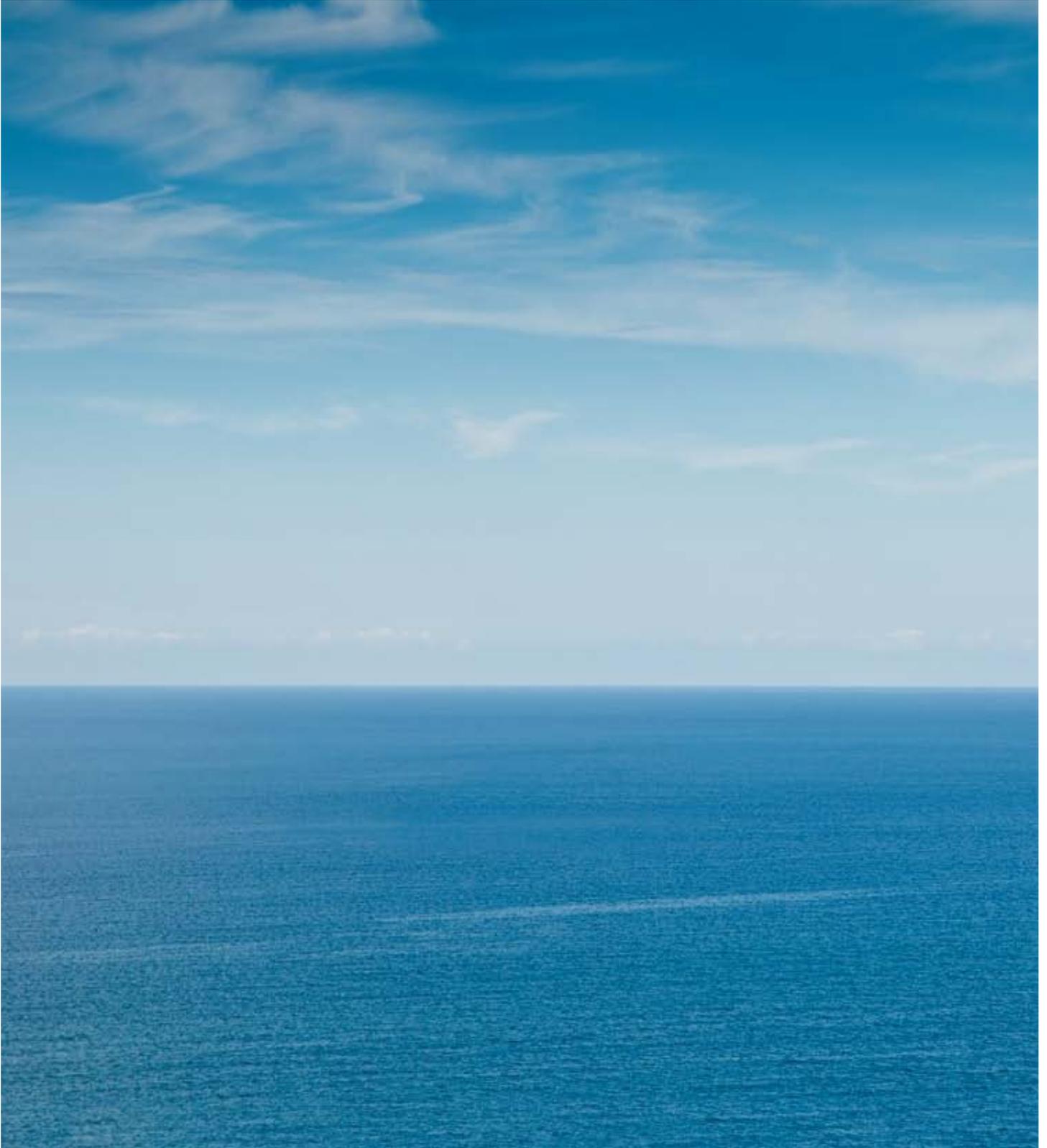


March 2015

ClassNK

Annual Report

[English]



The ClassNK Mission

ClassNK is dedicated to ensuring the safety of life and property at sea and protecting the marine environment. To achieve this mission ClassNK will:

- Deliver the highest quality classification services, by the highest quality personnel, while maintaining our totally independent third party, non-profit status.
- Develop relevant rules, guidances, and procedures, and conduct technical research and development to positively contribute to the maritime industry.
- Maintain and develop our global operations in line with the needs of our clients.

Profile

Founded on 15 November 1899, Nippon Kaiji Kyokai, better known as ClassNK or simply NK, is a ship classification society dedicated to safeguarding life and property at sea and to protecting the marine environment. ClassNK provides broad spectrum of services as an independent third party, non-profit organization, including survey & certification services, technical consulting services,

and research & development activities. The principal work of the Society's expert technical staff is to conduct surveys of new and existing ships and other floating structures, including hull structures, propulsion systems, electrical and electronic systems, safety equipment, and cargo handling gear, among numerous other areas, to ensure their full compliance with classification rules developed

by the Society. ClassNK also conducts a wide range of statutory surveys on behalf of more than 100 flag States around the world, as well as audits and registers ship safety & security management systems, quality, environmental and occupational health management systems, and seafarer training institutions.

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Message from Chairman and President



Noboru Ueda

Representative Director, Chairman and President

Welcome to the ClassNK Annual Report. I would like to take this opportunity to express my gratitude to everyone for their continued support of our activities here at ClassNK.

ClassNK is actively dedicated to ensuring the safety of life and property at sea and protecting the marine environment. In order to realize this mission, ClassNK devotes all of its managerial resources to the development of maritime infrastructure by offering a range of high-quality technical services, engaging in collaborative research and developing a variety of software solutions for the entire maritime industry.

As a result of our commitment to this mission, in 2014 we achieved remarkable results. This report details some of ClassNK's most significant achievements of this year.

In terms of our classification activities, the ClassNK register reached a total of 230 million gross tons by the end of 2014. With the addition of newbuildings, ClassNK registered its highest number of existing vessels to date. Existing vessels totaled one third of new registrations including the registrations of our first ever German-flagged and United States-flagged vessels.

This great achievement demonstrates the high regard we continually receive for our services. ClassNK is committed to providing the highest quality technical services to its clients and applying its excellent leadership in the ship classification industry as one of the world's top classification societies.

In response to the casualty of the large container ship which occurred in the Indian Ocean in 2013, ClassNK established the Investigative Panel on Large Container Ship Safety and consolidated the findings and outcomes into a report released in September 2014. The report details the results of an investigation into the possibility of casualty occurrence and actions to be taken for the safety of large container ships. A summary of the report can also be found in this Annual Report.

In 2014, ClassNK developed new Guidelines for the Installation of Ballast Water Treatment Systems in accordance with the Ballast Water Management Convention in addition to Guidelines for Gas Fuelled Ships in order to ensure members of the industry can smoothly comply with these regulations when they come into force. ClassNK also regularly

attended meetings at the International Maritime Organization (IMO) and International Association of Classification Societies (IACS) where it shared its technical knowledge on a range of issues.

ClassNK continues to undertake collaborative research and development with various sectors of the maritime industry. In addition to working with the Japanese government and industry partners to develop technology to reduce CO2 emissions in shipping, ClassNK is also pursuing international research projects with prominent research institutes in Singapore, Europe and across the globe. This year we hope to achieve even greater results from our R&D activities for the benefit of the entire maritime industry.

2014 also saw the opening of our new Renewable Energy Department as part of ClassNK's aims to enhance its certification services in this important sector. ClassNK will also begin offering a range of even more efficient and streamlined certification services for management systems in line with ISO standards, maritime and education training and environmental performance.

Our business operations were further expanded by our acquisition of vessel design and operation software developer NAPA, and vessel management software developer Helm Operations. ClassNK also worked to further enhance the range of services offered by our other daughter companies, maritime safety and security consultant SMS LLC, and ClassNK Consulting Service to help clients prepare and comply with the growing number of regulations due to come into force in the near future.

ClassNK will continue to contribute to the maritime industry with comprehensive and optimized solutions tailored to meet its ever diversifying needs. We look forward to receiving your continued support for our activities.



Noboru Ueda

2014 At a Glance

ClassNK Register Reaches more than 230 Million Gross Tons and 8,872 Vessels

- At the end of December 2014, the ClassNK register had reached a total of 232,871,435 gross tons, making it the first time that the Register had exceeded 230 million gross tons.
- The size of ClassNK's register has grown every year since 1988, reaching 100 million gross tons registered in 1997 and a record breaking 200 million gross tons registered in mid-2012. Topping the 200 million mark was an important milestone in ClassNK's history and marked the first time a classification society had achieved such a figure.
- In 2014, this increased further with 8,872 vessels totaling more than 230 million gross tons at the year end. While the figure of shipbuilding is on the decrease, thanks to an increase in the number of existing vessels transferring from other classification societies to register with ClassNK, ClassNK's registered vessels has continued to rise.

20

Million GT

ClassNK Registers More Than 20 Million Gross Tons for Fourth Straight Year

Over the course of 2014, 833 vessels totaling approximately 21 million gross tons were newly added to the ClassNK register, marking the fourth straight year that ClassNK has registered an annual total of more than 20 million gross tons.

50

Projects

ClassNK Completes 50 Joint Research Projects

Since establishing its Joint R&D for Industry Program in 2009, ClassNK carries out a wide variety of joint R&D with industry partners each year. In 2014, ClassNK and its research partners completed 50 joint research projects as part of this program.

8

Guidelines

Publication of Eight New Technical Guidelines

In 2014, ClassNK published the following technical guidelines. These guidelines are available to download via the ClassNK homepage after logging into "My Page".

- New Guidelines on Welding of Duplex Stainless Steels
- Guidelines on the Installation of Ballast Water Treatment Systems
- Noise and Vibration Guideline V.2
- Guidelines for the Mandatory Code on Noise Levels on Board Ships
- Guidelines for Type Approval of Products for Marine Use for EU Mutual Recognition V.3
- Guidelines for Exhaust Gas Cleaning Systems
- Guidelines for Gas Fuelled Ships V.3
- Guidelines for Container Stowage and Securing Arrangements V.2

Breakdown of ClassNK Fleet by Flag



Panama	50%	Marshall Island	6%
Liberia	8%	Hong kong	5%
Japan	8%	Other	16%
Singapore	7%		

Breakdown of ClassNK Fleet by Ship Type



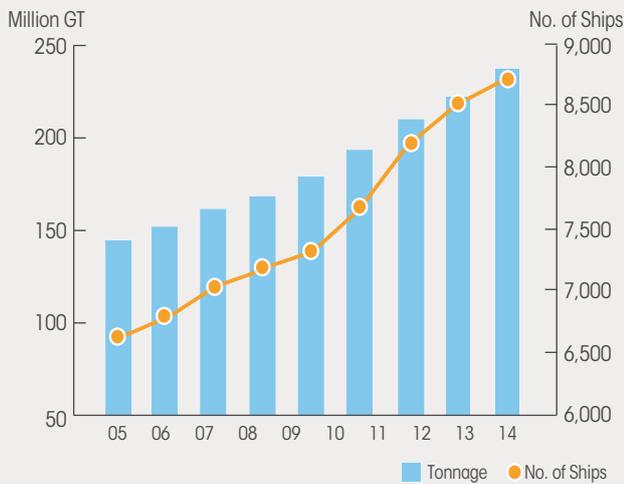
Bulk Carrier	41%	Vehicle Carrier	4%
Oil Tanker	9%	LPG Carrier	3%
General Cargo	8%	Refrigerated Cargo	2%
Chemical Tanker	7%	LNG Carrier	1%
Container Carrier	7%	Other	18%



Bulk Carrier	61%	General Cargo	3%
Oil Tanker	12%	LNG Carrier	2%
Container Carrier	9%	LPG Carrier	2%
Vehicle Carrier	7%	Refrigerated Cargo	0.4%
Chemical Tanker	3%	Other	1.6%

Total ClassNK Fleet

232.8 million GT.
8,872 ships



New Vessels Registered

21.4 million GT.
833 ships



1 Jan.**Chairman and President Noboru Ueda
Appointed ACS Chairman**

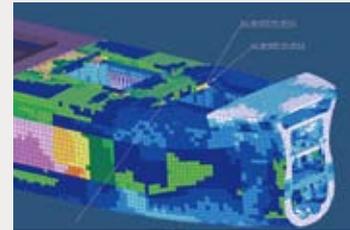
ClassNK Chairman and President Noboru Ueda assumed the role of Chairman of the Association of Asian Classification Societies (ACS), an organization comprising of six Asia-based classification societies that meet in order to share knowledge and technical insights for the purpose of improving safety at sea and the maritime environment. Under his Chairmanship, Mr. Ueda worked proactively with other members of the Association, with a view to contribute to the development of balanced global regulations at the IMO in addition to other regulatory bodies. Mr. Ueda successfully completed his tenure at the end of 2014.

9 Jan.**World's First Harmonized Ship Design
Support Software Compliant with IACS
Common Structural Rules**

ClassNK announced the release of the new version of its PrimeShip-HULL (HCSR) ship design support software, the first in the world to support the Common Structural Rules (CSR) that were adopted by the International Association of Classification Societies (IACS) in December 2013. PrimeShip-HULL (HCSR) builds on the core of ClassNK's existing PrimeShip-HULL-CSR software, combining rule calculation, and FE Model-based direct strength calculation software with completely new systems designed to interface directly with commercial CAD and rule calculation software, as well as automate parts of the basic design process. PrimeShip-HULL (HCSR) makes it possible to automatically generate FE models for the fore,

mid, and aft sections of the ship, as well as very fine mesh and buckling panel data. This makes it possible to greatly reduce the time required for some of the most manhour intensive parts of ship design work.

In addition to the improved interface, PrimeShip-HULL (HCSR) also includes a number of features to support both initial and full ship design, making it possible for shipyards and designers to rapidly carry out case studies of potential designs, as well as optimize their designs in accordance with the harmonized CSR.

**2014 At a Glance****10 Feb.****Chairman and President Noboru Ueda
Receives Global Lifetime Achievement
Award**

ClassNK Chairman and President Noboru Ueda was awarded the Global Lifetime Achievement Award for his outstanding contribution to the development of the maritime industry at the Shipping Marine and Ports 2014 Leadership & Excellence Awards in Mumbai, India on 10 Feb. 2014.

13 Mar.**ClassNK Registers First
United States-flagged Ship**

ClassNK registered its first United States-flagged ship, an oil tanker and chemical tanker named MT SLNC PAX, owned by Schuyler Line Navigation Company, LLC (SLNC).

ClassNK was granted authorization to carry out statutory surveys for US-flagged ships from the United States Coast Guard (USCG) in 2011 for the first time and then received extended authorization in December 2012, enabling ClassNK to render a full range of services for survey and certification for the SOLAS, MARPOL and AFS conventions, as well as to perform ISM Audits on behalf of the United States flag administration.

18 Mar.**ClassNK Acquires Leading Maritime
Software House NAPA**

ClassNK acquired leading maritime software house NAPA in a deal hailed as benefitting the improved safety and performance of the maritime industry. The acquisition follows years of collaboration between ClassNK and NAPA that lead to the development of ClassNK-NAPA GREEN operational optimization software. The landmark deal is a chance to expand and improve the wide range of services ClassNK offers to shipowners and shipyards, and develop innovative design systems and optimization software in response to the growing needs of the maritime industry.

11 Jun.

First German Flagged Vessel Joins ClassNK Register as ClassNK Receives Expanded Authorization from German Flag

ClassNK registered its first German-flagged vessel, a multi-purpose cargo ship (MPP) named M.V. BREMER FORTUNA, owned by Kollmar-based Rörd Braren Breederungs GmbH & Co. KG. ClassNK also earned expanded authorization from the German flag administration. This authorization includes audits and certification for the ISPS Code, a key part of the SOLAS convention related to ship security. The registration of the vessel marked an important step forward for ClassNK and its growth in Germany.



15 Jul.

ClassNK Acquires Canada's Helm Operations

ClassNK acquired Canada-based maritime software company Helm Operations. Helm Operations has grown to become a leading provider of manning, maintenance, dispatch, and HSQE software to the workboat and offshore industries. Through the acquisition, ClassNK hopes to link maritime companies and classification on an easy to use platform and provide Helm with resources that can further develop industry-leading software solutions that can be made available to the entire maritime industry.



17 Sept.

New Rules and Guidance for the Survey and Construction of Inland Waterway Ships Published

ClassNK released new Rules and Guidance for the Survey and Construction of Inland Waterway Ships. The new Rules and Guidance specify new requirements for the survey and construction of ships that navigate inland waterways such as barges, tugs and pushers. All inland waterway ships registered with ClassNK are required to adhere to the new Rules and Guidance which were released in order to support this growing market.



30 Sept.

ClassNK Investigative Panel Publishes Report on Large Container Ship Casualty

In response to the casualty of a large container ship which occurred on 17 June 2013, ClassNK established the Investigative Panel on Large Container Ship Safety, comprised of leading experts from shipbuilders, shipowners and academic institutions, to carry out the following course of action:

- (1) Investigate the possibility of casualty occurrence
- (2) Consider and examine safety of large container ship structure

The findings and outcomes of the panel have been consolidated into a report, which is available to download in both English and Japanese via the ClassNK website.

