deck Passageways

Introduced as a new output at MSC 96, this undertaking was intended to address the potential shortcomings of flanged and welded connections in restricted locations underdeck that may, due to leakage, contribute to compromised extinguishing capability and crew safety. Intentions were to consider the relative necessity of this effort via casualty incident data submitted by interested Member States to SSE 4.

Upon completing deliberations of the Fire Protection working group convened at this session, the Sub-Committee concluded that due to the absence of any Member State casualty information submitted as was invited at MSC 96, there was no need to proceed further with this consideration for amendments at this time. Interested delegations were invited to submit relevant information to SSE 5 for future consideration.

Requirements for Onboard Lifting Appliances and Winches

First proposed as a new output at MSC 89 in February 2011, this undertaking has focused efforts on developing SOLAS provisions addressing on-board lifting appliances and anchor handling winches. As this issue pertains to MODUs, a need exists to maintain a distinction between any forthcoming SOLAS provisions and those which already exist in Chapter 12 of the MODU Code.

At this session, the Sub-Committee established a working group after taking receipt of the report of the Correspondence Group report detailing the continued progress. During the working group deliberations, lengthy discussion ensued regarding a variety technical and operational details concerning issues such as equipment design, life cycle considerations, and operating environments. Most important to offshore drilling contractors however, was the discussion of the applicability of these provisions. As the list of exemptions was drafted during this working group, “appliances on ships subject to the MODU Code” was established as one of the six identified exemptions applicable to these draft provisions.

Noting that it was necessary for this work item to progress intersessionally, the Sub-Committee established a Correspondence Group and asked that the target completion year be extended to 2019.

Amendments to the Guidelines for Vessels with Dynamic Positioning (DP) Systems (MSC/Circ.645)

Upon review of the Correspondence Group report, the Sub-Committee agreed that amended guidelines contained in the report should be issued as a new set of guidelines applicable to new vessels and retain the MSC.1/Circ.645 Guidelines that currently apply for existing vessels with dynamic positioning systems. The Sub-Committee also endorsed the draft guidelines contained in the Correspondence Group’s report and invited the Committee to adopt accordingly at MSC 98 and note the conclusion of this output.

Revision of Requirements for Escape Route Signs and Equipment Location Markings in SOLAS and Related Instruments

At the behest of SSE 3 & MSC 97, the IMO Secretariat, in conjunction with the ISO Central Secretariat prepared a draft Assembly resolution containing graphical symbols from ISO 24409-2:2014 for consideration at SSE 4 to address revision of the requirements for escape route signs and equipment location markings in SOLAS and related instruments. Noting that this ISO standard was not originally intended for shipboard use, the Sub-Committee agreed that A.952(23) *Graphical symbols for shipboard fire control plans* should continue to be used in tandem with the new Assembly resolution, once adopted. Consequently, the Sub-Committee endorsed this draft resolution and invited the Committee to approve these measures with a view to adoption at A 30. The Sub-Committee noted that work on this output had been completed.

Unified Interpretation (UI) of Provisions of IMO Safety, Security, and Environment Related Conventions

The Sub-Committee invited the Committee to approve the draft UI on suitable means for the calibration of portable atmosphere testing instruments as referred to in SOLAS regulation II-2/4.5.7.1. This approval will clarify that calibration of such equipment prior to being transported offshore, or while on location offshore, is acceptable in accordance with manufacturer's recommendations.

Development of New Requirements for Ventilation of Survival Crafts

LSA Working Group deliberations resulted in an agreement that it was necessary to acquire additional data related to active and passive ventilation systems and their effects on "micro-climates" experienced inside totally enclosed lifeboats prior to further progression of this item.

It was determined that this work needed to be advanced intersessionally; therefore, the Sub-Committee established a Correspondence Group to address the following and provide a report to SSE 5:

- Gather and review data on micro-climates
- Identify possible criteria on which ventilation requirements should be based (e.g., humidity, temperature, O₂-CO₂ level, etc.
- Recommend criteria to be used for draft amendments

Consequential Work Related to the New Polar Code

The Sub-Committee endorsed the LSA Working Group's recommendations for establishing a work plan to address additional testing and performance standards related to life-saving appliance and arrangements on board ships in polar waters. Interested delegations and organizations were also invited to submit proposals regarding the development of guidance on extinguishing media at polar service temperatures and amendments to firefighters' outfit standards for use in polar environments.

A Correspondence Group was established to address the following at SSE 5:

- Methods for evaluating environmental conditions when considering use of life-saving equipment in polar waters
- Identify test and performance criteria for life-saving appliances and arrangements on board ships in polar waters
- Consideration for creating new, or modifying existing standards for application to life-saving appliances and equipment onboard ships in polar waters.

The Sub-Committee asked that the target completion year for this work item be extended to 2019.

27 – 31 March 2017: 40th & 11th Meetings of the London Convention/London Protocol Scientific Group (LC SG 40/LP SG 11)

The fortieth meeting of the Scientific Group of the London Convention and the eleventh meeting of the Scientific Group of the London Protocol were convened at the Headquarters of the International Maritime Organization, London, from 27 to 31 March 2017, chaired by Ms. Linda Porebski (Canada).

The joint session was attended by delegations from Contracting Parties to the London Convention, Contracting Parties to the London Protocol and observers from intergovernmental and non-governmental organizations in consultative status as listed in document LC/SG 40/INF.1.

Coastal Management Issues Associated with Activities to Prevent Marine Pollution

The Correspondence Group conducting its study of mine tailings disposal was re-established with plans to report the outcome of its effort to address disposal from these land-based activities at the next joint session convening in 2017.

Marine Litter

Micro-plastics are continuing to be monitored as a form of marine litter affecting marine organisms. “Micro-beads” deliberately added to consumer products, upon the end of useful product life, are purposely or otherwise discarded into the sea, and this is becoming an increasing concern. During this session, Parties agreed to redouble efforts to share knowledge and expertise for further analysis of this issue.

3 – 7 April 2017: 41st Session of the Committee on Facilitation (FAL 41)

The Facilitation Committee held its forty-first session from 4 to 7 April 2017 under the chairmanship of Mr. Yury Melenas (Russian Federation). The Vice-Chair, Mrs. Marina Angsell (Sweden), was also present.

The session was attended by delegations from Member States and an Associate Member, a representative from a United Nations regional commission, observers from intergovernmental organizations, and observers from non-governmental organizations in consultative status as listed in document FAL 41/INF.1.

Comprehensive Review of the Facilitation Convention

The Committee unanimously adopted the report of the drafting group’s recommendations at the Committee’s 40th session (FAL 40) for updates to the FAL Convention for entry into force on 1 January 2018, unless, prior to 1 October 2017 at least one-third of the Contracting Governments have notified the Secretary-General in writing that they do not accept the amendments. The Committee noted no further amendments had been proposed for consideration from the 40th session.

