

ANNUAL REPORT 2007

ClassNK



ClassNK

Profile

Nippon Kaiji Kyokai, better known as ClassNK or simply NK, is a ship classification society.

ClassNK creates the rules that ensure the safety of vessels, their crews, and the protection of the marine environment. The principal work of the Society's expert technical staff is to undertake surveys of newbuildings and existing ships based upon these rules, certifying hull structures, propulsion systems, electrical and electronic systems, safety equipment, and cargo handling gear, among other areas.

Since its founding more than 100 years ago, ClassNK has worked tirelessly to fulfill its mission of protecting human life, maritime property and the marine environment. An unmatched commitment to technical excellence and providing the highest level of service has made the Society a world leader in ship classification. In 2007, ClassNK celebrated its 20th straight year of growth and became the first class society in the world to have 150 million gross tons on its register. By the end of 2007, the NK register listed 6,793 ships totaling more than 152 million gross tons. This number represents more than 20% of the world's merchant fleet under class.

Although based in Japan, ClassNK has global representation through a network of 100 exclusive surveyor offices. ClassNK's surveyors work in shipbuilding and repair yards and at ports across the world, wherever they may be called upon to examine the condition of a ship, so that all of the Society's services are available 24/7, worldwide.

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The NK Mission

ClassNK is dedicated to ensuring the safety of life and property at sea, and to preventing pollution of the marine environment.

To achieve this mission ClassNK will:

Focus on delivering the highest quality classification services, by the highest quality personnel while maintaining its totally independent third party, non-profit status.

Focus on the development of relevant rules, guidances and procedures, and maintain and develop its commitment to scientific and technological research and development.

Maintain and develop its global operations in line with the needs of those using its services.



Chairman's Message



Welcome to the 2007 ClassNK Annual Report

2007 was truly a year of marked contrasts. In the past year, we have witnessed the incredible rise in the cost of crude oil, and watched as the American sub-prime crisis and rising inflation, among other issues, challenged the world's financial markets. This past year as well, we have seen telling evidence of global warming and the dangerous threat that climate change poses. In spite of these problems, 2007 was also a year of remarkable progress. The world economy has become increasingly multi-polar and the economies of Asia surged forward even as economic issues held back other parts of the world. China's economy grew some 11% last year, while the economies of the ASEAN member nations grew roughly 5%. On the environmental side, though there were no clear victories against global warming, the world came together in Bali to develop a successor to the Kyoto Treaty. Within these achievements, we would be remiss to leave out the continued strength of the maritime industries.

For the maritime industries, these past few years have surely been years of prosperity and for shipbuilding especially, 2007 exceeded all expectations. Over the past year, Japanese shipbuilders produced some 18 million gross tons of newbuildings, with Korean newbuildings amounting to 20 million gross tons and Chinese newbuilds surging to 10 million gross tons. The newbuilding totals for the entire world reached approximately 60 million gross tons in 2007, a new record.



This worldwide shipbuilding boom has come at the behest of unprecedented demand. Currently, the world order book lists an unbelievable 300 million tons. The demand has become so great that brand new shipyards are being established, other yards are returning to newbuilding after hiatuses of a decade or more, and what were once solely repair yards are beginning their first newbuilding projects.

Just as it has been an exceptional year for shipbuilding, so too has it been an exceptional year for ClassNK, and 2007 will undoubtedly stand as a historic year for the society. In August of last year, ClassNK became the first classification society in history to have 150 million gross tons on its register. In all of 2007, a record 14.42 million gt of newbuildings were added to the NK register. 2007 thus became the fifth straight year of record newbuilding growth for the Society.

2007 stands out as a year in which ClassNK defined itself as a truly international and world-class Society. With the establishment of our new offices in Barcelona, Spain and Nha Trang, Vietnam, the ClassNK service network has now reached 100 exclusive surveyor sites. The establishment of the new Middle East Technical Committee has brought the total number of our international committees to twenty. On the newbuilding front as well, the NK class fleet is increasingly international. Over this past year, ClassNK has continued to classify newbuildings not only in China and Korea, but in Vietnam, the Philippines, Indonesia, Taiwan, Singapore, and Argentina, among other countries. In 2007, roughly one-third of NK classed newbuildings were built outside of Japan and the total gross tonnage of newbuildings built overseas increased by roughly 70% from 2006.

Beyond merely increasing our worldwide presence, ClassNK has continued to be a leader in research and development. The Society has long been acknowledged for its expertise in bulk carriers, tankers, as well as vehicle carriers, and indeed

vessels of all types, but in 2007, ClassNK rededicated itself to providing cutting edge and practical research and development. These new projects cover not only LNG carriers and container ships, but also a number of projects on the environmental front, as well.

This past year, in addition to these unparalleled successes, ClassNK was fortunate in that we suffered no major casualties or catastrophic losses. Yet, despite this continued good fortune and prosperity, ClassNK's mission of protecting life, property and the maritime environment is not one that will allow us to sit back and simply enjoy our successes. Instead, our mission demands that we remain ever vigilant and constantly recommit ourselves to technical excellence and providing the highest level of service.

Global warming, the protection of the marine environment, the ever present possibility of maritime casualties; these are not simply problems to be solved, but rather challenges to be conquered. That task will require that we continue to strive alongside our industry partners and remain dedicated to cutting-edge research and development. Though 2007 was a banner year for the maritime industries and ClassNK, the successes we have achieved through today, are merely the starting point for the successes of tomorrow.

I look forward to working side by side with all of you, to ensure that this next year is even more successful than the year that has just passed.

Chairman and President Noboru Ueda

150 Million Gross Tons and Rising A Milestone in Ship Classification



Just as the past century brought about dramatic growth and changes to the maritime industries, so too did it bring incredible changes to ship classification. Perhaps there is no better example of this transformation than the rise of ClassNK. With a history of only 108 years, ClassNK has grown to become the first classification society in history with more than 150 million gross tons on its register, an unparalleled and truly meteoric rise to the very heights of the ship classification industry.

ClassNK traces its history back to the Teikoku Kaiji Kyokai (TKK) or the Imperial Maritime Corporation, founded by Prince Takehito Arisugawa on November 15, 1899. TKK's mandate included not only the survey and assessment of ships, but the support and encouragement of Japanese shipping and shipbuilding, maritime research and development,

and the promotion of maritime affairs. The Society was, in short, expected to serve as “a vanguard of the maritime world”. The Society began developing rules for the survey of ships in 1900, and just three years later, the Society took its first step towards becoming a true classification society when it released its Regulations for the Classification and Registration of Ships.

From these humble beginnings, the Society experienced dramatic growth. By 1929, the Society's register had already reached 1 million gross tons. The Society would break the 10 million gross ton mark in 1965, some 36 years later, and continue to grow rapidly. In 1997, the Society's register surged past 100 million gross tons, and in 2007, ClassNK became the first classification society in the world to have more than 150 million gross tons on its register.

The register's growth has shown no sign of abating, increasing by more than 5% each year for the last five years alone, and increasing by more than 50% in the last decade.

Of course, breaking the 150 million gt mark is only one among a number of historic firsts attributed to ClassNK. Since registering its very first ship, the KWANAN MARU, in 1920, the Society has classified a number of important and groundbreaking vessels. The Society oversaw the construction of the GOHSHU MARU, the world's first low-temperature LPG carrier. In response to the rapidly increasing gas prices of the 1970's, NK pioneered rules for and classified a new generation of sail-equipped motorships, beginning with the SHINAITOKU MARU, in 1980. Much as with the recent trends towards ever larger container ships, the Society has worked tirelessly to keep apace with the latest technologies and maritime developments, ensuring the quality, safety and environmental performance of these new technologies.

Yet, these successes are not simply achievements in themselves, they are rather a reflection of the tremendous support of government administrations and the maritime industry, as well as the

Society's enduring commitment to its mission of protecting life, property and the marine environment. Moreover, these successes should not be viewed as achievements to be celebrated and forgotten, but as evidence of ClassNK's 108 year tradition of excellence and continued dedication to being a classification society worthy of the title 'World Class'.



NK at a Glance



Service Network Expansion

In order to provide better service throughout the world, ClassNK is constantly upgrading its existing service network. In 2007, ClassNK established two new exclusive surveyor sites.

- April 1 – Barcelona (Spain)
Local Area Representative established
- December 3 – Nha Trang (Vietnam)
Sub-Office established.

International Exhibitions

The Society participated in six major international maritime exhibitions in 2007:

- INMEX CHINA 2007
– Guangzhou, China, March 7-9.
- CMA Shipping 2007
– Stamford, Connecticut, USA, March 20-22.

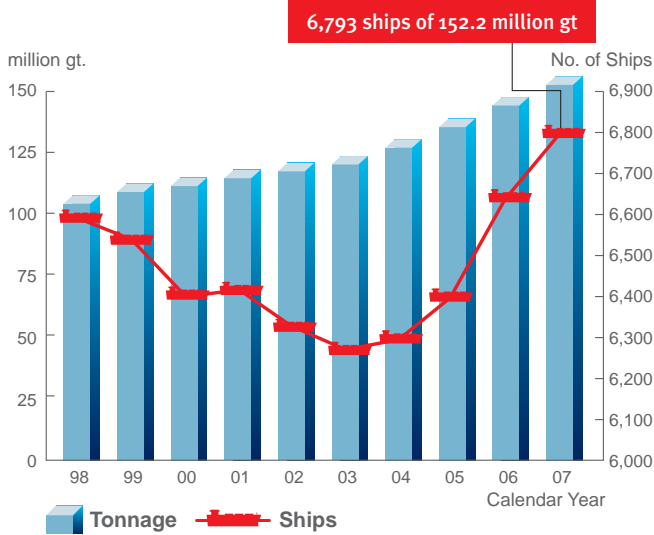
- SEA ASIA 2007
– Singapore, April 2-4.
- LNG15
– Barcelona, Spain, April 24-27.
- Nor-Shipping
– Oslo, Norway, June 12-15.
- Marintec China 2007
– Shanghai, China, November 27-30.

Record Newbuildings

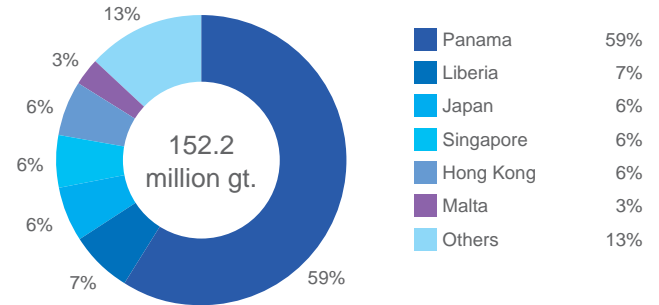
The number of ships newly classed with the Society reached a total of 584 ships in 2007, surpassing the previous year's total by 7%. The 14,420,125 gt of newbuildings classed in 2007, represent a 1% increase over the 14,295,666 gt added in the previous year and once again set a new record for the society.