17 Nov.

ClassNK-NAPA GREEN Named Top Maritime IT Solution at IBJ Awards

ClassNK-NAPA GREEN was named as the maritime industry's top IT system by earning the IT Solutions Award at the International Bulk Journal (IBJ) Awards held in Rotterdam. The software was recognized as an advanced technical achievement and for the reductions in fuel costs it has helped to achieve. ClassNK Chairman and President Noboru Ueda attended the ceremony and accepted the award on behalf of NAPA and ClassNK.

25 Dec.

ClassNK Releases V.3 of its Guidelines for Gas Fuelled Ships

An updated version of guidelines for gas fuelled ships were released, providing up-to-date and comprehensive information on key design features such as bunkering, hull structure, fire safety and explosion prevention measures. From 1 January 2015, sulfur emissions in Emission Control Areas (ECAs) were tightened to 0.1% meaning that the industry is increasingly looking towards natural gas as a cleaner alternative to conventional liquid fuel oil. ClassNK developed the Guidelines based on the current draft of the IGF Code and hopes that the Guidelines will provide design support for shipyards, manufacturers, ship owners, managers and operators.

ClassNK Actions for the Structural Safety of Large Container Ships

In response to the serious hull girder fracture accident of a large container ship in June 2013, ClassNK has carried out investigations on the structural safety of large container ships so as to prevent occurrence of similar accidents.

The Committee on Large Container Ship Safety was established in August 2013 on the initiative of the Japanese Ministry of Land, Infrastructure, Transport and Tourism. ClassNK served as a member of the committee and the committee issued an interim report on the investigation in December 2013 (JG Interim Report). JG Interim Report concluded that the hull fracture originated from buckling collapse of the bottom shell plates in the midship part. JG Interim Report also suggested future tasks relating to the simulation of acting loads and the strength in consideration of uncertain factors and the margins of structural strength.

In light of the findings from JG Interim Report, ClassNK set up a new Investigative Panel on Large Container Ship Safety in February 2014 (NK Panel). NK Panel investigated the possibility of occurrence of the fracture and the structural safety of large container ships. In September 2014, ClassNK issued its Investigation Report on Structural Safety of Large Container Ships (NK Report) which contained the investigation findings, conclusions and the action plan to be implemented by ClassNK. A summary of NK Report is outlined below, and a full version of NK Report is available from the ClassNK homepage.

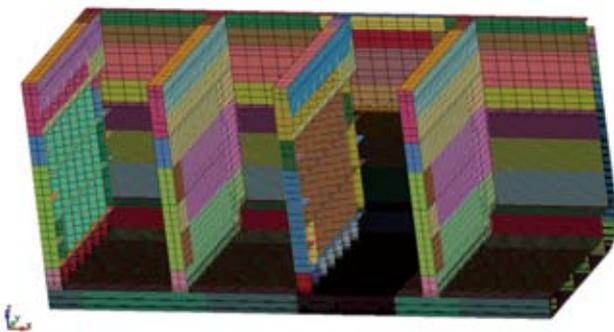


Image of 3-hold model for the elasto-plastic analysis (overall view)

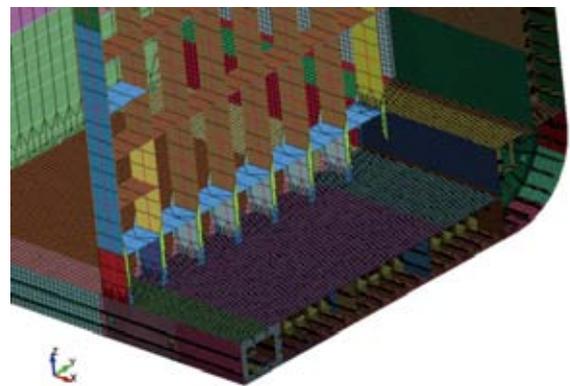
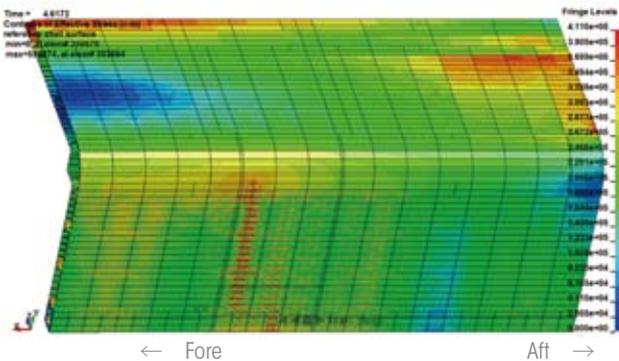
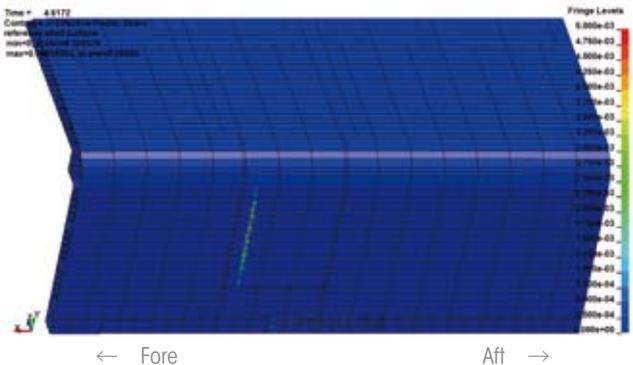


Image of 3-hold model for the elasto-plastic analysis (Part with fine mesh elements)



Example 1) Result of 3-hold model elasto-plastic analysis (stress on the bottom shell plates at stage of hull girder ultimate strength)



Example 2) Result of 3-hold model elasto-plastic analysis (plastic strain on the bottom shell plates at stage of hull girder ultimate strength)

Investigation on Possibility of Occurrence of the Fracture

The investigation was carried out relating to the possibility of the occurrence of the fracture in consideration of deviations of uncertain factors including the yield stress of steel, sea states at the time of the accident and

differences between the declared weights and actual weights of containers. The investigation concluded that although the possibility was extremely low, it was actually possible that the load of the vertical bending moment exceeded

the hull girder ultimate strength at the time of the accident, when uncertain factors were taken into account.

The Structural Safety of Large Container Ships

To evaluate the structural safety of large container ships, 3-hold model elasto-plastic analyses were carried out on the ships ranging between 6,000TEU and 8,000TEU, including the ship which was involved in the accident (hereinafter referred to as "the Ship"), with consideration of lateral loads such as bottom sea pressure and container loads, by which hull girder ultimate strength was investigated. Through the 3-hold model elasto-plastic analyses, the actual structural behaviors of the ships that lead to the fracture could be simulated in the most precise way.

Differences were found between the Ship and the other container ships on the margin of the hull girder ultimate strength resulted from 3-hold model elasto-plastic analyses which considered the effect of the lateral loads. In

comparison, no substantial differences were found between the Ship and other container ships in the investigations using conventional methods such as the relevant IACS rules which did not consider the effect of lateral loads.

As it was concluded that the hull fracture of the Ship originated from the buckling collapse of the bottom shell plates, NK Panel also investigated the buckling collapse strength of the stiffened bottom panels. As the result, differences in the buckling collapse strength of the stiffened bottom panels between the Ship and other container ships were identified and it was found that the possibility of the occurrence of the buckling collapse of the stiffened bottom panels in the Ship was relatively higher than in the other container ships.

As the result of these investigations, it has

been concluded that the following two strength assessments are important in order to prevent the occurrence of similar fracture accidents.

1. Assessment of hull girder ultimate strength with consideration of the effect of lateral loads such as bottom sea pressure and container loads
2. Assessment of buckling collapse strength of the stiffened bottom panels

ClassNK carried out both of these two assessments on all of its 8,000TEU class container ships in addition to inspections of the bottom shell plating and confirmed their sufficient structural safety.

Action Plan for the Structural Safety of Large Container Ships

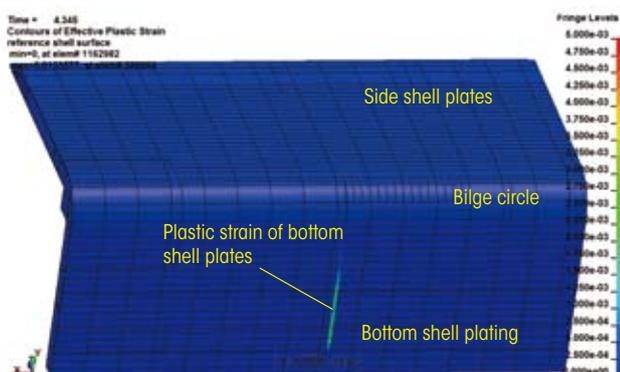
In light of the outcomes of the investigations, ClassNK is now reviewing the relevant rules such as on the assessment of hull girder ultimate strength in consideration of the effect of lateral loads and so on. The amended rules will be released in autumn 2015.

As part of ClassNK's contribution towards the

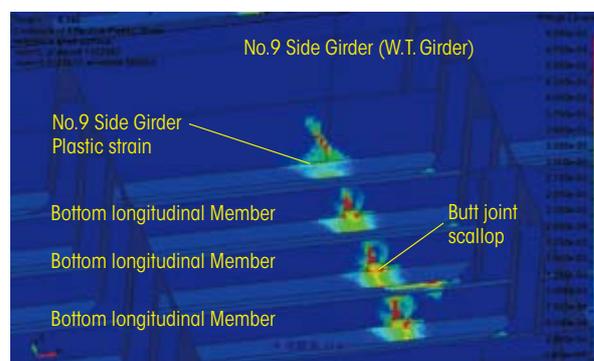
actions for the safety of large container ships by IACS, ClassNK also met with IACS members in October 2014 to explain the contents of NK Report.

ClassNK has carried out investigations on the serious fracture accident with all possible resources. The conclusions and findings of

the investigations are extremely valuable in contributing towards the structural safety of large container ships. ClassNK will use these outcomes of the investigations to further work towards the structural safety of large container ships.



Example 3) Result of 3-hold model elasto-plastic analysis (plastic strain on the bottom shell plates at stage of hull girder ultimate strength)



Example 4) Result of 3-hold model elasto-plastic analysis (plastic strain inside double bottom structure at stage of hull girder ultimate strength)

Worldwide Service Network

ClassNK maintains an ever expanding global service network. As of December 2014, this network is comprised of 130 survey offices and six plan approval centers in Tokyo (Head Office), Busan, Shanghai, Singapore, Istanbul and Mumbai.

⊙...Offices with Plan Approval Centers



New Offices Opened in 2014

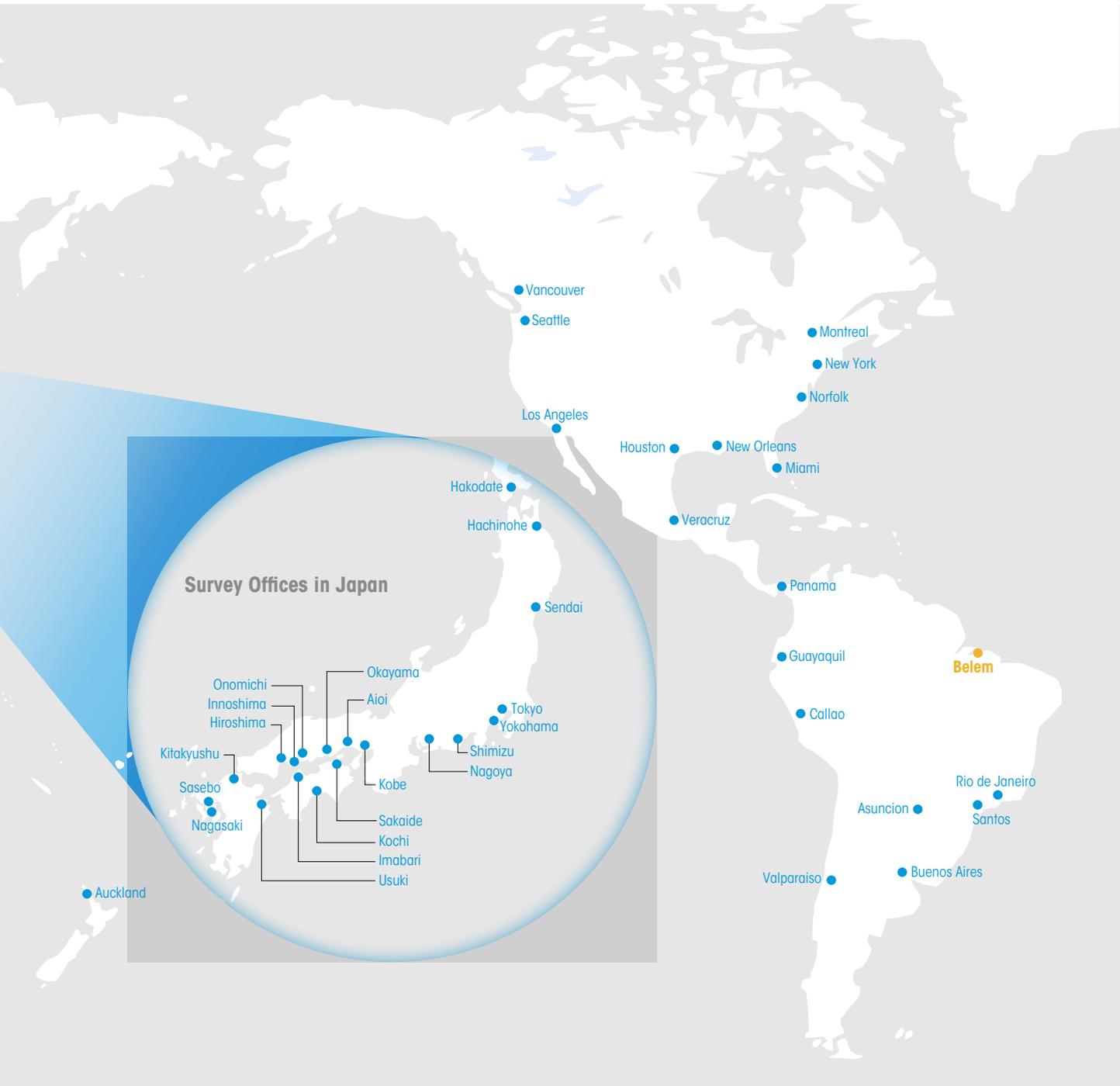
1 Jan.

Casablanca, Morocco

15 Apr.

Belem, Brazil

●...New Exclusive Survey Offices



ClassNK in Action

ClassNK maintains an ever expanding global service network of 130 survey offices and six plan approval centers in major port cities and shipbuilding regions around the world. More than 20 million gross tons were added to the ClassNK register in 2014, marking the fourth straight year that ClassNK has registered an annual total of more than 20 million gross tons.

Class Surveys and Statutory Surveys

Class Surveys

Over the course of the year, ClassNK surveyors carried out a total of 15,028 classification surveys around the world. Of these, 833 were initial surveys, and 14,195 were class maintenance surveys.

Statutory Surveys

As of the end of 2014, ClassNK is authorized to carry out surveys and issue certificates in accordance with international conventions or domestic laws by more than 100 flag administrations around the world. In 2014, ClassNK carried out inspections and issued more than 34,000 statutory certificates based on these authorizations as follows:

- International Tonnage certificates: 980
- International Load Line certificates: 2,829
- SOLAS related certificates: 16,632
- MARPOL related certificates: 12,463
- Anti-fouling system certificates: 1,364

ISM/ISPS Audits and MLC Inspections

Over the course of the year, ClassNK newly registered 63 companies and 954 ships in accordance with ISM requirements, bringing the total number of companies and vessels registered with ClassNK to 686 companies and 5,534 ships respectively. As of the end of 2014, ClassNK is authorized to conduct ISM audits on behalf of 82 Administrations. ClassNK registered 897 ships to ISPS Code requirements during the year, bringing the total number of ships registered with ClassNK to 4,933. ClassNK currently conducts ISPS audits on behalf of 65 Administrations. ClassNK registered 852 ships to MLC requirements during the year,

bringing the total number of ships registered with ClassNK to 4,754. ClassNK currently conducts MLC inspections on behalf of 54 Administrations.

New services for incoming regulations

Over the past few years, the IMO has adopted a number of new conventions to address environmental issues facing the maritime industry, including the Ballast Water Management Convention and the Ship Recycling Convention. ClassNK offers a wide variety of certification services to support owners' efforts to achieve compliance with new regulations. In 2014, ClassNK issued numerous certificates or statements of compliance in accordance with new conventions, including the following:

- Ballast Water Management System certificates: 305
- Ship Recycling Facility certificates: 1
- Inventory of Hazardous Materials: 143



ACER ARROW
35,503 gt GENERAL CARGO built by NANTONG COSCO KHI SHIP ENGINEERING CO., LTD. for MMSL PTE LTD



ADAM LNG
105,975 gt LNG CARRIER built by HYUNDAI HEAVY INDUSTRIES CO., LTD. for OMAN SHIPPING COMPANY S.A.O.C.



AL FUNTAS
165,178 gt OIL CARRIER built by DAEWOO SHIPBUILDING & MARINE ENGINEERING CO., LTD. for KUWAIT OIL TANKER COMPANY S.A.K.