Application of the Maritime Single-Window (MSW) Concept

The MSW Concept envisages the facilitation of international commerce by implementing a common platform arrangement making international trading more efficient. Efforts at this session yielded a proposal for two new outputs of the work consisting of:

- Development of Performance Standards for Electronic Signature
- Review of the *Guidelines for setting up a Single Window System in Maritime Transport* (FAL.5/Circ.36)

The Committee invited the Counsel at its 118th Session to endorse the proposed outputs. A Correspondence Group was convened for intersessional work; however, the Committee agreed that such work would not progress until after the Counsel’s endorsement.

The further consideration of this matter will be revisited intersessionally leading to FAL 42.

Guidelines on the Facilitation Aspects of Protecting the Maritime Transport Network From Cyber Threats

The FAL Committee agreed that the MSC should take the lead on development of guidelines on cybersecurity though the progression of this item should be conducted as joint FAL/MSF guidelines to avoid duplicative efforts. The Committee approved a joint MSC-FAL.1/Circ.3 on *Guidelines on Maritime Cyber Risk Management*, subject to the concurrent decision of the MSC 98.

26 – 28 April 2017: Report of the Legal Committee on the work of its 104th Session (LEG 104)

The Legal Committee held its 104th session at IMO Headquarters from 26 to 28 April 2017, chaired by Dr. Kofi Mbiah (Ghana). The Vice-Chair, Ms. Gillian Grant (Canada), was also present.

The session was attended by delegations from Members and Associate Members, observers from the intergovernmental organizations with agreements of cooperation, and observers from non-governmental organizations in consultative status, as listed in document LEG 104/INF.1.

Fair Treatment of Seafarers in the Event of a Maritime Accident

The committee endorsed the International Transport Workers' Federation (ITF) suggestion to organize regional or national workshops to discuss how the implementation of the *2006 Guidelines on fair treatment of seafarers in the event of a maritime accident* may most effectively be undertaken. The ITF introduced plans to host a one-day workshop in London on 23 June 2017. It was suggested that the workshop should discuss the idea that the Guidelines would be primarily interpreted by national courts.

Review of the Status of Conventions and other Treaty Instruments Emanating from the Legal Committee

Australia informed the Committee that its Government introduced the final piece of the legislation necessary to enable Australia to assume obligations under the Ballast Water Convention. Australia anticipates this national obligation to come into effect as of 8 September 2017.

Any Other Business

The Committee recalled that, at its ninety-ninth session, the Council wished to further analyze liability and compensation issues connected with transboundary pollution damage from offshore exploration and exploitation activities. Indonesia and Denmark finalized guidance (LEG 104/14/2) prior to this 104th session to assist states in constructing bilateral agreements addressing this issue. The Committee agreed that this guidance provided a baseline framework and should be utilized on a voluntary basis to affect bilateral provisions to this end. The Committee did not see the need to continue to progress further work as the Indonesian/Denmark guidance currently satisfies the need.

7 – 16 June 2017: 98th Session Report of the Maritime Safety Committee (MSC 98)

The 98th session of the Maritime Safety Committee (MSC 98) met at the IMO Headquarters from 7 – 16 June 2017, chaired by Mr. Brad Grove (Australia). The Vice-Chair, Mr. Juan Carlos Cubisino (Argentina), was also present.

The session was attended by delegations from Members and Associate Members; by representatives from the United Nations Programs, specialized agencies and other entities; by observers from intergovernmental organizations with agreements of cooperation; and by observers from non-governmental organizations in consultative status; as listed in document MSC 98/INF.1. For the full report of items considered at this session, please see document MSC 98/23 *Report to the Maritime Safety Committee*. IADC was represented at this session by Jim Rocco, Senior Director, Policy & Regulatory Affairs.

Decisions of Other IMO Bodies

Draft amendments to the appendix (Certificates) to the annex to the 1974 SOLAS Convention

The Committee acknowledged the list of SOLAS convention amendments approved by MSC 97 and confirmed their contents, which include the following changes to take effect 1 January 2020 as adopted at this session:

- SOLAS
- IGF Code
- 1994 HSC Code
- 2000 HSC Code
- LSA Code, 1 January 2019 effective date
- IMSBC Code

Early Implementation/Application of IMO Instruments

Guidelines for Voluntary Early Implementation

The Committee clarified the intent of the term “voluntary early implementation” to bring into effect adopted amendments not yet having been entered into force. The Committee stated that Contracting Governments wishing to voluntarily implement amendments prior to their entry into force date should do so only on that Government’s “flag state” vessels (not to foreign ships calling at their ports). Decisions for Contracting Governments to initiate early implementation of amendments should not be used on a regular basis but rather on “very rare occasions.”

The Committee endorsed the development of a uniform template for MSC circulars on voluntary early implementation, with a view to ensuring a consistent approach related to voluntary early implementation. Subsequently, MSC.1/Circ./1565 *Guidelines on the voluntary early implementation of amendments to the 1974 SOLAS Convention and related mandatory instruments* was approved by the Committee.

Guidance on Maritime Cyber Risk Management

Recalling the urgent need for interim cybersecurity guidelines during the MSC 96 session, the Committee reflected on the fact that at the time it was expected that MSC.1/Circ.1526 on *Interim guidelines on maritime cyber risk management* approved at MSC 96 would be superseded by a joint MSC-FAL circular once the FAL Sub-Committee could fully consider this matter. After FAL 41 found the contents of the interim circular satisfactory without the need to amend whatsoever, the Committee at this session approved MSC-FAL.1/Circ.3 *Guidelines on maritime cyber risk management* to replace MSC.1/Circ.1526.

The Committee also considered the proposal by the U.S. that cyber risks should be appropriately assessed and managed in accordance with International Safety Management (ISM) provisions. Despite substantial arguments contrary to this proposal based on, *inter alia*, the ideas that:

1. Cyber threats constitute just one of many considerations that comprise an ISM and are already presumed to be included, and;
2. Introduction of the use of a non-mandatory guideline as part of ISM could be contrary to the Code;

The committee approved resolution MSC.428(98) on *Maritime cyber risk management in Safety Management Systems* to encourage Administrations to ensure cyber risks are appropriately addressed in ISMs no later than 1 January 2021.

Revision of IMO model courses related to maritime security that fall under the responsibility of the Committee

The Committee invited interested parties to submit comments on model courses to the Secretariat for update or revision consideration at future sessions after concluding discussion at this session of a possible need to include new security threats such as bio-terrorism, cybersecurity and global aspects of supply chain security.

Goal-Based New Ship Construction Standards

Draft amendments to the GBS Verification Guidelines

The Committee endorsed Working Group actions at this session to amend:

- Guideline Definitions including additional terms,
- The verification process in Part A
- The Part B Information/documentation requirements and evaluation criteria, and;
- Revised timetable and schedule of activities for the implementation of the GBS verification scheme pushing entry into force to November 2019.

Pollution Prevention and Response (PPR-4)

Draft amendments to the IBC Code

The Committee approved the draft revised Chapter 21 of the IBC Code with a view to adoption after concurrent approval of MEPC 71.

OSV Chemical Code

The Committee approved the draft Assembly resolution on the OSV Chemical Code subject to the approval of MEPC 71, for submission to A 30, with a view to adoption.

