



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,

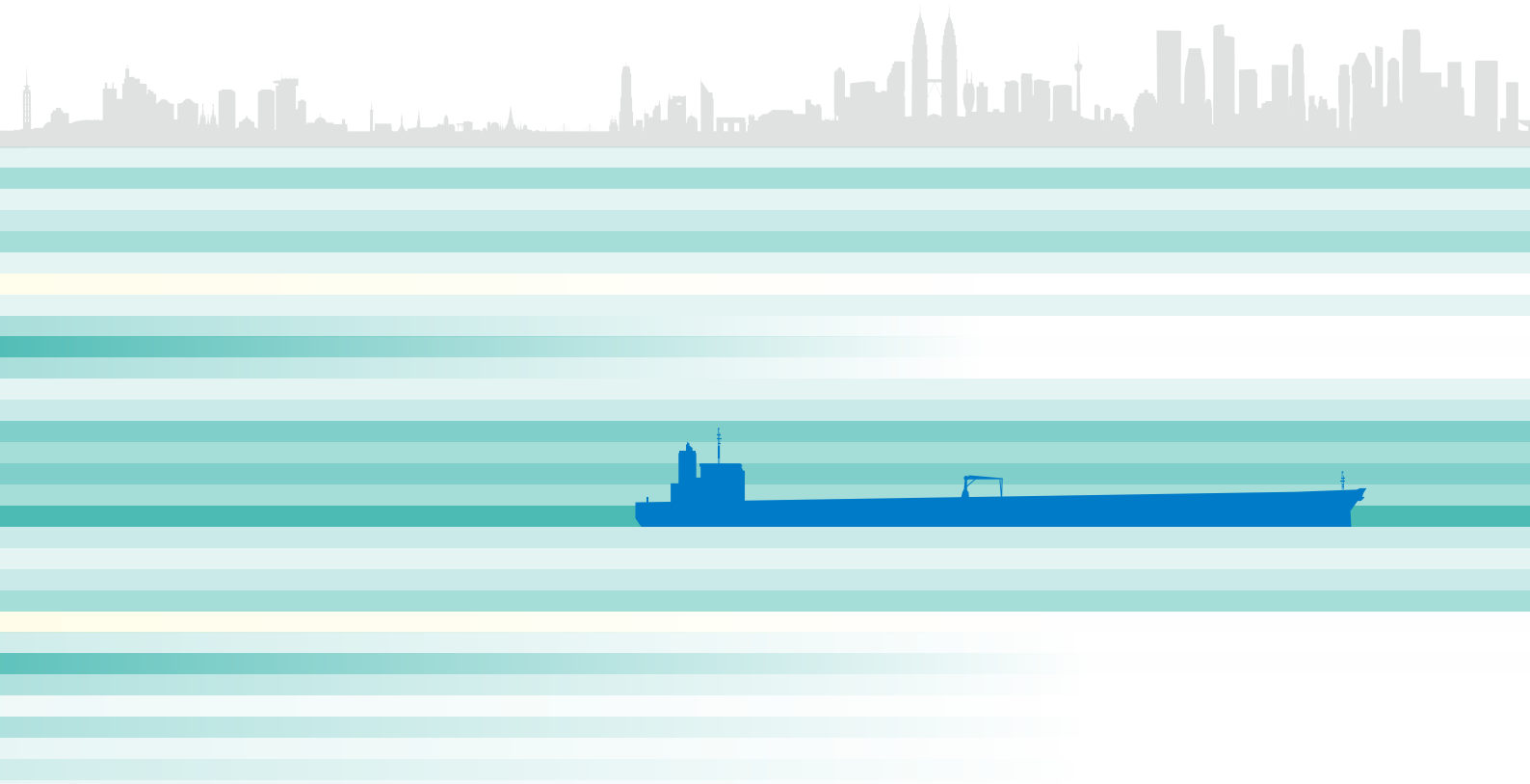
and research & development activities. The principal work of the Society's expert technical staff is to conduct surveys of new and existing ships and other floating structures, including hull structures, propulsion systems, electrical and electronic systems, safety equipment, and cargo handling gear, 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



Representative Director
Chairman and President
Noboru Ueda

Welcome to the ClassNK 2013 Annual Report. I would like to take this opportunity to express my warm gratitude to everyone for their continued support of our activities here at ClassNK.

While 2013 was a year full of important news, without a doubt the most significant event of the year for ClassNK was the casualty of a ClassNK-registered container ship during a voyage across the Indian Ocean in June. In response to this tragic event, we immediately established a special Casualty Investigation Team in order to determine the cause of the casualty and prevent the occurrence of similar casualties in the future. We will continue to work to ensure the safe operation of the world's merchant fleet and use the results of this investigation to secure an even greater level of safety for the entire maritime industry.

In the classification industry, another major event was the formation of DNV-GL through the merger of Det Norske Veritas (DNV) and Germanischer Lloyd (GL). As the competition between class societies grows, we expect our operating environment to become even more challenging.

■ Mid-term Management Plan

2013 was also the final year of our Global Approach 200, our first mid-term management plan. I am pleased to announce that we succeeded in achieving all five of the plan's goals, which were:

1. Establishing a stable financial foundation for future growth
2. Reaching more than 200 million gross tons on our register
3. Improving the quality of services and increasing our global presence
4. Expanding business operations
5. Promoting new research and development

In 2014, we will embark on a new mid-term management plan entitled ClassNK Global Challenge 250. The aim of this second three-year plan is to achieve further growth by building on the successful results of Global Approach 200 plan. We will make every effort to ensure that we attain these goals in the years to come.

Survey Network

In 2013, we continued to expand our service network to meet the changing needs of our clients, opening a total of 7 new offices in South East Asia, the Middle East, and Europe. With these new additions, our global service network now stands at 128 offices worldwide.

Beyond expanding our service network, we also worked to maintain and improve the quality of our exclusive survey offices. We are constantly developing the expertise of our surveyors through extensive training courses held both in Japan and overseas.

New Authorizations & Regulations

In 2013, we obtained new authorizations from the governments of Germany, Serbia, Romania, and Finland, bringing the number of flag states which have authorized ClassNK to perform surveys and issue certificates on their behalf to 110 by the end of December 2013. 2013 also saw several new international conventions come into effect, including new amendments to reduce greenhouse gas (GHG) emissions, and the International Labour Organization's Maritime Labour Convention, 2006 (MLC, 2006). Having established our Energy Efficiency Design Index (EEDI) Division in 2012, ClassNK comprehensive support for GHG emission reduction. As for the MLC, 2006, in addition to the systematic training of Maritime Labour Inspectors, we have also held seminars around the world to help our clients achieve compliance with the new regulations.


Research and Development

At ClassNK, R&D to ensure the future development of the maritime industry is also one of our highest priorities. In addition to conducting our own independent research and development activities, through our Joint R&D for Industry program we are also contributing to collaborative research to meet the changing needs of the maritime industry. As of the end of 2013, more than 140 projects have been completed as part of this program, and the results of these projects are helping to create

a solid foundation for the future growth of our industry. This year, we will continue our active engagement in technical research and development that supports the industry as a whole.

New Certification Services

In 2013 we also expanded our certification services to include certification of maritime education & training institutes, certification for Road Traffic Safety Management Systems and verification of GHG emission volumes. Going forward, we will continue to draw on the technical expertise we have developed from our long history in ship classification to enhance our activities in these new fields and improve our services.



Noboru Ueda

2013 At a Glance

ClassNK Register Reaches more than 220 Million Gross Tons and 8,500 Vessels

At the end of December 2013, the ClassNK had register reached a total of 220,979,362 gross tons, marking the first time that the Register had exceeded 220 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 2013, this increased further with 8,525 vessels totaling more than 220 million gross tons at years 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, the Society's registered vessels has continued to rise.

20

Million GT Registered

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

Over the course of 2013, 859 vessels totaling more than 20.5 million gross tons were newly added to the ClassNK register, marking the third straight year that ClassNK has registered an annual total of more than 20 million gross tons.

7

New Exclusive Survey Offices

ClassNK Opens Seven New Exclusive Survey Offices

ClassNK works to constantly expand our service network in line with the needs of our clients and changing market trends. In 2013, we expanded our network with new offices in Yangon, Myanmar; Chittagong, Bangladesh; Klaipeda county, Lithuania; Ebeltoft, Denmark, Asuncion, Republic of Paraguay; Wurzburg, Germany; and Helsinki, Finland.

66

R&D projects completed

ClassNK completes 66 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 2013, ClassNK and its research partners completed 66 joint research projects as part of this program.

Breakdown of NK Fleet by Flag



■ Panama	53%	■ Hong kong	5%
■ Japan	8%	■ Marshall Island	5%
■ Singapore	7%	■ Other	15%
■ Liberia	7%		

Breakdown of NK Fleet by Ship Type



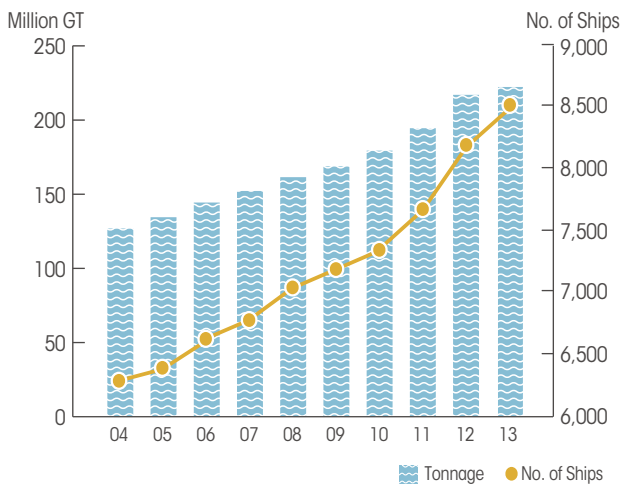
■ Bulk Carrier	40%	■ Vehicle Carrier	4%
■ Oil Tanker	9%	■ LPG Carrier	3%
■ General Cargo	8%	■ Refrigerated Cargo	2%
■ Chemical Tanker	8%	■ LNG Carrier	1%
■ Container Carrier	7%	■ Other	18%



■ Bulk Carrier	60%	■ General Cargo	3%
■ Oil Tanker	12%	■ LNG Carrier	2%
■ Container Carrier	9%	■ LPG Carrier	2%
■ Vehicle Carrier	7%	■ Refrigerated Cargo	0.5%
■ Chemical Tanker	3%	■ Other	1.5%

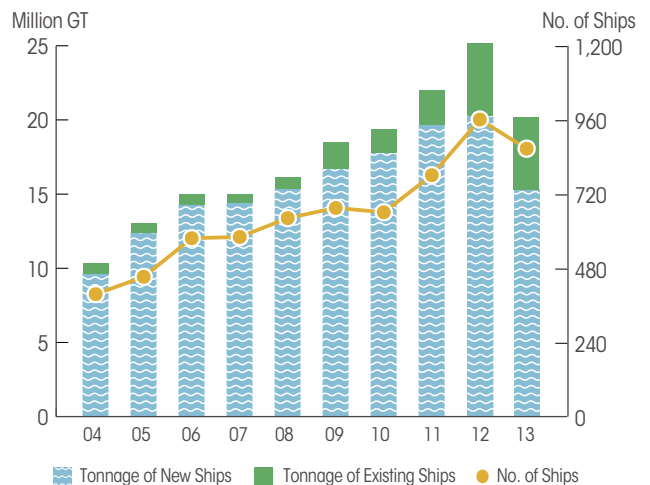
Class NK Fleet

220.9 Million GT
8,525 Ships



New Vessels Registered

20.5 Million GT
859 Ships



Publication of New Technical Guidelines

In 2013 ClassNK published the following technical guidelines. These guidelines are available to download via the Society's homepage after logging into "My Page."

- Guidelines for Large-capacity Storage Batteries
- Environmental Guidelines V.3
- Guidelines for Type Approval of Products for Marine Use for EU
- Guidelines for Gas Fuelled Ships V.2

New Authorizations Earned from Germany, Romania, Serbia and Finland.

In 2013, the Society was granted authorization to carry out a full range of surveys, audits and issue certificates for SOLAS, MARPOL and other conventions on behalf of the governments of Germany, Romania, Serbia, and Finland. With these additions, ClassNK is now able to carry out surveys on behalf of 110 flag states and administrations.

2013

At a Glance



ClassNK Announces New Mid-Term Management Plan

Following on the success of ClassNK's "Global Approach 200" mid-term management plan which was completed in 2013 ClassNK has announced its next new "ClassNK Global Challenge 250" management plan for the period from 2014-16. The new mid

3 Dec.

ClassNK joins with "Maria Tsakos" Foundation for Joint Research on Maritime Safety & Environmental Protection

ClassNK and the "Maria Tsakos" Foundation-International Center for Maritime Research and Tradition and ClassNK announced that they had agreed to carry out joint research related to maritime safety and environmental protection.