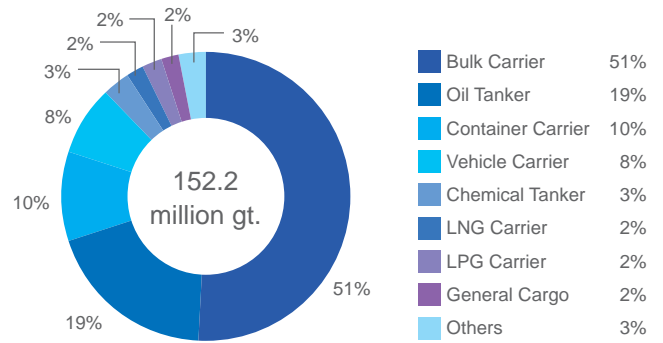
ClassNK Fleet



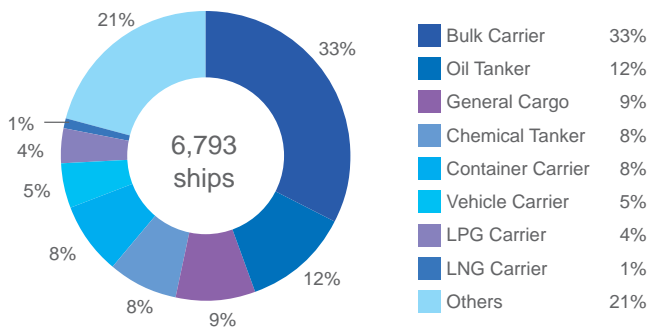
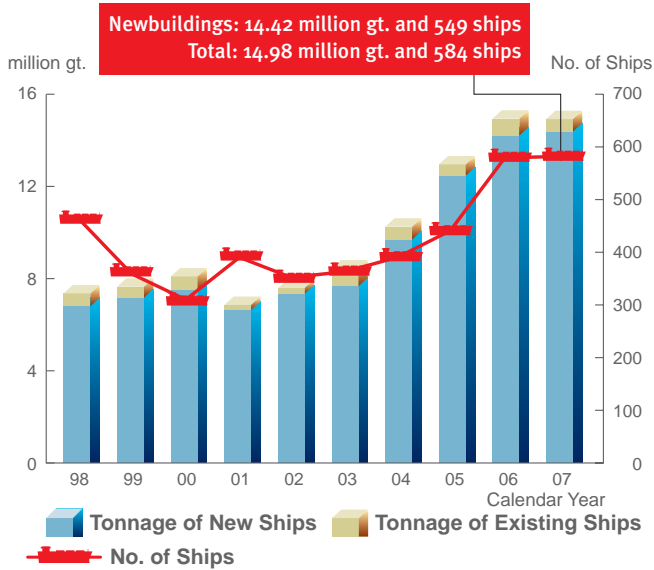
Breakdown of NK Fleet by Flag



Breakdown of NK Fleet by Ship Type



GT and No. of Ships Newly Classed



CMA Shipping 2007



SEA ASIA 2007



LNG15

NK in Action



DUBAI GALACTIC
a 55,418 dwt bulk carrier built by
Oshima Shipbuilding Co., Ltd.
for Oasis Maritime Services LLC.

The Classed Fleet

As of the end of December 2007, the number of ships registered with ClassNK totaled 6,793, an increase of 157 ships over 2006's totals. These 6,793 ships amount to a total gross tonnage of 152,224,165 gross tons, an increase of 7,785,444 gt from the end of 2006. The average age of the NK fleet remained at 10.8 years.

The number of ships added to the Register in 2007 rose to 584 ships, a new record for the Society. In terms of gross tonnage these new vessels added 14,978,670 gt to the register. By the end of 2007, the number of NK registered ships flagged outside of Japan stood at 5,814 ships, or some 85.6% of the ships registered with the Society. On a gross ton basis, these 5,814 ships amount to 142,516,036 gt, or 93.6% of the NK register. Ships registered with the Society continue to bear the flags of a long list of Administrations, with the NK register currently including ships registered to some 71 different nations and territories.

2007 ClassNK Registered Newbuildings

In 2007, a total of 549 newly built ships were added to the register. These newbuildings amounted to 14,420,125 gross tons, an increase over the previous year's record total of 14,295,666. In terms of ship numbers, newbuildings accounted for 94% of all ships added to the register in 2007. On a gross ton basis, these newbuildings accounted for 96.2% of the total gross tonnage added to the register. Of these 549 newbuildings, 192 ships, or roughly 34.9%, were built outside of Japan. This is an increase of approximately 5% over 2006's numbers.



BAO GUO
a 208,014 dwt bulk carrier built by Universal Shipbuilding Corporation, Tsu Shipyard.



BRASIL MARU
a 327,180 dwt ore carrier built by Mitsui Engineering & Shipbuilding Co., Ltd., Chiba Shipyard for Doun Kisen Co., Ltd.

Domestic Newbuilding Highlights

With 2007 being the fifth straight year of record newbuilding growth for the Society, it should come as no surprise that ClassNK's 21 offices in Japan had an incredibly busy year. Though it would be impossible to list all the important activities and impressive newbuildings undertaken under the auspices of our Japanese offices, a brief overview of the year's highlights is presented below.

Hakodate

The Kitanihon Shipbuilding Co., Ltd. built the 33,682 dwt chemical tanker CHEMBULK MINNEAPOLIS for MI-DAS LINE S.A. The ship was the largest ship ever built at the yard to utilize a Sumitomo Integrated Lammeren Duct (SILD), a special duct that improves propeller flow. In 2007, the Hakodate Branch Office oversaw the construction of 11 newbuildings totaling 327,719 dwt.

Tokyo

Though the ClassNK Tokyo Branch Office mainly conducts surveys for ships in service, in 2007, the office also oversaw a number of newbuildings. Among the many impressive ships built under the watchful eye of the surveyors of the Tokyo Branch Office was one of the world's largest ore carriers, BRASIL MARU, a 327,180 dwt VLOC. The ship was built by Mitsui Engineering and Shipbuilding for

TAMOU LINE S.A. The Tokyo Branch Office also conducted the newbuilding surveys for the 'super-eco ship', the 4,999 dwt oil tanker, SHIGEMARU. In 2007, the Tokyo Branch Office oversaw the construction of 15 newbuildings totaling 1,310,400 dwt.

Nagoya

Though Nagoya is well known in Japan for its booming local economy, it is also an important shipbuilding region. Notable ships built to NK class in the area include the BAO GUO, a 208,014 dwt Capesize bulk carrier built for Navigation S. A. by Universal Shipbuilding Co. Universal Shipbuilding also built a 175,874 dwt bulk carrier, the FERRO FOS, for Shoal Bay Shipping and Trading Ltd. Toyohashi Shipbuilding constructed the 17,339 dwt PRIMROSE ACE for Polar Express S.A. In 2007, the Nagoya Branch Office oversaw the construction of 12 newbuildings totaling 906,587 dwt.

Kobe

The Society's Kobe Branch Office oversaw the construction of a number of newbuildings, as well. Universal Shipbuilding's Maizuru Shipyard built the TRITON OSPREY, an 81,448 dwt bulk carrier. The ship, built for Triton Navigation B.V., is the first of a series of ships to be built at the yard that will use a new Axe Bow design. The same yard also built a 75,356 dwt bulk carrier with a more traditional bulbous bow, the NAVIOS ESPERANZA,

which was also built with a special raised deck to improve buoyancy and protect the hatches from green seas. Kawasaki Shipbuilding's Kobe Shipyard built the 55,840 dwt bulk carrier ORIENT PHOENIX for Orient Line Co., Ltd. The same yard also oversaw the construction of the ANNA MARIA, a 55,473 dwt bulk carrier built for M.K. BLUMENTHAL GMBH & CO. KG, REEDEREI. Elsewhere in the region, Kanegawa Dockyard Co. built a high speed escort ship, the ZUIRYU, for Isewan Bosai Co. Ltd. In 2007, the Kobe Branch Office oversaw the construction of 17 newbuildings totaling 607,102 dwt.

Okayama

In the Okayama region, Sanoyas Hishino Meisha's Mizushima Works and Shipyard constructed the 49,670 dwt wood chip carrier WHITE KINGDOM for MOL. Mistui Engineering and Shipbuilding's Tamano Works constructed the 81,791 dwt bulk carrier LADY GIOVI. In 2007, the Okayama Branch Office oversaw the construction of 25 newbuildings totaling 1,485,623 dwt.

Onomichi

For NK's Onomichi Office, 2007 was another busy year. Among the many newbuildings that the officer surveyed this past year was the NORD PHOENIX, an 82,000 dwt Kamsarmax bulk carrier. The ship is the 50th ship of the Kamsarmax design to be built by Tsuneishi Holdings' Tsuneishi Shipbuild

ing Co. In the same region, Naikai Zosen Corporation Setoda Shipyard built the YUSHIN MARU No. 3, a 726 dwt fisheries research vessel, for Kyodo Senpaku Kaisha, Ltd. In 2007, the Onomichi Branch Office oversaw the construction of 66 newbuildings totaling 3,783,164 dwt.

Hiroshima

IHI Marine United's Kure Shipyard built the 99,563 dwt container ship NYK OCEANUS for NYK. At 8,600 TEU, the ship is the largest container carrier to be constructed in Japan. The same shipyard also constructed the 300,433 dwt VLCC, IDEMISTU MARU, for Shinwa Kaiun Kaisha Ltd. In 2007, the Hiroshima Branch Office oversaw the construction of 19 newbuildings totaling 1,231,492 dwt.

Sakaide

2006 was an incredibly busy year for the Sakaide Office, and 2007 continued that trend. Kawasaki Heavy Industries' Sakaide Shipyard built a 11,142 dwt, 19,531 m³ Moss Type LNG carrier, SUN ARROWS, for Maple LNG Transport Inc. Elsewhere in the region, Imabari Shipbuilding's Marugame Headquarters constructed the 22,602 dwt vehicle carrier ZENITH LEADER for Zodiac Maritime Agencies, and the Shin Kochijyuko Co., Ltd. built the SOUTH ISLANDER, an 18,091 dwt ro-ro general cargo ship, for NYK-Hinode Line, Ltd. In 2007, the Sakaide Branch Office oversaw the construction of



ZUIRYU

a 25 dwt high speed escort ship built by Kanagawa Dockyard Co., Ltd. for Isewan Bosai K.K.



YUSHIN MARU No.3

a 726 dwt fisheries research ship built by Naikai Zosen Corporation Setoda Shipyard for Kyodo Senpaku Kaisha, Ltd.



IDEMITSU MARU

a 300,433 dwt oil carrier built by IHI Marine United Inc. Kure Shipyard for Idemitsu Tanker Co., Ltd.



SUN ARROWS

a 11,142 dwt LNG carrier built by Kawasaki Shipbuilding Corporation, Sakaide Shipyard for MOL LNG Transport Co., Ltd.

42 newbuildings totaling 1,700,560 dwt.

Kita Kyushu

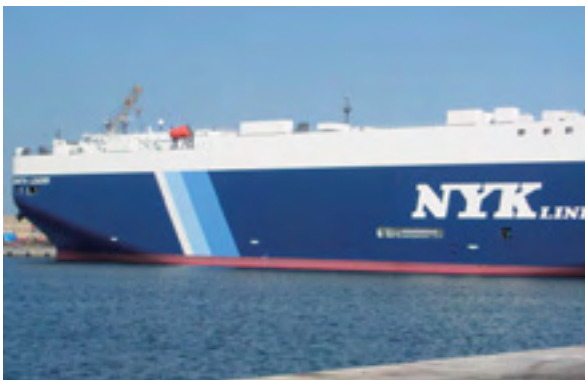
The Kyokuyo Shipbuilding Company built the 4,867 dwt reefer ship LADY TUNA for the Wang Tat Corporation Pte. Ltd. Other newbuildings surveyed by the Kita Kyushu Office include the chemical tanker SICHEM CONTESTER, a 19,822 dwt ship built by Fukoka Shipbuilding Co. for United Sky Shipping Pte. Ltd. Also in the region is Mitsubishi Heavy Industries' Shimonoseki Shipyard & Machinery Works, which built the 15,261 dwt car carrier ANDROMEDA SPIRIT for Biko Kison/Picer Marine S.A. In 2007, the Kita Kyushu Branch Office oversaw the construction of 31 newbuildings totaling 612,098 dwt.