Human Element, Training and Watchkeeping (HTW-4)

Guidance for STCW Code, section B-I/2

The Committee agreed to rename the output on "Guidance for the implementation of the 2010 Manila Amendments" as "Guidance for STCW Code, section B-I/2" and extended the target completion year of the renamed output to 2018.

Interim Guidance for Parties, Administrations, port State control authorities, recognized organizations and other relevant parties on the requirements under the STCW Convention, 1978, as amended

The Committee endorsed the decision that the Sub-Committee had approved STCW.7/Circ.24 on *Interim Guidance for Parties, Administrations, port State control authorities, recognized organizations and other relevant parties on the requirements under the STCW Convention, 1978, as amended*.

ECDIS Guidance for good practice

The Committee approved the amendments to MSC.1/Circ.1503 on *ECDIS-Guidance for good practice*, and instructed the Secretariat to issue it as MSC.1/Circ.1503/Rev.1.

Revision of guidelines on fatigue

The Committee extended the target completion year of the output on "Revision of guidelines on fatigue" to 2018.

Guidelines for port State control officers on certification of seafarers, hours of rest and manning

The Committee approved the draft Guidelines for port State control officers on certification of seafarers, hours of rest and manning.

Guidelines for Dynamic Positioning system (DP) operator training

The Committee approved the amendments to the *Guidelines for Dynamic Positioning system (DP) operator training*, to be issued as MSC.1/Circ.738/Rev.2.

Amendments to part B of the STCW Code

The Committee approved STCW.6/Circ.13 on *Amendments to part B of the STCW Code*, relating to section B-V/f on guidance on Dynamic Positioning system (DP) operator training.

Ship Design and Construction (SDC-4)

Amendments to section 3 of the Guidelines for damage control plans and information to the master (MSC.1/Circ.1245)

The Committee approved MSC.1/Circ.1570 on *Amendments to section 3 of the Guidelines for damage control plans and information to the master* (MSC.1/Circ.1245)

Design of arrangements and selection of equipment for safe mooring

The Committee noted the progress made by SDC 4 with regard to the matters related to the design of arrangements and selection of equipment for safe mooring, and extended the target completion year for this output to 2019.

Second phase of the Polar Code work

The Committee entertained discussion of the Polar Code specifically related to when development, application, and recommendatory or mandatory status should be established for the second phase of the Code's development.

One of the significant applications of the second phase of the Polar Code is, *inter alia*, consideration for inclusion of non-SOLAS ships, i.e., those to which chapters I through III do not apply.

Taking into account the urgency of this issue, the Committee agreed to title the output of second phase work as "Safety measures for non-SOLAS ships operating in polar waters". The Committee has also moved this issue from its post-biennial agenda to its agenda for the 2018-2019 biennium with further review of scope and mandatory or recommendatory status to follow.

Navigation, Communications and Search and Rescue (NCSR-4)

Revised Guidelines and criteria for ship reporting systems

The Committee adopted resolution MSC.433(98) on *Guidelines and criteria for ship reporting systems*, revising resolution MSC.43(64).

Modernization Plan of the GMDSS

The Committee approved the Modernization Plan of the Global Maritime Distress and Safety System (GMDSS)

Use of light-emitting diodes (LEDs)

The Committee endorsed the view of the Sub-Committee that it was of importance to consider the risks associated with light-emitting diodes (LEDs) used in emergency equipment, navigation aids and obstruction lighting which are not detectable by night vision equipment. In this context, the Committee encouraged interested parties to submit relevant proposals for a new output to the Committee.

Unified interpretation of provisions of IMO safety-, security-, and environment-related conventions

The Committee approved MSC.1/Circ.1576 on *Unified interpretation of the provisions of SOLAS relating to the annual testing of the VDR, S-VDR, AIS and EPIRB*.

The Committee approved MSC.1/Circ.1577 on *Unified interpretation on the application of COLREG with respect to the placement of sidelights*.

Consequential work related to the Polar Code

The Committee endorsed the action taken by the Sub-Committee to establish a Correspondence Group on consequential work (on matters within the purview of the NCSR Sub-Committee) related to the Polar Code. The Committee, noting the revised details of the coordinator, encouraged participation in the Correspondence Group. As per the terms of reference established at NCSR 4, a report on the progress of the Correspondence Group will be delivered to NCSR 5.

Ship Systems and Equipment (SSE-4)

Draft functional requirements and expected performance for SOLAS chapter III

The Committee instructed the SSE 4 Sub-Committee to consider the basic elements of the necessary function of the draft functional requirements and expected performance in quantitative terms for

- Clarity and objectivity
- Quantitative terms
- Describing functional requirement in quantitative terms

The Committee invited further comment to be provided by Member States and international organizations for consideration and action by the SSE Sub-Committee, as appropriate.

Guidelines on safety during abandon ship drills using lifeboats

Recognizing the need to appropriately address the crew's familiarization with the activation of the free-fall lifeboats' release mechanism, the Committee approved, with modifications, MSC.1/Circ.1578 on *Guidelines on safety during abandon ship drills using lifeboats*.

Amendments to the Guidelines for developing operation and maintenance manuals for lifeboat systems (MSC.1/Circ.1205)

The Committee approved MSC.1/Circ.1579 on *Amendments to the guidelines for developing operation and maintenance manuals for lifeboat systems* (MSC.1/Circ.1205).

Draft amendment to paragraph 6.1.1.3 of the LSA Code

Due to the possible inducement of safety risks associated with the manual operation of a lifeboat during its launching as expressed by some Member States in the Committee's plenary deliberations, pursuit of the proposal to amend the LSA Code to explicitly provide for manual operation has been deferred to SSE 5 to further consider the implications of this proposal.

Amendments to the Code for the Construction and Equipment of Mobile Offshore Drilling Units, 2009 (2009 MODU Code)

The Committee adopted resolution MSC.435(98) on *Amendments to the Code for the Construction and Equipment of Mobile Offshore Drilling Units, 2009* (2009 MODU Code) to take effect on 1 January 2020.

Onboard Lifting Appliances and Winches (OLAW)

After concluding plenary discussion on this topic, the Committee agreed that development of goal-based SOLAS requirements should continue via a Correspondence Group leading to further consideration at

SSE 5. IADC is monitoring the development of these provisions to ensure they don't conflict with existing Chapter 12 requirements contained in the MODU Code.

Guidelines for vessels and units with dynamic positioning (DP) systems

The Committee approved MSC.1/Circ.1580 on *Guidelines for vessels and units with dynamic positioning (DP) systems*, which would generally apply to vessels and units constructed on or after 9 June 2017. In this context, the Committee noted that for existing vessels the *Guidelines for vessels with dynamic positioning systems* (MSC/Circ.645) would still be applicable.

Draft Escape route signs and equipment location markings

The Committee approved the draft Escape route signs and equipment location markings, together with the associated draft Assembly resolution, with a view to subsequent adoption by A 30.

Corrigendum to the Unified interpretation of SOLAS chapter II-2 on the number and arrangement of portable fire extinguishers on board ships (MSC.1/Circ.1275)

The Committee noted that the Sub-Committee had endorsed the draft corrigendum to the *Unified interpretation of SOLAS chapter II-2 on the number and arrangement of portable fire extinguishers on board ships* (MSC.1/Circ.1275) and that the Secretariat had issued it as MSC.1/Circ.1275/Corr.1.