The Chios-based "Maria Tsakos" Foundation-International Center for Maritime Research and

Tradition, was founded in 2008 by the family of Captain Panagiotis N. Tsakos, one of Greece's most renowned shipowning companies. Since its founding, the Foundation has grown to become one of the leading maritime NGOs and philanthropic organizations in Greece, and is known internationally for its relentless efforts in support of the maritime industry and seafarers. The first project under the co-operation scheme is a research study to improve seafarer health and welfare, largely financed by ClassNK.

6 Mar.

ClassNK Grants Approval to Minimal Ballast Water Ship (MIBS) VLCC Design

ClassNK announced that it granted AIP (Approval in Principle) to the MIBS (Minimal Ballast Water Ship) VLCC design developed by Namura Shipbuilding Co., Ltd. in cooperation with the Shipbuilding Research Centre of Japan (SRC).

Namura's new MIBS VLCC design addresses ballast water management related challenges by using a revolutionary new hull form, which greatly reduces the amount of ballast water necessary for safe operations. The MIBS design reduces the weight of ballast water required in normal ballast conditions by around 65%, paving the way for the use of smaller ballast water treatment systems and reducing fuel consumption. The MIBS design a flatter bottom and standard breadth hull. This allows for a dramatic reduction in the amount of ballast water needed, while maintaining the dimensions of a standard VLCC.



10 Dec.

ClassNK Signs Comprehensive Research Pact with Rio Tinto Iron Ore

ClassNK and Rio Tinto Iron Ore, a subsidiary of global mining group Rio Tinto, announced that they had signed a comprehensive collaborative agreement to carry out research related to bulk carry safety. The new agreement provides an open-ended framework for cooperative research between ClassNK and Rio Tinto Iron Ore covering a variety of subjects related to the safe carriage of iron ore and other cargoes. Through this agreement, Rio Tinto

11 Jun.

MOL and NYK Sign Contract for ClassNK Archive Center Service

ClassNK announced that NYK Lines Co. Ltd. (NYK) and Mitsui O.S.K. Lines (MOL) Co. Ltd. had signed a preliminary agreement to become the first users of the ClassNK Archive Center's As-built Drawings Storage Service (ADSS). This agreement was made in cooperation with Mitsubishi Heavy Industries Co. Ltd. (MHI) and Imabari Shipbuilding Co. Ltd., the builders of the vessels that will utilize the service.

Under the agreement, a total of three vessels will utilize ADSS, including NYK's *Elegant Salute*, a 95,000dwt bulk carrier built at Imabari Shipbuilding's Marugame Corporate Headquarters; as well as, MOL's *Jozen*, a 95,000dwt bulk carrier built at Imabari Shipbuilding's Marugame Corporate Headquarters; and *Horaisan*, a 300,000dwt VLCC, built at Mitsubishi Heavy Industries' Nagasaki Shipyard.



and ClassNK will be able to share their decades of specialized knowledge and expertise related to the maritime transport of solid bulk cargoes in an effort to improve maritime safety.

26 Sept.

ClassNK Signs Comprehensive Collaboration Agreement BKI

The Society announced that it had entered into an agreement with Indonesian classification society PT. Biro Klasifikasi Indonesia (Persero) (BKI). This new agreement was created to establish an even closer level of cooperation between ClassNK and BKI as they work to support the development of Indonesian maritime industry. The new agreement will allow for closer cooperation on joint technical research in a variety of fields, as well as cooperation in rule development, and the education and training of surveyors.

ClassNK Recognized at International Awards

Over the course of the 2013, ClassNK was recognized at awards events around the world for its contribution to innovation and safety in the maritime industry, including:

- * Seatrade Sri Lanka Ports, Trade & Logistics Awards 2013: Technical Innovation Award
- * Seatrade Awards: Safety at Sea Award
- * Seatrade Asia Awards 2013: The Technical Innovation Award, and The Classification Society Award
- * In addition, ClassNK Chairman and President Noboru Ueda was honored with the Seatrade Lifetime Achievement Award at the Seatrade Asia Awards on 21 June 2013 in recognition of his outstanding contribution to the development of the maritime sector in Asia

Responding to Maritime Casualties

Following the loss of a ClassNK-registered container ship in the Indian Ocean in June 2013, ClassNK immediately established a special Casualty Investigation Team to investigate the casualty and develop measures to prevent future such casualties from occurring in the future. ClassNK will continue to work to ensure the safe operation of the world's merchant fleet and use the results of this investigation to secure an even greater level of safety for the entire maritime industry.

Worldwide Service Network

ClassNK continues to expand its extensive worldwide survey network, with the number of exclusive survey offices totaling 128 locations around the world at the end of 2013. In addition to these offices, ClassNK also maintains six Plan Approval Centers located in the major shipbuilding regions of the world.

●...Offices with Plan Approval Centers



New Offices Opened in 2013

● New Exclusive Survey Offices

1/Apr.

Yangon, Myanmar

1/June.

Chittagong, Bangladesh
Klaipeda, Lithuania
Ebeltoft, Denmark

1/July.

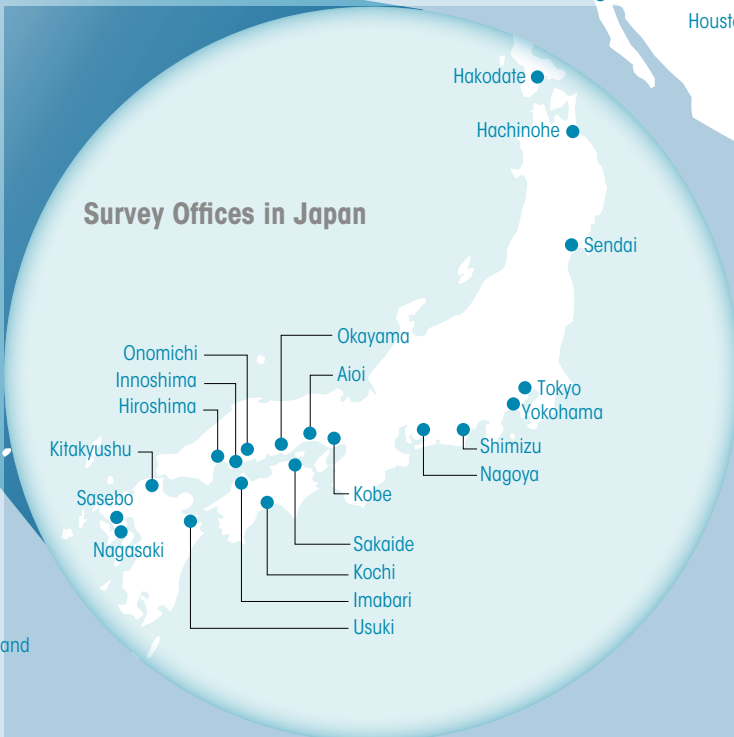
Asuncion, Paraguay

1/Nov.

Wurzburg, Germany

1/Dec.

Helsinki, Finland



Vancouver
Seattle

Los Angeles

Houston

New Orleans

Miami

Veracruz

Panama

Guayaquil

Callao

Asuncion

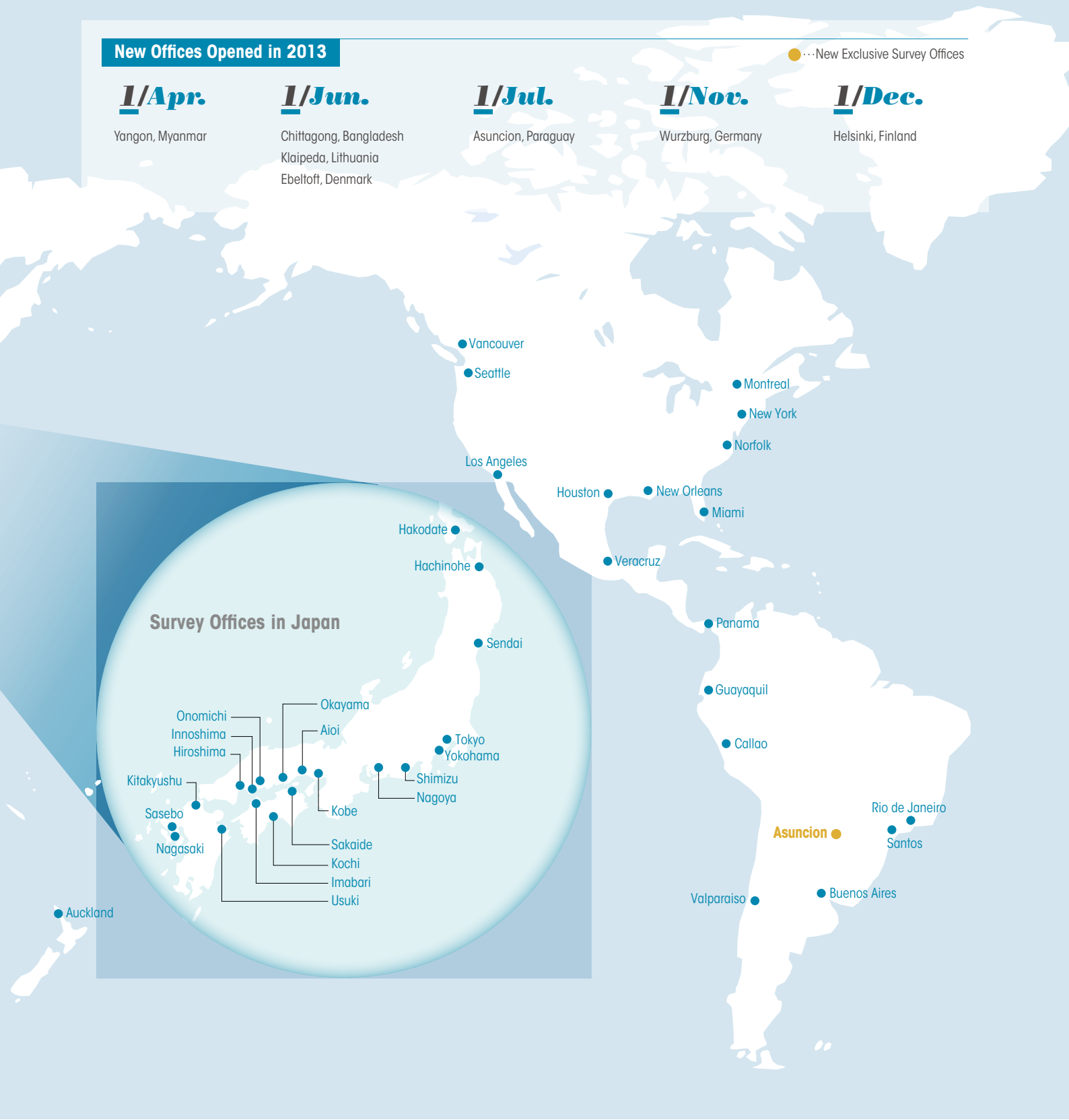
Rio de Janeiro

Santos

Valparaiso

Buenos Aires

Auckland



ClassNK in Action

ClassNK maintains an ever expanding global service network of more than 120 survey offices and five plan approval centers in major port cities and shipbuilding regions around the world.

ClassNK totaling more than 20.5 million gross tons were added to the ClassNK register in 2013, marking the third straight year that ClassNK has registered an annual total of more than 20 million gross tons.



DIVINE ACE
59,022 gt VEHICLES CARRIER built by MINAMINIPPON SHIPBUILDING CO., LTD. for MITSUI O.S.K. LINES, LTD



OCEANUS LEADER
62,838 gt VEHICLES CARRIER built by SHIN KURUSHIMA DOCKYARD CO., LTD. for SACHIEL SHIPHOLDING S.A



EVER LOGIC
98,882 gt CONTAINER CARRIER built by SAMSUNG HEAVY INDUSTRIES CO., LTD. GEORGE SHIPYARD for EVERGREEN MARINE CORP. (TAIWAN) LTD.

Class Surveys and Statutory Surveys

Class Surveys

Over the course of the year, ClassNK surveyors carried out a total of 15,092 classification surveys around the world. Of these, 859 were initial surveys, and 14,233 were class maintenance surveys.