Nagasaki

Nagasaki is another area well known in Japan for its shipbuilding industry. One of the notable ships constructed in the area in 2007 was the MOL CREATION, a 90,678 dwt, 8,110 TEU container ship built for SNC ARTHUR at Mitsubishi Heavy Industries Nagasaki Shipyard & Machinery Works. The ship is the first ship in the world to utilize the new YP47 high strength steel plating. In 2007, the Nagasaki Branch Office oversaw the construction of 14 newbuildings totaling 1,405,589 dwt.

International Newbuilding Highlights

Given that 2007 was an outstanding year for NK



ZENITH LEADER

a 22,602 dwt vehicles carrier built by Imabari Shipbuilding Co., Ltd., Marugame Headquarters for Zodiac Maritime Agencies Ltd.



MOL CREATION

a 90,678 dwt container carrier built by Mitsubishi Heavy Industries, Ltd. Nagasaki Shipyard & Machinery Works for MOL Ship Management Co., Ltd.

classed newbuildings from within Japan, it should not be surprising that 2007 was equally an incredible year for NK classed newbuildings built overseas. As NK classed gross tonnage built outside of Japan rose significantly in 2007, it would be impossible to list every new ship in the space available here. Instead, a brief summary of international newbuilding highlights for some of ClassNK's 79 exclusive surveyor offices overseas is given below.

China

The Society's eight offices in China saw one of their busiest years ever in 2007. The Society's Shanghai Office led the way, seeing its newbuilding totals increase by 260% over 2006 totals in terms of gross

tons. During the year, the Society's offices in China oversaw the construction of 13 newbuildings totaling 572,540 dwt. A brief overview of some of the more impressive newbuildings is shown in the table below.

Korea

ClassNK's Korean offices have always had busy schedules and 2007 was no different. Over the course of the year, NK's Korean offices oversaw the construction of 25 ships totaling 1,194,229 dwt. Among the many newbuildings entering NK's register from Korea, one of the largest was the 103,284 dwt NYK VIRGO built by Hyundai Heavy Industries. The ship's 8,600 TEU capacity makes it among the largest container carriers classed by NK.

| Office | Shipyard | Shipowner | Size/Type | Ship Name |
|-----------|---|----------------------------------|---|-----------------------------|
| Shanghai | Nantong COSCO KHI Engineering Co., Ltd. | SONARTRACH Petroleum Corporation | 315,082 dwt VLCC | MESDAR |
| | Tsuneishi Group (Zhoushan) Hull-Body Production Inc. | Astro Shipmanagement, Inc. | 58,758 dwt Panamax bulk carrier | GL PRIMERA |
| | Tsuji Heavy Industries Co., Ltd. | Tsukiboshi Logistics | 3,713 dwt Super Block Carrier | TSUKIBOSHI |
| Beijing | Bohai Shipbuilding Heavy Industry | Transmed Shipping Co. | 174,000 dwt Bulk Carrier Series | CAPE VENI |
| Guangzhou | Guangzho Hangtong Shipbuilding and Shipping Co., Ltd. | Hong Lam Marine Pte. Ltd. | 3,876 dwt Oil Tanker | ZEMIRA |
| Dalian | Liao Ning Marine & Offshore Industrial Park Co., Ltd. | Dalian Sea Carriers Co., Ltd. | 10,514 dwt General Cargo | SEIYO FORTUNE |
| | | Keymax Maritime Co., Ltd. | 12,371 dwt General Cargo | BOHAI CHALLENGE |
| | Dalian Shipyard Industrial Development Co. Chiang Xing Shipyard | Steel Hub Co., Ltd. | 6,308 dwt Barge Series | STEEL HUB-11 |
| Taipei | CSBC Kaohsiung Shipyard | Wan Hai Lines Ltd. | 52,146 dwt (3,866TEU) Container Carrier Series | WAN HAI 508, WAN HAI 509 |



GL PRIMERA

a 58,758 dwt bulk carrier built by Tsuneishi Group (Zhoushan) Hull-Body Production Inc. for Astro Shipmanagement, Inc.



SEIYO FORTUNE

a 10,500 dwt general cargo ship built by Liao Ning Marine & Offshore Industrial Park Co., Ltd. for Dalian Sea Carriers Co., Ltd.

The Pusan Office also handled the newbuilding surveys for another container carrier, the 12,828 dwt (1,049 TEU) LANTAU BAY, built by Dae Sun Shipbuilding and Engineering Co. for Koepping Reedereigesellschaft MBH & Co. KG. Joining these ships was the CS SUMMER, an 11,341 dwt chemical tanker built by STX Shipbuilding for Central Stream Shipping Corporation. Daewoo Shipbuilding and Marine Engineering Co. built one of the most technologically advanced ships added to the NK register this year, the low-temperature LPG carrier NORDIC RIVER. The 29,565 dwt NORDIC RIVER was built for the “K” Line Group.

The Philippines

NK had an excellent year in the Philippines as well,

with the Manila Office overseeing the construction and delivery of seven ships totaling 286,798 dwt, including four 58,000 dwt bulk carriers and three 4,300 unit PCTC car carriers at Tsuneishi Heavy Industries’ Cebu shipyard. Among the car carriers was the Japanese flagged HOEGH BRASILIA, a 17,252 dwt PCTC built for Tsuneishi Holdings Co. The ship was the first car carrier ever built at the yard.

Singapore

The Society’s Singapore Office oversaw the construction of the 32,937 dwt Wan Hai 316, the fifth of six 2,646 TEU container ships to be built at the Jurong Shipyard for Wan Hai Lines (S) Pte. Ltd.



WAN HAI 509

a 52,146 dwt container carrier built by CSBC Corporation, Taiwan, Kaohsiung Shipyard for Wan Hai Lines Ltd.



NYK VIRGO

a 103,284 dwt container carrier built by Hyundai Heavy Industries Co., Ltd. for NYK Shipmanagement Pte. Ltd.

Indonesia

This year ClassNK's offices in Indonesia were extremely busy overseeing the construction of 30 ships totaling 122,836 dwt. ClassNK's Jakarta Office surveyed the largest Indonesian newbuilding, the 50,199 ton BIRCH ARROW, built for Reederei M. Lauterjung GmbH & Co. The ship is the third NK classed newbuilding to be built at the PT PAL shipyard.

Argentina

The Society's Buenos Aires Office remained busy this year, performing surveys for the newbuilding of two ships of 5,530 dwt. The office conducted newbuilding surveys for the 27,000 dwt CASANNA, the last in a series of five bulk carriers built for Casanna Shipping Company Ltd. by Astilleros Rio Santiago, and oversaw the delivery of the NICOLAS J, the sixth of twelve 2,765 dwt dry cargo river barges to be built by SAAB S.A.

Vietnam

In addition to the Society's offices in Ho Chi Minh and Haiphong, in 2007 ClassNK established its third office in Vietnam and its 100th office worldwide at Nha Trang. Over the course of 2007, these three offices oversaw the construction of 12 newbuildings totaling 162,697 dwt. Notable among the ships built to NK class this past year was the 22,502 dwt GOLDEN FALCON. The ship, which is

the first bulk carrier to be built at the Bach Dang Shipyard, was built for the Falcon Shipping Company. Elsewhere in the country, the Ba Son Shipyard built its first NK classed vessel, the 6,544 dwt general cargo carrier PHUONG NAM 1 for the Phuong Nam Company, and the Ben Kien Shipyard built an 8,763 cargo/lumber carrier, the ARIKUN, for Wisdom Marine Lines S.A.

Survey Activities and Approvals

2007 was once again an extremely busy year for ClassNK in terms of surveys and inspections. Over the course of the year, the Society carried out, on average, more than 1,000 surveys and inspections each month. 3,550 surveys were conducted within Japan, while a further 9,995 surveys took place overseas. The Society conducted 13,545 surveys in total in 2007.

In 2007, the Society approved 17 radio service companies around the world, bringing the total number of companies approved to 225.

The totals for other types of firms approved by the Society in 2007 are listed below.

1. In-water survey of ships: 13
2. Thickness measurements on ships: 22
3. Maintenance of fire fighting systems and equipment: 18

| Survey Activities and Approvals | | |
|--|-----------------------|----------------|
| Category | Item | Volume |
| Materials | Rolled Steel | 4,641,458 tons |
| | Cast/Forged Products | 163,098 tons |
| Machinery | Main Engines | 2,829 |
| | Boilers | 1,024 |
| | Deck Machinery | 2,603 |
| | Engine Room Machinery | 32,592 |
| Marine Equipment | Anchors | 1,624 |
| | Chains | 16,670 |



NORDIC RIVER

a 29,565 dwt, 38,900m³ fully refrigerated LPG carrier built by Daewoo Shipbuilding & Marine Engineering Co., Ltd. for "K" Line Ship Management Co., Ltd.



ARABIAN ORCHID

a 19,983 dwt oil/chemical carrier built by Fukuoka Shipbuilding Co., Ltd. Nagasaki Yard for Philippine Standard Shipmanagement Inc.

- 4. Maintenance of life saving equipment and appliances: 5
- 5. Voyage data recorders: 26
- 6. Hatch tightness testing: 3

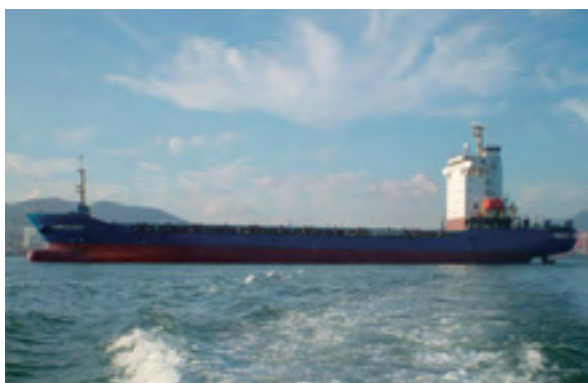
Japan and Korea-Japan meetings on inspection related matters and introduced the Society's efforts to reduce the detention ratio of NK classed ships.

Port State Control

As with last year, the Society continues to work alongside the managers of detained ships to improve ship conditions and safety awareness. To this end, the Society's Survey Department published an Annual Report on Port State Control in July 2007. In addition to visits to the Australian Maritime Safety Authority (AMSA) and Maritime N.Z., ClassNK also sent representatives to bilateral China-

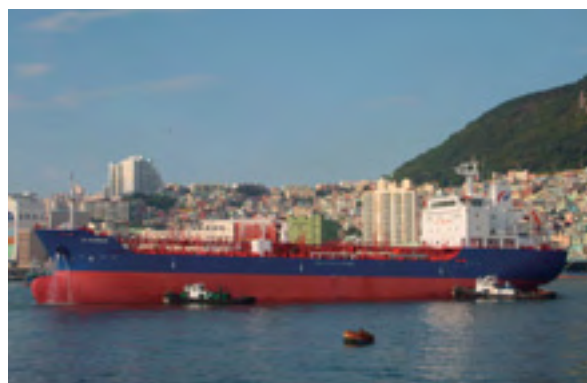
Technical Services

During 2007, ClassNK issued Statements of Compliance to 32 vessels under the Society's CAP or Condition Assessment Program, including one ship under the Society's Total Life Assessment service. Statements of Compliance were also issued for the Anti-Fouling Systems of 347 ships and the ballast water management plans of 621 ships. As of the end of 2007, the total number of Statements of Compliance issued by the Society stood at 129 for



LANTAU BAY

a 12,828 dwt container carrier built by Dae Sun Shipbuilding & Engineering Co., Ltd. for Koepping Reedereigesellschaft mbH & Co. KG.