Approval of manufacturers and service suppliers

In addition to classification and convention related surveys, ClassNK also carries out audits and certifications for companies who provide testing and measurement services related class and equipment maintenance surveys. As part of these activities, ClassNK certified the following number of firms in 2014:

1. Thickness measurements on ships: 24
2. In-water survey of ships: 39
3. Radio inspection services: 19
4. Voyage Data Recorders (VDR): 12
5. Maintenance of firefighting systems and equipment: 35
6. Maintenance of life saving equipment and appliances: 14
7. Tightness Testing of Hatches with Ultrasonic Equipment: 1
8. Services of Lifeboats, Launching Appliances and On-load Release Gear: 33
9. Testing of Coating System: 3

Port State Control (PSC)

As with previous years, the Society continues to work with the managers and owners of detained vessels to help improve ship conditions and increase safety awareness. To this end, the ClassNK Survey Operations Headquarters published its Annual Report on Port State Control in August 2014, a compilation and analysis of PSC related statistics for the previous year, and distributed it to ship owners, ship managers and other stakeholders. In addition, high-ranking ClassNK staff visited key maritime authorities around the world, including Maritime New Zealand, Australian Maritime Safety Authority (AMSA), United States Coast Guard (USCG), Transport Canada, China MSA and Korea Ministry of Oceans and Fisheries during the course of the year. ClassNK also sent representatives to bilateral China-Japan meetings, held in Yokohama, Japan, to

discuss inspection related matters and present on ClassNK efforts being taken to reduce the detention ratio of ClassNK classed ships.



APINYA NAREE
15,198 gt CEMENT CARRIER built by SHANHAIGUAN NEW SHIPBUILDING INDUSTRY CO., LTD. for ABC TWO PTE. LTD.



ARIES LEADER
69,931 gt VEHICLES CARRIER built by SHIN KURUSHIMA DOCKYARD CO., LTD. for YUGAO SHIP HOLDING S.A.



CHEM HOUSTON
12,129 gt OIL/CHEMICAL CARRIER built by KITANIHON SHIPBUILDING CO., LTD. for CHEM HOUSTON SA

Certification Services

Quality, Environmental Management, and Occupational Health & Safety Management Systems

ClassNK also provides certification services for quality management systems under the ISO 9001 standard, environmental management systems under the ISO 14001 standard, and occupational health and safety management systems under the OHSAS 18001 standard. In 2014, ClassNK certified a total of 74 organizations in line with ISO 9001, bringing the total number of organizations registered with the Society to 514. ClassNK also provided certifications to 10

organizations in line with ISO 14001 and 13 organizations in line with OHSAS 18001 bringing the total number of organizations registered to 134 and 25 respectively.

New Services

In addition to Quality Management, Environmental Management, and Occupational Health & Safety Management Systems, ClassNK also provides a variety of other certification services. In 2014, ClassNK issued the following certifications as part of these activities.

- Maritime Education & Training: 39
- Seafarer Recruitment and Placement Services (MLC): 64
- Verification under CSI (Clean Shipping Index): 6
- Road Traffic Safety Management Systems (ISO 39001): 7
- Energy Management Systems (ISO 50001): 3
- HSE (Health, Safety & Environment) Management Systems: 2

Certification Services for Renewable Energy Technologies

ClassNK provides certification services for a range of renewable energy technologies, including classification surveys for floating offshore wind turbine structures, certification for small wind turbines, and design evaluation for large wind turbines.

At the end of 2014, ClassNK had completed classification surveys and registration for two floating offshore wind turbines and two wind

condition observation towers in Fukushima and Nagasaki prefecture, both for projects lead by the Japanese government. ClassNK has also performed type certification for 10 different types of small wind turbines and design evaluation for one large wind turbine.

In recent years the global need for renewable energy that utilizes not only offshore wind power, but also wave power, tidal currents, ocean

currents and ocean thermal energy conversion, has been rapidly growing. In order to respond to the diversifying needs of the industry, ClassNK established the Renewable Energy Department in October 2014, combining activities of both the Wind Energy Unit and the Marine Energy Unit in order to oversee a diverse range of services related to the certification of renewable energy technologies.



FUKUSHIMA KIZUNA
Offshore Floating Unit
built by Japan Marine United Corporation Yokohama
Shipyard Isogo Works



FUKUSHIMA MIRAI
Offshore Wind Turbine Unit
built by Mitsui Engineering & Shipbuilding Co., Ltd. Chiba Shipyard



HAENKAZE
Offshore Wind Turbine Unit
built by Toda Corporation

Photography By Hoichi Nishiyama

Technical Services

During 2014, ClassNK issued Statements of Compliance to 50 vessels under the Society's Condition Assessment Program (CAP). Statements of Compliance were also issued for the ballast water management plans of 565 ships. As of the end of 2014, the aggregate total number of Statements of Compliance issued by the Society stood at 381 for CAP and 6,869 for ballast water

management plans. No one is immune to the risk of incidents at sea as the rate of ship casualties in recent years can testify. The Society's Emergency Technical Assistance Service (ETAS) team is on call 24/7 to support the owners and operators of ships registered for this service in ensuring the safety of their vessels and minimizing the environmental impact if disaster should strike. In 2014, this team

was called into action for two incidents related to maritime casualties to provide technical support. In 2014, 155 vessels newly registered for the Society's ETAS service, bringing the total number of vessels registered for the service to 1,263.

Educational & Training Services

ClassNK Academy

Drawing upon its extensive expertise in the survey of ships and audit of ship management systems, ClassNK established the ClassNK Academy in

2009 to provide the necessary basic knowledge to those involved in the shipbuilding, maintenance, and transport industries. Over the course of 2014,

more than 4,200 participants took part in ClassNK Academy courses held in 18 countries around the world. Courses offered during 2014 included:

Courses Related to Newbuildings

- Classification Societies and Statutory Issues Course
- New Shipbuilding Course (Hull)
- New Shipbuilding Course (Machinery & Electrical Installations)
- Material and Welding Course

Courses Related to Existing Ships

- Damage (Hull) Course
- Damage (Machinery and Electrical Installations) Course
- Safety Equipment Course
- Port State Control (PSC) Course

Courses Related to Ship Management

- Incident Investigation & Analysis Course and Risk Management Course
- ISM Internal Audits Course



CHERRY (2)
310 gt PASSENGER SHIP built by NAKATANI SHIPBUILDING CO., LTD. for INLAND WATER TRANSPORT, MINISTRY OF TRANSPORT, REPUBLIC OF THE UNION MYANMAR



CRYSTAL STAR
43,432 gt BULK CARRIER built by SANOYAS SHIPBUILDING CORPORATION MIZUSHIMA SHIPYARD for SOUTHERN ROUTE MARITIME, S.A.



DAIWAN BRAVE
21,514 gt BULK/LUMBER CARRIER built by NAMURA SHIPBUILDING CO., LTD. IMARI SHIPYARD & WORKS for KATAGALAN STAR S.A.

Training

ClassNK actively runs and participates in a number of different training activities both for internal staff development and in cooperation with external organizations. These training programs cover everything from surveyor training to internships, lectures, and other cooperative training programs designed to meet the needs of government agencies and the maritime industry. Some of the more notable training programs ClassNK conducted in 2014 are briefly introduced below.

Surveyor Training

In order to provide an unparalleled quality of service to its clients, the Society is dedicated to maintaining and improving the quality of its surveyors. To this end, ClassNK conducted a range of surveyor training programs for 92 surveyors around the world during the year. In addition to the training provided by the Society's Head Office, 60 surveyors also underwent additional survey training at one of the Society's local offices either in Japan or overseas, as well as underwent specialized engine training conducted at the Yanmar Co. Ltd.'s Amagasaki Factory T.T. School.

Marine Management Systems Auditor Training

ClassNK conducted Maritime Security Auditor training for 18 surveyors at the Society's Training Center in Japan as well as for 56 surveyors at its Shanghai, Singapore and London Offices.

Maritime Labor Inspector Training

ClassNK conducted Maritime Labor Inspector training for 18 surveyors at its Training Center in Japan as well as for 42 surveyors at the Society's Shanghai, Singapore, Genova, London, New York, Dubai and New Orleans Offices.

Internships

In response to requests from numerous universities ClassNK offered 17 internships to students from Japan and Indonesia.

Lectures at the Eastern Japan Training Center for Shipbuilding Skills

At the request of the Eastern Japan Training Center for Shipbuilding Skills, the Society presented lectures on defective welding to technical staff members new to the field of shipbuilding.

Lectures at the Innoshima Technical Center

At the request of the Innoshima Technical Center, the Society presented lectures on "Case Studies of Ship Damage and Lessons Learned" to staff members at the Center.

Lectures for the Japan Coast Guard

In 2014 ClassNK conducted a lecture at the request of the Japan Coast Guard (JCG), on "Outline of ISO9000" at its Seminar for ship technology officers.

Cooperation with the International Mariners Management Association of Japan and the All Japan Seamen's Union

Following a request from the International Mariners Management Association of Japan and the All Japan Seamen's Union, ClassNK provided lectures on ship classification societies, maritime conventions, classification surveys, and convention surveys for a training course held by Japan Marine Science Inc. for junior technical superintendents.

Cooperation with JICA

Following a request from Japan International Cooperation Agency (JICA), the Society also presented lectures on the SOLAS and MARPOL conventions as well as on newbuilding surveys at the "Group Training Course in International Maritime Conventions and Ship Safety Inspection" held by the Ship Research Centre of Japan for maritime officials from various countries overseas.



DIGNITY
106,804 gt BULK CARRIER built by BOHAI SHIPBUILDING HEAVY INDUSTRY CO., LTD. for OLYMPIAN QUEEN SHIPPING LIMITED



EVER LUCID
99,998 gt CONTAINER CARRIER built by CSBC CORPORATION, TAIWAN, KAOHSIUNG SHIPYARD for EVERGREEN MARINE CORP. (TAIWAN) LTD.



EXECUTIVE STRIDE
3,383 gt MULTIPURPOSE PLATFORM SUPPLY & SUPPORT VESSEL built by COLOMBO DOCKYARD PLC for EAGLE HIGH (L) LTD.

ClassNK Technical Seminars

Providing our customers with the latest technical information is one of our top priorities. ClassNK holds various technical seminars in order to provide the shipping and shipbuilding industries with the latest technical information. The following are just some of the presentations held by ClassNK at Technical Seminars in 2014:

- Recent deficiencies & Trends of PSC
- LNG Fuelled Ships - Current Trends and ClassNK Activities
- Movement of NOx Reducing Technologies
- Updated and Advanced Information for Ballast Water Management
- Recent Topics at IMO

PrimeManagement Seminars

ClassNK has been providing its integrated PrimeManagement System for management system certifications (ISO etc.), training course certification and certification for ISM Code among others since 2011. Over the course of 2014, PrimeManagement Seminars were held in Philippines, Germany and Taiwan. The following are just some of the presentations held by the seminars:

- The amendments of MLC 2006
- Implementation and PSC Inspection MLC 2006



FRONTIER ZONE
92,380 gt BULK CARRIER built by TSUNEISHI HEAVY INDUSTRIES (CEBU), INC. for WHITE REEFER LINE CORP.



GALAXY RIVER
46,885 gt LPG (LOW TEMP.) built by KAWASAKI HEAVY INDUSTRIES, LTD. SHIP & OFFSHORE STRUCTURE COMPANY SAKAIDE SHIPYARD for K&S MARINE 2 S.A.



GOODWOOD
59,516 gt VEHICLES CARRIER built by IMABARI SHIPBUILDING CO., LTD. MARUGAME HEADQUARTERS for FAIR WIND NAVIGATION, S.A.

ClassNK in Research

In order to fulfill its mission of protecting life, property at sea and the maritime environment, ClassNK carries out a wide variety of classification related research & development, as well as actively participates in joint development projects with industry partners to address the broad needs of the maritime industry.

Joint R&D for Industry

ClassNK contributes to the development of the maritime industry by providing technical & financial support for innovative R&D based on proposals from maritime stakeholders. At the end of 2014, more than 190 projects had been completed as part of this program with approximately 120 further projects underway. In 2014 alone, 50 projects in a variety of different fields shown in the table to the right were completed, some of which are introduced below.

	Category	Number
I.	Countermeasures to new conventions and regulations	19
II.	Software	11
III.	Technologies	7
IV.	Offshore	2
V.	Others	11

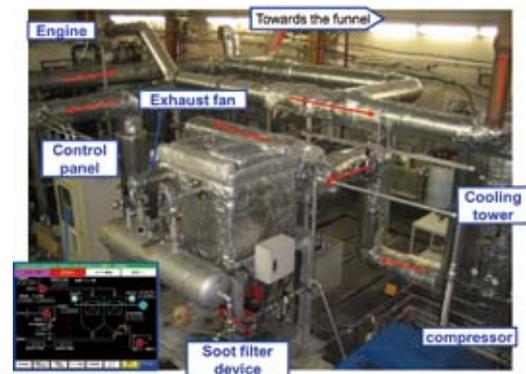
I. Countermeasures to new conventions and regulations

Research and development on soot filter for main engine

As a measure to reduce particulate matter (PM) emissions in exhaust gases of diesel engines, this project aimed to develop a particulate filter for a large scale 2-cycle main engine in addition to investigating the development of optimized combinations with other exhaust gas treating equipment such as Selective Catalytic Reduction (SCR) systems.

Participants:

- Daiichi Chuo Kisen Kaisha
- National Maritime Research Institute
- NGK Industries, Ltd.



Development of software for inboard noise prediction

This project aimed to develop a software program that meets the International Maritime Organization's (IMO) regulations regarding inboard noise predictions, which were strengthened in order to improve the living environment of the crew.

Participants:

- The Hakodate Dock Co., Ltd.
- Naikai Zosen Corporation
- Onomichi Dockyard Co., Ltd.
- Namura Shipbuilding Co., Ltd.
- Sanoyas Holding Corporation
- Shin Kurushima Dockyard Co., Ltd.
- Imabari Shipbuilding Co., Ltd.
- Sasebo Heavy Industries Co., Ltd.
- Oshima Shipbuilding Co., Ltd.
- Tsuneishi Shipbuilding Co., Ltd.
- Tokai University



II. Software

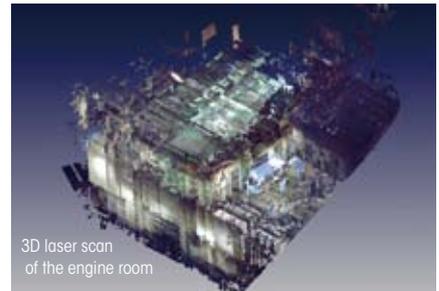
Research and development of 3D modeling system optimized for installation of ballast water management system

This project aimed to utilize point cloud data in order to create 3D models necessary for the retrofitting of ballast water management systems in existing ships.

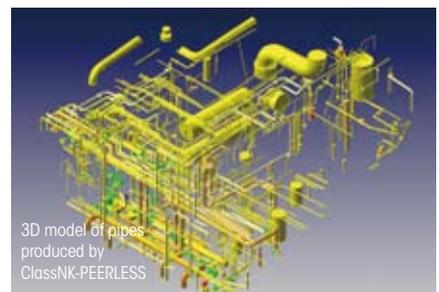
※ The results from this project lead to the successful development of 3D modeling system "ClassNK-PEERLESS".

Participants:

- S.E.A Systems. Inc.
- NYK LINE
- Mitsui O.S.K. Lines, Ltd.
- Kawasaki Kisen Kaisha, Ltd.
- Sasebo Heavy Industries Co., Ltd.
- Sanwa Dock., Ltd.
- Monohakobi Technology Institute
- The University of Tokyo
- Armonicos Co., Ltd.
- ClassNK Consulting Service Co., Ltd.



3D laser scan of the engine room



3D model of pipes produced by ClassNK-PEERLESS

Research and development of common format and interface program for CAD data of ship hull

This project aimed to develop program interfaces with commercial CAD and rule calculation software to automate and streamline parts of the ship hull design process.

Participants:

- Imabari Shipbuilding Co., Ltd.
- Oshima Shipbuilding Co., Ltd
- Onomichi Dockyard Co., Ltd.
- Kawasaki Heavy Industries, Ltd.

- Sasebo Heavy Industries Co., Ltd.
- Sanoyas Holding Corporation
- Japan Marine United Corporation
- Shin Kurushima Dockyard Co., Ltd.
- Sumitomo Heavy Industries Marine & Engineering Co., Ltd.
- Tsuneshi Shipbuilding Co., Ltd.
- Namura Shipbuilding Co., Ltd.
- Mitsui Engineering & Shipbuilding Co., Ltd.
- Mitsubishi Heavy Industries, Ltd.
- IVIS, Inc.
- Exa Corporation
- S.E.A. Systems



Data coordinating process

III. Technologies

Development of Power Assist Sail

This project involved the development of Power Assist Sail, a sailing rig that effectively uses the wind as a power source to reduce CO2 emissions and improve fuel efficiency.

Participants:

- Mitsui Engineering & Shipbuilding Co., Ltd.
- Mitsui O.S.K. Lines, Ltd.
- Akishima Laboratory (Mitsui Zosen) Inc.



Power Assist Sail

IV. Offshore

Research and development of hydrogen and carbon dioxide producing / shipping FPSO

This project aimed to design an FPSO capable of producing hydrogen and carbon dioxide from crude oil associated gas and verify the safety, reliability and viability of the new concept.

Participants:

- Mitsubishi Heavy Industries, Ltd.
- Chiyoda Corporation



H2-CO2 FPSO

V. Others

Research and development of duplex steel for practical application to chemical tankers

This project aimed to establish guidelines for the structural designing and welding process of duplex steel through examinations, in order to help Japanese shipbuilders apply duplex steel welding technologies they are unfamiliar with.

Participants:

- Usuki Shipyard Co., Ltd.
- JFE Steel Corporation
- Nippon Steel & Sumikin Stainless Steel Corporation
- Taseto Co., Ltd.