Statutory Surveys

ClassNK is recognized and authorized to conduct surveys and issue certificates in accordance with international conventions and code as well as national requirements pertaining to ship safety and the prevention of marine pollution on behalf of 110 flag administrations around the world. In 2013, the Society carried out inspections and issued more than 36,000 statutory certificates

based on these authorizations as follows:

- International Tonnage certificates: 928
- International Load Line certificates: 2,888
- SOLAS related certificates: 18,882
- MARPOL related certificates: 12,551
- Anti-fouling system certificates: 1,347

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 2013, ClassNK issued numerous certifications or statements of compliance in accordance with new conventions, including the following:

- Ballast Water Management System certificates: 147
- Ship Recycling Facility certificates: 3
- Inventory of Hazardous Materials: 100
- EEDI certificates: 42
- SEEMP certificates: 684

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 2013:

1. In-water survey of ships: 28
2. Thickness measurements on ships: 23
3. Radio inspection services: 21
4. Maintenance of firefighting systems and equipment: 28
5. Maintenance of life saving equipment and appliances: 17
6. BLACH: 35
7. Voyage data recorders: 20
8. Hatch tightness testing: 1



MORNING CALYPSO
59,432 gt VEHICLES CARRIER built by IMABARI SHIPBUILDING CO., LTD. MARUGAME HEADQUARTERS for HIRAI LINE CO., LTD.

Port State Control (PSC)

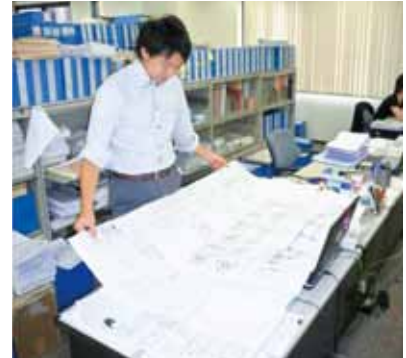
As with previous years, the Society continues to work with the managers and owners of detained vessels to help improve ship conditions and increase safety awareness. To this end, the Society's Survey Department published its Annual Report on Port State Control (August 2013), a compilation and analysis of PSC related statistics for the previous year, and distributed it to shipowners, ship managers, and other stakeholders. In addition, high-ranking ClassNK staff visited key maritime authorities around the world, including the Australian Maritime Safety Authority (AMSA) and China MSA during the course of the year. ClassNK also sent representatives to bilateral Korea-Japan meetings and China-Japan meetings, held in Takamatsu, Japan and Shandong, China respectively, to discuss inspection related matters and present on ClassNK efforts being taken to reduce the detention ratio of NK classed ships.

TECHNICAL SERVICES

During 2013, ClassNK issued Statements of Compliance to 40 vessels under the Society's Condition Assessment Program (CAP). Statements of Compliance were also issued for the ballast water management plans of 526 ships. As of the end of 2013, the aggregate total number of Statements of Compliance issued by the Society stood at 331 for CAP and 6,300 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 2013, this team was called into action for 4 incidents related to maritime casualties to provide technical support. In 2013, 105 vessels newly registered for the Society's ETAS service, bringing the total number of vessels registered for the service to 1,170.



CERTIFICATION SERVICES

Audit and Registration of ISM Code and ISPS Code and MLC 2006 related Systems

In addition to its work carrying out audits and issuing certifications for the ISM and ISPS Codes, ClassNK also began carrying out inspections and issuing certification in line with the Maritime Labour Convention (MLC) in 2013. Over the course of the year, the Society newly registered 68 companies and 917 ships in accordance with ISM requirements, bringing the total number of companies and vessels registered with the society to 677 companies and 5,270 ships respectively. As of the end of 2013, NK is authorized to conduct ISM audits on behalf of 77 Administrations. The Society registered 906 ships to ISPS Code requirements during the year, bringing the total number of ships registered with the Society to 4,653. NK currently conducts ISPS audits on behalf of 60 Administrations. The Society registered 4,534 ships to MLC requirements during the year, bringing the total number of ships registered with the Society to 4,408. ClassNK currently conducts MLC inspections on behalf of 48 Administrations.

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 2013, ClassNK certified a total of 58 organizations in line with ISO 9001, bringing the total number of organizations registered with the Society to 440. ClassNK also provided certifications to 10 organizations in line with ISO 14001 and 5 organizations in line with OHSAS 18001 bringing the total number of organizations registered to 124 and 12 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 related to maritime education and training, as well as GHG emissions. In 2013, ClassNK issued the following certifications as part of these activities.

- Maritime Education & Training: 21
- Training for Maritime Instructors: 62
- Seafarer Recruitment and Placement Services (MLC): 64
- Verification of GHG Emissions: 1
- Road Traffic Safety Management System (ISO 39001): 2



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 2013, more than 4,500 participants took part in ClassNK Academy courses held in 18 countries around the world. Courses offered during 2013 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



INDIGO HOPE
132,587 gt ORE CARRIER built by NAMURA SHIPBUILDING CO., LTD. IMARI WORKS for ITOCHU CORPORATION



AQUAFARM S.A.
1,269 gt BARGE built by Astillero Tsuneishi Paraguay S.A. for AQUAFARM S.A.



EXECUTIVE VALOUR
3,383 gt SUPPLY VESSEL built by COLOMBO DOCKYARD PLC for Executive Offshore



GREAT CRANE
749 gt ASPHALT CARRIER built by SASAKI SHIPBUILDING CO., LTD. for SENKO CO., LTD.



PACIFIC MARU
106,368 gt BULK CARRIER built by JAPAN MARINE UNITED CORPORATION, TSU SHIPYARD



BRIGHT WIND
43,013 gt BULK CARRIER built by TSUNEISHI SHIPBUILDING CO., LTD. TADOTSU FACTORY for ACACIA LINE S.A.



SHINSEI MARU
1,242 gt OCEAN RESEARCH VESSEL built by MITSUBISHI HEAVY INDUSTRIES, LTD. SHIMONOSEKI SHIPYARD & MACHINERY WORKS for JAMSTEC



KWAJALEIN
583 gt PASSENGER/G. CARGO built by KEGOYA DOCK CO., LTD. for Marshall Islands Shipping Corporation (MISC)



SUNNY VISTA
47,914 gt LPG CARRIER built by MITSUBISHI HEAVY INDUSTRIES, LTD. NAGASAKI SHIPYARD & MACHINERY WORKS for JX SHIPPING CO., LTD.



DERYOUNG SUNBRIGHT
8,818 gt GENERAL CARGO built by HIGAKI SHIPBUILDING CO., LTD. for DERYOUNG MARITIME (H.K.) CO., LTD.

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 2013 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 66 surveyors around the world during the year. In addition to the training provided by the Society's Head Office, 48 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 21 surveyors at the Society's Training Center in Japan as well as for 43 surveyors at its Shanghai, Singapore and London Offices.

Maritime Labor Inspector Training

ClassNK conducted Maritime Labor Inspector training for 19 surveyors at its Training Center in Japan as well as for 40 surveyors at the Society's Shanghai, Singapore, Genova, London, New York, and Veracruz Offices.

Internships

In response to requests from numerous universities ClassNK offered 27 internships to students from Japan, China, India, 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 Japanese Ministry of Land, Infrastructure, Transport and Tourism

In 2013 ClassNK conducted a variety of lectures at the request of the Japanese Ministry of Land, Infrastructure, Transport and Tourism (MLIT), including a lecture on "Principles of Ship Security Risk Assessment at Classification Societies" at MLIT's ISPS Code Seminar.

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.



DEVON BAY
31,756 gt BULK CARRIER built by MITSUI ENGINEERING & SHIPBUILDING CO., LTD. TAMANO WORKS for "K" LINE BULK SHIPPING (UK) LIMITED



ORIENT BECRUX
21,163 gt BULK/LUMBER CARRIER built by SHIN KOCHIYUKO CO., LTD. for OMC SHIPPING PTE LTD



BUENA FORTUNA
2,999 gt LPG (PRESSURE) built by SHITANOE SHIPBUILDING CO., LTD. for TABUCHI MARINE PTE. LTD.

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.

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 2013:

- Investing for the future -Creating Greener & Smarter Technology for Maritime Industry-
- Movement of NOx Reduction Technology
- Strengthening of Onboard Noise Regulations by the IMO
- Ballast Water Management Convention - Update -
- Recent topic at IMO -MEPC65&MSC92-

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 2013, PrimeManagement Seminars were held in Bulgaria and Ukraine drawing a total of 100 participants.



NAVE AQUILA
30,052 gt OIL/CHEMICAL CARRIER built by DAE SUN SHIPBUILDING & ENGINEERING CO., LTD. for NAVIOS MARITIME ACQUISITION CORPORATION



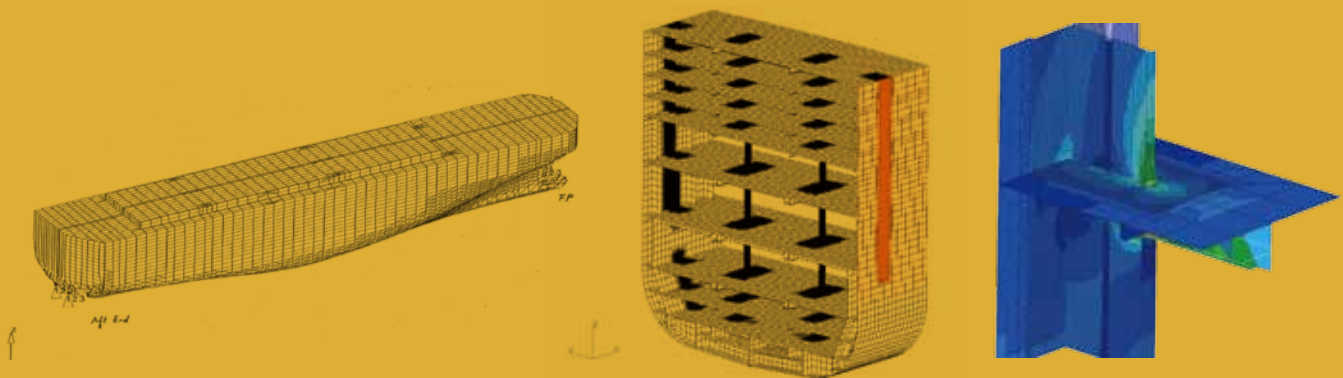
SIMURGH
31,864 gt BULK CARRIER built by OSHIMA SHIPBUILDING CO., LTD. for IRVINGTON NAVIGATION, INC.



DAIEI MARU NO.1
3,498 gt OIL CARRIER built by Kurinoura Dockyard Co., Ltd. for DAIEI KISEN K.K.

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.



Research and Development Related to Ship Classification

Based on its annual Research and Development plan, ClassNK carried out a variety of classification related research with the aim of creating new guidelines and expanding its technical services, including the following:

Development of Guidelines for Pure Car Carriers (PCC) structures

Due to their cargo loading/unloading requirements (i.e. Roll-on & Roll-off), Pure Car Carriers have a number of unique structural features including multi-car decks, and limited numbers of transverse bulkheads.

In response to the expansion of the Panama

Canal, new Over-Panamax PCCs are now being designed, and many new designs utilize more complex bulkhead free hull structures in order to improve loading efficiency.

In response to these changes, ClassNK is developing new Guidelines for Pure Car Carriers

to provide ship designers and shipyards with rational guidelines that are applicable to both existing PCCs and new designs.

As part of this research, ClassNK carried out investigative research on the assessment of Racking strength, which is the unique structural



issue for PCCs. Calculations on sea-keeping and wave load analyses were conducted on PCCs of various sizes and dominant sea-states for the Racking strength were established. Based on this investigation, drafts of simplified formulas specifying designed

loads for the assessment of the Racking strength were proposed based on ClassNK's the Guidelines for Container Carrier Structures (Direct Strength Analysis) established in 2003 and amended in 2011.

Based on this research, ClassNK is now

verifying the Guidelines through integrated analyses of wave loads and structure responses and calibrating the structure criteria of the Guidelines prior to their expected publication in 2014.

Joint Research to meet the demands of the Industry

Beginning in 2009, ClassNK established a new joint research scheme to contribute financial and technical support to numerous joint research projects with various external institutions. At the end of 2013, a total of 144 projects had been completed as part of this program, with 105 further projects underway. 2013 also saw the completion of Japan's first national program to reduce GHG emissions from ships, which ClassNK had supported as part of its joint research initiatives since 2009.