CS SUMMER

a 11,341 dwt oil/chemical carrier built by STX Shipbuilding Co., Ltd. for Doriko Limited.

CAP, 2,447 for Anti-Fouling Systems, and 1,611 for Ballast Water Management Plans. In 2007, the Society's Emergency Technical Assistance Service (ETAS) team was called into action for two incidents related to maritime casualties.

The number of vessels registered with ClassNK's ETAS service has increased dramatically since Rule 34.7 of MARPOL Annex 1, requiring that oil tankers of 5,000 dwt or greater maintain a 'Vessel Response Plan' at an on-land site, came into effect on 1 January 2007. By the end of 2007, more than 900 vessels had registered for the Society's ETAS service, an increase of 170 ships over the 2006 total.

PrimeShip

PrimeShip-HULL(CSR)

In response to the implementation of the IACS Common Structural Rules, the Society introduced and distributed a new and revised version of the PrimeShip-HULL calculation software for the new CSR-B rules (for bulk carriers) and CSR-T rules (for double hulled oil tankers).

- 1) For the CSR-T rules for steelships, ClassNK developed the new PrimeShip-HULL (CSR) Rule Calculations for Double Hulled Oil Tankers.
- 2) For the new CSR-B rules, ClassNK revised the calculation software PrimeShip-HULL (CSR) Rule Calculations for Bulk Carriers.



CHEMWAY ARROW

a 38,065 dwt oil/chemical carrier built by Shin Kurushima Dockyard Co., Ltd. for Fuyo Kaiun Co., Ltd.

- 3) In response to both the new CSR-B and CSR-T rules, ClassNK introduced its new revised PrimeShip-Hull(CSR) Direct strength Analysis for oil tankers and bulk carriers

PrimeShip-Hull Care 3D

2007 saw the fruition of five years of development work with the introduction of PrimeShip-HULLCare 3D software. This application provides improved security and powerful features that greatly enhance ClassNK's ship maintenance management support service.

Website Renewal

Along with a complete redesign, the Society's website has been integrated with ClassNK's Single Sign-on Service, and approval lists have now been made available online. The new website also includes the latest information on the IACS Common Structural Rules as well as the Society's latest research projects. Additionally, the website is now also available in Korean and Chinese.

NK-PASS (Plan Approval Status Service)

In order to make ship plan approval both faster and more transparent, the Society established the new



DIAMOND OCEAN

a 31,931 dwt bulk/lumber carrier built by the Hakodate Dock Co., Ltd. for First Marine Service Co., Ltd.



NK-Pass System in September of 2007. The service, aimed at domestic shipyards, allows for ship plans to be submitted and approved electronically, speeding up the approval process and allowing shipyards to easily keep up to date with the latest approval information.

Audit and Registration of ISM Code and ISPS Code related Systems

In 2007, ClassNK had another busy year conducting ISM and ISPS code related audits as a Recognized Organization on behalf of various flag administrations. Over the course of the year, the Society registered 26 new companies in accordance with ISM requirements, bringing the total number of companies registered with the Society to 575. SMC's were issued to 715 ships in 2007, bringing the total number of vessels registered with the Society to 4,390. NK currently conducts ISM authorizations on behalf of 65 Administrations. The Society also registered 676 ships to ISPS Code requirements last year, bringing the total number of ships registered with the Society under the ISPS

Code to 3,597. NK currently conducts ISPS authorizations on behalf of 46 Administrations.

A breakdown of the number of vessels by flag is shown in the following table.

Assessment and Registration of Quality and Environmental Management Systems

ClassNK also conducts registration of quality management systems under the ISO 9001 series of quality standards, as well as assessment and registration of environmental management systems under the ISO 14001 standard. In 2007, a total of 21 organizations were newly registered under ISO 9001, bringing the total number registered with the Society to 381. The Society also registered four organizations to the ISO 14001 standard during the year, bringing the total number to 97. The 2007 year-end registration totals are broken down in the tables appearing on page 18.

| Number of ISPS Code Registered Ships | | | |
|--------------------------------------|--------------|----------------------------------|--------------|
| Flag | No. of Ships | Flag | No. of Ships |
| Panama | 2,204 | Vanuatu | 26 |
| Singapore | 278 | Saint Vincent and the Grenadines | 21 |
| Hong Kong | 226 | Malaysia | 6 |
| Japan | 135 | Dominican Republic | 4 |
| Malta | 123 | United Arab Emirates | 3 |
| Liberia | 121 | Cayman Islands | 3 |
| Bahamas | 87 | Saudi Arabia | 3 |
| Cyprus | 75 | Bermuda | 3 |
| Philippines | 70 | United Kingdom | 2 |
| Marshall Islands | 67 | Switzerland | 2 |
| Thailand | 52 | Belize | 1 |
| Greece | 45 | Myanmar | 1 |
| Turkey | 39 | Total | 3,597 |

Cooperative Technical Development

ClassNK works actively with a broad range of government and industry organizations on a variety of technical research and development projects. A small selection of the numerous projects currently being undertaken by the Society is listed below.

Ship Recycling

In cooperation with India's Cochin University, ClassNK is conducting research and development

projects for safe and environmentally sound ship scrapping and recycling programs.

Natural Gas Hydrate Production and Storage Systems

ClassNK continues to provide ongoing technical support for Mitsui Engineering and Shipbuilding's Natural Gas Hydrate research project. The project, undertaken in cooperation with the National Maritime Research Institute and Ocean Engineering Research, Inc., with the support of the Ocean

| ISO 9001 Quality Management System Registrations | |
|--|----------------------|
| Type of Registration | No. of Organizations |
| Textiles | 2 |
| Paper and cardboard products | 2 |
| Chemicals, chemical products and fibers | 2 |
| Rubber and plastic products | 15 |
| Basic metals and fabricated metal products | 102 |
| Machinery and Equipment | 126 |
| Electrical and optical equipments | 44 |
| Shipbuilding | 51 |
| Construction and civil engineering | 11 |
| Cargo transport and storage | 77 |
| Real estate | 2 |
| Other specialized services | 28 |
| Crew education and training | 3 |

(Note: Some organizations possess more than one type of registration.)

| ISO 14001 Environmental Management System Registrations | |
|---|----------------------|
| Type of Registration | No. of Organizations |
| Chemicals, chemical products and fibers | 1 |
| Basic metals and fabricated metal products | 17 |
| Machinery and equipment | 33 |
| Electrical and optical equipment | 7 |
| Shipbuilding | 13 |
| Construction and civil engineering | 2 |
| Cargo transport and storage | 39 |
| Real estate | 2 |
| Crew education and training | 1 |
| Other social and personal services | 3 |

(Note: Some organizations possess more than one type of registration.)



MATARIKI FOREST

a 28,709 dwt bulk/lumber carrier built by Shin Kochijyuko Co., Ltd. for Eagle Maritime Co., Ltd.



LONDON 2012

a 82,562 dwt bulk carrier built by Tsuneishi Holdings Corporation Tsuneishi Shipbuilding Company for Tsakos Shipping & Trading S.A.

Policy Research Foundation, is developing a state-of-the-art Floating Production, Storage, and Offloading (FPSO) system for NGH at sea.

NK Quality System Assessment

In 2007, ClassNK once again underwent a range of audits by outside authorities to assess the operations and quality systems of the Society. These assessments included an IACS Annual Audit conducted at the Head Office and thirteen locations overseas based on the IACS QSCS (Quality System Certification Scheme).

In addition to these audits, SGS (Société Générale

de Surveillance) and the RvA Raad voor Accreditatie also conducted audits at the NK Head Office and numerous NK locations throughout the year.

External government audits of the Society included audits of a number of the ClassNK's domestic offices by the Japanese Government, an audit of the ClassNK Head Office by the Government of Cyprus, the Dutch government's audit of the Rotterdam Office, and the Turkish Government's audit of the Istanbul Office, among a variety of audits conducted by the governments of various flag states.

These audits, alongside ClassNK's own internal audits, are part of the Society's continuing proactive efforts to achieve its goals in year-on-year quality improvement. The combined result of these audits is the constant improvement of the capabilities and



MG COURAGE

a 206,254 dwt bulk carrier built by Imabari Shipbuilding Co., Ltd., Saijo Shipyard.



YASA UNSAL SUNAR

a 55,526 dwt bulk carrier built by Mitsui Engineering & Shipbuilding Co., Ltd. Tamano Works for YASA Shipmanagement and Trading S.A.

competency of each and every one of the Society's employees. Moreover, these audits ensure that the Society continues to provide its clients with service of ever higher quality and reliability.

Training

ClassNK is actively engaged in a host of training activities both inside and outside the organization. These range from internal surveyor training to internships, lectures, and other cooperative training programs designed to meet the needs of government agencies and the maritime industries. Some of the more notable training programs ClassNK conducted are introduced briefly below.

ISM Auditor Training

In 2007, 48 of the Society's surveyors took part in the Society's ISM Auditor training within Japan. The course was also held at ClassNK's Singapore and London Offices, where a total of 14 surveyors took the course. Since the Society began the ISM Auditor training program in 1994, 630 exclusive surveyors have taken the course.

Maritime Security Auditor Training

In 2007, the Society conducted Maritime Security Auditor Training both within Japan and at the Society's London Office. This year, 21 of the

Society's surveyors participated in the course, bringing the total number of surveyors who have taken the course since its inception in 2004 to 356. Three surveyors from the Maritime Industry Authority of the Philippines also took the course at ClassNK's.

Newly Appointed Surveyor Training

ClassNK conducted surveyor training around the world for 117 surveyors (including new graduates) who joined NK during the course of the year. As part of this training, practical, hands-on training courses on marine engines were held at Yanmar Co. Ltd.'s Amagaseki Factory T.T. School.

Lectures at the Eastern Japan Training Center for Shipbuilding Skills

At the request of the Eastern Japan Training Center for Shipbuilding Skills, ClassNK staff provided instructional lectures to some 40 persons engaged in shipbuilding. Lecture topics included "ClassNK Activities, Ship Surveying, and What a Surveyor Looks For at a Shipyard" and "Poor Welding and How to Address It".

Lectures for Japanese Ministry of Land, Infrastructure, and Transport

In 2007 ClassNK conducted a variety of lectures for the Japanese Ministry of Land, Infrastructure and Transport (MLIT) at its ISPS Code Training. Lectures given during the training by the Society's



LION CITY RIVER

a 105,865 dwt oil carrier built by Namura Shipbuilding Co., Ltd., Imari Works for Anglo-Eastern Shipmanagement (S) Pte. Ltd.



SHIGE MARU

a 4,999 dwt oil carrier built by Niigata Shipbuilding & Repair, Inc. for Eiyu Kaiun Co., Ltd.



HUMEN BRIDGE

a 99,214 dwt container carrier built by IHI Marine United Inc. Kure Shipyard for ASP Ship Management Singapore Pte. Ltd.



OOCL ITALY

a 66,940 dwt container carrier built by Koyo Dockyard Co., Ltd. for Nissen Kaiun Co., Ltd.

technical staff included “The Role of Governments in Maritime Safety”, “Linking Ships, Ports, and Maritime Danger”, and “Principles of Ship Security Risk Assessment”.

Hiroshima University, and Yokohama National University, twelve undergraduate and graduate students underwent internship training at the Society’s Head Office.