Consequential Work Related to the Polar Code

The Committee noted the progress made by the Sub-Committee with regard to the consequential work related to the Polar Code, in particular regarding the necessary testing and performance standards for life-saving appliances and arrangements on board ships operating in polar waters.

Amendments to the guidelines for evaluation and replacement of lifeboat release and retrieval systems (MSC.1/Circ.1392)

The Committee approved MSC.1/Circ.1584 on *Amendments to the guidelines for evaluation and replacement of lifeboat release and retrieval systems* (MSC.1/Circ.1392).

Corrigendum to the Requirements for maintenance, thorough examination, operational testing, overhaul and repair of lifeboats and rescue boats, launching appliances and release gear (resolution MSC.402(96))

The Committee noted that the Sub-Committee had instructed the Secretariat to prepare a corrigendum to the Requirements for maintenance, thorough examination, operational testing, overhaul and repair of lifeboats and rescue boats, launching appliances and release gear (resolution MSC.402(96)), which had been issued as document MSC 96/25/Add.1/Corr.1.

Piracy and armed robbery against ships

The Sub-Committee noted the following on the report of the working group 2016 *Piracy and Armed Robbery Statistics* as follows:

- 221 incidences reported in 2016, a 27% reduction compared to 2015 (303)
- West Africa incidents increased by 77% (62 incidents in 2016 vs. 35 in 2015)
- South China Sea incidences decreased slightly (from 81 in 2015 to 68 in 2016)
- South East Asian region experienced dramatic increases (2 in 2015 to 16 in 2016)

The Committee acknowledged that under-reporting persists with the Gulf of Guinea, restricting the ability of Coastal States to appropriately focus resources to counter these nefarious activities.

Incident reporting and questionnaire on privately contracted armed security personnel

The Committee is interested in learning more on the use of contracted armed security personnel by port and coastal states in relation to MSC.1/Circ.1333/Rev.1 on *Recommendations to Governments for*

preventing and suppressing piracy and armed robbery against ships and MSC-FAL.1/Circ.2. Member states and those affected are encouraged to continue reporting incidences.

The Committee approved MSC.1/Circ.1585 on *Reporting of incidents of piracy and armed robbery against ships in the Gulf of Guinea.*

Work Program

The Committee agreed to add the following items to its work program:

- "Regulatory scoping exercise for the use of Maritime Autonomous Surface Ships (MASS)", with a target completion date of 2020. This work is retained by the Committee.
- "Amendments to the CSS Code with regard to weather-dependent lashing", with a target completion date of 2019: Assigned to the Sub-Committee on Carriage of Cargoes and Containers (CCC).
- "Amendments to the IMDG Code related to portable tanks with shells made of Fibre Reinforced Plastics (FRP) for multimodal transportation of dangerous goods", with two sessions needed to complete the item: Assigned to the Sub-Committee on Carriage of Cargoes and Containers (CCC). (Work to commence only after advice received from the UN Sub-Committee of Experts on the Transport of Dangerous Goods.)
- "Revision of SOLAS chapters III and IV for Modernization of the GMDSS, including related and consequential amendments to other existing instruments", with a target completion date of 2021. Assigned to the NCSR Sub-Committee.
- "Development of guidelines for cold ironing of ships and of amendments to SOLAS chapters II -1 and II-2, if necessary", with a target completion date of 2020: Assigned to the SSE Sub-Committee.
- "Revision of SOLAS chapters III and IV for Modernization of the GMDSS, including related and consequential amendments to other existing instruments", with a target completion date of 2021: Assigned to the NCSR Sub-Committee.
 - The amendments to be developed should apply to all ships to which SOLAS chapter IV applies;
 - The instrument to be amended was SOLAS, chapters III and IV; and
 - The amendments to be developed should enter into force on 1 January 2024, provided that they were adopted before 1 July 2022..

3 – 7 July 2017: 71st Session of the Marine Environmental Protection Committee (MEPC 71)

The seventy-first session of the Marine Environmental Protection Committee Safety Committee was held at the IMO Headquarters from 3 to 7 July 2017, chaired by Mr. A. Dominguez (Panama). The Vice-Chair of the Committee, Mr. H. Saito (Japan), was also present.

The session was attended by delegations from Members and Associate Members; by representatives from the United Nations Programs, specialized agencies and other entities; by observers from intergovernmental organizations with agreements of cooperation; and by observers from non-governmental organizations in consultative status; as listed in document MEPC 71/INF.1. IADC was not represented at this session.

For the full report of items considered at this session, please see document MSC 71/17 *Report of the Marine Environmental Protection Committee on its Seventy-First Session.*

Decisions of Other IMO Bodies

Outcome of C 117

The Council endorsed the MEPC 70 request for additional IMO staff to develop and maintain the IMO Ship Fuel Oil Consumption Database for production of annual reports addressing such information as may be requested by the Committee in the future.

The Council endorsed planning of two intersessional meetings of the Working Group on Reduction of GHG from ships in 2017.

Consideration and Adoption of Amendments to Mandatory Instruments

The Committee established a drafting group and subsequently approved their report addressing amendments to MARPOL Annex VI to include designation of the Baltic Sea and the North Sea Emission Control Areas for NO_x Tier III control and to appendix V modifications pertaining to information to be included in the bunker delivery note.

Harmful Aquatic Organisms in Ballast Water

As of 3 July, the number of contracting governments to the Ballast Water Management Convention was 60, representing 68% of the world's merchant fleet tonnage. The Convention entered into force on 8 September 2017.

The latest type-approved BWMS were noted:

- Damen INvaSave 300 Ballast Water Management System (Netherlands)
- Semb-Eco LUV 500 & Semb-Eco LUV 1500 Ballast Water Management System (Singapore)
- Kurita BWMS Ballast Water Management System (Japan)
- ATPS-BLUE_{sys} Ballast Water Management System (Japan)

The Committee approved the draft amendments to regulation B-3 of the BWM Convention and a draft MEPC resolution on *Determination of the date referred to in regulation B-3, as amended, of the BWM Convention*, and requested the Secretary-General to circulate the draft amendments immediately upon entry into force of the Convention, with a view to adoption at MEPC 72, together with the MEPC resolution..

The details for entry into force dates that will be thus established are as follows:

- Vessels constructed on or after 8 September 2017 shall come into compliance with the D-2 standard immediately
- Existing Vessels shall come into compliance on or after 8 September 2019 based on the first renewal of the vessel's IOPP Certificate. **Note: Existing vessels may only renew IOPP Certificates after 8 September 2017 to "maximize" compliance lead time beyond 8 September 2019 if the preceding IOPP Certificate's renewal date was between 8 September 2014 and 8 September 2017.**
- Vessels to which IOPP certificates do not apply shall meet the D-2 BWM standard as of a date decided by the Administration, but not later than 8 September 2024.