Japanese National Project to Reduce Maritime GHG Emissions

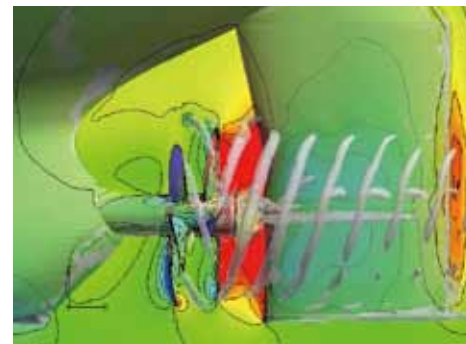
In 2009, Japan's Ministry of Land, Infrastructure, Transport & Tourism launched a four year national project to support the development of new technology to reduce Greenhouse Gas (GHG) emissions from ships. With the support of ClassNK, the Nippon Foundation, and the Shipbuilding Research Centre of Japan, this program brought more than 40 maritime companies and organizations together to carry out 22 joint research programs in 6 key technical domains as shown below.

Developing hull forms with reduced resistance and high propulsion efficiency

- Development of minimal ballast water ships
- Development of optimum hull form for contra-rotating-propeller
- Development of optimum bow design in waves for container carriers
- Development of highly efficient container ships (Incl. Hull shape + WHR)

Developing technologies for reducing the frictional resistance of hulls

- Development of micro-bubble lubrication (air lubrication) system
- Practical application of an air lubrication system to shallow-draft, twin screw ships
- Development of extremely low resistance hull coatings



Improving propeller efficiency

- Development of non-hub vortex propellers
- Development of a propeller attachment to improve thrust efficiency
- Development of a load fluctuation stabilizer using shaft driven generator and controllable pitch propeller

Improving the efficiency of diesel engines and exhaust heat recovery

- Development of technologies to optimize combustion in large slow speed diesel engines
- Development of a high efficiency heat recovery system for small size diesel engines
- Development of a small size dual fuel diesel engines
- Development of a hybrid turbocharger for marine use

Improving operational and steering efficiency

- Development of an optimum weather routing system reservation systems
- Development of port congestion management and berth reservation system
- Development of efficient maneuvering system for large car carriers
- Development of an optimum routing management system
- Development of detailed data measurement and analysis systems for improved ship operations

Developing hybrid propulsion systems

- Development of Gigacell (high capacity nickel-hydrogen cell) battery/PV cell hybrid power system
- Development of next generation sail assisted cargo ships
- Development of lithium ion battery/PV cell hybrid power systems

The results of several of these projects are introduced below.



Practical application of an air lubrication system to shallow-draft, twin screw ships

■ Participants

- Mitsubishi Heavy Industries (MHI)
- NYK Line (NYK)
- Monohakobi Technology Institute (MTI)
- ClassNK

■ Overview

This project aimed to validate the effectiveness of air lubrication systems via the permanent installation and testing of such a system on a module carrier, which due to its flat-bottomed, shallow draft, twin-screw construction was considered to ship-type that would benefit most from the application of air lubrication.

■ Target

10% GHG emission reduction

■ Results

Verification tests on the subject vessel confirmed that the air lubrication functioned properly and reduced CO₂ emissions by 10% during sea trials.



Development of extremely low resistance hull coatings

■ Participants

- Nippon Paint
- Nippon Paint Marine
- Mitsui O.S.K. Lines (MOL)
- ClassNK

■ Overview

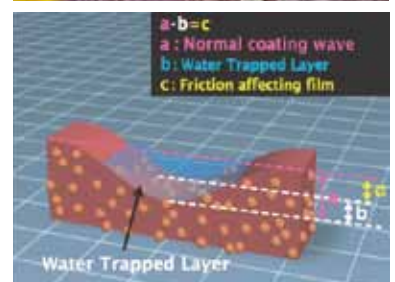
By further developing friction reducing components included in self-polishing coatings (SPC), this project aimed to develop an ultra-high efficiency, ultra-low friction hull coating and verify its effectiveness via model testing and application on actual vessels.

■ Target

10% GHG emission reduction

■ Results

A new ultra high efficiency, anti-fouling coating (A-LFC) was developed and applied to actual vessels. Analysis data from the vessel operations confirmed a 7-10% reduction of GHG emissions depending on the vessel type.



Development of technologies to optimize combustion in large slow speed diesel engines

■ Participants

- Mitsui Engineering and Shipbuilding
- ClassNK

■ Overview

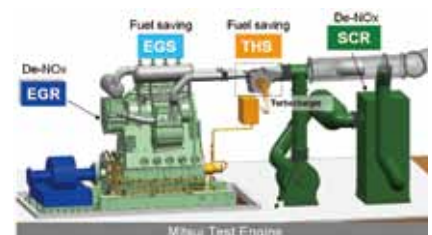
This project aimed to comprehensively optimize large engine fuel efficiency by optimizing fuel injection patterns and the timing of exhaust valve opening and closing to ensure optimized operations at a variety of engine loads, as well as application of an exhaust energy recovery system.

■ Target

9% GHG emission reduction

■ Results

As a result of this research, a new hydraulic exhaust heat recovery system was developed, and combined with an electronically controlled engine and a variable mechanism to partially improve load performance. Evaluation during shop tests confirmed that the system reduced GHG emissions by 10%, surpassing the project's initial reduction target..



Development of a hybrid turbocharger for marine use

Participants

- NYK Line (NYK)
- Monohakobi Technology Institute (MTI)
- Mitsubishi Heavy Industries (MHI)
- Universal Shipbuilding Corporation (now Japan Marine United)
- ClassNK

Overview

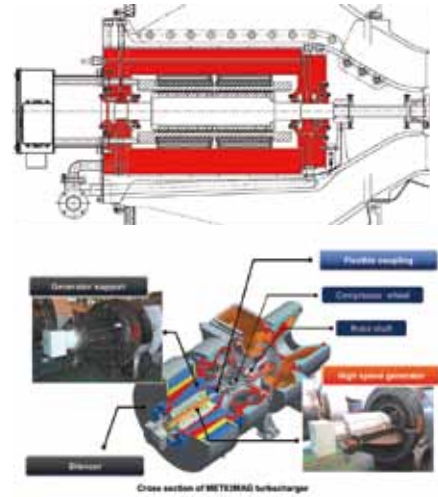
This project aimed to develop a new hybrid turbocharger containing a high-speed electric generator that would use exhaust gas from the vessel and reduce fuel consumption.

Target

2% GHG emission reduction

Results

The hybrid turbocharger developed as part of this project was installed on an actual vessel and monitored during voyage. Analysis of this data confirmed that CO₂ emissions decreased by 1.8% over the course of the total voyage (including periods when both the hybrid turbocharger and diesel generator were operated simultaneously).



Based on the success of this program, the Ministry of Land, Infrastructure, Transport and Tourism decided to launch a new scheme in fiscal 2013

to provide continued support for the development of GHG reduction technologies. ClassNK will continue to play an active role in this program and

provide vigorous support to each of the research projects being carried out as part of the program.



GRACE DAHLIA
141,671 gt LNG CARRIER built by Kawasaki Heavy Industries, Ltd. Ship & Offshore Structure Company Sakaide Shipyard for NIPPON YUSEN KABUSHIKI KAISHA



RYOUMEI MARU
749 gt ASPHALT CARRIER built by MIURA SHIPBUILDING CO., LTD. for KYOKUYU SHIPPING CO., LTD.



UNITED DIGNITY
92,146 gt BULK CARRIER built by JAPAN MARINE UNITED CORPORATION, KURE SHIPYARD for XANADU MARITIME S.A.



GENUINE VENUS
19,899 gt OIL/CHEMICAL CARRIER built by KITANIHON SHIPBUILDING CO., LTD. for "K" LINE PTE LTD.



KAKUYU MARU
3,031 gt LNG CARRIER built by Kawasaki Heavy Industries, Ltd. Ship & Offshore Structure Company Sakaide Shipyard for TSURUMI SUNMARINE CO., LTD.



HORAIKAN
160,057 gt OIL CARRIER built by MITSUBISHI HEAVY INDUSTRIES, LTD. NAGASAKI SHIPYARD & MACHINERY WORKS for Mitsui O.S.K. Lines, Ltd.



HASSYOMARU No.5
3,668 gt OIL CARRIER built by USUKI SHIPYARD CO., LTD. for NISHIYAMA KISEN Y.K.

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 2013, the Society attended the IMO meetings listed to the left as part of the Japanese Government delegation or as a representative of the International Association of Classification Societies. In addition, the Society continues to dispatch a member of its staff to the IMO secretariat on a full-time basis.

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 on the IMO International Convention Calendar on the ClassNK website.

56th Sub-Committee on Fire Protection	January
17th Sub-Committee on Bulk Liquids and Gases	February
55th Sub-Committee on Stability, Load Lines and Fishing Vessels	February
21st Sub-Committee on Flag State Implementation	March
57th Sub-Committee on Ship Design and Equipment	March
44th Sub-Committee on Standards of Training and Watchkeeping	April
65th Session of the Maritime Environment Protection Committee	May
92th Session of the Maritime Safety Committee	June
18th Sub-Committee on Dangerous Goods, Solid Cargoes and Containers	September



International Association of Classification Societies (IACS)

ClassNK plays an active role in the activities of IACS, including serving as Chairman of the organization from during 2010-11 and Vice-Chairman during 2011-2012. In 2013, ClassNK staff served as the Chair of the Survey Panel, one of four panels of the IACS including the Hull, Machinery, and Statutory Panels, and also served as the Chair of the Expert Group on IMO Goal Based Standards (GBS).

ClassNK also contributed to the development of the Harmonized CSR (Common Structural Rules) and reflected the opinions of the industry through an IACS Council controlled consultative group as well as the Hull panel and 10 project teams under its control.

In 2013, ClassNK participated in the IACS meetings listed to the right.

Council Meeting	Twice
General Policy Group Meeting	Twice
Quality Committee Meeting	Twice
Consultative Small Group Meeting (CSR, Quality Policy (2 Groups))	6 times
Experts Group Meeting (GBS, EU, Environment etc. (8 Groups))	12 times
Technical Panel (Hull, Machinery, Survey, Statutory)	9 times
Project Team Meeting (14 Teams)	23 times
IACS/Industry Joint Working Group Meetings (EEDI, Structured Approach for the Developments of Rules)	4 times
Steering Committee Meeting (Strategy of IACS)	2 times
Workshops on Harmonized CSR and GBS	4 times
High Level Meeting with Industry	2 times
Industry Presentation on Harmonized CSR	5 times

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. As well as taking an active part in the planning of the Executive Committee and technical management activities, ClassNK also served as the Chair of the ACS Ship Recycling and GBS working groups.

ClassNK also contributed to ACS independent Technical Seminar (July), served on the Safe Navigation & Environment Committee for the Asian Shipowners' Forum (ASF/SNEC), and served as the ACS Liaison to ASF/SNEC. ClassNK also represented the association at the Asian Shipbuilding Experts' Forum (ASEF) held in November.

In 2013, ClassNK participated in the meetings listed to the right.



Executive Committee Meeting	Once
Technical Management Group Meeting	Twice
Technical Seminar	Once
Ship Recycling Seminar	Once
Working Group Meeting (4 groups incl. GBS and Ship Recycling)	4 times
Meetings with Industry (incl. technical seminars, meeting with ASEF)	3 times



International Committees

Committee	Date	Place
19th Indian Committee	15 February	Kochi
11th Philippine Committee	26 February	Cebu
19th China Committee	28 February	Guilin
6th Middle East Technical Committee	7 March	Dubai
4th North American Committee	15 March	New York
22nd Greek Committee	17 April	Athens
11th British Committee	9 May	London
11th Hong Kong Technical Committee	16 May	Hong Kong
13th Taiwan Technical Committee	28 May	Taipei
10th Turkish Committee	29 May	Istanbul
18th China Technical Committee	30 May	Luoyang
24th Korea Committee	14 June	Seoul
9th Malaysian Committee	5 July	Kuala Lumpur
10th Singapore Committee	24 July	Singapore
4th Latin American Committee	7 August	Asuncion
20th China Committee	26 August	Tangshan
17th Singapore Technical Committee	11 September	Singapore
23rd Danish Technical Committee	27 September	Copenhagen
14th Taiwan Committee	1 October	Taipei
39th Hong Kong Committee	9 October	Hong Kong
11th Thai Committee	1 November	Phuket
5th Greek Technical Committee	12 November	Athens
20th Korea Technical Committee	20 November	Busan
3rd Indian Technical Committee	21 November	Mumbai
1st Brazil Technical Committee	26 November	Rio de Janeiro
1st Chile Technical Committee	28 November	Valparaiso
11th Indonesia Committee	6 December	Palembang