Innoshima Technical Center’s Basic Shipbuilding Training Seminar

At the request of the Innoshima Technical Center, the Society presented lectures on “The Role and Significance of Ship Surveys” and “Examples of Ship Damage and the Lessons to be Learned From Them”.

Cooperation with the Tokyo MOU

Following a request from the Tokyo MOU Secretariat, ClassNK provided lectures on MARPOL and SOLAS at the “17th Basic Training Course for Port State Control Officers in the Asia Pacific Region” held by the Shipbuilding Research Centre of Japan (SRC).

Internship Training Program

At the request of Osaka University, Kyushu University, Kumamoto University, Tokai University, Tokyo University of Marine Science and Technology,

Cooperation with the I.A.I. Marine Technical Education Agency

At the request of the IAI Marine Technical Education



HOEGH SYDNEY

a 17,311 dwt vehicles carrier built by Tsuneishi Heavy Industries (Cebu) Inc. for Astro Shipmanagement, Inc.



OREGON HIGHWAY

a 17,699 dwt vehicles carrier built by Toyohashi Shipbuilding Co., Ltd. for Kawasaki Kisen Kaisha.

Agency, ClassNK presented a lecture on “ISM Code and Port State Control” to foreign trainees at the Agency’s Marine Technical College.

Cooperation with the Vietnamese Government

Following a request, NK also presented lectures on “Explosion Prevention, Fire Prevention and Fire Extinguishing Equipment for Oil Tankers” to staff from the Vietnamese Government.

Rule Revisions

Developed based both on years of survey experience and technical research, the ClassNK rules are consistently being revised to incorporate the latest research findings and to remain up to date with statutory requirements. A representative list of the numerous technical Rules and Guidances revised by the Society during 2007 is presented below.

(1) Rules and Guidance for the Survey and Construction of Steel Ships

- 1) A partial revision related to Polar Class Ships and Ice Class Ships (Parts A, B, C, D, N, R)
- 2) A partial revision related to Class Maintenance Surveys, the standard of steel renewal, etc. (Part B)
- 3) A partial revision related to The Performance Standard for Protective Coatings (Part B)

- 4) A partial revision related to Preventive Maintenance Systems and Survey Systems Based on the Results of Condition Monitoring (Part B)
- 5) A partial revision related to Ship Construction Files (Part B)
- 6) A partial revision related to Dangerous Chemical Substances (Part S)
- 7) A partial revision related to Oil Fuel Tanks in Machinery Spaces (Part C,R)
- 8) A partial revision related to Hull Structures (Part C)
- 9) A partial revision related to ICLL (Parts C, V, CS)
- 10) A partial revision related to Common Structural Rules (Parts CSR-B, CSR-T)
- 11) A partial revision related to Equipment in the Machinery Spaces, etc. (Part D)
- 12) A partial revision related to Standard and Approval of Manufacturing Process for Materials, etc. (Part K)
- 13) A partial revision related to Fire Protection and Fire Fighting (Parts N, R, S)
- 14) A partial revision related to Ships Carrying Liquefied Gases in Bulk (IGC Code) (Part N)
- 15) Others

(2) Rules and Guidance for Marine Pollution Prevention Systems

- (3) Rules and Guidance for High Speed Craft***
- (4) Guidance for Safety Equipment***



MITSUKAWA MARU
5,800 dwt limestone carrier built by Nishi Shipbuilding Co., Ltd. for Kawasaki Kinkai Kisen Kaisha, Ltd.



SPIRIT OF MOL
a 2,469 dwt training ship built by NKK Corporation, Shimizu Works for Mitsui OSK Lines, Ltd.



ClassNK Award

- (5) *Rules and Guidance for Preventive Machinery Maintenance System*
- (6) *Rules and Guidance for the Survey and Construction of Passenger Ships*
- (7) *Rules for the Survey and Construction of Ships of Fibreglass Reinforced Plastics*
- (8) *Guidance for the Approval and Type Approval of Materials and Equipment for Marine Use*
- (9) *Rules and Guidance for the Audit and Registration of Ship Security Management Systems*

Technical Seminars

Providing clients with the latest and most up-to-date technical information is one of the most important tasks undertaken by the Society. To this end, each year ClassNK conducts a number of seminars on a variety of topics. In 2007, ClassNK Technical Seminars were held in five locations across Japan, starting with Tokyo, followed by Fukuoka and continuing with Onomichi, Imabari and Kobe. The events draw attendees from across the entire spectrum of the maritime industry, including shipowners, shipyard staff, manufacturers, and others. More than 650 people participated in the ClassNK Technical seminars in 2007.

Lectures on the following subjects were given at the 2007 Technical Seminars:

- Explanation and Commentary on the Rules for the

- Survey and Construction of Steel Ships (concerning machinery and electrical equipment)
- Explanation and Commentary on the Rules for the Survey and Construction of Steel Ships (concerning hulls and hull structures)
- Present Status of the Common Structural Rules (CSR-B and CSR-T) and ClassNK CSR Related Activities
- Guidelines for the IMO Performance Standards for Protective Coatings
- Recent Trends and Developments at the IMO and IACS

ClassNK Award

The “ClassNK 100 Awards” were originally established to commemorate the 100th anniversary of the Society’s founding. Since renamed the “ClassNK Award”, it is issued each year in recognition of outstanding postgraduate research by students at participating universities. A certificate of merit and monetary award are presented as part of the award. In 2007, the award was presented to students from the following universities: Seoul National University and Pusan National University in Korea, Shanghai Jiao Tong University and Harbin Engineering University in China, and the Indian Institute of Technology in Chennai and Cochin University in India.

World Maritime University

ClassNK continues to be a strong supporter of the World Maritime University (WMU), and in response to a request by the University, ClassNK provided new computers and computer equipment for the establishment of the university’s multi-media center. The center bears the name “ClassNK Multi-Media Laboratory” in recognition of the Society’s contributions to the University over the years.

NK in Research 2007

| Title of Research Project | Outline of Research Done |
|---|---|
| Study of the structural reliability of ships (First year of three-year project: Second Stage) | Using the highly accurate probabilistic models of vertical bending moments (load) and hull girder ultimate strength (resistance) derived during the First Stage of this research project, systematic structural reliability analyses were carried out on tankers and bulk carriers to determine ultimate limit states (ULS) and clarify reliability levels. |
| Study of strong non-linear wave loads acting on hull structures (First year of two-year project) | In order to develop a Computational Fluid Dynamics (CFD) based computer code capable of analyzing the strong non-linear wave loads acting on the hull structures of actual ships, pilot calculations were carried out on actual ship forms. |
| Study of the ultimate strength of large scale hull structures (Second year of three-year project) | Using non-linear FEM (DYTRAN), the effects of local loads on global ultimate hull girder strength were clarified by analyzing the systematic collapse of a bulk carrier under combined longitudinal bending and local loads. Collapse analyses of the double bottom structure under combined water pressure and compressive loads were also carried out using a new ISUM developed by NK to be applicable to in-plane bending. The efficacy of this FEM approach was verified by comparison with non-linear FEM results. |
| Study of the structural strength assessment of membrane-type LNG ships (First year of two-year project) | The following calculations and analyses were carried out as part of this study. <ol style="list-style-type: none">1. Sloshing calculations were carried out on a cargo tank of a membrane LNG carrier with a 155,000 m³ carrying capacity.2. Ship motion analysis was carried out on the LNG carrier in order to study the relationship between ship motion response and cargo tank sloshing response.3. In order to obtain detailed data for the strength evaluation of tank insulation systems against sloshing loads, dynamic structural analyses were carried out on the tank insulation systems of the ship in preparation for insulation system drop testing to be carried out during the next year. |
| Study of condition monitoring methods of marine engines and machinery (Second year of three-year project) | In order to examine appropriate monitoring and sensing techniques for the condition monitoring systems of main engines and other engine room machinery, sensing techniques using high frequency vibration sensors and the ferrous particle concentration level wear down of lubrication oil were tested to investigate the conditions necessary for effective monitoring and to determine appropriate alarm levels to avoid main bearing failures in main engines. |



| Title of Research Project | Outline of Research Done |
|--|---|
| <p>Study of analytical methods relating to combustion characteristics of marine fuel oils and degradation of lubricating oils in 4-stroke marine diesel engines (Last year of three-year project)</p> | <p>In order to develop diagnostic techniques to protect engines from abnormal combustion problems attributable to fuel oil and lubricating oil, data analyses of fuel oil combustion tests and lubricating oils were carried to determine the combustion characteristics of marine fuel oils and the degradation characteristics of lubricating oils. Some indicators based on the nature of the oil were found for critical values that can be used in checking the characteristics of the oil.</p> |
| <p>Study on the deflection of main diesel engine crankshafts (First year of two-year project)</p> | <p>Strength analyses using the Finite Element Method combined with actual measurements were conducted to determine appropriate estimation methods and appropriate critical criteria for suitable crankshaft deflection standards in order to achieve proper shaft alignment. The ClassNK Rules will be amended accordingly to reflect the results obtained in this study.</p> |
| <p>High safety oriented ergonomic design of marine machinery systems (First year of two-year project)</p> | <p>This project aims to develop human-centered ergonomic design guidelines to further improve the safety and ease of operation, maintenance and inspection of maritime machinery systems. An extensive review of relevant international standards and literature was conducted during the first year of the project. Information was also gathered on accidents and casualties thought to have been caused by designs that increase human errors. An outline of the new guidelines has been prepared based on the information gathered.</p> |
| <p>Investigation of the detectability of weld defects using NDT techniques (One-year project)</p> | <p>A survey of non-destructive test (NDT) methods was carried out to determine the efficacy of NDT methods in detecting welding defects along welding fusion lines. State-of-the-art NDT techniques such as TOFD and Phased Array methods were also examined as part of this study.</p> |
| <p>Field tests on actual ships</p> | <p>A series of detailed stress measurements and tests investigating appropriate sensing techniques for main engine bearings were carried out on a large container ship.</p> |

Practical Research and Development

Beginning in 2007, ClassNK began the first set of an ongoing series of new Practical Research and Development projects. The research projects begun in 2007 focus on three main themes: 1) ensuring the safety of ultra large container ships, 2) risk assessment for LNG carriers, and 3) protecting the maritime environment. Summaries of each of the projects are written below.

1) Risk assessment for LNG carrier propulsion systems (First year of a two-year project)

Aimed at developing a system for quantitatively assessing the risk of LNG propulsion systems, risk assessments were carried out for the following five LNG carrier propulsion systems: 1) Steam turbine engines, 2) heavy fuel diesel engines, 3) dual diesel generators with electric propulsion systems, 4) dual fuel diesel engines, 5) and gas turbine generators with electric propulsion systems.

2) Performance testing for automated systems (First year of a two-year project)

Among the many technical developments arising from the second phase of the Super Eco-Ship Project were a variety of automated systems designed to improve the safety of every aspect of ship operation. Based on research conducted in 2007, a method for evaluating the practicality and usefulness of these automated systems has been developed and preparations are underway for in-water testing to verify the applicability of these new automated systems.

3) Safety assessment of the hull structures of ultra large container ships (First year of a two-year project)

In light of the recent trend towards ever larger container ships, this program aims to develop a set of rational standards for assessing the safety of a 13,000 TEU container ship's hull structures. The assessment system currently under development will include direct load analysis, hull structure hydro-elastic response testing, wave-induced hull girder force analysis, as well as computational models for measuring elasticity in response to springing and whipping movements.