Chemical Tanker applied duplex steel in its cargo tank
M/V "SUNRISE HOPE"
7,247gt CHEMICAL CARRIER built by USUKI SHIPYARD CO., LTD.
for HIRO NAVIERA S.A.

Study of small scale LNG carrier / bunkering ship with DF engine

This project aimed to create a preliminary design of a coastal LNG carrier/bunkering ship and investigate the engine, propulsion and tank system.

Participants:

- The Cooperative Association of Japan Shipbuilders
- Kobe Senpaku Kaisha
- Higaki Shipbuilding Co.,Ltd
- Sanwa Dock., Ltd.
- Izumi Steel Works, Ltd.
- Daihatsu Diesel MFG.Co.,Ltd.



LNG carrier/bunkering ship with DF engine

National Program for GHG Reduction

ClassNK participated in "Research and Development on GHG Reduction Technology" (FY2009-2012), a program launched by Japan's Ministry of Land, Infrastructure, Transport and Tourism to support the development of a variety of innovative technologies. ClassNK is also participating in "Next Generation Maritime Environmental Technology Development Program" (FY2013-), also lead by the Ministry and is always contributing towards the reduction of GHG emissions in the maritime industry. The following are 19 projects from the "Next Generation Maritime Environmental Technology Program", categorized into seven fields. Details and results of these projects will be made available once the program is completed.

I. Hull Resistance

- Development of biocide free super fuel saving antifouling paint
- Research, development, and ROI evaluation of a variety of energy saving techniques and devices for reducing bulk carrier CO2 emissions
- Development of an ultra-low roughness hull painting system and friction prediction methodology for actual ships using surface roughness parameters
- Development and evaluation of technology for retrofitting air lubrication systems on existing ships

II. Engine Efficiency and Waste Heat Recovery

- Use of a binary cycle power generation system to save energy and reduce GHG emissions from ships during slow steaming
- Demonstration of CO2 and NOx reductions of electronic controls and an EGR system on a low-speed 2-stroke marine diesel engine
- Development of a twin shaft propulsion plant for LNG carrier
- Development of a combined emission reduction system for marine main diesel engines

III. Propulsion Efficiency

- Development of an energy saving CP Propeller and control system

IV. Propulsion Plant

- Research and development of marine combined cycle systems
- Research and development of a hybrid power supply system using LNG reformed fuel cells

V. Fuel Conversion

- Research and development of an LNG fuel tank and fuel gas supply system for marine application
- Research and development of a 2-stroke gas engine with low pressure gas injection
- Development of a multi-fuel marine engine
- Development of an eco-friendly engine system

VI. Operational Efficiency

- Research and development of Smart Fleet Operation system
- Development of an advanced navigation support system

VII. Renewable Energy

- Development of wind/motor hybrid vessel "The Wind Challenger"

Research and Development related to Ship Classification

ClassNK carried out investigations on structural safety of large container ships in response to a serious accident of a large container ship in June 2013 to be the highest priority task.

ClassNK published the investigation report in September 2014 containing the findings, conclusions and the action plans.

ClassNK in International Affairs

International Maritime Organization (IMO)

As one of its many important international activities, ClassNK contributes to the International Maritime Organization (IMO) on a wide range of technical issues. In 2014, the Society attended the IMO meetings listed to the right as part of the Japanese Government delegation or as a representative of the International Association of Classification Societies.

Information regarding decisions on amendments to Conventions at the major IMO meetings such as Maritime Safety Committee (MSC) and the Marine Environment Protection Committee (MEPC) are regularly provided to ClassNK clients via email and are also uploaded to the IMO International Convention Calendar on the ClassNK website.

1st Session of the Sub-Committee on Ship Design and Construction

1st Session of the Sub-Committee on Pollution Prevention and Response

1st Session of the Sub-Committee on Human Element, Training and Watchkeeping

1st Session of the Sub-Committee on Ship Systems and Equipment

66th Session of the Marine Environment Protection Committee

93th Session of the Maritime Safety Committee

1st Session of the Sub-Committee on Implementation of IMO Instruments

1st Session of the Sub-Committee on Carriage of Cargoes and Containers

67th Session of the Marine Environment Protection Committee

94th Session of the Maritime Safety Committee



LEO SUNRISE
22,816 gt LPG (LOW TEMP.) built by HYUNDAI MIPO DOCKYARD CO., LTD. for LEO OCEAN PTE. LTD.



LINDA OLDENDORFF
107,413 gt BULK CARRIER built by HYUNDAI HEAVY INDUSTRIES, GUNSAN SHIPYARD for OLDENDORFF CARRIERS GMBH & CO. KG



LNG VENUS
136,710 gt LNG CARRIER built by MITSUBISHI HEAVY INDUSTRIES, LTD. NAGASAKI SHIPYARD & MACHINERY WORKS for OSAKA GAS INTERNATIONAL TRANSPORT INC. and MITSUI O.S.K. LINES, LTD.



International Association of Classification Societies (IACS)

At the International Association of Classification Societies (IACS), technical matters associated with the development and revision of Unified Requirements (UR) and Unified Interpretations (UI) are conducted by five Panels (Hull, Machinery, Safety, Environment and Survey) and the Project Teams under their control.

In 2014, ClassNK staff served as the Chair of the Expert Group on IMO Goal Based Standards (GBS) and the Project Manager of the Project Team on Container Ship Safety.

ClassNK contributed to the development of the Harmonized CSR (Common Structural Rules) and reflected the opinions of the industry through the Hull Panel as well as the Project Teams under its control.

In addition, ClassNK, as the Project Manager of the Project Team on Container Ship Safety, led the technical activities on the development of functional requirements of load cases for direct

strength analysis, and the new UR defining the unified load cases for container ships.

ClassNK participated in the IACS meetings in 2014 listed below.

Council Meetings	Twice
General Policy Group Meetings	Twice
Quality Committee Meeting	Twice
Expert Group Meetings (EU, Container Ships, etc. (5 Groups))	6 times
Panel Meetings (Hull, Machinery, Safety, Environment, Survey)	10 times
Project Team Meetings (12 Teams)	22 times
IACS/Industry Joint Working Group Meetings (EEDI)	3 times
Steering Committee Meeting (Strategy of IACS)	Once
Meetings with IMO Secretariat (GBS)	3 times
EMSA Workshop on Goal Based Standards (GBS)	Once
Container Ship Safety Workshop	Once



MORNING SWAN
44,009 gt PRODUCT CARRIER built by ONOMICHI DOCKYARD CO., LTD. for NAKATA MARITIME CORPORATION



RYUKYU EXPRESS 2
10,758 gt RO-RO CARGO/VEHICLES built by YAMANISHI CORPORATION for A'LINE FERRY CO., LTD.



SILVERMINE
40,885 gt BULK CARRIER built by OSHIMA SHIPBUILDING CO., LTD. for TURBO TACT LIMITED

Association of Asian Classification Societies (ACS)

The Association of Asian Classification Societies (ACS), was formed in 2010, following nearly two decades of informal meetings between its members.

In 2014, ClassNK led ACS technical activities as ACS Chair Society. ClassNK took the initiative of reforming the ACS organizational structure in order to enable efficient monitoring of IMO activities with a view to contribute to the development of more balanced international regulations, as well as developing ACS technical documents in order to keep pace with the developments of new regulations at IMO.

ClassNK also contributed to ACS independent Technical Seminar, and represented the association at the Asian Shipowners' Forum (ASF) and the Asian Shipbuilding Experts' Forum (ASEF). In 2014, ClassNK participated in the meetings below.



22nd Executive Committee Meeting

9th Technical Management Group Meeting

ACS Seminar on Shipping and Shipbuilding

10th Technical Management Group Meeting

22nd Executive Committee Meeting



SUMMIT SW
22,866 gt BULK CARRIER built by SAIKI HEAVY INDUSTRIES CO., LTD.
for SUMMIT PESCADORES S.A. PANAMA



TR OMAHA
36,353 gt BULK CARRIER built by JIANGSU HANTONG SHIP
HEAVY INDUSTRY CO., LTD. for LORD SHIPPING LIMITED



YUYO MARU
746 gt ASPHALT CARRIER built by ASAKAWA SHIPBUILDING CO., LTD.
for YOSHIDA KAIUN K.K.

International Committees

Committee	Date	Place
5th Turkish Technical Committee	22 January	Istanbul
12th Philippine Committee	5 February	Manila
20th Indian Committee	7 February	Mumbai
7th Middle East Technical Committee	25 February	Dubai
5th North American Committee	14 March	New York
23rd Greek Committee	8 May	Athens
12th Hong Kong Technical Committee	20 May	Hong Kong
19th China Technical Committee	22 May	Shanghai
12th British Committee	27 May	London
11th Turkish Committee	29 May	Istanbul
14th Taiwan Technical Committee	2 July	Taipei
11th Singapore Committee	9 July	Singapore
2nd Chile Technical Committee	4 August	Valparaiso
2nd Brazil Technical Committee	7 August	Rio de Janeiro
10th Malaysian Committee	8 August	Melaka
21st China Committee	21 August	Changbaishan
24th Danish Technical Committee	29 August	Copenhagen
25th Korea Committee	19 September	Seoul
18th Singapore Technical Committee	24 September	Singapore
15th Taiwan Committee	23 October	Taipei
40th Hong Kong Committee	23 October	Hong Kong
12th Thai Committee	31 October	Bangkok
4th Indian Technical Committee	7 November	Mumbai
21st Korea Technical Committee	12 November	Busan
6th Greek Technical Committee	18 November	Athens
5th Latin American Committee	1 December	Valparaiso
6th Turkish Technical Committee	3 December	Istanbul
12th Indonesia Committee	9 December	Jakarta



5th Latin American Committee



12th Indonesia Committee

Authorization Granted to ClassNK

As of the end of 2014

	TM	LL	SOLAS					MARPOL 73/78			
			SC	SE	SR	ISM	ISPS	I	II	IV	VI
Algeria	★	★	★	★	★		★	★	★		
Antigua and Barbuda	●	●	●	●	●	●	●	●	●	●	●
Argentina (*)											
Aruba		★	★	★	★	★		★	★	★	
Australia	●	●	●	●	●			●	●	●	●
Bahamas	●	●	●	●	●	●	●	●	●	●	●
Bahrain	●	●	●	●	●	●	●	●	●	●	●
Bangladesh	●	●	●			●	●	●	●	●	●
Barbados	●	●	●	●	●	●	●	●	●	●	●
Belgium	★	●	●	★	★	★	★	★	●	●	●
Belize	●	●	●	●	●	●	●	●	●	●	●
Bermuda	●	●	●	●	●	★	★	●	●	●	●
Bolivia (*)											
Brazil	●	●	●	●	●	●	●	●	●	●	●
British Virgin Islands	●	●	★	★	★	★		★		●	●
Brunei	●	●	●	●	●	●		●	●	●	●
Canada	★	★	★	★	★	★		★	★	★	★
Cape Verde	●	●	●	●	●	●		●	●	●	●
Cayman Is.	●	●	●	●	●	★	★	●	●	●	●
Chile	★	★	★	★	★	★	★	★	★	★	★
Comoros	●	●	●	●	●	★	★	●	●	●	●
Cook Islands	●	●	●	●	●	●	●	●	●	●	●
Curacao	★	★	★	★	★	★	★	★	★	★	★
Cyprus	●	●	●	●	●	★	●	●	●	●	●
Denmark	●	●	●	●	●	●	●	●	●	●	●
Djibouti	●	●	●	●	●			●	●		
Dominica	●	●	●	●	●	●	★	●	●	●	●
Dominican Republic	●	●	●	●	●			●	●		
Ecuador		★	★	★	★			★	★		
Egypt	★	●	★	★	★	★	★	★	★	★	★
Equatorial Guinea	●	●	●	●	●	★	●	●	●	●	
Fiji	★	★	★	★	★			★			
Finland		★	★	★	★	★		★	★	★	★
Gambia (*)											
Georgia	●	●	●	●	●	●	●	●	●	●	●
Germany		★	★	★	★	★	★	★	★	★	★
Ghana	●	●	●	●	★			●		●	
Gibraltar	●	●	●	●	●	★	★	●	●	●	●
Greece	●	●	●	●	●	●	●	●	●	●	●
Honduras	●	●	●	●	●	●		●	●		
Hong Kong	●	●	●	●	●	●	●	●	●	●	●
Iceland	★	●	●	●	●	●		●	●		
India	★	★	★	★	★			★	★	★	★
Indonesia	★	★	★	★	★			★	★	★	★
Iraq		★	★	★	★						
Ireland		●	●	★	●	●	●	●	●	●	●
Isle of Man	●	●	●	●	●	★	★	●	●	●	●
Israel	●	●	●	★	★	★		★			●
Jamaica	●	●	●	●	●	●	●	●	●	●	●
Japan		●	●	●	●	●	★	★	★	★	★
Jordan	●	●	●	●	●	●	●	●	●	●	●
Kenya		●									
Kiribati	●	●	●	●	●	●	●	●	●	●	●
Kuwait	●	●	●	★	★	★	●	●	●	●	●
Lebanon	★	●	★	★	★	★	★	★	★	★	★
Liberia	●	●	●	●	●	●	★	●	●	●	●
Libya	★	★	★	★	★	★	★	★	★		
Lithuania	●	●	●	●	●	★	★	●	●	●	●

	TM	LL	SOLAS					MARPOL 73/78			
			SC	SE	SR	ISM	ISPS	I	II	IV	VI
Luxembourg	●	●	●	●	●	●	●	●	●	●	●
Madeira	●	●	●	●	●	●	●	●	●	●	●
Malaysia	●	●	●	●	●	●	●	●	●	●	●
Maldives	●	●	●	●	●	●		●			
Malta	★	★	★	★	★	★	★	★	★	★	★
Marshall Is.	●	●	●	●	●	●	●	●	●	●	●
Mauritius	●	●	●	●	●	●	●	●	●	●	●
Mexico						●					
Morocco		●									
Mozambique		●						●	●	●	
Myanmar	●	●	●	●	●	●	●	●	●	●	●
Namibia	●	●	●	●	●			●	●	●	
Netherlands	●	●	★	★	★	●	●	●	●	●	●
Niue	●	●	●	●	●	●	●	●	●	●	●
Norway	●	●	●	●	●	●	●	●	●	●	●
Oman	●	●	●	●	●	●	●	●	●	●	●
Pakistan	●	●	●	★	★	★	●	●	●	●	●
Palau	●	●	●	●	●	●	●	●	●	●	●
Panama	●	●	●	●	●	●	★	●	●	●	●
Papua New Guinea	●	●	●	●	●			●			●
Paraguay						●					
Philippines	●	●	●	●	★	●	●	●	●		●
Portugal		★	★						★		
Qatar	●	●	●	●	●	●	●	●	●	●	●
Romania	●	●	●	●	●	★		●	●	●	●
Saudi Arabia	●	●	●	●	●	●	●	●	●	●	●
Serbia	●	●	●	●	●	●	●	●	●	●	●
Seychelles	●	●	●	●	●	●	●	●	●	●	●
Singapore	●	●	●	●	●	●	●	●	●	●	●
Solomon Is.	●	●	●	●	●						
South Africa	★	★	★			★	★	★	★	★	★
Sri Lanka	●	●	●	●	●			●			
St. Kitts and Nevis	●	●	●	●	●	●	●	●	●	●	●
St. Vincent and the Grenadines	●	●	●	●	●	★	★	●	●	●	●
Switzerland	●	●	●	●	●	●	●	●	●	●	●
Tanzania		●									
Thailand	★	★	★	★	★	★		★			
Tonga	●	●	●	●	●			●	●		
Tunisia		●	★					●			
Turkey	★	●	★	★	★	●	●	●	●	●	●
Tuvalu	●	●	●	●	●	●	●	●	●	●	●
UAE	●	●	●	●	●	●	●	●	●	●	●
Uganda		●									
UK(ACS)	●	●	●	●	●	★	★	●	●	●	●
Uruguay (*)											
USA	●	●	●	●		●		●	●		●
Vanuatu	●	●	●	●	●	●	●	●	●	●	●
Venezuela (*)											
Viet Nam	★	★	★	★	★	★		★	★		
Yemen		●									

Abbreviations :

- --Authority has been delegated.
- ★ --Authority has been delegated subject to some conditions.

TM: International Tonnage Certificate (1969)
 LL: International Load Line Certificate
 SC: Cargo Ship Safety Construction Certificate
 SE: Cargo Ship Safety Equipment Certificate
 SR: Cargo Ship Safety Radio Certificate
 ISM: International Safety Management Code
 ISPS: International Ship and Port Facility Security Code
 I, II, IV, VI: MARPOL Annex I, II, IV, VI

(*) : Authority has been delegated in accordance with international conventions or national regulations other than those listed in this table, or authority may be delegated on a case by case basis.