	TM	LL	SOLAS					MARPOL 73/78			
			SC	SE	SR	ISM	ISPS	I	II	IV	VI
Madeira	●	●	●	●	●	●	●	●	●	●	●
Malaysia	●	●	●	●	●	●	●	●	●	●	●
Maldives	●	●	●	●	●	●		●			
Malta	★	★	★	★	★	★	★	★	★	★	★
Marshall Is.	●	●	●	●	●	●	●	●	●	●	●
Mauritius	●	●	●	●	●	●	●	●	●	●	●
Mexico	★	★	★	★	★	●		★			
Morocco	★	●	★	★	★	★		★	★		
Mozambique		●						●	●	●	
Myanmar	●	●	●	●	●	●	●	●	●	●	●
Namibia	●	●	●	●	●			●	●	●	
Netherlands	●	●	★	★	★	●	●	●	●	●	●
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		●									

Note1: Effective from 1 January 2014

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

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 Chris Bailey Sunil Malhotra Michael G. Parker Epaminondas G. E. Embiricos Philip D Atkinson Alastair Fischbacher Adri R. Postema Michael K. Drayton John Kerr	Managing Director Technical Vice President Chief Operating Officer Chairman Chairman Technical Director 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 Ship Management Limited Rio Tinto Shipping Limited Shipping Technology & Innovation Shell International Trading and Shipping Company Ltd The Baltic Exchange V. Ships UK Limited

BRAZIL TECHNICAL COMMITTEE

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Member	Rosalvo S. Sales Jr. Frank Dambrin Comte. Joaquim Fernando da Silva Michel P. Andrade Hiroshi Nishioka Takuya Fujita Soichiro Inoue Paulo Duprat Eduardo Cardoso Ribeiro Luiz Fernando Reis Junqueira Cesar Augusto de A. Lima Ricardo B. Portella Bertoldo Gancz Regina Maria Ozorio da Cruz Toshihiko Tsutsumi Nilton Gonçalves Atul Sethi	Director Managing Director Marine General Manager Engineering Manager Production Director Senior Staff Officer Vice-President Director Contract Manager Clearance & Vetting Manager Section Manager – C&A Shipbuilding Naval Architect and Marine Engineer Deputy Director Director Executive Manager of Engineering President General Technical Manager - PROMEF Country Manager	Business Development & Strategic Planning Amec KROMAV Bourbon Offshore Marítima Elcano, S.A. Estaleiro Atlântico Sul IHI do Brasil Representações Ltda. Project Division Kawasaki Heavy Industries, Ltd. Mitsubishi Indústrias Pesadas do Brasil Ltda. OSX PETROBRAS PETROBRAS ENG-AB LNG Shipping PETROBRAS GAS & Energy 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	Andres Fonzo Rosauero Segovia Gonzalo Araya Gajardo Carlos Valenzuela Sotomayor Francisco Lopez Luis Bauerle Hugo Barra Pablo Gomez Ramon Gatica Cristian Rojas Mogens Mellerup Carlos Bastías Nercelles	Director Technical Manager Chief of Maritime Inspections Services Vice President Shipmanagement Superintendent Logistics and Procurement Manager Fleet Manager General Manager Shipmanagement and Commercial Manager Fleet Manager Tugs Manager Senior General Manager Marine Manager	ASMAR Chile National Shipowners' Association DIRECTEMAR Empremar S.A. Humboldt Shipmanagement Naviera Chilena del Pacífico S.A. SOCIBER Sociedad Nacional Marítima S.A. Southern Shipmanagement (Chile) Ltda. Sudamericana Agencias Aereas y Marítimas S.A. Head of Handysize Operations Ultrabulk Ultratug

CHINA COMMITTEE

Chairman	Sun Jiakang	Executive Vice President	China Ocean Shipping (Group) Company (COSCO)
	Li Tian Bao	Board Chairman	Bohai Shipbuilding Heavy Industry Co., Ltd.
Member	Wang Yongliang	President	Chengxi Shipyard Co., Ltd.
	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
	Tao Jian	Vice President	China Shipbuilding Industry Corporation
	Lu Yi Bin	Deputy Manager	China Shipbuilding Trading Co., Ltd. Technical Dept. of Enterprises Management Div.
	Yan Zhi Chong	Managing Director	China Shipping (Group) Company
	Xu Xing	Deputy Director	China Shipping Development Company Limited Ship & Ocean Engineering Dept.
	Hou Liping	Deputy Managing Director	China State Shipbuilding Corporation
	Li Cheng	Vice President	COSCO Container Lines Co., Ltd.
	Sun Xing Tao	President	Dalian Shipbuilding Industry Co., Ltd.
	Liu Shi Bao	Vice President	Fortune Ocean Shipping Limited
	Wang Yong	President	Hebei Ocean Shipping Co., Ltd.
	Zhang Haisen	Vice President	Hudong-Zhonghua Shipbuilding (Group) Co., Ltd.
	Yang Jian Ming	Managing Director	Jiangnan Shipyard (Group) Co., Ltd.
	Han Cheng Min	President	Jiangsu Ocean Shipping Company Ltd.
	Huang Zi Qiang	President	Nantong COSCO KHI Ship Engineering Co., Ltd. Pacific King International Shipping Management Co., Ltd., Shanghai
	Wang Hong	Chairman	Penglai Zhongbai Jinglu Ship Industry Co., Ltd.
	Liu Jianfeng	Assistant President	Director of Science & Technology Dept. Shanghai Waigaoqiao Shipbuilding Co., Ltd.
	Tian Zhong Shan	Executive Director General Manager	Sinotrans Shipping Limited

CHINA TECHNICAL COMMITTEE

Chairman	Zhao Zhanjun	President	China Ship Design & Research Center Co., Ltd.
	Zhan Shuming	Chief Engineer	COSCO Shipyard Group Co., Ltd.
Member	Li Guang Min	Chief Engineer	Bohai Shipbuilding Heavy Industry Co., Ltd.
	Feng Guo Ying	Vice President	
	Chen Zhengjie	Vice General Manager	China Business Marine Co., Ltd. (SINOMARINE)
	Zhang Lelong	Vice President	China Marine Bunker (PetroChina) Co., Ltd.
	Chen Jian	Manager	Fleet Planning Department, Strategic Planning Division
	Chen Yan	Deputy Managing Director	China Ocean Shipping (Group) Company
	Wang Guorong	General Manager	China Shipping Development Co., Ltd.
	Cai Deqing	Managing Director	Tanker Company
	Hong Ying	Senior Chief Engineer	China Shipping International Trading Co., Ltd.
	Gao Cheng Gang	General Manager	COSCO Bulk Carrier Co., Ltd.
	Zhao Jin Wen	Senior Chief Engineer	Safety & Technology Management Division
	Yang Wei Zan	Deputy Technical Director	COSCO Container Lines Co., Ltd.
	Chen Yu	Senior Engineer	Ship Management Dept.
	Zhang Minghua	Managing Director	COSCO Shipping Co., Ltd.
	Zhou Zhi Hao	Vice President, Senior Engineer	Dalian Master Well Ship Management Co., Ltd.
	Lou Dan Ping	CMAC Arbitrator	Safety & Technical Division
	Hu Keyi	Senior Engineer	Dalian Ocean Shipping Company
	Chen Xing	Deputy Chief Technical Officer	Dalian Shipbuilding Industry Co., Ltd.
	Peter Chen	Technical Director	Dalian Tiger Shipping Ltd.
	Sun Zhenglin	Managing Director	Evergreen Industries Holding Group
	Jin Qiang	Vice President, Senior Engineer	Guangzhou Shipyard International Co., Ltd.
	Goro Nishiyama	Deputy Chief Technical Officer	Hudong-Zhonghua Shipbuilding (Group) Co., Ltd.
	Qian Huaqing	Senior Engineer	Technology & Market Development
		Senior Engineer	Jiangnan Shipyard (Group) Co., Ltd.
			TDCC Office
			Jiangsu Hantong Ship Heavy Industry Co., Ltd.
			Jiangsu Ocean Shipping Co., Ltd.
			Jinhai Heavy Industry Co., Ltd
			Merchant Ship Department
			Marine Design & Research Institute of China
			Senior General Manager of Central Technical Div.
			Nantong COSCO KHI Ship Engineering Co., Ltd.
			New Century Shipbuilding Co., Ltd.

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	Wang RongLiang	General Manager	Qingdao Fushun Ship Management Co., Ltd.
	Guan Qinghui	Deputy Managing Director	Qingdao Ocean Shipping Co., Ltd.
	Ren Jian	Technology Director	Qingshan Shipyard of SINOTRANS & CSC SBICO
		Senior Engineer	
	Mu Shi Jia	V. G. Manager	Sea Carrier Shipping Co., Ltd
	Wang Lin	Vice President	Shanghai Merchant Ship Design & Research Institute
		Professor	
	Qiu Xin Yao	General Manager	Shanghai Ocean Shipping Company LTD.
	Jin Yun Long	Technical Chief	Dept. of System Transportation Technology Shanghai Ship & Shipping Research Institute, Ministry of Communications
			Shanghai Shipyard Co., Ltd.
	Ye Jinwen	Technical Director	Shanghai Waigaoqiao Shipbuilding Co., Ltd.
	Tao Ying	Chief Engineer	
		Senior Engineer	
	Gao Fu Quan	Managing Director	Shanhaiguan New Shipbuilding Industry Co., Ltd
	Senior Engineer		
Yang Shiming	Technical Director	Sinopacific Shipbuilding Group Co., Ltd.	
Xiao Sen Yuan	President	SITC Ship Management Co., Ltd.	
Gao Yunqiang	Deputy General Manager	Tianjin Xingang Shipbuilding Heavy Industry Co., Ltd.	
Deng Wenpeng	Vice General Manager/Chief Engineer	Winning International Ships Management Co., Ltd.	
	Certified Safety Engineer		
Yan Jun	Vice Chief Engineer	General Manager of Offshore Wuchang Shipbuilding Industry Co., Ltd.	
		Zhongchang Marine Company Ltd.	
Cao Zhi Teng	General Manager		

DANISH TECHNICAL COMMITTEE

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	Claus Usen Jensen	Executive Vice President Technical Division	A/S Dampskibsselskabet TORM
	Lars Robert Pedersen Per Sønderstrup	Deputy Secretary General Head of Regulation, EMBA Maritime Regulation and Manning Ministry of Business & Growth	BIMCO Danish Maritime Authority
	Per Winther Christensen Lars Christiansen Peter Justesen	Director Technical Director Vice President Head of Fleet Management	Danish Shipowners' Association ID Shipping A/S Lauritzen Kosan A/S
	Erik Møller Thomas S. Knudsen	Technical Manager, Projects Senior Vice President Head of Marine Low Speed	Lauritzen Offshore Services A/S MAN Diesel & Turbo
	Kurt Rye Damkjær Svend Anthonsen	Senior Vice President Chief Technical Officer	Nordic Tankers Marine A/S Othello Shipping Company A/S

GREEK COMMITTEE

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	Tatiana V. Petalas		Carras (Hellas) S.A.
	Michael D. Chandris	Chairman	Chandris (Hellas) Inc.
	Andreas N. Hadjiyiannis		Cyprus Maritime Co., Ltd.
	Semiramis Paltos	Head of Technical Operations & Crew (Mechanical Engineer & Naval Architect)	Diana Shipping Services S.A.
		President	
	Dimitrios S. Tsolakis		DST Shipping Inc.
	Philippos 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.