4) LNG Total Life Assessment (TLA) (First year of a two-year project)

Aimed at reducing lifecycle costs and their associated risks for LNG carriers, research conducted as part of this project has identified a number of essential support technologies for corrosion prevention, fatigue strength safety management, and preventative machinery maintenance. Further, in order to develop new condition monitoring systems for age-related fatigue and coating and machinery degradation, a variety of condition assessment and rational maintenance schemes have been investigated based on the information drawn from condition monitoring systems.



5) Risk assessment system for LNG carriers (First year of a two-year project)

Utilizing PSC data, abbreviated results from water tank testing, and data from Continuous Maintenance Surveys (CMS), ClassNK has created a system for the risk assessment of ships in service. As part of this project, ClassNK has developed a specialized version of this risk assessment system for LNG carriers, and based on information gathered from leading researchers and various other sources, identified a number of potential risks associated with changes in the size and age of the LNG carrier fleet.

6) Environmental awareness certification (Single year project)

Aimed at reducing the environmental burden caused by the shipping industry and awarding ships with environmentally friendly features, ClassNK has conducted research on environmentally friendly technologies and developed a new Environmental Awareness Certification program. Based on examinations of environmental efforts by the shipping industry and international bodies, and survey of the items that should be included in any environmental certification program, ClassNK has developed a new set of environmental appraisal standards. Based on these efforts, as well as a rigorous analysis of environmental data and current environmental standards, NK has also developed a guideline to help address environmental problems at the design stage.

7) Brittle crack arrest safety assessment of ultra large container ships (First year of a two-year project)

Aimed at ensuring the safety of ultra large container ships, ClassNK has begun research on the brittle cracking that occurs in the extra-thick steel plate used in these oversized ships. In order to develop an ESSO-based standardized test for brittle crack arrest capable of measuring brittle crack arrest characteristics, ClassNK has analyzed test results and technical scholarship and investigated the causes of brittle cracking. Researchers on the project also investigated brittle crack occurrence, propagation, and arrest scenarios for strength deck structures and have developed a new methodology for large scale model testing.

8) Environmental performance testing for container ships (First year of a two-year project)

Aimed at developing techniques for testing environmental performance of ships in actual ocean conditions at the design stage, this project examined the current theoretical methods for determining environmental performance, and utilizing the results from a number of water tank tests, ClassNK has conducted data comparisons of the theoretical and water tank test data. In order to develop a better indexing method for determining actual environmental performance, ClassNK is investigating a variety of problems associated with estimating environmental performance and developing standards for further testing on actual ships.

Service Network





NK in International Affairs

One of the most important aspects of the Society is its commitment to international affairs and essential to this, is the Society's capacity to undertake statutory surveys on the behalf of national Administrations around the globe. To that end ClassNK maintains a worldwide network of 100 exclusive surveyor sites, with 79 offices located outside of Japan. At the end of December 2007, ClassNK was authorized to carry out surveys and issue certifications on behalf of 101 flag administrations.

Another important aspect of the Society's international activities is NK's contribution to the International Maritime Organization (IMO). NK participated in the following meetings during 2006 either as a member of the Japanese Government delegation or as a representative of IACS:

- Maritime Safety Committee (MSC) – 83rd session
- Marine Environment Protection Committee (MEPC)–56th session
- Sub-Committee on Ship Design and Equipment (DE) – 50th session
- Sub-Committee on Bulk Liquids and Gases (BLG) – 11th session
- Sub-Committee on Fire Protection (FP) – 51st session
- Sub-Committee on Safety of Navigation (NAV) – 53rd session
- Sub-Committee on Stability and Load Lines and on Fishing Vessels Safety (SLF) – 50th session
- Sub-Committee on Flag State Implementation (FSI) – 15th session
- Sub-Committee on the Carriage of Dangerous Goods, Solid Cargoes and Containers (DSC) – 12th session

ClassNK conveys the outcomes of major meetings such as MEPC and MSC to clients of the Society through a variety of methods, including the timely release of "NK Technical Information" bulletins and updates to "IMO International Convention Calendar" section of the ClassNK website.

Another key aspect of ClassNK's international activities is the Society's active involvement in the International Association of Classification Societies (IACS). ClassNK actively contributes to achieving the goals of IACS by participating in the review and updating of various Unified Requirements, Unified Interpretations, QSCS requirements, and Common Structural Rules (CSR) as part of the IACS CSR maintenance scheme. The Society also updates its own Rules regularly based on the results of these and related efforts.

ClassNK participated in the following IACS meetings in 2007 (numbers after each item indicate the number of times each meeting took place):

- Council : 4
- Quality Committee : 2
- General Policy Group : 2
- Panel Meetings (total for all four Panels) : 8
- Project Team Meetings : 10
- Expert Group Meetings : 7
- Small Group Meetings : 1
- Joint Working Group with Industry : 4

In addition to a host of technical matters, a wide range of topics were covered during these meetings including IMO related matters, the Third Maritime Safety Package put forth by the European Union, IACS Common Structural Rules, IMO Goal Based Standards, IACS guidelines on ballast tank coatings criteria, as well as cooperative efforts with Flag States to improve Port State Control, amongst other matters.

Another important facet of ClassNK's international commitment is its overseas committee meetings. These committee meetings are important venues for the two-way exchange of information and advice between the Society and key industry leaders and public officials around the world. The full list of ClassNK Committee meetings held during 2006 is summarized in the following table.



1st Middle East Technical Committee

| Committee Meetings | | |
|---|--------------|---------------|
| Name of Committee Meeting | Date | Venue |
| 16 th Greek Committee | 8 February | Piraeus |
| 12 th China Technical Committee | 29 March | Shanghai |
| 5 th Hong Kong Technical Committee | 11 April | Hong Kong |
| 4 th Turkish Committee | 9 May | Istanbul |
| 7 th Taiwan Technical Committee | 10 May | Taipei |
| 5 th British Committee | 7 June | London |
| 4 th Singapore Committee | 3 July | Singapore |
| 3 rd Malaysian Committee | 6 July | Penang |
| 18 th Korea Committee | 6 September | Seoul |
| 17 th Danish Technical Committee | 7 September | Copenhagen |
| 5 th Philippine Committee | 20 September | Manila |
| 8 th Taiwan Committee | 5 October | Taipei |
| 5 th Thai Committee | 12 October | Bangkok |
| 5 th Indonesia Committee | 2 November | Bali |
| 11 th Singapore Technical Committee | 9 November | Singapore |
| 14 th China Committee | 22 November | Hainan Island |
| 33 rd Hong Kong Committee | 3 December | Hong Kong |
| 14 th Indian Committee | 6 December | Mumbai |
| 14 th Korea Technical Committee | 7 December | Pusan |
| 1 st Middle East Technical Committee | 10 December | Dubai |

Authorizations Granted to ClassNK*

| Areas/Countries | LL | SOLAS | | | | | MARPOL 73/78 | | TM |
|------------------------|----|-------|----|----|-----|------|--------------|-----|----|
| | | SC | SE | SR | SMC | ISPS | IOPP | NLS | |
| Algeria | ★ | ★ | ★ | ★ | | | ★ | ★ | ★ |
| Antigua and Barbuda | ● | ● | ● | ● | ● | | ● | ● | ● |
| Argentina | ★ | ★ | ★ | ★ | | | | | |
| Aruba | ★ | ★ | ★ | ★ | ● | | ★ | ★ | |
| Australia | ● | ● | ● | ● | | | ● | ● | ● |
| Bahamas | ● | ● | ● | ● | ● | ● | ● | ● | ● |
| Bahrain | ● | ● | ● | ● | | ● | ● | ● | ● |
| Bangladesh | ● | ● | | | | | ● | ● | ● |
| Barbados | ● | ● | ● | ● | ● | ● | ● | ● | ● |
| Belgium | ● | ● | ★ | ★ | ★ | ★ | ★ | ● | ★ |
| Belize | ● | ● | ● | ● | ● | ● | ● | ● | ● |
| Bermuda | ★ | ★ | | | | | | | ★ |
| Bolivia | ● | ● | ● | ● | ● | | ● | ● | ● |
| Brazil | ● | ● | ● | ● | ● | | ● | ● | ● |
| British Virgin Islands | ★ | ★ | ★ | ★ | ★ | | ★ | | ★ |
| Brunei | ● | ● | ● | ● | ● | | ● | ● | ● |
| Canada | ● | | | | | | | | |
| Cape Verde | ● | ● | ● | ● | ● | | ● | ● | ● |
| Cayman Islands | ● | ★ | ★ | ★ | ★ | | ★ | ● | ● |
| Chile | ★ | ★ | ★ | ★ | | | ★ | | ★ |
| Cuba | ★ | ★ | ★ | ★ | | | | | |
| Cyprus | ● | ● | ● | ● | ★ | ● | ● | ● | ● |
| Denmark | ● | ● | ● | ● | ● | ● | ● | ● | ● |
| Djibouti | ● | ● | ● | ● | | | ● | ● | ● |
| Dominica | ● | ● | ● | ● | ● | ★ | ● | ● | ● |
| Dominican Republic | ● | ● | ● | ● | | | ● | ● | ● |
| Ecuador | ★ | ★ | ★ | ★ | | | ★ | ★ | |
| Egypt | ● | ★ | ★ | ★ | ★ | ● | ★ | | ★ |
| Equatorial Guinea | ● | ● | ● | ● | ★ | ● | ● | ● | ● |
| Fiji | ★ | ★ | ★ | ★ | | | ★ | | ★ |
| Gambia | ★ | ★ | ★ | ★ | | | ★ | | ★ |
| Georgia | ● | ● | ● | ● | ● | ● | ● | ● | ● |
| Ghana | ● | ● | ● | ★ | | | ● | | ● |
| Gibraltar | ● | ● | ● | ● | ★ | ★ | ● | ● | ● |
| Greece | ● | ● | ● | ● | ● | ● | ● | ● | ● |
| Honduras | ● | ● | ● | ● | ● | | ● | ● | ● |
| Hong Kong | ● | ● | ● | ● | ● | ● | ● | ● | ● |
| Iceland | ● | ● | ● | ● | ● | | ● | ● | ★ |
| India | ★ | ★ | ★ | ★ | | | ★ | ★ | |
| Indonesia | ● | ★ | ★ | ★ | | | ★ | ★ | ★ |
| Iran | ● | ● | ● | ● | | | ● | ● | ● |
| Iraq | ★ | ★ | ★ | ★ | | | | | |
| Ireland | ● | ★ | | ★ | ● | ● | ● | ● | ● |
| Isle of Man | ● | ● | ★ | ★ | ★ | ★ | ● | ● | ● |
| Israel | ● | ● | ★ | ★ | ★ | | ★ | | ● |
| Jamaica | ● | ● | ● | ● | ● | ● | ● | ● | ● |
| Japan | ● | ● | ● | | ● | ★ | ★ | ★ | |
| Jordan | ● | ● | ● | ● | | ● | ★ | ★ | |
| Kenya | ● | | | | | | | | |
| Kiribati | ● | ● | ● | ● | ● | ● | ● | ● | ● |

Abbreviations:

- Authority has been delegated.
- ★ Authority has been delegated subject to some conditions.
- LL International Load Line Certificate
- SC Cargo Ship Safety Construction Certificate
- SE Cargo Ship Safety Equipment Certificate
- SR Cargo Ship Safety Radio Certificate

- SMC Safety Management Certificate
- ISPS International Ship and Port Facility Security Certificate
- IOPP International Oil Pollution Prevention Certificate
- NLS International Pollution Prevention Certificate for the Carriage of Noxious Liquid Substances in Bulk
- TM International Tonnage Certificate (1969)