The 2016 *Guidelines for approval of ballast water management systems* (G8) (resolution MEPC.279(70)) adopted at MEPC 70 is anticipated to be made mandatory and adopted at MEPC 72 after the entry into force date of the Convention while also being renamed as *Code for approval of ballast water management systems* (BWMS Code).

The committee also approved the following circulars to be adopted at MEPC 72 along with the BWMS Code:

- Guidance on scaling of ballast water management systems (BWM.2/Circ.33)

- Guidance for Administrations on the type approval process for ballast water management systems in accordance with Guidelines (G8) (BWM.2/Circ.43)

Based on the *Guidelines for risk assessment under regulation A-4 of the BWM Convention (G7)*, the Committee noted Administrations' prerogative to grant exemptions in accordance with regulation A-4 where the Same Risk Area (SRA) concept could be exercised after consultation among potentially affected adjacent States.

The Committee acknowledged that PPR 4 had finalized the manual on *Ballast Water Management – How to do it, though the document will remain open to amendments as an experience-building phase is initiated upon entry into force of the convention*.

Air Pollution and Energy Efficiency

The Committee adopted resolution MEPC.291(71) on 2017 *Guidelines addressing additional aspects of the NOX Technical Code 2008* with regard to particular requirements related to marine diesel engines fitted with selective catalytic reduction (SCR) systems.

The Committee instructed the Working Group at this session to finalize draft guidance on the best practice for fuel oil purchaser/users utilizing the submission MEPC 71/5/3 as the base document.

The following observations were noted:

- This work would overlap with work on the new output intended for regulation 14.1.3 of MARPOL Annex VI, so both should be coordinated as necessary.
- This effort should be finalized before the 0.50% global Sulphur limit goes into effect in 2020.

The Correspondence Group was re-established under the direction of the U.S. to continue work on this issue and provide a report to MEPC 73.

Sulphur-monitoring conducted by IMO in accordance with resolution MEPC.192(61) 2010 *Guidelines for monitoring the worldwide average Sulphur content of fuel oils supplied for use on board ships* yielded a 3-year rolling average for 2016 of 2.50% for residual fuel and 0.10% for distillate fuel. The Committee requested that IMO continue to provide future annual reports for this issue.

Further Technical and Operational Measures for Enhancing the Energy Efficiency of International Shipping

Recalling that MEPC 70 adopted the 2016 *Guidelines for the development of a Ship Energy Efficiency Management Plan (SEEMP)*, interested parties were invited to address the issue of a “proxy for transport work for offshore and marine contracting vessels” as an alternative to energy efficiency parameters otherwise based on transport work (e.g., carriage of cargo and passengers). Though not applicable to MODUs, FPSOs, and FPU, other vessels engaged in offshore activity are subject to Regulation 19 of MARPOL VI and are thus obligated to comply with energy efficiency provisions. The Committee invited interested parties, in cooperation with IMCA, to submit proposals for guidance on how to deal with offshore and marine contracting vessels under the IMO data collection system..

Reduction of GHG Emissions from Ships

The Committee recalled approval of the Roadmap for developing a comprehensive IMO Strategy on the reduction of GHG emissions from ships (the Roadmap), anticipating adoption at MEPC 72 and provisions for a revised Strategy at MEPC 80 (Spring 2023).

The Secretariat reported on the highlights of the United Nations Climate Change Conference activities to the Committee. The UNFCCC's Subsidiary Body for Scientific and Technological Advice under the Paris Agreement had on its agenda an item on “Emissions from fuel used for international aviation and maritime transport.” With the expectation that IMO will proceed with road map strategy efforts, the

Committee noted agreement that additional IMO GHG studies would be necessary to better assess methods to achieving strategy objectives.

- Establishing a working group at this session, the committee noted the initial GHG strategy framework produced via these deliberations. Elements of the strategy included, *inter alia*:
- The vision
- Levels of guiding principles
- List of short, medium, and long-term measures
- Capacity-building and technical cooperation
- Periodic review of the strategy
- Two more intersessional working group meetings will take place prior to MEPC 72 in order to progress the terms of reference to provide a report at the next Committee session.

Identification and Protection of Special Areas and PSSAs

The Committee adopted resolution MEPC.294(71) on *Designation of the Tubbataha Reefs Natural Park as a Particularly Sensitive Sea Area*. This area is in the Sulu Sea in Philippine waters.

Pollution Prevention and Response

The Committee approved the draft Assembly resolution on the Code for the transport and handling of hazardous and noxious liquid substances in bulk on offshore support vessels (OSV Chemical Code), for submission to the 30th session of the Assembly for Adoption.

The Committee approved revisions to the Oil Pollution Preparedness, Response & Co-operation (OPRC) model training courses addressing level I (Operational staff), II (Supervisors and on-scene commanders), and III (Senior management personnel) competencies.

Technical Cooperation Activities for the Protection of the Marine Environment

The Committee recognized the Secretariat's selection of the five priorities for the Technical Cooperation Programme to facilitate during the 2018-2019 biennium in the interest of continuing to work towards the protection of the marine environment. Those priorities include:

- Consistent implementation of the 0.50% Sulphur limit, Polar Code requirements, and waste management of port reception facilities including Special Areas and PSSAs
- Strengthening national and regional capacity for effective and consistent implementation of the BWM and AFS Conventions
- Strengthening national and regional capacity for the ratification and effective implementation of the Hong Kong Convention on Ship Recycling
- Assisting countries with the implementation of the OPRC Convention and the OPRC-HNS Protocol and enhancing regional cooperation in marine pollution

Assisting countries through building capacity with the ratification and implementation of the London Protocol

Work Program

The Committee agreed to add the following items to its work program:

- "Consideration of the initial proposal to amend Annex 1 to the AFS Convention to include controls on cybutryne", with a target completion date of 2018: Assigned to the PPR Sub-Committee.
- "Amendments to the 2012 Guidelines on implementation of effluent standards and performance tests for sewage treatment plants (resolution MEPC.227(64)) to address inconsistencies in their application", to be completed in two sessions: Assigned to the PPR Sub-Committee.

- "Development of measures to reduce risks of use and carriage of heavy fuel oil as fuel by ships in Arctic waters", with two sessions needed to complete the item: Assigned to the PPR Sub-Committee. It was agreed that a decision would be made by the Committee in the future on the mandatory or recommendatory nature of the measures, after detailed consideration of such proposed measures.
- "Development of amendments to regulation 19 of MARPOL Annex VI and an associated Exemption Certificate for the exemption of ships not normally engaged on international voyages," to be completed in two sessions: Assigned to the III Sub-Committee.
- "Revision of SOLAS chapters III and IV for Modernization of the GMDSS, including related and consequential amendments to other existing instruments," with a target completion date of 2021. Assigned to the NCSR Sub-Committee.
- "Consistent implementation of regulation 14.1.3 of MARPOL Annex VI (Sulphur content limits)," with a target completion date of 2019: Assigned to the PPR Sub-Committee.

Future IMO Committee and Subcommittee Sessions

Table 1 provides information about future IMO meetings as of 1 August 2017.