Member	George J. Souravlas Diamantis P. Diamantides Dionysios Delaportas Theodore P. Angelopoulos Babis Ziogas Angeliki Frangou Basil E. L. Mavroleon Ted Petropoulos D. Marinos Dimitris E. Patrikios Harry N. Vafias George S. Livanos Panagiotis N. Tsakos Michael M. Scufalos I. Kehagias Ori Angel Diamandis J. Caloghiros	CEO Managing Director General Manager Managing Director Chairman of the Board and Chief Executive Officer Chairman General Manager President-Chief Executive Officer Chairman President Managing Director F.I.C.S. Managing Director Managing Director	Load Line Marine S.A. Marmaras Navigation Ltd. Meadway Shipping & Trading Inc. Metrostar Management Corp. MFS Shipmanagement Navios Maritime Holdings Inc. Niovis Shipping Co. S.A. Petrofin Ship Management Inc. Seastar Chartering Ltd. Springfield Shipping Co. Panama S.A. StealthGas Inc. Sun Enterprises Ltd. Tsakos Shipping & Trading S.A. Union Commercial Inc. White Sea Navigation S.A. XT Management Ltd. Z & G Halcoussis Co., Ltd.
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GREEK TECHNICAL COMMITTEE

Chairman	Marios Stafilopatis		Byzantine Maritime Corporation
Member	Manolis G. Koutlakis P. E. Antonelos Amir Geva Christos C. Hadjigeorgiou George Laou Haris G. Giantzikis George Kourelis Demetrios Koukoulas Eleftherios A. Belessis Michael D. Kapsorrachis Dionisios Kourouklis Antonis Giantsis George Kotsyfis George Alexandridis Dimitrios A. Alifragis Pantelis Chondros Costas Petsas Leontios Pitaoulis Leonidas S. Zogopoulos Stefanos Georgiou George H. Paschalis Dimitrios J. Fafalios Pavlos G. Perakis Dimitrios Theodoropoulos Christoforos E. Andreadis Constantinos Tourlos Anastasios Kalogiannis Dimitris Vlassopoulos Dion Theodorou Takis Koutris John A. Yiannakenas Nick Argyros Yannis Voulgaris Kostas Symeonidis John N. Ioannidis Theodoros Pavlidis Stavros Daniolos Nikolaos Balalis Costas Mitropoulos Evangelos D. Laliotis George Hatzivassiliou Paraskevas Koutsoukos Miltos Synefiats Theodosios Vareltszis	General Manager Managing Director Technical Manager Technical Manager General Manager Technical Management Services Tanker Division General Manager Technical Management Services Dry Division Technical Manager Technical Manager Director Marine Operations Technical Manager Deputy Technical Manager Technical Coordinator General Manager Technical Manager Technical Manager Technical Manager New Building Projects Technical Manager Technical Manager Tankers Division Mechanical Marine Engineer Technical Director Director Naval Architect and Marine Engineer (N.T.U.A.) Technical Manager Technical Department Chief Operating Officer Technical Manager Fleet Director Technical Manager Technical Department Technical Manager Managing Director Technical Department Technical Director Technical Manager Mech. Eng. NTUA MSc Marine Eng. Newcastle Technical Manager Chief Shipping Officer Technical Director Technical Manager Technical Director Technical Director Naval Architect & Marine Engineer Technical Manager Managing Director & Technical Manager Technical Director Technical Manager	A. M. Nomikos Transworld Maritime Agencies S.A. Ace Ships Management Almi Marine Management S.A. Alpha Tankers and Freighters International Ltd. Arcadia Shipmanagement Co. Ltd Cardiff Marine Inc. Cardiff Marine Inc. Carras (Hellas) S.A. Centrofin Management Inc. Chandris (Hellas) Inc. Cyprus Maritime Co. Ltd. Diana Shipping Services S.A. Dynacom Tankers Management Ltd. E. Nomikos Corp. Efnav Company Ltd. Empros Lines Equinox Maritime Ltd. Eurobulk Ltd. European Navigation Inc. Evalend Shipping Co. S.A. Fafalios Shipping S.A. Fairisky Shipping and Trading S.A. Franco Compania Naviera S.A. Golden Union Shipping Co. S.A. Grecomar Shipping Agency Ltd Iolcos Hellenic Maritime Enterprises Co. Ltd. Ionic Shipping Group Konkar Shipping Agencies S.A. Kristen Marine S.A. Kritsas Shipping S.A. Laskaridis Shipping Co. Ltd. Load Line Marine S.A. Lydia Mar Shipping Co. S.A. Maryville Maritime Inc. Metrostar Management Corp. Minerva Marine Inc. Navios Shipmanagement Inc. NEDA MARITIME AGENCY Co Ltd Niovis Shipping Co. S.A. Oceanbulk Maritime S.A. Paradise Navigation S.A. Pleiades Shipping Agents S.A. Quintana Ship Management Ltd.

Member	Elias A. Galanopoulos Dimitris Andreadakis Michael Anagnostou Achilleas Avlonitis Dimitris C. Makris Apostolos P. Gavalas Diamantis Andriotis Vassilios I. Peponis Dimitrios A. Heliotis Theo G. Baltatzis Vasileios Lampropoulos C. Dean Tseretopoulos Savvas D. Papadatos Stylianios Smyrlakis Constantinos M. Metaxas Takis Koutouras	Managing Director Technical Director Managing Director and Technical Manager Technical Manager Technical Manager Technical Manager Technical Manager Naval Architect & Marine Engineer, NTUA Director of Marine Operations Technical Director General Manager Technical Department Manager Naval Architect-Marine Engineer, MBA Mechanical Engineer Special Projects & Claims Manager Fleet Director Naval Architect - Marine Engineer Technical Manager Technical Manager	Regal Mare Inc. Remi Maritime Corp. Roswell Navigation Corp. S. Frangoulis (Ship Management) Ltd. Springfield Shipping Co. Panama S.A. Starmarine Management Inc. Stealth Maritime Corporation S.A. Sun Enterprises Ltd. Target Marine S.A. Technomar Shipping Inc. Thenamaris Ships Management Inc. Triple Tee International Ltd. Tsakos Shipping and Trading S.A. TST International S.A. Union Commercial Incorporated Z & G HALCOUSSIS Co. Ltd.
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HONG KONG COMMITTEE

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

HONG KONG TECHNICAL COMMITTEE

Chairman	Peter Cheng	Managing Director	Peter Cheng Naval Architect & Marine Consultant Ltd.
Member	Marcel Liedts Alok Roy Vishal Khurana Liu Yi Fan Chen Xin Chuan Kishore S. Rajvanshy Lau Pong Sze Y. H. Shum Zhang Shiwei Li Kwok Hung Vipin Sachdeva Pan Zhong Shan Kenji Yamada Haruki Aono James S. C. Tai Vijayesh Dutta Kenneth Koo Anil Arora W. L. Hung	Chief Operating Officer Fleet Manager Director & Chief Executive Deputy General Manager Senior Engineer Deputy Managing Director Managing Director Managing Director Director Deputy General Manager Managing Director Vice President Fleet Director & General Manager General Manager Ship Management Division Executive Director General Manager -cum- Technical Director Fleet Management Department Technical Manager Group Chairman & Chief Executive Officer Head of Ship Management & Projects General Manager	Anglo-Eastern Group Bernhard Schulte Shipmanagement (Hong Kong) Limited Partnership Chellaram Shipping (Hong Kong) Ltd. China Shipping (H.K.) Marine Co., Ltd. COSCO (H.K.) SHIPPING CO., LTD Fleet Management Limited Gold Bridge Shipping Ltd. Goldbeam International Limited Hong Kong Ming Wah Shipping Co., Ltd. IMC Shipping Services Co. Pte. Ltd. KC Maritime Ltd. Lihai International Shipping Limited New Asian Shipping Company, Limited Northstar Ship Management Ltd. Orient Overseas Container Line Ltd. 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	Consultant	-Energy, Infrastructure, Shipping
Member	H. Ansari	Visiting Professor (Insurance)	
	Ashok K. Srivastava	Chief Executive Officer	Arcadia Shipping Limited
	A. K. Bahl	President (Shipping)	British Marine Plc
	Ashok V. Chowgule	Executive Director	Chowgule and Company Private Limited
	Cmde K Subramaniam	Chairman & Managing Director	Cochin Shipyard Limited
	Shri Ajithkumar Sukumaran	Engineer & Ship Surveyor cum DDG(Tech)	Directorate General of Shipping
	Satish Kumar	Managing Director	Dockendale Ship Management (India) Pvt. Ltd.
	A. R. Ramakrishnan	Managing Director	Essar Shipping Limited
	M. P. Dhanuka	Executive Director	GEE Limited
	Umesh C. Grover	Technical & Marketing	
	Shri Dilip Mehrotra	Chief Executive Officer	Indian National Shipowners' Association
	Atul J. Agarwal	Deputy Secretary	IOMOU Port State Control Secretariat
	S. Govindraj	Managing Director	Mercator Limited
	Antony Prince	Managing Director	Progressive Shipping Consultancy Services (PVT) Ltd.
	Arun Kumar Gupta	President	Smart Engineering and Design Solutions Ltd.
		Director	The Shipping Corporation of India Ltd.
		Technical & Offshore Services	
	Sujata Naik Tolani	Chairperson	Tolani Shipping Company Limited

INDIAN TECHNICAL COMMITTEE

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

INDONESIA COMMITTEE

Chairman	Widihardja Tanudjaja	President Director	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
	Ir. Tjahjono Roesdianto	Chairman	Indonesia Shipbuilding and Offshore Industry Association
	Carmelita Hartoto	Chairman	Indonesian National Shipowners' Association
	Arifin Soenardjo, MH	Director of Marine Safety	Ministry of Transportation
		Tanjung Priok Port Administrator	Republic of Indonesia
	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
	Riry Syeried Jetta	President Director	PT. Dok & Perkapalan Kodja Bahari (PERSERO)
	Yance Gunawan	President Director	PT. Dumas Tanjung Perak Shipyard
	Hendrato	General Manager	PT. Gesuri Lloyd
		Liner Division	

Member	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
	M. Yudhie RF	SVP Shipping	PT. PERTAMINA
	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	S. R. Pae	President & CEO	STX Pan Ocean Co., Ltd.
Member	Bang Eon Jeong	Senior Executive Vice President/CTO	Daewoo Shipbuilding & Marine Engineering Co., Ltd.
	Hyon-Soo Bong	Senior Executive Vice President/CTO	Hanjin Heavy Industries & Construction Co., Ltd.
	Oi-Hyun Kim	President & COO	Shipbuilding & Offshore Engineering
	Weon-Gil Choe	President & CEO	Hyundai Heavy Industries Co., Ltd.
	G. J. Ha	CEO	Hyundai Mipo Dockyard Co., Ltd.
	Jin Bang Lee	Chairman	Hyundai Samho Heavy Industries Co., Ltd.
	Chang Hee Yoon	President	Korea Line Corporation
	Suh, Myung-Chun	Representative Director	KSS Line Ltd.
	Sangbok Lee	President & CEO	Namsung Shipping Co., Ltd.
	J. K. Kim	Representative director	Pan Continental Shipping Co., Ltd.
	Doo-Chan Chang	President	Samsung Heavy Industries Co., Ltd.
	Ki-II Kim	Executive Vice President & CMO	Sea Explorers of Korea
		Advisor	SK Shipping Co., Ltd.
		Chief Executive Officer	

KOREA TECHNICAL COMMITTEE

Chairman	Jeom Kee Paik	Professor	Pusan National University
Member		Department of Naval Architecture and Ocean Engineering	
	Jang Min-Seok	Director	Dae Sun Shipbuilding & Engineering Co., Ltd.
		Design Department	
	Hyung-Kyun Seo	Director	Daewoo Shipbuilding & Marine Engineering Co., Ltd.
		Integrated Design and Engineering Administration (IDEA) Team	
	ManSoo Kim	Vice President	Daewoo Shipbuilding & Marine Engineering Co., Ltd.
		Head Of Hull Design	
	Sung-Ryool Kim	Managing Director	Hanjin Heavy Industries & Construction Co., Ltd.
		Engineering Ship Sales Team2	
	In Soon Kim	Vice President	Hanjin Ship Management Co., Ltd.
		Fleet Management 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	
	Yeong-Se, Jeong	Managing Director	KLC SM Co., Ltd.
	Jae-Sung Choi	Professor	Korea Maritime University
		Dept. of Marine System Engineering	
	Keum-Taek Lim	Managing Director	KSS Line Ltd.
		Marine Affairs Management Department	
	Yoonsoo Kim	Vice President	Samsung Heavy Industries Co., Ltd.
		Technology Planning Team	
	Seog Hwan Kang	Chief Operating Officer	SK Shipping Co., Ltd.
		Ship Management	
	Chul-Ho Song	Technical Managing Director	SPP Shipbuilding Co., Ltd.
		Basic/Structure Design Team	
		Busan R&D Center	
	Myeong-Su Kim	Division Manager / Vice President	STX Marine Service Co., Ltd
		SM Division	
	Yeong-Pyo Kim	Vice President	STX Offshore & Shipbuilding Co., Ltd.
		Hull Design Dept.	
	Jae-Woo Son	Senior Vice President	Sungdong Shipbuilding & Marine Engineering Co., Ltd.
		Basic Design Department	
	Nojoon Park	CEO	TMS Co., Ltd