* For ships other than passenger ships.



| Areas/Countries | LL | SOLAS | | | | | MARPOL 73/78 | | TM |
|--------------------------------|----|-------|----|----|-----|------|--------------|-----|----|
| | | SC | SE | SR | SMC | ISPS | IOPP | NLS | |
| Kuwait | ● | ● | ★ | ★ | ★ | ● | ● | ● | ● |
| Lebanon | ● | ★ | ★ | ★ | | ★ | | | |
| Liberia | ● | ● | ● | ● | ● | ● | ● | ● | ● |
| Libya | ● | ● | ● | ● | ● | ● | ● | ★ | ★ |
| Luxembourg | ● | ● | ● | ● | ● | ● | ● | ● | ● |
| Madeira | ● | ● | ● | ● | | | ● | ● | ● |
| Malaysia | ● | ● | ● | ● | ● | ● | ● | ● | ● |
| Maldives | ● | ● | ● | ● | ● | | ● | | ● |
| Malta | ★ | ★ | ★ | ★ | ● | ★ | ★ | ★ | ★ |
| Marshall Islands | ● | ● | ● | ● | ● | ● | ● | ● | ● |
| Mauritius | ● | ● | ● | ● | ● | ● | ● | ● | ● |
| Mexico | ★ | ★ | ★ | ★ | | | ★ | | ★ |
| Morocco | ● | ★ | ★ | ★ | ★ | | ★ | ★ | ★ |
| Mozambique | ● | | | | | | | | |
| Myanmar | ● | ● | ● | ● | ● | ● | ● | ● | ● |
| Namibia | ● | ● | ● | ● | | | ● | ● | ● |
| Netherlands | ● | ★ | ★ | ★ | ● | ● | ★ | ● | ● |
| Netherlands Antilles | ★ | ★ | ★ | ★ | ★ | ★ | ★ | ★ | |
| Oman | ● | ● | ● | ● | | | | | ● |
| Pakistan | ● | ● | | | ★ | | ● | ● | ● |
| Panama | ● | ● | ● | ● | ● | ★ | ● | ● | ● |
| Papua New Guinea | ● | ● | ● | ● | | | ● | | ● |
| Paraguay | ★ | ★ | ★ | ★ | ★ | | | | ★ |
| Philippines | ● | ● | ● | ● | ● | ● | ● | ● | ● |
| Portugal | ★ | ★ | | | | | ★ | | |
| Qatar | ★ | ★ | ★ | ★ | ★ | ● | ● | ● | ★ |
| Saudi Arabia | ● | ● | ● | ● | ● | ● | ● | ● | ● |
| Seychelles | ● | ● | ● | ● | ● | ● | ● | ● | ● |
| Singapore | ● | ● | ● | ● | ● | ● | ● | ● | ● |
| Solomon Islands | ● | ● | ● | ● | | | | | ● |
| Somalia | ● | | | | | | | | |
| South Africa | ● | ● | | | | | ★ | ● | |
| Sri Lanka | ● | ● | ● | ● | | | ● | | ● |
| St. Christopher and Nevis | ● | ● | ● | ● | ● | ● | ● | ● | ● |
| St. Vincent and the Grenadines | ● | ● | ● | ● | ★ | ★ | ● | ● | ● |
| Switzerland | ● | ● | ● | ● | ● | | ● | ● | ● |
| Tanzania | ● | | | | | | | | |
| Thailand | ★ | ★ | ★ | ★ | ★ | | ★ | | ★ |
| Tonga | ● | ● | ● | ● | | | ● | ● | ● |
| Tunisia | ● | ★ | | | | | ● | | |
| Turkey | ● | ★ | ★ | ★ | ● | ● | ● | ● | ★ |
| Tuvalu | ● | ● | ● | ● | ● | ● | ● | ● | ● |
| United Arab Emirates | ● | ● | ● | ● | ● | ● | ● | ● | ● |
| Uganda | ● | | | | | | | | |
| United Kingdom | ● | ★ | ★ | | ★ | ★ | ★ | ★ | ● |
| Uruguay | ★ | ★ | ★ | ★ | | | | | |
| Vanuatu | ● | ● | ● | ● | ● | ● | ● | ● | ● |
| Venezuela | ★ | | | | | | | | |
| Vietnam | ★ | ★ | ★ | ★ | ★ | | ★ | ★ | ★ |
| Yemen | ● | | | | | | | | |

As of December 2007.

NK in Committee

ADVISORY COUNCIL

| | | | |
|----------------|-------------------|----------------|--------------------------------|
| <i>Members</i> | Chang Yung-fa | Group Chairman | Evergreen Group |
| | Frank W. K. Tsao | Group Chairman | IMC Group of Companies |
| | Lua Cheng Eng | Chairman | LCE Consulting Pte Ltd. |
| | Sumate Tanthuwani | President | Regional Container Lines Group |

BRITISH COMMITTEE

| | | | |
|-----------------|-----------------------------|--------------------------------|--|
| <i>Chairman</i> | J. G. Davis | Chairman | IMIF (International Maritime Industries Forum) |
| <i>Members</i> | F. M. Marchant | | |
| | Michael G. Parker | Chairman | Andrew Weir Shipping Ltd. |
| | Robert Houston | Managing Director | Anglo-Eastern Ship Management (UK) Ltd. |
| | Enys Dan | Director, Marine Assurance | BP Shipping Limited |
| | Sunil Malhotra | | British Marine Plc |
| | Jeremy G. Hodgson | London Representative | Deutsche Schiffsbank AG |
| | Epaminondas G. E. Embiricos | Chairman | Embiricos Shipbrokers Ltd. |
| | Philip D Atkinson | Technical Director | Graig Ship Management Limited |
| | Tim Harris | Chairman | James Fisher and Sons plc |
| | Alastair Fischbacher | General Manager | Rio Tinto Shipping Limited |
| | Alan P Davey | General Manager | Shell Shipping Technology |
| | Michael K. Drayton | Chairman | The Baltic Exchange |
| | Ray McNamara | Divisional Technical Director | V. Ships UK Ltd. |
| | Peter McIntosh | Chairman, Joint Hull Committee | Ark Syndicate Management Limited |

CHINA COMMITTEE

| | | | |
|-----------------|----------------|--------------------------|---|
| <i>Chairman</i> | Li Jianhong | Executive Vice President | China Ocean Shipping (Group) Company (COSCO) |
| <i>Members</i> | Xu Zi Qiu | President | China Shipbuilding & Offshore International Co., Ltd. |
| | Lv Yi Bin | Deputy Manager | China Shipping (Group) Company |
| | Mao Shi Jia | Managing Director | China Shipping Development Company Limited |
| | | | China Shipping Development Co., Ltd., Tanker Company |
| | Han Chengmin | Deputy Managing Director | COSCO Container Lines |
| | Ge En Hua | Director Vice President | Hebei Ocean Shipping Co., Ltd. |
| | Li Junfeng | | Jiangnan Shipyard (Group) Co., Ltd. |
| | Yang Jian Ming | President | Jiangsu Ocean Shipping Co., Ltd. |
| | Tian Zhongshan | Managing Director | Sinotrans Shipping Limited |

GREEK COMMITTEE

| | | | |
|-----------------|------------------------|-------------------|---|
| <i>Chairman</i> | Charalambos N. Mylonas | Chairman | Transmed Shipping Ltd. |
| <i>Members</i> | Markos A. Nomikos | Director | A. M. Nomikos Transworld Maritime Agencies S.A. |
| | Michael D. Chandris | Chairman | Chandris (Hellas) Inc. |
| | George J. Souravlas | Managing Director | Elmira Shipping and Trading S.A. |
| | Anna G. Dracopoulos | Director | Empros Lines Shipping Co. SP. S.A. |
| | Prokopis N. Karnesis | Director | European Navigation Inc. |
| | Kriton Lendoudis | Managing Director | Evalend Shipping Co. S.A. |
| | Michael E. Veniamis | Director | Golden Union Shipping Co. S.A. |



| | | |
|--------------------------|---------------------------------------|--------------------------------------|
| Ghikas J. Goumas | Director | J. G. Goumas Shipping Company S.A. |
| Dimitris Z. Kritsas | President | Kritsas Shipping S.A. |
| Panagiotis C. Laskaridis | Managing Director | Laskaridis Shipping Co. Ltd. |
| Diamantis P. Diamantides | Managing Director | Marmaras Navigation Ltd. |
| Theodore P. Angelopoulos | | Metrostar Management Corp. |
| Thanos G. Crassaris | Technical Director General Manager | Springfield Shipping Co. Panama S.A. |
| George S. Livanos | Chairman | Sun Enterprises Ltd. |
| Constantinos J. Martinos | Managing Director | Thenamaris Ships Management Inc. |
| Panagiotis N. Tsakos | President | Tsakos Shipping & Trading S.A. |
| Michael M. Scufalos | Managing Director | Union Commercial Inc. |

HONG KONG COMMITTEE

| | | | |
|--------------------------|--------------------------|----------------------------------|---|
| <i>Chairman</i> | Andrew Y. Chen | Chairman & Managing Director | Grand Seatrade Shipping Company Ltd. |
| <i>Honorary Chairman</i> | M. H. Liang | Chairman | Island Navigation Corp Int'l Ltd. |
| <i>Members</i> | Ning Pao Kun | Deputy Managing Director | COSCO (H.K.) SHIPPING CO., LIMITED |
| | Robert Alexander Ho | President | Fairmont Shipping (HK) Ltd & Affiliates |
| | Huang Shao Jie | Director & President | Hong Kong Ming Wah Shipping Co., Ltd. |
| | Arthur Bowring | Managing Director | Hong Kong Shipowners Association |
| | Frank W. K. Tsao | Group Chairman | IMC Group of Companies |
| | Steve G. Hsu | Group Chairman | Oak Maritime (H.K.) Inc., Ltd. |
| | Kwai Sze Hoi | Chairman & President | Ocean Longevity Shipping and Management Co., Ltd. |
| | Richard Hext | Chief Executive Officer | Pacific Basin Shipping (HK) Ltd. |
| | C. C. Liu | Chairman | Parakou Shipping Ltd. |
| | M. T. Yung | Director | General Manager Shipping Division Patt Manfield & Co., Ltd. |
| | Peter Cheng | Managing Director | Peter Cheng Naval Architect & Marine Consultant Ltd. |
| | Raymond Pao | President | Regent Shipping Ltd. |
| | Li Hua | Deputy Managing Director | Sinotrans Shipping Limited |
| | Kenneth K.W. Lo | Managing Director | Teh-Hu Cargocean Management Co., Ltd. |
| | Edward S. C. Cheng | Chairman | Unique Shipping (H.K.) Ltd. |
| | C.A.J. Vanderperre | Chairman | Univan Ship Management Ltd. |
| David C. C. Koo | Managing Director | Valles Steamship Co., Ltd. | |
| Sabrina S. M. Chao | Deputy Managing Director | Wah Kwong Shipping Holdings Ltd. | |
| Jim Nelson | Managing Director | Wallem Shipmanagement Ltd. | |