Organization

ClassNK in Committee

ADVISORY COUNCIL

Member	Chang Yung-fa Frank W. K. Tsao Sumate Tanthuwaniit	Group Chairman Group Chairman President	Evergreen Group IMC Group of Companies Regional Container Lines Group
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BRITISH COMMITTEE

Chairman	J. G. Davis CBE	Chairman	IMIF (International Maritime Industries Forum)
Member	F. M. Marchant MBE Douglas W. Lang Christopher Bailey Sunil Malhotra Michael G. Parker Epaminondas G. E. Embiricos Philip D Atkinson Lars T Ugland Alastair Fischbacher Adri R. Postema Michael K. Drayton John Kerr	Managing Director Vice President Operatoins Chief Operating Officer Chairman Chairman Technical Director CEO General Manager General Manager Former Chairman Operations Director	Anglo-Eastern (UK) Ltd. BP Shipping Limited British Marine Plc CMA CGM (UK) Holdings Limited Embiricos Shipbrokers Ltd. Graig Shipping Plc LT Ugland Management Limited Rio Tinto Shipping Limited Shipping and Maritime Technology & Innovation Shell International Trading and Shipping Company Ltd The Baltic Exchange V. Ships UK Limited

BRAZIL TECHNICAL COMMITTEE

Chairman	Paulo Roberto Neves Bezerra	Maritime Projects Manager	Department of Shipping & Distribution Vale S.A.
	Rosalvo S. Sales Jr.	Director	Business Development & Strategic Planning Amec KROMAV
Member	Frank Dambrin Carlos José Dias Michel P. Andrade Hiroshi Nishioka Takuya Fujita Soichiro Inoue Paulo Duprat Luiz Fernando Reis Junqueira Cesar Augusto de A. Lima Paulo Afonso da Cruz Silva Ricardo B. Portella Bertoldo Gancz Regina Maria Ozoria da Cruz Toshihiko Tsutsumi Nilton Gonçalves Atul Sethi	Managing Director Marine General Manager Engineering Manager Production Director Senior Staff Officer Vice-President Director Contract Manager Section Manager – C&A Shipbuilding Naval Architect and Marine Engineer Clearance and Vetting Manager Deputy Director Director Executive Manager of Engineering President General Technical Manager - PROMEF Country Manager	Bourbon Offshore Marítima Elcano, S.A. Estaleiro Atlântico Sul IHI do Brasil Representações Ltda. Poject Division Kawasaki Heavy Industries, Ltd. Mitsubishi Indústrias Pesadas do Brasil Ltda. OSX ENG-AB PETROBRAS LNG Shipping GAS & Energy PETROBRAS Maritime Transportation PETROBRAS Basic Design Division Projemar Rio Nave Serviços Navais Ltda. Construction and Assembly SETE Brasil SIGMAX TRANSPETRO UP OFFSHORE

CHILE TECHNICAL COMMITTEE

Chairman	Angel Canessa T.	Vice President Planning and Operations Shipmanagement	Compañía SudAmericana de Vapores S.A
Member	Rosauro Segovia Montenegro Gonzalo Araya Gajardo Santiago Tapia Carvajal Francisco Lopez Luis Bauerle Hugo Barra Carlos Contreras Muñoz Ramon Gatica Pablo E. Caceres Mogens Mellerup Carlos Bastías Nercelles	Technical Manager Chief of Maritime Inspections Services Fleet Technical Manager Superintendent Fleet Manager General Manager Fleet Head Manager Fleet Manager Towage Division Senior General Manager Operations Manager	Chile National Shipowners' Association DIRECTEMAR Empremar S.A. Logistics and Procurement Manager Humboldt Shipmanagement Naviera Chilena del Pacifico S.A. SOCIBER Sociedad Nacional Maritima S.A. Southern Shipmanagement (Chile) Ltda. Sudamericana Agencias Aereas y Maritimas S.A. Head of Handysize Operations Ultrabulk Ultratug

CHINA COMMITTEE

Chairman Member	Sun Jiakang	Executive Vice President	China Ocean Shipping (Group) Company (COSCO)
	Li Tian Bao	Board Chairman	Bohai Shipbuilding Heavy Industry Co., Ltd
	Wang Yongliang	President	Chengxi Shipyard Co., Ltd.
	Tao Jian	Secretary to the Board	China CSSC Holdings Limited
	Gao Yongjun	Manager	Fleet Planning Dept. Strategic Planning Div.
	Zhao Zhanjun	President	China Ocean Shipping (Group) Company (COSCO)
	Li Zhong	President	China Ship Design & Research Center Co., Ltd. Party Secretary Secretary of Discipline Inspection Commission
	Xu Ziqiu	Assistant President	China Ship News
	Dong Qiang	Vice President	China Shipbuilding Industry Corporation
	Lv Yi Bin	Senior Engineer, Senior Manager	China Shipbuilding Industry Corporation Technical Division Department of Science and Technology and Information
	Xu Xing	Deputy Director	China Shipping (Group) Company Ship & Ocean Engineering Dept.
	Hou Liping	Deputy Managing Director	China State Shipbuilding Corporation
	Li Rong	General Manager	COSCO Container Lines Co., Ltd.
	Li Cheng	Vice President	Cosco Shipyard Group Co., Ltd.
	Weidong Niu	Senior VP	Dalian Shipbuilding Industry Co., Ltd
	Sun Xing Tao	President	Far East Horizon Limited
	Henry Chiang	President	Fortune Ocean Shipping Limited
	Liu Shi Bao	Vice President	Greathorse Group
	Wang Yong	President	Hebei Ocean Shipping Co., Ltd.
	Yang Jian Ming	Managing Director	Hudong-Zhonghua Shipbuilding (Group) Co., Ltd.
Han Cheng Min	President	Jiangsu Ocean Shipping Company Ltd.	
Wang Hong	Chairman	Nantong COSCO KHI Ship Engineering Co., Ltd.	
Liu Gang	General Manager	Penglai Zhongbai Jinglu Ship Industry Co., Ltd.	
Franco Tian	General Consultant	Safargo Shipping Pte. Ltd.	
Liu Nan	Managing Director	Shanghai Anrita Shipping Co., Ltd.	
Liu Jianfeng	Assistant President	Shanghai Bestway Marine Engineering Design Co., Ltd Director of Science & Technology Dept.	
Xu Junfeng	CEO / President	Shanghai Waigaoqiao Shipbuilding Co., Ltd.	
Li Zhen	Assistant President	Sinochem Shipping Co., Ltd (Hainan) Sinotrans & CSC Holdings Co., Ltd.	

CHINA TECHNICAL COMMITTEE

Chairman Member	Zhao Zhanjun	President	China Ship Design & Research Center Co., Ltd.
	JP Chen	Technical Director	Asia Maritime Pacific
	Tian Zhengjun	Technical Director	Avic International Holding Corporation Avic-Dingheng Shipbuilding Co., Ltd.
	Bi Jian Yi	Deputy Chief Engineer	Bohai Shipbuilding Heavy Industry Co., Ltd.
	Wang Xinquan	General Manager Assistant	China Cosco Bulk Shipping (Group) Co, Ltd.
	Zhang Lelong	Manager	Fleet Planning Department, Strategic Planning Division China Ocean Shipping (Group) Company
	Chen Jian	Deputy Managing Director	China Shipping Development Co., Ltd.
	Wang Guorong	Managing Director	Tanker Company
	Cai Deqing	Senior Chief Engineer General Manager	COSCO Bulk Carrier Co., Ltd.
	Zhan Shuming	Chief Engineer	Safety & Technology Management Division
	Jiang Jiazhong	Vice Director	COSCO Container Lines Co., Ltd.
	Li Dong	General Manager	COSCO Shipyard Group Co., Ltd.
	Gao Cheng Gang	General Manager	CSC Jinling Shipyard
	Zhao Jin Wen	General Manager	Dalian Chun An Ship Management Co., Ltd.
	Yang Wei Zan	Senior Chief Engineer Deputy Technical Director Senior Engineer	Dalian Master Well Ship Management Co., Ltd Safety & Technical Division Dalian Ocean Shipping Company
	Chen Yu	Managing Director	Dalian Shipbuilding Industry Co., Ltd.
	Zhang Minghua	Vice President, Senior Engineer CMAC Arbitrator	Dalian Tiger Shipping Ltd. Evergreen Holding Group
	Wang Wei Bin	Deputy General Manager	Ship Management Division Guangzhou Ocean Shipping Co., Ltd.
	Mai Rong Zhi	Assistant President Vice Chief Engineer Technical Center Manager Director	Guangzhou Shipyard International Co., Ltd.
	Lou Dan Ping	Deputy Chief Technical Officer	Hudong-Zhonghua Shipbuilding (Group) Co., Ltd.
Zheng Shijun	Vice General Manager	Shipping Department International Far Eastern Leasing Co., Ltd.	
Hu Keyi	Technical Director	Technology & Market Development Jiangnan Shipyard (Group) Co., Ltd. TDCC Office	

Member	Zhang Leshan	Technical Director	Jiangsu Hantong Ship Heavy Industry Co., Ltd.
	Peter Chen	Deputy General Manager	Jiangsu Ocean Shipping Co., Ltd.
	Sun Zhenglin	Deputy Technical Director	Jinhai Heavy Industry Co., Ltd
	Jin Qiang	Deputy Director	Merchant Ship Department
	Chen Xiangwang	General Manager	Marine Design & Research Institute of China (MARIC)
	Goro Nishiyama	Vice President	Nanjing Ocean Shipping Co., Ltd.
	Wang Rongliang	General Manager	Senior General Manager of Central Technical Div.
	Li Yanjie	General Engineer	Nantong COSCO KHI Ship Engineering Co., Ltd.
	Deng Wenpeng	Vice General Manager / Chief Engineer	Noble Great Shipping Co., Ltd
	Ren Jian	Technology Director	Qingdao Beihai Shipbuilding Heavy Industry Co., Ltd
	Wang Dong	Senior Engineer	Certified Safety Engineer
	Yu Hong Bin	General Manager	Qingdao Winning International Ships Management Co., Ltd.
	Lu Junchen	General Manager	Qingshan Shipyard of SINOTRANS & CSC SBICO
	Shen Xiaodong	Deputy General Manager	Sainty Marine Design Corporation Ltd.
	Zhao Peicong	Chief Engineer	Sea Carrier Shipping Co., Ltd.
	Wang Gang - yi	Deputy Chief Engineer	Dalian Sea Carrier Co., Ltd.
	Chang Hua Ming	Director / Naval Architect	Shandong Shipping Corporation
	Ye Jinwen	Deputy Managing Director	Shanghai Costamare Ship Management Co., Ltd.
	Tao Ying	Senior Chief Engineer	Shanghai Hai Hua Shipping Co., Ltd..
	Gao Fu Quan	Chief Engineer	R&D Deptment
	Guan Qing Hui	Managing Director	Shanghai Merchant Ship Design & Research Institute, CSSC
	Liu Renjie	Senior Engineer	Shanghai Ocean Shipping Co., Ltd.
	Zhao Ye	Senior Engineer	Shanghai Shipyard Co., Ltd.
	Xiao Sen Yuan	Deputy Managing Director	Shanghai Waigaoqiao Shipbuilding Co., Ltd.
	Yang Chun	Deputy General Manager	Shanhaiguan New Shipbuilding Industry Co., Ltd
	Gao Yunqiang	Deputy General Manager	Shenzhen Ocean Shipping Co., Ltd
	Yan Jun	Vice Chief Engineer	Sinochem Shipping Co., Ltd. (Hainan)
	Du Cheng Zhong	Deputy General Manager	Aoxing Ship Management (Shanghai) Ltd.
			Sinopacific Shipbuilding Group Co., Ltd.
			SITC Ship Management Co., Ltd.
			Taizhou Kouan Shipbuilding Co., Ltd.
			Tianjin Xingang Shipbuilding Heavy Industry Co., Ltd.
			General Manager of Offshore
			Wuchang Shipbuilding Industry Co., Ltd.
			Yangzijiang Shipbuilding Group Ltd.

DANISH TECHNICAL COMMITTEE

Chairman	Jørgen Juncher Jensen	Professor, Head of Section Fluid Mechanics, Coastal and Maritime Engineering	DTU Mechanical Engineering Department of Mechanical Engineering Technical University of Denmark
Member	Nikolaj Andersen	Vice President	Head of Vessel Management Term A/S A/S Dampskibsselskabet TORM Axis Offshore A/S
	Erik Møller	Head of Technical Projects Technical Projects	BIMCO
	Lars Robert Pedersen	Deputy Secretary General	Danish Shipowners' Association
	Per Winther Christensen	Director	Eitzen Chemical
	Svend Anthonen	Vice President, Technical	Europe's Maritime Development Center in DK
	Peter Justesen	Board Member	ID Shipping A/S
	Lars Christiansen	Technical Director	Head of Regulatory Affairs
	Niels Bjørn L. Mortensen	Director	Maersk Maritime Technology
	Thomas S. Knudsen	Senior Vice President	Head of Marine Low Speed MAN Diesel & Turbo
	Per Sønderstrup	Head of Regulation, EMBA	Maritime Regulation and Manning Ministry of Business & Growth Danish Maritime Authority

GREEK COMMITTEE

Chairman	Charalambos N. Mylonas	Chairman	Transmed Shipping Ltd.
Member	Markos A. Nomikos	Director	A. M. Nomikos Transworld Maritime Agencies S.A.
	Nicolas Hadjiannou		Alassia NewShips Management Inc.
	Diamantis J. Angelakis		Anbros Maritime S.A.
	Tatiana V. Petalas		Carras (Hellas) S.A.
	Michael D. Chandris	Chairman	Chandris (Hellas) Inc.
	Antonios D. Faraklas	Managing Director	Chartworld Shipping Corporation
	Andreas N. Hadjiyiannis		Cyprus Maritime Co., Ltd.
	Semiramis Palios	Head of Technical Operations & Crew (Mechanical Engineer & Naval Architect)	Diana Shipping Services S.A.

Member	Dimitrios S. Tsolakis	President	DST Shipping Inc.
	Aristidis A. Efstathiou		Efnav Company Ltd.
	Philipos A. Efstathiou		Efnav Company Ltd.
	Anna G. Dracopoulos	Director	Empros Lines Shipping Co. SP. S.A.
	Ghikas J. Goumas	Director	Equinox Maritime Ltd.
	Kriton Lendoudis	Managing Director	Evalend Shipping Co. S.A.
	Nicolas A. Frangistas	Chief Executive Officer	Franco Compania Naviera S.A.
	George Fidakis	Chairman	Globus Maritime Ltd.
	Michael E. Veniamis	Director	Golden Union Shipping Co. S.A.
	N. D. Leventakis	Managing Director	Grecomar Shipping Agency Ltd
	Panagiotis Christodoulatos	Managing Director	Ikaros Shipping & Brokerage Co., Ltd.
	Dimitri-Frank Saracakis	Group CEO	Ionic Shipping Group
	Valentios Valentis	Managing Director	Konkar Shipping Agencies S.A.
	Constantinos D. Krontiras	Director	Kristen Marine S.A.
	Dimitris Z. Kritsas	President	Kritsas Shipping S.A.
	Alexis Kondilis	Director	Larus S.A.
	Panagiotis C. Laskaridis	Managing Director	Laskaridis Shipping Co. Ltd.
	George J. Souravlas	CEO	Load Line Marine S.A.
	Diamantis P. Diamantides	Managing Director	Marmaras Navigation Ltd.
	Dionysios Delaportas	General Manager	Meadway Shipping & Trading Inc.
	Theodore P. Angelopoulos		Metrostar Management Corp.
	Babis Ziogas	Managing Director	MFS Shipmanagement
	Angeliki Frangou	Chairman of the Board and Chief Executive Officer	Navios Maritime Holdings Inc.
	Basil E. L. Mavroleon		Niovis Shipping Co. S.A.
	Michael Bodouroglou	Chairman & CEO	Paragon Shipping Inc.
	Ted Petropoulos	Chairman	Petrofin Ship Management Inc.
	D. Marinos		Seastar Chartering Ltd.
	Dimitris E. Patrikios	General Manager	Springfield Shipping Co. Panama S.A.
	Harry N. Vafias	President-Chief Executive Officer	StealthGas Inc.
	George S. Livanos	Chairman	Sun Enterprises Ltd.
	Panagiotis N. Tsakos	President	Tsakos Shipping & Trading S.A.
	Michael M. Scufalos	Managing Director	Union Commercial Inc.
	I. Kehagias	F.I.C.S.	White Sea Navigation S.A.
	Ori Angel	Managing Director	XT Management Ltd.
	Diamandis J. Caloghiros	Managing Director	Z & G Halcoussis Co., Ltd.