Table 1--Future IMO Committee and Subcommittee Sessions

| Dates | Meeting | Agenda Items Note: Items of interest as numbered below correspond with the numbering scheme in the respective IMO Agenda documents. |
|----------------------|---|--|
| 11-15 September 2017 | 4 th Session of the Sub-Committee on Carriage of Cargoes & Containers (CCC 4) | 3 Amendments to the IGF Code and Development of Guidelines for Low-flashpoint Fuels 5 Amendments to the IMSBC Code and Supplements 6 Amendments to the IMDG Code and Supplements 7 Unified Interpretation of Provision of IMO Safety, Security and Environment-related Conventions 8 Consideration of Reports of Incident Involving Dangerous Goods or Marine Pollutants in Packaged form on Board Ships or in Port Areas |
| 25-29 September 2017 | 4 th Session of the Sub-Committee on the Implementation of IMO Instruments (III 4) | 3 Consideration and Analysis of Reports on Alleged Inadequacy of Port Reception Facilities 4 Lessons learned and Safety Issues Identified from the Analysis of Marine Safety Investigation Reports 5 Measures to Harmonize Port State Control (PSC) Activities and Procedures Worldwide 6 Identified Issues Relating to the Implementation of IMO Instruments from the Analysis of PSC Data 8 Updated Survey Guidelines under the Harmonized System of Survey and Certification 10 Unified Interpretation of Provisions of IMO Safety, Security, and Environment related Conventions 11 Review the Model Agreement for the Authorization of Recognized |
| 5 - 6 October 2017 | 10 th Session of the London Protocol Compliance Group (LP CG/10) | 6 Examination of reports received under articles 9.4.2 and 9.4.3 of the Protocol, including reviewing and contributing to the development of an additional reporting module on national administrative, regulatory and summary of enforcement measures 7 Consideration of Compliance Issues Related to the "Barriers to Compliance" Project |

| | | |
|-------------------------------|---|--|
| 20-24 November 2017 | 29 th Extraordinary Session of the Council (C./ES 29) | 10 Periodic review of administrative requirements in mandatory instruments |
| 27 November – 8 December 2017 | 30 th Session of the Assembly (A 30) | 6 Report of the Council to the Assembly on the work of the Organization since the twenty-ninth regular session of the Assembly 7 Strategy, planning and reform 9 Consideration of the reports and recommendations of the Maritime Safety Committee 10 Consideration of the reports and recommendations of the Legal Committee 11 Consideration of the reports and recommendations of the Marine Environment Protection Committee |
| 4 – 8 December 2017 | 119 th Session of the Council (C 119) | TBD - Will be posted to the IMO Programme of Meetings tab under the Advocacy tab on the IADC website when made available by IMO |
| 22-26 January 2018 | 5 th Session of the Ship Design and Construction Sub-Committee | 7 Mandatory instrument and/or provisions addressing safety standards for the carriage of more than 12 industrial personnel on board vessels engaged on international voyages (5.2.1.4) 9 Unified interpretation to provisions of IMO safety, security, and environment-related conventions 10 Revised SOLAS regulation II-1/3-8 and associated guidelines (MSC.1/Circ.1175) and new guidelines for safe mooring operations for all ships |
| 12-16 March 2018 | 5 th Session of the Ship Systems and Equipment Sub-Committee | 4 Develop new requirements for ventilation of survival crafts 5 Uniform implementation of paragraph 6.1.1.3 of the LSA Code 6 Consequential work related to the new Code for ships operating in polar waters 8 Amendments to the FSS Code for CO ₂ pipelines in under-deck passageways 10 Requirements for onboard lifting appliances and anchor handling winches 12 Unified interpretation of provisions of IMO safety, security, and environment-related conventions |
| 9-13 April 2018 (tentative) | 72 nd Session of the Marine Environment Protection Committee | |
| 16-25 May 2018 (tentative) | 99 th Session of the Marine Safety Committee | |
| 4-8 June 2018 | 42 nd Session of the Facilitation Committee | |
| 16-20 July 2018 Tentative | 5 th Session of the Human Element, Training & Watchkeeping | |

Private Sector Activities

International Association of Oil and Gas Producers (IOGP)

The following publications have been issued since December 2016 and are available [here](#):

Table 2--Recently Published IOGP Documents

| Document Title | Date |
|--|----------|
| Oil and gas contractor drug and alcohol testing guideline | Dec 2016 |
| Supplier Deliverable Requirements List (SDRL) for API 6D – Ball Valves | Dec 2016 |
| Supplementary Requirements to API Spec 6D – Ball Valves | Dec 2016 |
| Purchase Order Quality Requirements (POQR) for API 6D – Ball Valves | Dec 2016 |
| Upstream PSE Examples – Supplement to report 456 | Dec 2016 |
| Process safety – recommended practice on key performance indicators | Dec 2016 |
| Piping material specification | Jan 2017 |
| Historic Derivation of reliability values for fixed steel jacket offshore structures | Jan 2017 |
| Safety data reporting user's guide – scope and definitions (2016 data) | Jan 2017 |
| Seismic Surveys and Marine Mammals – Joint IOGP/IAGC position paper | Jan 2017 |
| Guidelines for the use of the Seabed Survey Data Model | Feb 2017 |
| Guidelines for the delivery of the Seabed Survey Data Model | Feb 2017 |
| Fabrication site construction safety recommended practices | Feb 2017 |
| Airline safety assessment mechanism | Mar 2017 |
| Recommended monitoring and mitigation measures for cetaceans during marine seismic survey geophysical operations | Apr 2017 |
| Operators' position and key messages on standards | Apr 2017 |
| HSE management guidelines for working together in a contract environment | Apr 2017 |
| Guide to preparing HSE plans and Bridging documents – Supplement to Report 423 | Apr 2017 |

| Document Title | Date |
|--|-------------|
| Contractor HSE capability assessment and scoring system – Supplement to Report 423 | Apr 2017 |
| Aircraft Management Guidelines (AMG) | May 2017 |
| The rise of commercial Unmanned Aerial Systems within the geophysical sector of the oil and gas industry | May 2017 |
| Health leading performance indicators – 2016 data | Jun 2017 |
| Safety performance indicators – 2016 data | Jun 2017 |
| Safety performance indicators - 2016 data - High potential event reports | Jul 2017 |
| Safety performance indicators - 2016 data - Fatal incident reports | Jul 2017 |
| Overview of International Offshore Decommissioning Regulations - Volume 1: Facilities | Jul 2017 |
| Overview of International Offshore Decommissioning Regulations – Volume 2: Wells P&A | Jul 2017 |
| OGP P6/11 Seismic bin grid data exchange format | Jul 2017 |

International Petroleum Industry Environmental Conservation Association (IPIECA)

The following publications have been issued since December 2016 and are available [here](#):

Table 3--Recently Published IPIECA Documents

| <i>Document Title</i> | <i>Date</i> |
|--|--------------------|
| Low-emissions pathways. IPIECA Workshop Summary | Dec 2016 |
| IPIECA Reporting survey: 2016 results | Dec 2016 |
| Oil and gas contractor drug and alcohol testing guidelines | Dec 2016 |
| Satellite remote sensing of oil spills at sea | Dec 2016 |
| Host government engagement strategy tool | Feb 2017 |
| Host country security assessment guide | Feb 2017 |
| In-water surveillance of oil spills at sea | Mar 2017 |
| Multiple casualty planning and preparation | Mar 2017 |
| 2016 Annual Review | Apr 2017 |
| Improving social and environmental performance | May 2017 |