LATIN AMERICAN COMMITTEE

Chairman	Ricardo dos Santos	Director	P&O Maritime Services Paraguay S.A.
Member	Ricardo Vahia Alves de Souza	Director	Amec KROMAV
	Nobuaki Fujii	Presidente	Astillero Tsuneishi Paraguay S.A.
	Javier Reyes Conde	Operations Manager of Marine Services	Blue Marine Technology Group
	Angel Canessa T.	Vice President Planning and Operations	Compañía SudAmericana de Vapores S.A.
		Shipmanagement	
	Bartolome Carrera Santiago	Owner	Desarrollo Naviero Mexicano, S.A. de C.V.
	Alberto Velázquez	Fleet Director	Elcano, S.A.
	Danilo Moreno Oleas	General Manager	EP FLOPEC
	Marcelo de Mendonça Abreu	Engineering Manager - DRU Project	Estaleiro Atlântico Sul
	Wanderley Marques	President	Estaleiro Mauá
	Patricio Mondaca	Senior Vice President	Humboldt Shipmanagement
	Hiroshi Nishiyama	General Manager	Kawasaki del Peru S.A.
	José Luiz Nunes Ruiz	Principal Engineer	London Offshore Consultants Brasil Ltda.
	Ricardo Menezes	Operation and New Building Director	Ocean Pact
	Vladimir Contreras	Ingeniero Naval	Petróleos de Venezuela S.A.
	Tomazo Garzia Neto	President	Projemar
	Roberto Hetz Vorpahl	Chief Executive Officer	Sociedad Nacional Maritima S.A.
	Eduardo Balzaretto	Commercial Manager	TANDANOR S.A.C.I. y N.
	Paul Casanova Claros	General Manager	Transgas Empresa Naviera
	Agenor Cesar Junqueira Leite	Shipping Director	Transpetro
	Ruben Galindo Villanueva	Technical and Fleet Managing Director	TMM Group
		Transportacion Maritima Mexicana S.A. de C.V.	
	Victor Montes	Manager & Marine Engineer	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
		Group Technical Services	
Member	Datuk Azmi Bin Ahmad	Group Managing Director/CEO	Alam Maritim Resources Berhad
	Thomas Ng Chin Keuan	Executive Director	Coastal Contracts Bhd.
	Dato' Ir. Abdul Hak B. Md. Amin	Managing Director	E.A. Technique(M) Sdn. Bhd.
	Billy Tan Gim Hoe	Chairman	Ecoship Sendirian Berhad
	Dato' David Tan	Managing Director	Everise Maritime Sdn. Bhd.
	Johari Mohd Noh	Managing Director	Gagasan Carriers Sdn Bhd
	Tan Sri Dato' Seri Halim Bin Mohammad	Executive Chairman and Managing Director	Halim Mazmin Bhd.
	Dennis Liong	General Manager	Hub Shipping Sdn. Bhd.
	Datuk Elias Kadir	President	Keretapi Tanah Melayu Berhad
	Azaharuddin Osman	Chief Executive Officer	Petronas Maritime Services Sdn. Bhd.
	Lawrence Wong	General Manager	Sarawak Land Shipyard Sdn. Bhd.
	Lim Piak Wah	Executive Director	Serudong Shipping Sdn. Bhd.
	Vincent Ling Lu Yew	Director	Shin Yang Shipyard Sdn. Bhd.
	Datuk Lau Nai Hoh	Group C.E.O. / Group M.D.	Tuong Aik Shipyard Sdn. Bhd.
	Torbjørn J. Aaker	Regional Manager WSM Asia	Wilhelmsen Ship Management Sdn. Bhd.

MIDDLE EAST TECHNICAL COMMITTEE

Chairman	Jitendra Misra	Managing Director	Emarat Maritime
Member	Haakon Johnsen	Senior Vice President (Operations)	ADNATCO-NGSCO
	Benny K. Alex	General Manager	Emarat Maritime
		(New Buildings & Tech. Services)	
	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 Engineering Group	
	Ali A. Shehab	Manager Fleet New Building Projects Group	Kuwait Oil Tanker Company S.A.K.
		Marine Chief Engineer (UK)	
	Masanori Hayashi	General Manager(LNG)	Oman Ship Management Company
		Marine and Technical Department	
	Zaheer Babar Qureshi	Executive Director	Pakistan National Shipping Corporation
		Ship Management	
	A. Ramamurthy	Sr. General Manager	Pioneer Ship Management Services L.L.C.
	Rostom Merzouki	Technical Superintendent	Qatar Gas Transport Company Ltd. (NAKILAT)
	Medjahed Benkabilia	Senior Fleet Technical Superintendent	Qatargas Operating Company Limited
	G. Fekry	Managing Director	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
	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
	Thomas H. Paterson	Vice President	Fednav Limited
	Michael M. Lee	Owned Fleet & Business Development	Foremost Maritime Company LLC
	Shunji Sasada	President	Navios Corporation
	Ronald W. Tursi	Chief Operating Officer	Roymar Ship Management Inc.
		President	

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.
	Ahn, Jin Kyu	Traffic & Operations	HHIC-Phil
	Siew Loon Leong	President	Keppel Batangas Shipyard
	Teodoro G. Bernardino	President	(A division of Keppel Philippines Marine Inc.)
	Maximo Q. Mejia Jr.	Administrator	Loadstar International Shipping, Inc.
	Edgardo G. Lacson	Department of Transportation & Communications	Maritime Industry Authority
	Eduardo U. Manese	President	MIS Maritime Corporation
	Thomas A. Tan	President	Philippine-Japan Manning Consultative Council of the Philippines
	Fausto C. Tiu	Executive Vice President	SMC Shipping and Lighterage Corporation
	Hifoshi Kono	President	Solid Shipping Lines Corporation
			Tsuneishi Heavy Industries (Cebu), Inc.

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.
	Wong Weng Sun	Technical Division	Sembcorp Marine Ltd
	Sun Xiushun	President & C.E.O.	Winning International Group Pte Ltd
		President	

SINGAPORE TECHNICAL COMMITTEE

Chairman	Tey Yoh Huat	Technical Head	Altus Shipping Pte. Ltd.
Member	Iwane Ogawara	Chief Engineer	"K"Line Ship Management (Singapore) Pte Ltd
	Robert Sumantri	Managing Director	Altus Shipping and Logistics Pte. Ltd.
	Shaj U. Thayil	Chief Executive Officer	APL
	Soumendu Das Roy	Vice President	Berge Bulk (Singapore) Pte. Ltd.
	B. N. Prasad	Technical Services & Ship Management	Bernhard Schulte Shipmanagement (Singapore) Pte Ltd
	Cheam Yeow Cheng	Fleet General Manager	Bina Marine Pte Ltd
	Kapil Berry	Fleet Management	BW Fleet Management Pte Ltd
	B. S. Teeka	Director	EXECUTIVE SHIP MANAGEMENT PTE LTD
	Ajay K. Chaudhry	Technology & Innovation	Fleet Ship Management Pte Ltd.
	Lim Teck Cheng	Director (Shipyard)	HONG LAM MARINE PTE LTD
	Ir Wong Sin Futt	Manager for Maintenance and Project	IMC Shipping Services Co., Pte. Ltd.
	Seow Tan Hong	Managing Director	Jurong Shipyard Pte Ltd
	Chor How Jat	General Manager	Keppel Shipyard Limited
	Avinash Kadam	Chief Executive	Maersk Tankers
		Director	
		Newbuildings	
		CEng FIMarEST	
		Senior General Manager	
		Engineering Department	
		Managing Director	
		Fleet Group Manager	

Member	Mark Lim Yew Guan	Deputy Director (Shipping)	Maritime and Port Authority of Singapore
	Toshihiko Ota	Deputy Director of Marine	
	Arun K. Ahluwalia	Managing Director	MOL Tankship Management (Asia) Pte. Ltd.
	Mok Kim Terng	Fleet Director	MSI Ship Management Pte. Ltd.
	Hemant Pathania	Corporate Development Director	NAM CHEONG LIMITED
		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
		Fleet Management Division	
	Panneer Selvam	General Manager	Pacific International Lines (Pte) Ltd.
		Technical Division	
	Toh Ho Tay	Offshore Division (Ship Local)	RS Platou (Asia) Pte. Ltd.
	Govinder Singh Chopra	Director	SeaTech Solutions International (S) Pte Ltd
	Francis Chin	Chief Operating Officer	Stellar Shipmanagement Services Pte. Ltd
	Rajdeep Singh	Technical Director	Tanker Pacific Management (Singapore) Pte Ltd
	Naresh Chand	General Manager	UNITED OCEAN SHIP MANAGEMENT PTE LTD
	Calum S Hume	Deputy Managing Director and Technical Director	V. Ships Asia Group Pte. Ltd.

THAI COMMITTEE

Chairman	Sutep Tranantasin	Executive Vice President	Regional Container Lines Public Co., Ltd.
Member	Warawan Nganthavee	Managing Director	Asian Marine Services Public Co., Ltd.
	Bhumindr Harinsuit	Managing Director	Bhureemas Navee Co., Ltd.
	Suparuaq Potchanant	Operation Director	ES Offshore and Marine Engineering (Thailand) Co., Ltd.
	Vivek Dwivedi	Director	GR Consultants Company Limited
	Wirat Chanosit	Managing Director	Italthai Marine Ltd.
	Chanet Phenjati	President	Jutha Maritime Public Co., Ltd.
	Nat Chubchai	Deputy Director General	Marine Department
	Suraphon Meesathien	Vice President	Nathalin Co., Ltd.
	Jaipal Mansukhani	Director	Precious Shipping Public Co., Ltd.
	Kraiyasit Intarapanich	Vice President	PTT Public Company Limited
		International Chartering Department	
	Voravit Visitkijakarn	Managing Director	Sang Thai Shipping Co., Ltd.
	Surachai Lerkpichayayotin	Marine Fleet Director	Siam Lucky Marine Company Limited
	Nitas Krongvanitchayakul	Managing Director	Thaioil Marine Co., Ltd.
	Yodchai Ratanachiwakorn	Director, Marine Operations	Thoresen & Co., (Bangkok) Ltd.
	Teruo Kondo	Chief Production Manager	Unithai Shipyard & Engineering Ltd.

TURKISH COMMITTEE

Chairman	Yalcin Sabanci	Chairman	YA-SA Holding S.A.
Member	Necdet Aksoy	Chairman	Akmar Shipping & Trading S.A.
	Ali Umur	President	Aktif Shipping
	Kenan S. Sumra	Company Manager	Anadoluhisari Tankercilik A.S.
	Erhan Bayraktar	Board Member/CEO	Bayraktar Shipping Group
	Derya Sabaz	Board Member	Beşiktaş Group
	Gönç Beyli	Vice Chairman BoD	Beykim Petrolcülük Gemi İşletmeciliği San. Ve Tic. A.Ş.
	Engin Özcelik	General Manager	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 Kapitanoglu	Owner	H.I. Kapitanoglu Shipping Group
	Bülent Subaşı	General Manager	IDÇ Denizcilik San. ve Tic. A.Ş.
	Bedri Ince	Chairman	Ince Shipping and Trading Co. Inc.
	Murat Edip Karahasan	Chairman	Karahasan Group of Shipping Companies
	Tamer Kiran	Chairman	Kiran Group of Shipping Companies
	Bayram Yusuf Aslan	President	Mardeniz & Kardeniz & Mardas Group of Companies
	Mecit Çetinkaya	Owner	Mecit Çetinkaya Shipping, Transport, Marketing Ind. & Trade Co. Ltd.
			Moliva Shipping Inc.
	Huseyin Yardimci	General Manager	
		Member of Board	
	Tufan Süslüer	General Manager	Nemtas Denizcilik
	Hüseyin Şener	Fleet Manager	Odin Ship Management
	G. Osman Küçükertan	General Manager	Orsan Denizcilik A.Ş.
	Emir Sohtorik	Chairman	Semih Sohtorik Management & Agency Inc.
	Suha Izmirligil	President	Sinomar S.A.