GREEK TECHNICAL COMMITTEE

Chairman	Marios Stafilopatis		Byzantine Maritime Corporation
Member	P. E. Antonelos	General Manager	A. M. Nomikos Transworld Maritime Agencies S.A.
	Christos C. Hadjigeorgiou	Managing Director	Almi Marine Management S.A.
	George Laou	Technical Director	Alpha Bulkers Shipmanagement Inc.
	Dimitrios Athanasoglou	Technical Manager	Anbros Maritime S.A.
	Haris G. Giantzikis	Technical Manager	Arcadia Shipmanagement Co. Ltd
	Amir Geva	Managing Director	ASM Maritime
	Nikolaos A. Ioannou	Managing Director	Benelux Overseas Inc.
	Demetrios Koukoulas	General Manager	Cardiff Marine Inc.
		Technical Management Services	
		Dry Division	
	George Kourelis	General Manager	Cardiff Marine Inc.
		Technical Management Services	
		Tanker Division	
	Eleftherios A. Belessis	Technical Operations Manager	Carras (Hellas) S.A.
	Dionisios Kourouklis	Director Marine Operations	Chandris (Hellas) Inc.
	Vassilis A. Sarris	Fleet Manager	Chartworld Shipping Corp.
	George H. Paschalis	Technical Manager	Chian Spirit Maritime Enterprises Inc.
	Antonios Giantsis	Technical Manager	Cyprus Sea Lines Co. Ltd.
	George Kotsyfis	Technical Manager	Diana Shipping Services S.A.
	George Alexandridis	Naval Architect & Marine Engineer, Technical Coordinator	Dynacom Tankers Management Ltd
	Dimitrios A. Alifragis	General Manager	E. Nomikos Corp.
	Pantelis Chondros	Technical Manager	Efnav Company Ltd.
	Costas Petsas	Technical Manager	Empros Lines
	Leontios Pifaoulis	Technical Manager	Equinox Maritime Ltd.
		New Building Projects	
	Leonidas S. Zogopoulos	Technical Manager	Eurobulk Ltd.
	Stefanos Georgiou	Technical Manager	European Navigation Inc.
		Tankers Division	
	Dimitrios J. Fafalios	Director	Fafalios Shipping S.A.
	Dimitrios Theodoropoulos	Chief Operating Officer	Franco Compania Naviera S.A.
	Christoforos E. Andreadis	Technical Manager	Golden Union Shipping Co. S.A.
	Constantinos Tourlos	Fleet Director	Grecomar Shipping Agency Ltd
	Manolis G. Koutflakis	Director	Grecomar Shipping Agency Ltd
		Newbuilding Projects	
	Anastasios Kalogiannis	Technical Manager	Iolcos Hellenic Maritime Enterprises Co. Ltd.

Member	Demitris Vlassopoulos	Technical Manager	Ionic Shipping (Mgt) Inc.
	Dion Theodorou	Technical Manager	Konkar Shipping
	Takis Koutris	Managing Director	Kristen Marine S.A.
	John A. Yiannakenas	Technical Department	Kritsas Shipping S.A.
	Nick Argyros	Technical Director	Laskaridis Shipping Co. Ltd.
	Yannis Voulgaris	Technical Manager	Load Line Marine S.A.
	Kostas Symeonidis	Technical Manager	Lydia Mar Shipping Co. S.A.
	Michael D. Kapsorrachis	Technical Manager	Marine Trust Ltd.
	Theodoros Pavlidis	Technical Director	Metrostar Management Corp
	Stavros Daniolos	Technical Manager	Minerva Marine Inc.
	Nikolaos Balalis	Senior Vice President – Technical Director	Navios Tankers Management Inc.
	Costas Mitropoulos	Technical Director	NEDA MARITIME AGENCY Co Ltd
	Evangelos D. Laliotis	Naval Architect & Marine Engineer	Niovis Shipping Co. S.A.
	Paraskevas Koutsoukos	Managing Director & Technical Manager	Paradise Navigation S.A.
	John N. Ioannidis	Chief Operating Officer	Pavimar.S.A.
	Miltos Synefiis	Technical Director	Pleiades Shipping Agents S.A.
	George Hatzivasiliou	Technical Manager	Quintana Ship Management Ltd.
	Elias A. Galanopoulos	Managing Director	Regal Mare Inc
	Dimitris Andreadakis	Technical Director	Remi Maritime Corp.
	Michael Anagnostou	Managing Director	Roswell Tankers Corp.
	Achilleas Avlonitis	Technical Manager	S. Frangoulis (Ship Management) Ltd
	Dimitris C. Makris	Technical Manager	Springfield Shipping Co. Panama S.A.
	Apostolos P. Gavalas	Technical Manager	Starmarine Management Inc.
	Diamantis Andriotis	Technical Manager	Stealth Maritime Corporation S.A.
	Vassilis I. Peponis	Naval Architect & Marine Engineer, NTUA	Sun Enterprises Ltd.
		Director of Marine Operations	
	Dimitrios A. Heliotis	Technical Director	Target Marine S.A.
	Theo G. Baltatzis	General Manager	Technomar Shipping Inc
	Vasileios Lampropoulos	Technical Department Manager	Thenamaris Ships Management Inc.
	Nikolaos Arvanitakis	Technical Manager	Transmed Shipping Ltd.
	C. Dean Tseretopoulos	Naval Architect-Marine Engineer, MBA	Triple Tee International Ltd.
	Savvas D. Papadatos	Mechanical Engineer	Tsakos Shipping and Trading S.A.
		Special Projects & Claims Manager	
	Stylianios Smyrlakis	Naval Architect - Marine Engineer	TST International S.A.
		Fleet Director	
	Constantinos M. Metaxas	Technical Manager	Union Commercial Incorporated
	Takis Koutouras	Technical Manager	Z & G HALCOUSSIS Co. Ltd.

HONG KONG COMMITTEE

Chairman	Sabrina S. M. Chao	Chairman	Wah Kwong Maritime Transport Holdings Limited
Member	Y. Q. Huang	Vice President	China Merchants Energy Shipping Co., Ltd.
	Chen Xin Chuan	Deputy Managing Director	COSCO (H.K.) SHIPPING CO., LTD
	Robert Alexander Ho	President	Fairmont Shipping (HK) Ltd. & Affiliates
	Andrew Y. Chen	Chairman & Managing Director	Grand Seatrade Shipping Company Ltd.
	Arthur Bowring	Managing Director	Hong Kong Shipowners Association
	Frank W. K. Tsao	Group Chairman	IMC Group of Companies
	C. H. Lee	Deputy General Manager	Island Navigation Corporation International Ltd.
		Fleet Manager	
	Jack Hsu	Managing Director	Oak Maritime (H.K.) Inc., Ltd.
	Kwai Sze Hoi	Chairman & President	Ocean Longevity Shipping and Management Co., Ltd.
	Chanakya Kocherla	Chief Technical Officer	Pacific Basin Shipping (HK) Ltd.
	Lothair M. F. Lam	Vice President	Parakou Shipping Ltd.
	M. T. Yung	Director	Patt Manfield & Co., Ltd.
		General Manager	
		Shipping Division	
	Peter Cheng	Managing Director	Peter Cheng Naval Architect & Marine Consultant Ltd.
	Li Hua	Executive Director	Sinotrans Shipping Limited
		General Manager	
	Kenneth K.W. Lo	Chairman	Teh-Hu Cargocean Management Co., Ltd.
	Edward S. C. Cheng	Chairman	Unique Shipping (H.K.) Ltd.
	Pradeep Ranjan	Chief Operating Officer	Univan Ship Management Limited
	Wellington Koo	Executive Director	Valles Steamship Co., Ltd.
	Ray McNamara	Managing Director	Wallem Shipmanagement Limited

HONG KONG TECHNICAL COMMITTEE

Chairman	Peter Cheng	Managing Director	Peter Cheng Naval Architect & Marine Consultant Ltd.
Member	Marcel Liedts	Chief Operating Officer	Anglo-Eastern Group
	Alok Roy	Fleet Manager	Bernhard Schulte Shipmanagement (Hong Kong) Limited Partnership
	Vishal Khurana	Director & Chief Executive	Chellaram Shipping (Hong Kong) Ltd.
	Liu Yi Fan	Deputy General Manager	China Shipping (H.K.) Marine Co., Ltd.
		Senior Engineer	
	Chen Xin Chuan	Deputy Managing Director	COSCO (H.K.) SHIPPING CO., LTD
	Kishore S. Rajvanshy	Managing Director	Fleet Management Limited

Member	Lau Pong Sze Y. H. Shum Zhang Shiwei Li Kwok Hung Vipin Sachdeva	Managing Director Director Deputy General Manager Managing Director Vice President Fleet	Gold Bridge Shipping Ltd. Goldbeam International Limited Hong Kong Ming Wah Shipping Co., Ltd. IMC Shipping Services Co. Pte. Ltd. KC Maritime Ltd.
	Pan Zhong Shan Kenji Yamada	Director & General Manager General Manager Ship Management Division	Lihai International Shipping Limited New Asian Shipping Company, Limited
	Haruki Aono James S. C. Tai	Executive Director General Manager -cum- Technical Director Fleet Management Department	Northstar Ship Management Ltd. Orient Overseas Container Line Ltd.
	Harshavardhan Bhawe Kenneth Koo Anil Arora W. L. Hung	Technical Manager Group Chairman & Chief Executive Officer Head of Ship Management & Projects General Manager	Pacific Basin Shipping (HK) Limited Tai Chong Cheang Steamship Co. (H.K.) Ltd. Unique Shipping (H.K.) Limited Wah Kwong Ship Management (Hong Kong) Limited

INDIAN COMMITTEE

Chairman	K. M. Sheth	Executive Chairman	The Great Eastern Shipping Co., Ltd.
Vice Chairman	R. L. Pai		
Member	Y. K. Sood H. Ansari Ashok K. Srivastava A. K. Bahl Ashok V. Chowgule Cmde K Subramaniam Satish Kumar R. L. Pai Shri Ajithkumar Sukumaran A. R. Ramakrishnan M. P. Dhanuka Umesh C. Grover Shri Dilip Mehrotra Atul J. Agarwal S. Govindrajan Antony Prince Arun Kumar Gupta Sujata Naik Tolani	Advisor (Shipping) Visiting Professor (Insurance) Chief Executive Officer President (Shipping) Executive Director Chairman & Managing Director Managing Director Consultant Engineer & Ship Surveyor cum DDG(Tech) Managing Director Executive Director Technical & Marketing Chief Executive Officer Deputy Secretary Managing Director Managing Director President Chairman & Managing Director Technical & Offshore Services Chairperson	Arcadia Shipping Limited British Marine Plc Chowgule and Company Private Limited Cochin Shipyard Limited Dockendale Ship Management (India) Pvt. Ltd. -Energy, Infrastructure, Shipping Directorate General of Shipping Essar Shipping Limited GEE Limited Indian National Shipowners' Association IOMOU Port State Control Secretariat Mercator Limited Progressive Shipping Consultancy Services (PVT) Ltd. Smart Engineering and Design Solutions Ltd. The Shipping Corporation of India Ltd. Tolani Shipping Company Limited

INDIAN TECHNICAL COMMITTEE

Chairman	R. L. Pai	Consultant	-Energy, Infrastructure, Shipping
Member	K. Mantry Ashok Kumar Sharma C. D. Joseph P. Vinayakumar Dileep Krishnan D. V. Abeyasinghe B. N. Singh Ranjit Singh Rajeev Nayyer Brahma Mall S. C. Misra R. B. Urikouth Sudhish Nair S. M. Rai Maneesh Jha Hariroj P. H. S. Swaminathan Ajay Chatterjee David Birwadkar Indra Nath Bose Virendra Gharat	Associate Vice President - Projects Naval Architect Superintendent - Training Managing Director Director (Technical) Associate Professor & Consultant Department of Ship Technology General Manager (Projects & Engineering) General Manager Chief Technical Officer Sea Transportation Business Head S & P New Building Sea Transportation Business Vice President Professor Ex-Director General Manager (Ship Building) DPA Vice President (Technical) Head Ship Management Chief Engineer, F. I. Mar. E. Vice Principal & Head General Manager Director Principal & Head Vice President - Fleet Management General Manager – Quality, Safety & Training Director (Technical)	ABG Shipyard Ltd. Anglo-Eastern Maritime Training Centre Bernhard Schulte Shipmanagement (India) Private Limited Cochin Shipyard Limited Cochin University of Science and Technology(CUSAT) Colombo Dockyard PLC Dockendale Ship Management (India) Pvt. Ltd. Essar Shipping Limited Essar Shipping Limited Fleet Management India Pvt. Ltd. Indian Maritime University(IMU) Larsen & Toubro Limited Medallion Marine Private Limited Mercator Limited Samundra Institute of Maritime Studies Smart Engineering and Design Solutions Ltd. Synergy Maritime Private Limited The Great Eastern Institute of Maritime Studies The Great Eastern Shipping Co. Ltd.(GESCO) The Great Eastern Shipping Co. Ltd.(GESCO) Tolani Shipping Company Limited

INDONESIA COMMITTEE

Chairman	Widihardja Tanudjaja	Advisor	PT. Berlian Laju Tanker Tbk
Honorary Member	Oentoro Surya	Commissioner	PT. ARPENI PRATAMA OCEAN LINE Tbk.
Member	Antonius W. Sumarlin	Ex-President Director of PT Humpuss Intermoda Transportasi Tbk	Indonesian National Shipowners' Association
	Carmelita Hartoto	Chairman	Ministry of Transportation Republic of Indonesia
	Arifin Soenardjo, MH	Director of Marine Safety	
		Tanjung Priok Port Administrator	
	Kevin Wong	President Director	PT Buana Listya Tama Tbk
	Ir. Tjahjono Roesdianto	Director	PT Daya Radar Utama
	Riry Syeried Jetta	CEO	PT Dok Dan Perkapalan Surabaya
	Theo Lekatompessy	President	PT Humpuss Intermoda Transportasi Tbk
	Krisman Bahar	President Director	PT Indobaruna Bulk Transport
	Asmari Herry	Director	PT Samudera Indonesia, Tbk.
	Praditya Nirtara	President Director	PT. Adnyana
	Stephen Layarda	Managing Director	PT. Alpha Pacific Lines
	Iriawan Alex Ibarat	Chief Executive Officer	PT. Arpeni Pratama Ocean Line Tbk.
	Kasim Arifin	President Director	PT. Bumi Perkasa Bahtera
	Amir Gunawan	President Director	PT. Daya Radar Utama
	Yance Gunawan	President Director	PT. Dumas Tanjung Perak Shipyard
	Hendrato	General Manager	PT. Gesuri Lloyd
		Liner Division	
	H. Soenarto	President Director	PT. Gurita Lintas Samudera
	Joeswanto Karijodimedjo	President Director	PT. Janata Marina Indah
	Henry Djuhari	President Director	PT. Meranti Maritime
	Frank Menaro	Fleet Director	PT. Meratus Line
	M. Firmansyah Arifin	President Director	PT. PAL Indonesia
	Benny Winarto	President Director & CEO	PT. Pelayaran Caraka Tirta Perkasa
	Ganny Zheng	Director	PT. Pelayaran Tirtamas Express
	Rachmat Koentjoro	Managing Director	PT. Tanto Intim Line
	Johnson W. Sutjipto	Commissioner	PT. Wintermar Offshore Marine Tbk
	Handara A. Utomo	Chief Operating Officer	Soechi Lines

KOREA COMMITTEE

Chairman	Sung-Geun Lee	Executive Vice President / CTO	Daewoo Shipbuilding & Marine Engineering Co., Ltd.
Member	Hyon-Soo Bong	Executive Advisor	Hanjin Heavy Industries & Construction Co., Ltd.
	Lee Hwan-Ku	Senior Executive Vice President	Heung-A Shipping Co., Ltd.
	Oi-Hyun Kim	President & CEO	Hyundai Heavy Industries Co., Ltd.
		Shipbuilding & Offshore Engineering	
	Weon-Gil Choe	President & CEO	Hyundai Mipo Dockyard Co., Ltd.
	G. J. Ha	CEO	Hyundai Samho Heavy Industries Co., Ltd.
	Chang Hee Yoon	Chairman	KSS Line Ltd.
	Suh, Myung-Chun	President & CEO	Namsung Shipping Co., Ltd.
	Jin Bang Lee	Chairman	Overseas Shipping Corporation
	Sangbok Lee	C.E.O.	Pan Continental Shipping Co., Ltd.
	You-Sik Kim	Vice Chairman & CEO	Pan Ocean Co., Ltd.
	J. K. Kim	Executive Vice President & CMO	Samsung Heavy Industries Co., Ltd.
	Dao-Chan Chang	Advisor	Sea Explorers of Korea
	Chung Tae-Soon	Chairman	Sinokor Merchant Marine Co., Ltd.
	Seog-Hwan Kang	Chief Operating Officer	SK Shipping Co., Ltd.