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| Creating successful, sustainable social investment (2 nd edition) | May 2017 |
| Refining key components of social investment: Practitioner note 1 | May 2017 |
| Monitoring and evaluation of social investment: Practitioner note 2 | May 2017 |
| Social investment across the oil and gas project life cycle: Practitioner note 3 | May 2017 |
| Water management in shale oil and gas IPIECA awareness briefing | Jun 2015 |
| Common Operating Picture | Jun 2017 |
| Benefits of Membership | Jul 2017 |
| IPIECA Climate Change Reporting Framework | Jul 2017 |
| Mapping the oil and gas industry to the Sustainable Development Goals: An Atlas (Executive summary) | Jul 2017 |
| Mapping the oil and gas industry to the Sustainable Development Goals: An Atlas | Jul 2017 |

International Marine Contractors Association (IMCA)

The following IMCA documents have been published or revised since December 2016 and are available [here](#):

Table 4--Recently Published IMCA Documents

| Document Number | Document Title | Issue Date |
|------------------------|--|-------------------|
| IMCA C 002 Rev. 2 | Guidance on competence assurance and assessment: Marine Division | Jan 2017 |
| IMCA C 003 Rev. 3.1 | Guidance on competence assurance and assessment: Diving Division | Feb 2017 |
| IMCA C 005 | Guidance on competence assurance and assessment; Remote Systems & ROV Division | Dec 2016 |
| IMCA C 007 Rev. 2 | Guidance on assessor training | Mar 2017 |
| IMCA C 011 | Outline syllabus for training of personnel in supervisory positions | Dec 2016 |
| IMCA C 013 | First aid and other emergency drills | Jan 2017 |
| IMCA C 016 | Guidance on verifier training | Feb 2017 |
| IMCA CI 002 Rev.4 | IMCA General contracting principles | Feb 2017 |
| IMCA CI 003 Rev.3 | IMCA Marine contracting principles | Feb 2017 |
| IMCA CI 004 Rev.3 | IMCA ROV services contracting principles | Feb 2017 |
| IMCA CI 005 Rev.3 | IMCA Survey work contracting principles | Feb 2017 |

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|----------------------|--|-----------|
| IMCA CI 006 Rev. 1 | Terms and conditions for survey support services | Feb 2017 |
| IMCA CI 007 Rev. 2 | IMCA Decommissioning contracting principles | Feb 2017 |
| IMCA CI 008 | IMCA standard FPSO contracting principles | Mar 2017 |
| IMCA CI 011 Rev.2 | Identifying and assessing risk in construction contracts | Mar 2017 |
| IMCA CI 012 Rev.2 | Identifying and assessing risk in construction contracts | Mar 2017 |
| IMCA CI -13 Rev.1 | Contract for the provision of ROV, support vessel and associated work (based on BIMCO Supply time 2005) | Mar 2017 |
| IMCA CI 014 Rev.2 | IMCA renewable contracting principles | Mar 2017 |
| IMCA LR 005 Rev.2 | Guidance on the use of chain lever hoists in the offshore subsea environment | June 2017 |
| IMCA LR 009 Rev. 0.1 | Guidance on the selection, safe use and inspection of high performance fibre slings used for engineered lifts | Apr 2017 |
| IMCA LR 011 Rev.1 | Guidance on the initial and periodic examination, testing and certification of ROV launch and recovery systems | Jun 2017 |
| IMCA REG 001 | Introduction to international marine regulation | Dec 2016 |
| IMCA REG 002 | Introduction to marine emissions | Dec 2016 |
| IMCA REG 003 | Introduction to ballast water management | Dec 2016 |
| IMCA REG 004 | Guidance for port state inspections under the Maritime Labour Convention, 2006 | Dec 2016 |
| IMCA SEL 001 Rev.1 | Guidelines for Management of Change | Feb 2017 |
| IMCA SEL 018 Rev.1 | Guidance on security threat risk assessment procedures | Dec 2016 |
| IMCA D 011 Rev.1 | Guidance on auditing of diving systems | Jan 2017 |
| IMCA D 028 Rev.1 | Guidance on the use of chain lever hoists in the offshore subsea environment | Jun 2017 |
| IMCA D 048 | Guidance on surface supplied diving operations using nitrox | Jan 2017 |
| IMCA D 059 | Diver emergency heating report | Mar 2017 |
| IMCA M 190 Rev.1 | Guidance for developing and conducting annual DP trials programmes for DP vessels | Mar 2017 |
| IMCA M 200 Rev.2 | Deep water acoustic positioning | Jan 2017 |

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|--------------------|---|-----------|
| IMCA M 204 Rev.0.1 | Vessel assurance | Apr 2017 |
| IMCA M 209 Rev.1 | Rada Scan microwave radar sensor for dynamic positioning operators | Jan 2017 |
| IMCA M 237 Rev.0.1 | Guidance on the selection, safe use and inspection of high performance fibre slings used for engineered lifts | APR 2017 |
| IMCA M 238 | Introduction to international marine regulation | Dec 2016 |
| IMCA M 239 | Introduction to marine emissions | Dec 2016 |
| IMCA M 240 | Introduction to ballast water management | Dec 2016 |
| IMCA M 241 | Guidance for port state inspection under the Maritime Labour Convention, 2006 | Dec 2016 |
| IMCA M 242 | Guidance on satellite-based positioning systems for offshore applications | Jan 2017 |
| IMCA M 243 | Station keeping incidents reported for 2016 | Feb 2017 |
| IMCA M 244 Rev.1 | Guidance on vessel USBL systems for use in offshore survey, positioning and DP operations | Mar 2017 |
| IMCA R 006 Rev.1 | Standard ROV audit document | July 2017 |
| IMCA R 011 Rev.1 | The initial and periodic examination, testing and certification of ROV handling systems | June 2017 |
| IMCA S 013 Rev.2 | Deep water acoustic positioning | Jan 2017 |
| IMCA S 017 Rev.1 | Guidance on vessel USBL systems for use in offshore survey, positioning and DP operations | Mar 2017 |
| IMCA S 021 Rev.1 | Guidelines for the management of peripheral survey sensors | Jan 2017 |
| IMCA S 024 | Guidelines on satellite-based positioning systems for offshore applications | Jan 2017 |
| IMCA R 005 Rev.2 | Guidance on safety procedures for working on ROV high voltage equipment (above 1 kV) | Feb 2017 |
| IMCA R 011 Rev.1 | The initial and periodic examination, testing and certification of ROV handling systems | Jun 2017 |
| IMCA R 013 Rev.2 | Contract for the provision of ROV, support vessel and associated work (based on BIMCO) | Mar 2017 |
| IMCA R 017 Rev.1 | Contract for the provision of ROV, Support vessel and associated work (based on BIMCO Supply time 2005) | Mar 2017 |

International Electrotechnical Commission (IEC)