Member	Orkun Kalkavan Hasan Pehlivan Yasin Çil Ilhan Sabanci Emirhan Sabanci	Executive Board Member Operational Director / CSO General Manager Board Member Board Member	Turkon Holding U.N RO-RO İşletmeleri A.Ş. Vera Shipping YA-SA Shipping Industry & Trading S.A. YA-SA Tanker and Transportation S.A.
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TURKISH TECHNICAL COMMITTEE

Chairman	M. Erbil Özkaya	General Coordinator	YA-SA Shipping Industry and Trading S.A.
Member	Ş. Şenol Üngör	Technical 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.Ş.
	Erkan Dereli	Owner	ALİAĞA DENİZCİLİK
	Yusuf Angin	Manager	Aruna Shipping Ltd., Corp.
	Selçuk Karakimseli	Board of Member	Atlas Ship Management Ltd.
	Kenan S. Sumra	Marine Department Manager	Aygaz A.Ş.
	Metin Solak	Technical Manager	Besiktas Group
	Cem Dikbayır	Managing Partner	Beyaz Denizcilik Ltd. Şti.
	Burak Meriç	DPA	Beykim Petrolcülük Gemi İşletmeciliği San. ve Tic. A. Ş.
	Mustafa Bahar	Technical Manager	Cebi Denizcilik AS
	Süleyman Vural	Fleet Manager	Ceren Denizcilik
	S. Dirim Şener	Department Manager	Delta Marine Engineering and Computer Trading Co.
		Planning Department	
	Şemsettin Özyapar	Technical Manager	Denak Ship Management & Agency
	Baha Erbil	General Manager	Densan Deniz Nakliyat ve Sanayi A.Ş.
	Taşkın Çilli	CEO, Member of Board	Desan Deniz İnşaat San. A.Ş.
	Coşkun Ağca	Fleet Manager	Ditaş Deniz İşletmeciliği ve Tankerciliği A.Ş.
	Yavus Büyükyüksel	Fleet Manager	GAS MASTER Deniz İşletmeciliği ve Acenteliği Ltd. Şti.
	Erhan Mentés	Technical ADM	Gemiciler Denizcilik
	Mehmet Cebeci	Bulk Fleet Manager	Genel Denizcilik Nakliyatı A.Ş.
	Nurettin Kuş	General Manager	Greenfleet Ship Management
	Ergun Köker	Technical Manager	GUNGEN Denizcilik
	Türker Yaltır	General Manager	HaT-San Shipyard
	Ahmet Taymeç	Manager	Horizon Gemi İşletmeciliği San ve Tic A.Ş.
	Çağdaş Gürol	Project Officer	İçdaş Çelik Enerji Tersane ve Ulaşım San. A. Ş.
	Mustafa Terzi	Coordinator	İce Tanker
	Bülent Subaşı	Operation Manager	IDÇ Denizcilik San. Tic. A.Ş.
	A. Yaşar Canca	Technical Manager	Ince Shipping Group
	Mahmut Ünsal	General Manager	İskenderun Ship Management
	Raif Söylerkaya	Ocean Going Master	Kaptanoglu Holding
	Cengiz Eren	Head of Technical Department	Karahasan Group of Shipping Companies
	Mehmet Gülakdeniz	Safety Coordinator / DPA	Kiran Group of Shipping Companies
		Master Mariner	
	Melek Yavan	Member of Board	Körfez Shipping and Trading Inc.
	Mustafa Dülger	Operation Manager	Manta Shipping Ltd.
	Galip Kendigelen	General Manager	Mardas & Mardeniz & Kardeniz Group of Companies
	Göksenin Eroğul	Deputy General Manager (Technical & Logistics)	Nemtaş Shipping
		Fleet Manager	
	Hüseyin Şener	Technical Manager	Odin Ship Management
	Kemal Ayten	Operation Manager	Pina Shipping & Transportation Inc.
	M. Murat Döşemeciler	Uzak Yol Kaptanı	POLARNET İletişim ve Gemi İşletmeciliği San. Tic. A.Ş.
	Haktan Demirboğa	Gemi Sörvey Kurulu Başkanı	Ministry of Transport Maritime Affairs and Communications
		Republic of Turkey	
	M. Cumhur Kuter	General Manager	Sedef Shipbuilding Inc.
	Mehmet Başoğlu	General Manager	Semih Sohtorik Management & Agency Inc.
	Ender Keskin	General Manager	Transal Denizcilik
	Müjdat Uludağ	Purchasing & Logistics Director	Turkish Airlines Technic Inc.
	Hayati Cingöz	BSC Engineer & Technical Manager	Ulusoy Sea Lines Management S.A.
	Ali H. Doğanlı	Technical Manager	VERA SHIPPNG
	Mehmet Kayhan	General Manager	YA-SA Shipmanagement and Trading S.A.
		Bulk Carriers	
	Hakan Gürel	General Manager	YA-SA TANKERCİLİK VE TASIMCILIK A.S.

TAIWAN COMMITTEE

Chairman	Loh Yao-fon	Adviser	Evergreen Group
Member	Donald K. L. Chao	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.
	David Hsu	Chairman	First Steamship Co., Ltd.

Member	B. C. Tsai	Chairman	Franbo Lines Corp.
	Bill M. H. Huang	Chairman	Glory Navigation Co., Ltd.
	Harvey Chiu	Chairman	Hsin Chien Marine Co., Ltd.
	R. Y. Guer	President	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
	Kenneth Lee	Chairman & CEO	T.V.L. Business Group
	Hrongs-Nain Lin	President	Ta Tong Marine Co., Ltd.
	Janus Kao	President	Ta-Ho Maritime Corporation
	I. Y. Chang	Chairman	Taiwan Navigation Co., Ltd.
	Nobu Su	C.E.O.	TMT Co., Ltd.
	C. K. Ong	President	U-Ming Marine Transport Corporation
	Lin Ching Chih	Chairman	Unison Marine Corporation
	Glenn K. L. Chan	President	United Ocean Shipping S.A.
	Chen, Po Ting	Chairman	Wan Hai Lines Ltd.
	James Lan	Chairman	Wisdom Marine Lines S.A.
	Hermann Yu	President	Yang Ming Marine Transport Corp.

TAIWAN TECHNICAL COMMITTEE

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

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Officers

Councilors	Akimitsu Ashida	Representative Director (Chairman of the Board)	Mitsui O.S.K. Lines, Ltd.	
	Takashi Uyeno	Chairman & President	Uyeno Transtech Ltd.	
	Katsuyuki Sugimoto	Counselor	Iino Kaiun Kaisha, Ltd.	
	Koji Miyahara	Chairman	Nippon Yusen Kabushiki Kaisha	
	Zenshichi Akasaka	President	Akasaka Diesels Limited	
	Yasuhiko Katah	Chairman, Representative Director	Mitsui Engineering & Shipbuilding Co., Ltd.	
	Kazuo Tsukuda	Senior Executive Adviser	Mitsubishi Heavy Industries, Ltd.	
	Sho Minami	Company CEO	Oshima Shipbuilding Co., Ltd.	
	Makoto Satani	Former Executive Consultant	JX Nippon Oil & Energy Corporation	
	Hiroshi Shima	Representative Director and President	NIPPON STEEL & SUMIKIN TEXENG.CO.,LTD.	
	Masakazu Nakanishi	Former Executive Director	Tokio Marine & Nichido Fire Insurance Co., Ltd.	
	Hisashi Tanikawa	Professor Emeritus	Seikei University	
	Sinji Hayama	Professor Emeritus	The University of Tokyo	
	Masafumi Yasutomi	Vice President	Tokyo Metro Co., Ltd.	
	Koichiro Yoshida	Professor Emeritus	The University of Tokyo	
	Councilor Appointment Committee	Hisashi Tanikawa	Professor Emeritus	Seikei University
		Tsutomu Aihara	Former Commandant	Japan Coast Guard
		Hiroshi Itagaki	Professor Emeritus	Yokohama National University
		Seiichi Ochiai	Professor	Law School, Chuo University
		Tetsushi Agata	Managing Director	ClassNK
Directors	Noboru Ueda	Chairman and President	ClassNK	
	Toshitomo Matsui	Executive Vice President	ClassNK	
	Shosuke Kakubari	Executive Vice President	ClassNK	
	Koichi Fujiwara	Executive Vice President	ClassNK	
	Takuya Yoneya	Executive Vice President	ClassNK	
	Yasushi Nakamura	Executive Vice President	ClassNK	
	Tetsushi Agata	Managing Director	ClassNK	
	Tetsuya Kinoshita	Managing Director	ClassNK	
	Shunichi Arisaka	Director, Managing Executive Officer	Kawasaki Kisen Kaisha, Ltd.	
	Yoshio Otagaki	Representative Director Vice President	Japan Marine United Corporation	
	Hideomi Otsubo	Professor Emeritus	The University of Tokyo	
	Kazuya Kobayashi	Associate Officer General Manager Engineering Division Ship & Offshore Structure Company	Kawasaki Heavy Industries, Ltd.	
	Auditors	Kiyotaka Yoshida	Managing Executive Officer	Mitsui O.S.K. Lines, Ltd.
		Tsutomu Aihara	Former Commandant	Japan Coast Guard
		Yasuhide Sakinaga	Board Counsellor	Kawasaki Kisen Kaisha, Ltd.
Yasuo Tanaka		Managing Corporate Officer	Nippon Yusen Kabushiki Kaisha	
Yuzuru Fujita		Professor Emeritus	The University of Tokyo	

Classification Committee

Chairman	Noboru Ueda	Chairman and President	ClassNK
Vice Chairman	Toshitomo Matsui	Executive Vice President	ClassNK
Members	Shosuke Kakubari	Executive Vice President	ClassNK
	Koichi Fujiwara	Executive Vice President	ClassNK
	Takuya Yoneya	Executive Vice President	ClassNK
	Yasushi Nakamura	Executive Vice President	ClassNK
	Tetsushi Agata	Managing Director	ClassNK
	Tetsuya Kinoshita	Managing Director	ClassNK
	Toshio Araki	Managing Director	Iino Marine Service Co., Ltd.
	Shunichi Arisaka	Director, Managing Executive Officer	Kawasaki Kisen Kaisha, Ltd.
	Mitsuhiko Sunouchi	General Manager Technical Group	Nippon Yusen Kabushiki Kaisha
	Kiyotaka Yoshida	Managing Executive Officer	Mitsui O.S.K. Lines, Ltd.
	Naoki Ueda	General Manager, Ship & Ocean Engineering Division, Shipbuilding & Ocean Development	Mitsubishi Heavy Industries, Ltd.
	Kenji Shikano	Senior Manager of Initial Design Department	Kawasaki Heavy Industries, Ltd.
	Yoshiyuki Nakajima	General Manager of Planning & Development Department	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	Associate Director, 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

Chairman	Koichiro Yoshida	Professor Emeritus	The University of Tokyo
Vice Chairman	Hideomi Otsubo	Professor Emeritus	The University of Tokyo
Members	Noboru Ueda	Chairman and President	ClassNK
	Toshitomo Matsui	Executive Vice President	ClassNK
	Takuya Yoneya	Executive Vice President	ClassNK
	Yasushi Nakamura	Executive Vice President	ClassNK
	Tetsuya Kinoshita	Managing Director	ClassNK
	Shunichi Arisaka	Director, Managing Executive Officer	Kawasaki Kisen Kaisha, Ltd.
	Masahiro Kanno	Director, Managing Executive Officer	Daiichi Chuo Kisen Kaisha
	Hideyuki Takahashi	Managing Director	JX Tanker Company Limited
	Yasuo Tanaka	Managing Corporate Officer	Nippon Yusen Kabushiki Kaisha
	Kiyotaka Yoshida	Managing Executive Officer	Mitsui O.S.K. Lines, Ltd.
	Kazuya Kobayashi	Associate Officer, General Manager, Engineering Division, Ship & Offshore Structure Company	Kawasaki Heavy Industries, Ltd.
	Yoshiyuki Nakajima	General Manager of Planning & Development Department	Japan Marine United Corporation
	Kunifumi Hashimoto	Senior Vice President, Vice President, Commercial Aviation & Transportation Systems	Mitsubishi Heavy Industries, Ltd.
	Norihisa Fukuda	Director, General Manager of Ship & Ocean Project Hq., General Manager of Chiba Works	Mitsui Engineering & Shipbuilding Co., Ltd.
	Atsushi Majima	Director, Acting Chief General Manager	Sumitomo Heavy Industries Marine & Engineering Co., Ltd.
	Kozo Yasuda	Managing Executive Officer	Sasebo Heavy Industries Co., Ltd.
	Takashi Iwamoto	Deputy Plant Manager	The Japan Steel Works, Ltd.
Hirofumi Kawasaki	Executive Councilor Head of Div. Plate Technology Div.	Nippon Steel & Sumitomo Metal Corporation	
Akira Tagane	General Manager, Plate Business Planning Dept.	JFE Steel Corporation	
Hiroaki Matsubara	General Manager	Kobe Steel, Ltd.	
Hiroshi Itagaki	Professor Emeritus	Yokohama National University	
Toshiharu Nomoto	Professor Emeritus	The University of Tokyo	
Shinji Hayama	Professor Emeritus	The University of Tokyo	

Quality Committee

Chairman	Hiroshi Sakai	Professor Emeritus	The University of Tokyo
Member	Norikazu Ooka	Guest Professor	Institute of Technologists
	Hirofumi Kodama	General Manager, Technology Affairs Department	Japan Marine Equipment Association
	Yasuhiro Nishioka	Managing Director	The Japanese Shipowners' Association
	Takayoshi Yagi	Senior Technical Manager, Standardization Center	The Japan Iron & Steel Federation
	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, Classification Service Department	ClassNK

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4-7 Kioi-cho, Chiyoda-ku, Tokyo 102-8567, Japan
Tel: +81-3-3230-1201
Fax: +81-3-5226-2012
E-mail: gad@classnk.or.jp

www.classnk.com