KOREA TECHNICAL COMMITTEE

Chairman	Jeom Kee Paik	Professor	Pusan National University
		Department of Naval Architecture and Ocean Engineering	
Member	Dong Kon, Chang	Executive Director	Dae Sun Shipbuilding & Engineering Co., Ltd.
	ManSoo Kim	Sales Engineering Div.	Daewoo Shipbuilding & Marine Engineering Co., Ltd.
		Executive Vice President	
	Sun-Taek Lee	Head Of Hull Design	Daewoo Shipbuilding & Marine Engineering Co., Ltd.
		Director	
		Integrated Design Team	
	Sung-Ryool Kim	Managing Director	Hanjin Heavy Industries & Construction Co., Ltd.
		Engineering Ship Sales Team2	
	Jong Man JO	Division Executive	Hanjin Ship Management Co., Ltd.
		Fleet Management	
	Cho, Hyun-Chan	Design Division	HHIC-TMS Co., Ltd.
		Deputy Managing Director	
	Lee Yun-Sik	Senior Vice President	Hyundai Heavy Industries Co., Ltd.
		Basic Design Office	
		Shipbuilding Division	
	Taeg-Gyu Lee	President	Hyundai Ocean Service Co., Ltd.
	Hyun-Sang Shim	Executive Vice President	Hyundai Samho Heavy Industries Co., Ltd.
		Head of Design Division	

Member	Seong Gyu, Song	Managing Director	KLC SM Co., Ltd.
	Jae-Sung Choi	Fleet Division Professor	Korea Maritime and Ocean University
	Keum-Taek Lim	Dept. of Marine System Engineering Managing Director	KSS Line Ltd.
	Yongsuk Suh	Marine Affairs Management Department Vice President	Samsung Heavy Industries Co., Ltd.
	Hangdok (Harry), CHO	Marine Research Institute Vice President / Head of Division	SK Shipping Co., Ltd.
	Chul-Ho Song	-Fleet Management Division -New Building Project Technical Managing Director	SPP Shipbuilding Co., Ltd.
	Myeong-Su Kim	Basic/Structure Design Team Busan R&D Center Division Manager / Vice President	STX Marine Service Co., Ltd
	Yeong-Pyo Kim	SM Division Vice President / Director	STX Offshore & Shipbuilding Co., Ltd.
	Jae-Woo Son	Shipbuilding & Offshore Design Division Senior Vice President	Sungdong Shipbuilding & Marine Engineering Co., Ltd
		Technical Division	

LATIN AMERICAN COMMITTEE

Chairman	Roberto Hetz Vorpahl	Chief Executive Officer	Sociedad Nacional Maritima S.A.
Member	Ricardo Vahia Alves de Souza	Director	Amec KROMAV
	Akira Itaki	Presidente	Astillero Tsuneishi Paraguay S.A.
	Javier Reyes Conde	Operations Manager of Marine Services	Blue Marine Technology Group
	Carlos H. Rodiño	General Manager	CIE S.A.
	Angel Canessa T.	Vice President Planning and Operations	Compañía SudAmericana de Vapores S.A.
	Godofredo Vergara	Shipmanagement Director	Consignataria San Miguel S.A. de C.V.
	Bartolome Carrera Santiago	Owner	Desarrollo Naviero Mexicano, S.A. de C.V.
	Danilo Moreno Oleas	General Manager	EP FLOPEC
	Marcelo de Mendonça Abreu	Engineering Manager - DRU Project	Estaleiro Atlântico Sul
	Cristian Widow	Deputy General Manager	Humboldt Shipmanagement
	Masao Nakayama	President	K Line Peru S.A.C
	José Luiz Nunes Ruiz	Principal Engineer	London Offshore Consultants Brasil Ltda.
	Ricardo dos Santos	Director	Navemar S.A.
	Ricardo Menezes	Operation and New Building Director	Ocean Pact
	Agenor Cesar Junqueira Leite	Advisor of Engineering Division	PETROBRAS
	Vladimir Contreras	Ingeniero Naval	Petróleos de Venezuela S.A.
	Tomazo Garzia Neto	President	Projemar
	Eduardo Balzarette	Commercial Manager	TANDANOR S.A.C.I. y N.
	Paul Casanova Claros	General Manager	Transgas Empresa Naviera
	Elizio Araujo Neto	Executive Manager	Transpetro
	Ruben Galindo Villanueva	Technical and Fleet Managing Director	TMM Group
	Alejandro Peluffo	Transportacion Maritima Mexicana S.A. de C.V. Manager - Shipowning Division	Ultrapetrol S.A.
	Nelson Luiz Coelho Alves	Shipping Engineering General Manager	Vale S.A.

MALAYSIAN COMMITTEE

Chairman	Datuk Nasarudin bin Md Idris	President/Chief Executive Officer	MISC BERHAD
Vice Chairman	Ir. Nordin Mat Yusoff	Vice President	MISC BERHAD
Member	Datuk Azmi Bin Ahmad	Group Technical Services	Alam Maritim Resources Berhad
	Thomas Ng Chin Keuan	Group Managing Director/CEO	Coastal Contracts Bhd.
	Dato' Ir. Abdul Hak B. Md. Amin	Executive Director	E.A. Technique(M) Sdn. Bhd.
	Billy Tan Gim Hoe	Managing Director	Ecoship Sendirian Berhad
	Dato' David Tan	Chairman	Everise Maritime Sdn. Bhd.
	Johari Mohd Noh	Managing Director	Gagasan Carriers Sdn Bhd
	Tan Sri Dato' Seri Halim Bin Mohammad	Managing Director	Halim Mazmin Bhd.
	Dennis Liang	Executive Chairman and Managing Director	Hub Shipping Sdn. Bhd.
	Datuk Dr. Elias Kadir	General Manager	Keretapi Tanah Melayu Berhad
	Azaharuddin Osman	President	Petronas Maritime Services Sdn. Bhd.
	Lawrence Wong	Chief Executive Officer	Sarawak Land Shipyard Sdn. Bhd.
	Lim Piau Wah	General Manager	Serudong Shipping Sdn. Bhd.
	Vincent Ling Lu Yew	Executive Director	Shin Yang Shipyard Sdn. Bhd.
	Datuk Lau Nai Hoh	Director	Tuong Aik Shipyard Sdn. Bhd.
	Paal Gunnulfsen	Group C.E.O. / Group M.D.	Wilhelmsen Ship Management Sdn. Bhd.
		Regional Manager WSM Asia	

MIDDLE EAST TECHNICAL COMMITTEE

Chairman	Jitendra Misra	Managing Director	Emarat Maritime
Vice Chairman	Ali A. Shehab	Deputy C.E.O. Fleet Operations	Kuwait Oil Tanker Company S.A.K.
Member	Haakon Johnsen	Senior Vice President (Operations)	ADNATCO-NGSCO
	M.R. Iliati	President & CEO	DeepSea OFFSHORE International
	V. V. N. Reddy	Fleet Manager	Dockendale Ship Management DMC CO
	Ali AlSuwaidi	Vice President	Drydocks World
		Business Development, Commercial & Project Management	
	Benny K. Alex	General Manager (New Buildings & Tech. Services)	Emarat Maritime
	Sheel Cabral	Technical Manager - Shipping	Gulf Petrochem DMCC
	Abdul Hayee	Fleet Manager	Gulf Stolt Ship Management
	Anil Cariappa	Technical Director	International Tanker Management Limited
	Jamil Al-Ali	Manager	Kuwait Oil Tanker Company S.A.K.
		Fleet New Building Project Group	
	Rahul Kapoor	Planning Manager	MUR Shipping DMC CO
	Masanori Hayashi	General Manager(FleetA)	Oman Ship Management Company
		Technical Department	
	Zaheer Babar Qureshi	Executive Director	Pakistan National Shipping Corporation
		Ship Management	
	A. Ramamurty	Sr. General Manager	Pioneer Ship Management Services L.L.C.
	Rostom Merzouki	Technical Superintendent	Qatar Gas Transport Company Ltd. (NAKILAT)
	Medjahed Benkablia	Senior Fleet Technical Superintendent	Qatargas Operating Company Limited
	Gamal Fekry	CEO	Red Sea Marine DMCC
	Naushad Azad	General Manager	Red Sea Marine Services Co. Ltd.
	A. Mansourzadeh	G. M. Technical	Simatech Shipping L. L. C.
	Mohammed El-Sayed Ahmed	Vice President - Fleet(acting)	United Arab Shipping Company (S. A. G.)
		Fleet Management	
	Abdulaziz A. Sabri	Fleet Operations Manager	Vela International Marine Limited
	N. V. K. Nambiar	Technical Manager	Warm Seas

NORTH AMERICAN COMMITTEE

Chairman	Alexis P. Zoullas	President	Eagle Shipping International (USA) LLC
Member	John Calicchio	Chairman	Apex Bulk Carriers LLC
	Royce C. Wilken	President	ARTCO
	John D. Noonan	Chief Executive Officer	Chembulk Tankers
	Inderjeet S. Aulakh	VP Shipping Operations	Dole Reefership Marine Services, Ltd.
	Osami Maeyama	President / C.O.O.	Dowa Line America Co., Ltd.
	Ramesh Bhat	Technical Director	Eagle Shipping International (USA) LLC
	Calvin W. S. Cheng	Chairman	Eastmark Associates, Inc.
	Byron M. Sugahara	President	Fairfield-Maxwell Services, Ltd.
	Charles Leung	Senior Vice President	Fairmont Shipping (Canada) Limited
	Michael M. Lee	President	Foremost Maritime Company LLC
	Ibrahim Mazman	President	Med Brokerage & Management Corp.
	Shunji Sasada	Chief Operating Officer	Navios Corporation
	Thomas H. Paterson	Vice President	Owned Fleet & Business Development Fednav Limited
	Ronald W. Tursi	President	Roymar Ship Management Inc.
	Samuel H. Norton	Chief Executive Officer	SeaChange Maritime LLC
	Rob Grool	President, Fleet Management	Seaspan Ship Management Ltd.

PHILIPPINE COMMITTEE

Chairman	Arben E. Santos	President & CEO	Southwest Maritime Group of Companies
Member	Doris Magsaysay Ho	President & Chief Executive Officer	A. Magsaysay Inc.
	Roy R. Alampay	Vice President for Operations & General Manager	Baliwag Navigation, Inc.
	Rogelio A. Torres	Vice-President	Eastern Shipping Lines, Inc.
		Traffic & Operations	
	Ahn, Jin Kyu	President	HHIC-Phil
	Siew Loon Leong	President	Keppel Batangas Shipyard (A division of Keppel Philippines Marine Inc.)
			Loadstar International Shipping, Inc.
	Teodoro G. Bernardino	President	Department of Transportation & Communications
	Maximo Q. Mejia Jr.	Administrator	Maritime Industry Authority
			MIS Maritime Corporation
	Edgardo G. Lacson	President	Philippine-Japan Manning Consultative Council of the Philippines
	Eduardo U. Manese	President	SMC Shipping and Lighterage Corporation
	Thomas A. Tan	President	Solid Shipping Lines Corporation
	Fausto C. Tiu	Executive Vice President	Tsuneishi Heavy Industries (Cebu), Inc.
	Hitoshi Kono	President	

SINGAPORE COMMITTEE

Chairman	Aloysius Seow	Chief Operating Officer	Ocean Tankers (Pte) Ltd.
Member	Kenneth A Glenn	President	APL Co. Pte Ltd
	Tong Chong Heong	Chief Executive Officer	Keppel Offshore & Marine Ltd
	Andrew Tan Kok Kiong	Chief Executive	Maritime and Port Authority of Singapore
	Kuok Khoon Kuan	Managing Director	Pacific Carriers Limited
	Teo Cho Keng	Senior Executive Director	Pacific International Lines (Pte) Ltd.
		Technical Division	
	Wong Weng Sun	President & C.E.O.	Sembcorp Marine Ltd
	Sun Xiushun	President	Winning International Group Pte Ltd

SINGAPORE TECHNICAL COMMITTEE

Chairman	Tey Yoh Huat	Adjunct Senior Research Fellow	National University of Singapore
		Centre for Maritime Studies	
Member	Iwane Ogawara	Chief Engineer	"K" Line Ship Management (Singapore) Pte Ltd
		Managing Director	
	Shaj U. Thayil	Vice President	APL
		Technical Services & Ship Management	
	Robert Sumantri	Director	Atlas Logistics Pte. Ltd.
	Kapil Berry	Manager for Maintenance and Project	BW Fleet Management Pte Ltd
	Rajdeep Singh	Technical Director	Eastern Pacific Shipping Pte. Ltd.
	B. S. Teeka	Managing Director	EXECUTIVE SHIP MANAGEMENT PTE LTD
	Ajay K. Chaudhry	Director	Fleet Ship Management Pte Ltd.
	Lim Teck Cheng	Chief Executive	HONG LAM MARINE PTE LTD
	Ir Wong Sin Futt	Director	Newbuildings
			CEng FIMarEST
	B. N. Prasad	Executive Director	IMC Shipping Services Co., Pte. Ltd.
	Seow Tan Hong	Senior General Manager	IS CONTAINER PTE LTD
		Engineering Department	Jurong Shipyard Pte Ltd
	Chor How Jat	Managing Director	Keppel Shipyard Limited
	Vijay Rangroo	Managing Director	M. T. M. Ship Management Pte. Ltd.
	Avinash Kadam	Director	Maersk Tankers
	Cheam Yeow Cheng	Director (Shipyard)	Marco Polo Shipyard Pte Ltd
	Mark Lim Yew Guan	Deputy Director (Shipping)	Maritime and Port Authority of Singapore
		Deputy Director of Marine	
	Toshihiko Ota	Managing Director	MOL Tankship Management (Asia) Pte Ltd
	Arun K. Ahluwalia	Fleet Director, Technical	MSI Ship Management Pte Ltd
	Mok Kim Terng	Corporate Development Director	NAM CHEONG LIMITED
	Hemant Pathania	Managing Director	NYK SHIPMANAGEMENT PTE LTD
		Chief Operating Officer	
	Teh Eng Hua	Vice President	Ocean Tankers (Pte) Ltd
		Technical Department	
	Lim Tau Kok	Director	PACC SHIP MANAGERS PTE LTD
	Panneer Selvam	General Manager	Pacific International Lines (Pte) Ltd
		Technical Division	
	Toh Ho Tay	Offshore Division	R. S. Platou (Asia) Pte. Ltd
	Govinder Singh Chopra	Director	SeaTech Solutions International (S) Pte Ltd
	Francis Chin	Chief Operating Officer	Stellar Shipmanagement Services Pte Ltd
	Sanjeev K Namath	New Projects and R&D	Synergy Marine Pte. Ltd.
	Vinay Gupta	Managing Director	Union Marine Management Services Pte Ltd
	Naresh Chand	Managing Director	UNITED OCEAN SHIP MANAGEMENT PTE LTD
	Calum S Hume	Deputy Managing Director and Technical Director	V. Ships Asia Group Pte. Ltd.

TAIWAN COMMITTEE

Chairman	Loh Yao-fon	Adviser	Evergreen Group
Member	Steve Lee	Chairman	China Steel Express Corporation
	Jei-Yuan Chen	Executive Manager	CPC Corporation, Taiwan
	Robert Lai	Chairman	CSBC Corporation, Taiwan
	Der-Hsiung Chen	President	Deryoung Maritime Co., S.A.
	Shang-Wen Liao	President	Eastern Media International Corporation
		Ph. D. Leeds. U.K.	
	Shyu Ren-gung	Chairman	Evergreen International Storage & Transport Corp.
	Akihiro Nagahara	Chairman	First Steamship Co., Ltd.
	B. C. Tsai	Chairman	Franbo Lines Corp.
	Bill M. H. Huang	Chairman	Glory Navigation Co., Ltd.
	Harvey Chiu	Chairman	Hsin Chien Marine Co., Ltd.
	M. S. Tsai	Chairman	Kuang Ming Shipping Corp.
	Jimmy C. Hsiao	Director & President	Mingtai Navigation Co., Ltd
	J. D. Lan	Chairman	Shih Wei Navigation Co., Ltd.
		C. E. O.	
	Felix Chen	Chairman & CEO	Sincere Industrial Corporation
	Fred C. P. Tsai	Chairman	Sincere Navigation Corporation

Member	Kenneth Lee Hrong-Nain Lin Janus Kao I. Y. Chang Nobu Su C. K. Ong Lin Ching Chih Glenn K. L. Chan Chen, Po Ting James Lan Hermann Yu	Chairman & CEO President President Chairman C.E.O. President Chairman President Chairman Chairman President	T.V.L. Business Group Ta Tong Marine Co., Ltd. Ta-Ho Maritime Corporation Taiwan Navigation Co., Ltd. TMT Co., Ltd. U-Ming Marine Transport Corporation Unison Marine Corporation United Ocean Shipping S.A. Wan Hai Lines Ltd. Wisdom Marine Lines S.A. Yang Ming Marine Transport Corp.
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TAIWAN TECHNICAL COMMITTEE

Chairman	Chiang Shou-hsing	Senior Vice President Shipbuilding Dept. Engineering Div.	Evergreen Marine Corp. (Taiwan) Ltd.
Member	Guo I-Lung P. J. Ching J. Z. Fang Frank Foung-Tang Lin Chih-Peng Tsai Michael L. Y. Pan Luo Chin-ek S. H. Wang T. W. Wu William Wu Tony C. T. Hsueh W. K. Wu Clark Wu C. K. Lin You-Yen Ho Gerald Tsai Young Perng-Terng Yu Ko Yuan Hao Yuan Chang Chen Teng Robert Y. P. Kao Peter W. D. Ho Sanders Jong Charles Chu Jackie Ho	Chairman/President Vice President Chief Engineer Chief Engineer Office Director Department of Design Assistance to G. Manager Executive Vice President Senior Vice President Maintenance Dept. Project Division. Vice President Engineering & Supply Dept. Chief Engineer / Ass. Dep. Manager President Manager of Marine Department Manager Technical Dept. Assistant Vice President Labor Safety & Health Department Vice President Engineering / Operation Department Vice President Marine Department General Manager Technical Department Chief Engineer Associate Manager Marine Department Deputy General Manager Marine Department Special Assistant to Chairman Ship Management Dept. Senior Vice President Vice President Technical Department Vice President Engineering Division Vice President Technical Department Vice President Engineering Department Marine Technology Group	Biggin Shipping Corporation China Steel Express Corporation CPC Corporation, Taiwan CSBC Corporation, Taiwan Deryoung Maritime Co., S.A. Eastern Media International Corporation Evergreen Marine Corp. (Taiwan) Ltd. First Steamship Co., Ltd. Formosa Plastics Marine Corporation Franbo Lines Corp. Glory Navigation Co., Ltd. Hsin Chien Marine Co., Ltd. Kuang Ming Shipping Corp. Mingtai Navigation Co., Ltd. Shih Wei Navigation Co., Ltd. Sincere Industrial Corporation Ta Tong Marine Co., Ltd. Ta-Ho Maritime Corporation Taiwan Navigation Co., Ltd. TVL Marine Company Limited U-Ming Marine Transport Corporation Unison Marine Corp. Wan Hai Lines Ltd. Wisdom Marine Lines S.A. Yang Ming Marine Transport Corp.