The following IEC documents have been published since December 2016 and are available [here](#):

Table 5--Recently Published IEC Documents

| Standard No. | Document Title | Committee | Date |
|----------------------------|--|------------------|-------------|
| 63108:2017 Edition 1.0 | Electrical installation in ships – Primary DC Distribution – System design architecture | TC 18 | 22 May 2017 |
| 60092-376:2017 Edition 3.0 | Electrical installations in ships – Part 376: Cables for control and instrumentation circuits 150/250 V (300V) | TC 18A | 22 May 2017 |

International Organization for Standardization (ISO)

The following ISO standards have been published since December 2016 and are available [here](#):

Table 6--Technical Committee 67: Materials, Equipment, and Offshore Structures for Petroleum, Petrochemical, and Natural Gas Industries

| Standard No. | Document title | Date Published |
|---------------------|--|-----------------------|
| ISO 17781:2017 | Test methods for quality control of microstructure of ferritic/austenitic (duplex) stainless steel | Jul 2017 |
| ISO 21809-5:2017 | External coatings for buried or submerged pipelines used in pipeline transportation systems – Part 5: External concrete coatings | Jun 2017 |
| ISO 16530-1:2017 | Well integrity – Part 1: Life cycle governance | Mar 2017 |
| ISO 17776:2016 | Offshore production installations – Major accident hazard management during the design of new installations | Dec 2016 |

American Petroleum Institute (API)

The following API documents have been published since December 2016 and are available [here](#). Those standards that may be incorporated by reference into regulation may also be obtained at <https://publications.api.org/Default.aspx>.

Table 7--Recently Published API Documents

| .Document No. | Document Title | Date |
|----------------------|---|-------------|
| Bulletin 4719 | Industry Guidelines on Requesting Regulatory Concurrence for Subsea Dispersant Use, First Edition | 1 Jun 2017 |
| MPMS Chapter 14.2 | Manual of Petroleum Measurement Standards, Chapter 14 – Natural Gas Fluids Measurement, Section 12-Measurement of Gas by Vortex Meters, First Edition | 1 Mar 2017 |

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| MPOMS Chapter 14.4. | Natural Gas Fluids Measurement – Converting Mass of Natural Gas Liquids and Vapors to Equivalent Liquid Volumes, Second Edition | 17 Jun 2017 |
| MPMS Chapter 19.1 | Evaporative Loss from Fixed-Roof Tanks, Fifth Edition | 1 Jun 2017 |
| MPMS CHAPTER 19.6.1 | Evaporative Loss from Storage Tank Floating-roof Landings, First Edition | 1 Feb 2017 |
| MPMS Chapter 22.2 | Manual of Petroleum Measurement Standards, Chapter 22-Testing protocol Section 2-Differential Pressure Flow Measurement Devices, Second Edition | 1 Apr 2017 |
| Publ 4784 | Qualification of Vapor Phase-related Natural Source Zone Depletion Processes, First Edition | 1 May 2017 |
| RP 5C5 | Procedures for testing Casing and Tubing Connections | 1 Jan 2017 |
| RP 5C8 | Care, Maintenance, and inspection of Coiled Tubing | 1 Jan 2017 |
| RP 14 C 8 th Edition | Analysis, Design, Installation, and Testing of Safety Systems for Offshore Production Facilities | 1 Feb 2017 |
| RP 17N | Subsea Production System Reliability, Technical Risk, and Integrity Management, Second Edition | 1 Jun 2017 |
| RP 691 | Risk-based Machinery Management ,First Edition | 1 Jun 2017 |
| RP 691 Datasheets | Datasheets for Risk-based Machinery Management, First Edition | 1 Jun 2017 |
| RP 1646 | Safe Work Practices for Contractors Working at Retail Petroleum/Convenience Facilities, First Edition | 1 May 2017 |
| RP 2026 | Safe Access/Egress Involving Floating Roofs of Storage Tanks in Petroleum Service, Third Edition | 1 Jun 2017 |
| RP 2207 | Preparing Tank Bottoms for Hot Work, Seventh Edition | 1 Jun 2017 |
| RP 2217A | Safe Work in Inert Confined Spaces in the Petroleum and Petrochemical Industries, Fifth Edition | 1 Jul 2017 |
| SPEC 7-2 | Threading and Gauging of Rotary Shouldered Connections | 1 Jan 2017 |
| SPEC 12D | Specification for Field Welded Tanks for Storage of Production Liquids, Twelfth Edition | 1 Jun 2017 |
| SPEC 16A 4 th Edition | Specification for Drill-through Equipment | 1 Apr 2017 |
| SPEC 16 AR | Standard for Repair and Remanufacture of Drill-through Equipment, First Edition | 1 Apr 2017 |
| SPEC 17E | Specification for Subsea Umbilicals, Fifth Edition | 1 Jul 2017 |

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| STD 18LCM | Product Life Cycle Management System Requirements for the Petroleum and Natural Gas Industries, First Edition | 1 Apr 2017 |
| STD 20J | Qualification of Distributors of Metallic Material for Use in the Petroleum and Natural Gas Industries, First Edition | 1 May 2017 |
| STD 547 | General-purpose From-wound Squirrel Cage Induction Motors-185 through 2240 kw, Second Edition | 1 May 2017 |
| STD 594 | Check Valves: Flanged, Lug, Wafer, and Butt-welding, Eighth Edition | 1 Jul 2017 |
| RP 17B | Recommended Practice for Flexible Pipe, Fifth Edition | 1 May 2017 |
| RP 2 CCU | Offshore Cargo Container Design, Manufacturing and Inspection | 1 Aug 2017 |
| TR 17TR7 | Verifications and Validation of Subsea Connectors, First Edition | 1 Apr 2017 |
| TR 17TR9 | Umbilical Termination Assembly (UTA) Selection and Sizing Recommendations, First Edition | 1 Aug 2017 |
| TR 942-B | Materials, Fabrication, and Repair Considerations for Austenitic Alloys Subject to Embrittlement and Cracking in High Temperature 565 to 760 C Refinery Services, First Edition | 1 MAY 2017 |

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Convention on Biological Diversity. *Information*. June 2017. <https://www.cbd.int/decisions/cop/> (accessed June 2017).

"COP23 Presidency Deeply Disappointed with Trump's Decision to Withdraw from the Paris Agreement." <https://cop23.com.fj/statement-fijian-prime-minister-incoming-president-cop23/?platform=hootsuite>, 2017: 1.

UNFCCC. *COP23 Presidency Deeply Disappointed with Trump's Decision to Withdraw from the Paris Agreement*. June 1, 2017. <https://cop23.com.fj/statement-fijian-prime-minister-incoming-president-cop23/?platform=hootsuite>.

IMO DOCS website access

Specific IMO documents referenced in this report may be accessed via the IMODOCS website at:

<https://webaccounts.imo.org/Common/WebLogin.aspx?App=IMODOCS&ReturnUrl=https%3A%2F%2Fdocs.imo.org%2FDefault.aspx>

After opening the above link, a public account may be obtained by clicking on "Register". Follow the registration instructions to create/activate a user name and password.