THAI COMMITTEE

Chairman	Sutep Tranantasin	Executive Vice President	Regional Container Lines Public Co., Ltd.
Member	Warawan Nganthavee Bhumindr Harinsuit Suparuak Potchanant Vivek Dwivedi Wirat Chanasit Chanet Phenjati Win Zaw Nat Chubchai Maung Maung Oo Winn Pe	Managing Director Managing Director Operation Director Sr. Vice President Regional Head (Asia-Pacific) Managing Director President President Deputy Director General Director General Department of Marine Administration Managing Director Inland Water Transport	Asian Marine Services Public Co., Ltd. Bhureemas Navee Co., Ltd. ES Offshore and Marine Engineering (Thailand) Co., Ltd. Gulf Petrochem Group Italthai Marine Ltd. Jutha Maritime Public Co., Ltd. Lizstar Group of Companies Marine Department Ministry of Transport, Union of Myanmar Ministry of Transport, Union of Myanmar

Member	Wynn Pe Kyi Soe Suraphon Meesathien Jaipal Mansukhani Kraiyasit Intarapanich Voravit Visitkijakarn Surachai Lerpichayayotin Nitas Krongvanitchayakul Yodchai Ratanachiwakorn Louis - Frederic Sachs Teruo Kondo	Managing Director Managing Director Vice President Director Vice President International Chartering Department Managing Director Marine Fleet Director Managing Director Director, Marine Operations Director - Marine Group Chief Production Manager	Myanma Five Star Line Myanma Shipyards Nathalin Co., Ltd. Precious Shipping Public Co., Ltd. PTT Public Company Limited Sang Thai Shipping Co., Ltd. Siam Lucky Marine Company Limited Thaioil Marine Co., Ltd. Thoresen & Co., (Bangkok) Ltd. Tipco Asphalt Public Company Limited Unithai Shipyard & Engineering Ltd.
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TURKISH COMMITTEE

Chairman	Yalcin Sabanci	Chairman	YA-SA Holding S.A.
Member	Necdet Aksoy	Chairman	Akmar Shipping & Trading S.A.
	Ali Umur	President	Akif Shipping
	Kenan S. Sumra	Company Manager	Anadoluhisari Tankercilik A.S.
	Erhan Bayraktar	Board Member/CEO	Bayraktar Shipping Group
	Derya Sabaz	Board of Directors Member	Beşiktaş Group
	Gönç Beyli	Vice Chairman BoD	Beykim Petrolcülük Gemi İşletmeciliği San. Ve Tic.A.Ş.
	Engin Ozcelik	General Manager / Board Member	CEBI Maritime & Trading SA
	Idil Baran	Director	CerBa Group of Companies
	Esref Cerrahoglu	Chairman	Cerrahgil A. S.
	Serra Cerrahoglu	Vice Chairman	Cerrahgil Group of Companies
	H. Bülent Şener	Chairman	Delta Marine Engineering and Computer Trading CO.
	Serdar Akcali	Managing Director	Denak Ship Management & Agency
	Ö. Faruk Miras	Member of Board	Diler Shipping and Trading Inc.
	Bilge Bayburtlugil	General Manager	DITAS Tanker and Marine Operations Corp.
	Cihan Ergenc	Chairman	ER Denizcilik Sanayi Nak. Ve Tic. A. S.
	Orhan Karademir	Chief Operating Officer	Genel Denizcilik Nakliyatı A.S.
	Sadan Kaptanoglu	Owner	H.I. Kaptanoglu Shipping Group
	Bayram Aslan	President and CEO	ICDAS Group of Companies
	Bülent Subaşı	General Manager	IDÇ Denizcilik San. ve Tic. A.Ş.
	Bedri Ince	Chairman	Ince Shipping and Trading Co. Inc.
	Tamer Kiran	Chairman	Kiran Group of Shipping Companies
	Galip KENDIGELEN	General Manager	MARDENİZ & KARDENİZ & MARDAS Group of Companies
	Mecit Çetinkaya	Owner	Mecit Çetinkaya Shipping, Transport, Marketing Ind.& Trade Co. Ltd.
	Huseyin Yardimci	General Manager	Moliva Shipping Inc.
	Tufan Süslüer	Member of Board	
	Hüseyin Şener	General Manager	Nemtas Denizcilik
	G. Osman Küçükertan	Fleet Manager	Odin Ship Management
	Emir Sohtorik	General Manager	Omsan Denizcilik A.Ş.
	Orkun Kalkavan	Chairman	Semih Sohtorik Management & Agency Inc.
	Hasan Pehlivan	Executive Board Member	Turkon Holding
	Baris Kiziltas	Operational Director / CSO	U.N RO-RO İşletmeleri A.Ş.
	Ilhan Sabanci	General Manager / DPA	Vera Shipping
	Emirhan Sabanci	Board Member	YA-SA Shipping Industry & Trading S.A.
		Board Member	YA-SA Tanker and Transportation S.A.

TURKISH TECHNICAL COMMITTEE

Chairman	M. Erbil Özkaya	General Coordinator	YA-SA Shipping Industry and Trading S.A.
Member	H. Umut Çınar	General Manager	Active Shipping & Management Pte Ltd
	Özgür Aksoy	General Manager & Board Member	Akmar Holding S.A.
	Saim Gökçen	Technical Manager	Aksay Denizcilik ve Ticaret A.S.
	Erkan Dereli	Owner	ALİAĞA DENİZCİLİK
	Kenan S. Sumra	Company Manager	Anadoluhisari Tankercilik A.Ş.
	Levent Demiriz	Operation Manager	ARKAS Shipping and Transport S.A.
	Erdal CAGILTI	Arkas Fleet Operation Manager	
	Mehmet Gülakdeniz	Manager	Aruna Shipping Ltd., Corp.
	Erkan AKAR	Master Marine / DPA	Bayraktar Gemi İşletmeciliği ve Kiralama A.Ş.
	Tolga TEKİN	Technical Manager	Besiktas Group
	Burak Meriç	Technical Manager	Beyaz Denizcilik Ltd. Şti.
	Mustafa Bahar	DPA	Beykim Petrolcülük Gemi İşletmeciliği San. ve Tic. A. Ş.
	Süleyman Vural	Technical Manager	Cebi Denizcilik AS
	S. Dirim Şener	Fleet Manager	Ceren Denizcilik
	Şemsettin Özyapar	Department Manager	Delta Marine Engineering and Computer Trading Co.
	Cengiz Eren	Planning Department	
	Taşkın Çilli	Technical Manager	Denak Ship Management & Agency
	Ergun Köker	Superintendent	Densan Deniz Nakliyat ve Sanayi A.Ş.
	Erhan Menten	CEO, Member of Board	Desan Deniz İnşaat San. A.Ş.
	Mehmet Cebeci	Regional Manager, Marketing Department (Ship Repairs)	Gemak Gemi İnşaat San. ve Tic. A.Ş.
		Technical ADM	
		Bulk Fleet Manager	Gemiciler Denizcilik
			Genel Denizcilik Nakliyatı A.Ş.

Member	Nurettin Kuş Ş. Şenol Üngör Türker Yaltır Ahmet Taymeç Çağdaş Gürol Mustafa Terzi Bülent Subaşı A. Yaşar Canca Ertan GÜNERLER Ali Demirbas Burak ORUÇ Mustafa Dulgar Ergül NEROĞLU Gökseven Eroğlu Hüseyin Şener Murat Ata Çevik Mahmut Ünsal M. Cumhuri Kuter Mehmet Başoğlu Yavuz Büyükyüksel Ender Keskin Ali H. Doğanlı Mehmet Kayhan Tulga ZENGİN Tuncer TOKSÖZ	General Manager Shipowners General Manager Manager Project Officer Coordinator Operation Manager Technical Manager Technical Manager Technical Manager Deputy General Manager / DPA Operation Manager Technical Manager Deputy General Manager (Technical & Logistics) Fleet Manager Technical Department Manager Consultant General Manager General Manager Fleet Manager General Manager Technical Manager General Manager Bulk Carriers Technical Manager Technical Manager	Greenfleet Ship Management GUNGEN Maritime & Trading A/S Hat-San Shipyard Horizon Gemi İşletmeciliği San ve Tic A.Ş. İçdaş Çelik Enerji Tersane ve Ulaşım San. A. Ş. İce Tanker İDÇ Denizcilik San. Tic. A.Ş. Ince Shipping Group INCI Ship Management Limited Company İskenderun Ship Management Kaptanoğlu Holding Manta Shipping Ltd. Mardaş & Mardeniz & Kardeniz Group of Companies Nemtaş Shipping Odin Ship Management Pasifik Ship Management & Trading POLARMARINE Ship Management Group of Companies Sedef Shipbuilding Inc. Semih Sohtorik Management & Agency Inc. TGM Ship Management an Agency Ltd. Co. Transal Denizcilik VERA SHIPPNG YA-SA Shipmanagement and Trading S.A. YA-SA Shipping Industry and Trading S.A. YA-SA Tanker and Transportation S.A.
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ClassNK in Control (as of the end of 2014)

Officers

Councilors	Akimitsu ASHIDA Takashi UYENO Katsuyuki SUGIMOTO Koji MIYAHARA Zenshichi AKASAKA Yasuhiko KATOH Kazuo TSUKUDA Sho MINAMI Makoto SATANI Hiroshi SHIMA Masakazu NAKANISHI Shinji HAYAMA Masafumi YASUTOMI Koichiro YOSHIDA	Counselor Chairman & President Executive Adviser Chairman, Chairman Corporate Officer President Chairman, Representative Director Senior Executive Adviser Company CEO Former Executive Consultant Senior Adviser, Member of the Board Former Executive Director Professor Emeritus Vice President Professor Emeritus	Mitsui O.S.K. Lines, Ltd. Uyeno Transtech Ltd. Iino Kaiun Kaisha, Ltd. Nippon Yusen Kabushiki Kaisha Akasaka Diesels Limited Mitsui Engineering & Shipbuilding Co., Ltd. Mitsubishi Heavy Industries, Ltd. Oshima Shipbuilding Co., Ltd. JX Nippon Oil & Energy Corporation NIPPON STEEL & SUMIKIN TEXENG.CO.,LTD. Tokio Marine & Nichido Fire Insurance Co., Ltd. The University of Tokyo Tokyo Metro Co., Ltd. The University of Tokyo
Councilor Appointment Committee	Shinji HAYAMA Tsutomu AIHARA Hiroshi ITAGAKI Seiichi OCHIAI Michio TAKAGI	Professor Emeritus Former Commandant Professor Emeritus Professor Operating Officer, General Manager of General Affairs Department	The University of Tokyo The University of Tokyo Japan Coast Guard Yokohama National University Law School, Chuo University Nippon Kaiji Kyokai
Directors	Noboru UEDA Yasushi NAKAMURA Koichi FUJIWARA Tetsushi AGATA Tetsuya KINOSHITA Shunichi ARISAKA Yoshio OTAGAKI Hideomi OTSUBO Kazuya KOBAYASHI	Chairman and President Executive Vice President Executive Vice President Executive Vice President Executive Vice President Managing Executive Officer REPRESENTATIVE DIRECTOR Vice President Ship & Offshore Division Professor Emeritus Associate Officer General Manager Engineering Division Ship & Offshore Structure Company Managing Executive Officer Former Commandant Honorary advisor Managing Corporate Officer Professor Emeritus	Nippon Kaiji Kyokai Nippon Kaiji Kyokai Nippon Kaiji Kyokai Nippon Kaiji Kyokai Nippon Kaiji Kyokai Kawasaki Kisen Kaisha, Ltd. Japan Marine United Corporation The University of Tokyo Kawasaki Heavy Industries, Ltd.
Auditors	Kiyotaka YOSHIDA Tsutomu AIHARA Yasuhide SAKINAGA Yasuo TANAKA Yuzuru FUJITA	Managing Executive Officer Former Commandant Honorary advisor Managing Corporate Officer Professor Emeritus	Mitsui O.S.K. Lines, Ltd. Japan Coast Guard Kawasaki Kisen Kaisha, Ltd. Nippon Yusen Kabushiki Kaisha The University of Tokyo

Classification Committee

Chairman	Noboru UEDA	Chairman and President	Nippon Kaiji Kyokai
Vice Chairman	Yasushi NAKAMURA	Executive Vice President	Nippon Kaiji Kyokai
Members	Koichi FUJIWARA	Executive Vice President	Nippon Kaiji Kyokai

Tetsushi AGATA	Executive Vice President	Nippon Kaiji Kyokai
Tetsuya KINOSHITA	Executive Vice President	Nippon Kaiji Kyokai
Toshio ARAKI	Managing Director	Iino Marine Service Co., Ltd.
Shunichi ARISAKA	Managing Executive Officer	Kawasaki Kisen Kaisha, Ltd.
Jyunichi IWANO	General Manager Technical Group	Nippon Yusen Kabushiki Kaisha
Kiyotaka YOSHIDA	Managing Executive Officer	Mitsui O.S.K. Lines, Ltd.
Naoki UEDA	Senior General Manager, Ship & Ocean Engineering Division, Shipbuilding & Ocean Development Commercial Aviation & Transportation Systems	Mitsubishi Heavy Industries, Ltd.
Atsushi KOMURA	Senior Manager of Initial Design Department, Ship & Offshore Structure Company	Kawasaki Heavy Industries, Ltd.
Tomoaki TAKAHIRA	General Manager, Planning & Development Department, Ship & Offshore Division	Japan Marine United Corporation
Taiji MAEDA	General Manager, Basic Design Department	Mitsui Engineering & Shipbuilding Co., Ltd.
Kimio KIRIAKE	Managing Director	The Shipbuilders' Association of Japan
Naoto TSUKAMOTO	Executive Officer, General Manager, Commercial Lines Claims Department	Tokio Marine & Nichido Fire Insurance Co., Ltd.
Hitoshi HOSAKA	Managing Director	The Japanese Shipowners' Association
Hiroshi ITAGAKI	Professor Emeritus	Yokohama National University
Hideomi OTSUBO	Professor Emeritus	The University of Tokyo
Toshiharu NOMOTO	Professor Emeritus	The University of Tokyo
Shinji HAYAMA	Professor Emeritus	The University of Tokyo
Koichiro YOSHIDA	Professor Emeritus	The University of Tokyo

Technical Committee

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Vice Chairman	Toshiharu NOMOTO	Professor Emeritus	The University of Tokyo
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	Yasushi NAKAMURA	Executive Vice President	Nippon Kaiji Kyokai
	Tetsuya KINOSHITA	Executive Vice President	Nippon Kaiji Kyokai
	Shunichi ARISAKA	Managing Executive Officer	Kawasaki Kisen Kaisha, Ltd.
	Masahiro KANNO	Director, Managing Executive Officer	Daiichi Chuo Kisen Kaisha
	Hideyuki TAKAHASHI	Director, Senior Vice President, Corporate Management Division	JX Ocean Co., Ltd
	Yasuo TANAKA	Managing Corporate Officer	Nippon Yusen Kabushiki Kaisha
	Kiyotaka YOSHIDA	Managing Executive Officer	Mitsui O.S.K. Lines, Ltd.
	Naoki UEDA	Senior General Manager, Ship & Ocean Engineering Division, Shipbuilding & Ocean Development Commercial Aviation & Transportation Systems	Mitsubishi Heavy Industries, Ltd.
	Kazuya KOBAYASHI	Associate Officer General Manager Engineering Division Ship & Offshore Structure Company	Kawasaki Heavy Industries, Ltd.
	Norihisa FUKUDA	Managing Director, General Manager, Ship & Ocean Project Hq.,	Mitsui Engineering & Shipbuilding Co., Ltd.
	Atsushi MAJIMA	Director, Acting Chief General Manager	Sumitomo Heavy Industries Marine & Engineering Co., Ltd.
	Kozo YASUDA	Executive Officer, Shipbuilding Division, General Manager of Design Department	Sasebo Heavy Industries Co., Ltd.
	Hisayuki YAMADA	Technical Executive General Manager, Strategy Planning Dept.	Japan Marine United Corporation
	Takashi IWAMOTO	Senior Councilor Deputy General Plant Manager of Muroan Plant	The Japan Steel Works, Ltd.
	Yuji NOMIYAMA	General Manager, Head of Div. Plate Technology Div. Plate Unit	Nippon Steel & Sumitomo Metal Corporation
	Hiroaki MATSUBARA	Officer	Kobe Steel, Ltd.
	Teruo YAMAURA	Executive Assistant, General Manager of Plate Business Planning Department	JFE Steel Corporation
	Hiroshi ITAGAKI	Professor Emeritus	Yokohama National University
	Shinji HAYAMA	Professor Emeritus	The University of Tokyo
	Koichiro YOSHIDA	Professor Emeritus	The University of Tokyo

Quality Committee

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	Takayoshi YAGI	Senior Technical Manager, Standardization Center	The Japan Iron & Steel Federation
	Hitoshi HOSAKA	Managing Director	The Japanese Shipowners' Association
	Yuji YAMAGUCHI	Deputy General Manager	The Shipbuilders' Association of Japan
	Kunio YOSHIDA	Technical Supervisor	Japan Ship-Machinery Quality Control Association
	Koichi YOSHIDA	Deputy General Manager Engineering Department	The Japan Electrical Manufacturers' Association
	Nobutaka KIMURA	General Manager, Certification Service Department	Nippon Kaiji Kyokai