INDIAN COMMITTEE

| | | | |
|----------------------|-----------------------|--|--|
| <i>Chairman</i> | Arun Mehta | Vice Chairman & Managing Director | Varun Shipping Company Limited |
| <i>Vice Chairman</i> | R. L. Pai | Group Sr. Vice President | Reliance Industries Limited |
| <i>Members</i> | Ashok V. Chowgule | Executive Director | Chowgule & Company Ltd. |
| | Ajoy Chatterjee | Chief Surveyor with the Government of India | Directorate General of Shipping Ministry of Shipping, Road Transport & Highways Government of INDIA |
| | Madhusudan P. Dhanuka | Executive Director | GEE Limited |
| | Atul J. Agarwal | Joint Managing Director | Mercator Lines Limited |
| | H. Ansari | Additional Director | National Law University |
| | S. Govindrajan | Managing Director | Progressive Shipping Consultancy Services (PVT) Ltd. |
| | K. M. Sheth | Executive Chairman | The Great Eastern Shipping Co., Ltd. |
| | J. V. S. Rao | General Manager | The Shipping Corporation of India Ltd. |

INDONESIA COMMITTEE

| | | | |
|-----------------|-------------------------|-----------------------------------|--|
| <i>Chairman</i> | Widihardja Tanudjaja | President Director | PT. Berlian Laju Tanker Tbk |
| <i>Members</i> | Choy Ngee Sheng | Director | GBLT Shipmanagement Pte. Ltd. |
| | Oentoro Surya | Chairman | INSA (Indonesia National Shipowners' Association) |
| | Joeswanto Karijodimedjo | Chairman | IPERINDO(Indonesia Shipbuilding & Offshore Industry Association) |
| | Drs. Abdul Gani | Director of Marine Safety | Ministry of Transportation Republic of Indonesia |
| | Adiwibowo | Senior Vice President of Shipping | PERTAMINA SHIPPING |
| | Supardi Somantri | Senior Adviser | PT. Adnyana |
| | Andy A. Mallian | Fleet Director | PT. Arpeni Pratama Ocean Line Tbk. |
| | Kasim Arifin | President Director | PT. Bumi Perkasa Bahtera |
| | Djoko Mulyanto | Fleet Director | PT. Djakarta Lloyd |
| | Suyoto | President Director | PT. Dok & Perkapalan Kodja Bahari (PERSERO) |
| | Hendrato | General Manager | PT. Gesuri Lloyd |
| | H. Soenarto | President Director | PT. Gurita Lintas Samudera |
| | Agus Darjanto | President Director | PT. Humpuss Intermoda Transportasi Tbk. |
| | Adwin H. Suryohadiprojo | President Director | PT. PAL Indonesia |
| Asmary Herry | Executive Director | Samudera Shipping Line Ltd. | |

KOREA COMMITTEE

| | | | |
|-----------------|-----------------|--------------------|--|
| <i>Chairman</i> | Doo-Chan Chang | Chairman | KSS Line Ltd. |
| <i>Members</i> | Sang-Tae Nam | President & C.E.O. | Daewoo Shipbuilding & Marine Engineering Co., Ltd. |
| | Kyu-Won Park | President | Hanjin Heavy Industries & Construction Co., Ltd. |
| | Kil-Seon Choi | President & C.E.O. | Hyundai Heavy Industries Co., Ltd. |
| | Jae-Byoung Song | President | Hyundai Mipo Dockyard Co., Ltd. |
| | Soo-Hyun Kang | President & C.E.O. | Hyundai Samho Heavy Industries Co., Ltd. |
| | Jin-Bang, Lee | Chairman | Korea Line Corporation |
| | Jing-Wan Kim | President & C.E.O. | Samsung Heavy Industries Co., Ltd. |
| | Jeong-Hwa Lee | President & C.E.O. | SK Shipping Co., Ltd. |
| | Jong-Chul Lee | President | STX Pan Ocean Shipping Co., Ltd. |

MALAYSIAN COMMITTEE

| | | | |
|----------------------|-------------------------|---------------------------|--------------------------------------|
| <i>Chairman</i> | Shamsul Azhar bin Abbas | President & C.E.O | MISC BERHAD |
| <i>Vice Chairman</i> | Nordin Mat Yusoff | Vice President | MISC BERHAD |
| <i>Members</i> | Lim Leng-Pin | Managing Director | Aurora Tankers Sdn. Bhd. |
| | Stein Eriksen | General Manager | Barber Ship Management Ltd. |
| | Billy Tan Gim Hoe | Chairman | Ecoship Sendirian. Berhad |
| | David Tan | Managing Director | Everise Maritime Sdn. Bhd. |
| | Elias Kadir | Senior Executive Director | Felda Transport Services Sdn. Bhd. |
| | Halim Mohammad | Executive Chairman | Halim Mazmin Bhd. |
| | Dennis Liong | General Manager | Hub Shipping Sdn. Bhd. |
| | Muhamad Azmi Alwi | Managing Director | Nepline Berhad |
| | Samsudin Mohd Yassin | Chief Executive Officer | Petronas Maritime Services Sdn. Bhd. |



PHILIPPINE COMMITTEE

| | | | |
|-----------------|-----------------------|---|--|
| <i>Chairman</i> | Arben E. Santos | President & C.E.O | Southwest Maritime Group of Companies |
| <i>Members</i> | Roy R. Alampay | Vice President for Operations & General Manager | Baliwag Navigation, Inc. |
| | Vicente T. Suazo, Jr. | Administrator | Department of Transportation & Communications Republic of the Philippines |
| | Rogelio A. Torres | Vice President | Eastern Shipping Lines, Inc. |
| | Ko-Lin Toh | President | Keppel Philippines Marine, Inc. |
| | Michael G. Bernardino | Vice President | Loadstar International Shipping, Inc. |
| | Doris Magsaysay Ho | President & Chief Executive Officer | Magsaysay Maritime Corporation |
| | Edgardo G. Lacson | President | MIS Maritime Corporation |
| | Kenji Kawano | Chairman of the Board | Tsuneishi Heavy Industries (Cebu), Inc. |

SINGAPORE COMMITTEE

| | | | |
|-----------------|------------------|---|--|
| <i>Chairman</i> | S. S. Teo | President | Singapore Shipping Association |
| <i>Members</i> | Tong Chong Heong | Managing Director | Keppel FELS Limited |
| | BG Tay Lim Heng | Chief Executive | Maritime and Port Authority of Singapore |
| | Thomas Held | Group President & Chief Executive Officer | Neptune Orient Lines Ltd. |
| | Aloysius Seow | Chief Operating Officer | Ocean Tankers (Pte) Ltd. |
| | Teo Cho Keng | Executive Director | Pacific International Lines (Pte) Ltd. |
| | K. K. Tan | President | SembCorp Marine Limited |

TAIWAN COMMITTEE

| | | | |
|-----------------|---------------------|-----------------------------|---|
| <i>Chairman</i> | Loh Yao-fon | Assistant to Group Chairman | Evergreen Group |
| <i>Members</i> | Danny Wang | C.F.O. | Cheng Lie Navigation Co., Ltd. |
| | Kuang-Nan Fan | President | China Shipbuilding Corporation |
| | Donald K. L. Chao | President | China Steel Express Corporation |
| | Jei-Yuan Chen | Executive Manager | Chinese Petroleum Corp. |
| | Shang-Wen Liao | President | Eastern Media International Corporation |
| | Huang Chin-san | Chairman | Evergreen International Corp. |
| | David Hsu | Chairman | First Steamship Co., Ltd. |
| | Bill M. H. Huang | Chairman | Glory Navigation Co., Ltd. |
| | Harvey Chiu | Chairman | Hsin Chien Marine Co., Ltd. |
| | Michael M. K. Hsiao | Chairman | Mingtai Navigation Co., Ltd. |
| | J. D. Lan | Chairman, C.E.O. | Shih Wei Navigation Co., Ltd. |
| | Mathias K. Y. Chen | Chairman | Sincere Industrial Corporation |
| | Fred C. P. Tsai | Chairman | Sincere Navigation Corporation |
| | Joseph Wu | President | Ta-Ho Maritime Corporation |
| | I. Y. Chang | President | Taiwan Navigation Co., Ltd. |
| | Nobuyoshi Morimoto | C.E.O., Managing Director | TMT Co., Ltd. |
| | C. K. Ong | President | U-Ming Marine Transport Corp. |
| | Lin Ching Chih | Chairman | Unison Marine Corporation |
| | Chao-Hon Chen | Executive Director | Wan Hai Lines Ltd. |
| | James Lan | Chairman | Wisdom Marine Lines S.A. |
| | David C. H. Liu | Senior Vice President | Yang Ming Marine Transport Corp. |

THAI COMMITTEE

| | | | |
|-----------------|-------------------------|----------------------------|---|
| <i>Chairman</i> | Sutep Tranantasin | Executive Vice President | Regional Container Lines Public Co., Ltd. |
| <i>Members</i> | Warawan Nganthavee | Managing Director | Asian Marine Services Public Co., Ltd. |
| | Bhumindr Harinsuit | Managing Director | Bhureemas Navee Co., Ltd. |
| | Wirat Chanasit | Managing Director | Italthai Marine Ltd. |
| | Chanet Phenjati | President | Jutha Maritime Public Co., Ltd. |
| | Suraphon Meesathien | Managing Director | Nathalin Co., Ltd. |
| | Amares Phulsawat | Director & General Manager | Phulsawat Navy Co., Ltd. |
| | Jaipal Mansukhani | Director | Precious Shipping Public Co., Ltd. (Great Circle Shipping Agency Ltd.) |
| | Wittawat Svasti-Xuto | Vice President | PTT Public Co., Ltd. |
| | Voravit Visitkitjakarn | Managing Director | Sang Thai Shipping Co., Ltd. |
| | Pongpun Amornvivat | Managing Director | Thaioil Marine Co., Ltd. |
| | Yodchai Ratanachiwakorn | General Manager | Thoresen & Co., (Bangkok) Ltd. |
| | Teruo Kondo | Chief Production Manager | Unithai Shipyard & Engineering Ltd. |

TURKISH COMMITTEE

| | | | |
|-----------------|----------------------|-------------------------------|---------------------------------------|
| <i>Chairman</i> | Yalcin Sabanci | Chairman | Yasa Holding S.A. |
| <i>Members</i> | Necdet Aksoy | Chairman | Akmar Holding S.A. |
| | Ali Umur | President | Aktif Shipping |
| | Kenan S. Sumra | Superintendent Engineer (QMR) | Aygaz Anonim Sirketi |
| | Esref Cerrahoglu | Chairman | Cerrahgil A.S. |
| | Akin Falay | Managing Director | Cornships Management and Agency Inc. |
| | Serdar Akcali | Managing Director | Denak Ship Management & Agency |
| | Bilge Bayburtlugil | General Manager | DITAS Tanker and Marine Operations |
| | Orhan Karademir | Technical Manager | Genel Denizcilik Nakliyatı A.S. |
| | Sadan Kaptanoglu | Owner | H.I. Kaptanoglu Shipping Group |
| | Suha Izmirligil | General Manager | Hasatmar Ship Management S.A. |
| | Bedri Ince | President | Ince Shipping and Trading Co. Inc. |
| | Murat Edip Karahasan | Chairman | Karahasan Group of Shipping Companies |
| | Tamer Kiran | | KIRAN Group of Shipping Companies |
| | Faruk Miras | Managing Director | Korfez Shipping And Trading Inc. |
| | Huseyin Yardimci | General Manager | MOLIVA SHIPPING INC. |
| | Serif Ozdaglar | Managing Director | Nemtas Nemrut Liman Isletmeleri A.S. |
| | Murat Dortbudak | Executive Vice President | Odin Shipmanagement |

CHINA TECHNICAL COMMITTEE

| | | | |
|-----------------|-----------------|--------------------------|---|
| <i>Chairman</i> | Zhao Zhanjun | President | China Ship Design & Research Center Co., Ltd. |
| <i>Members</i> | Feng Guo Ying | Vice General Manager | China Business Marine Co., Ltd. (SINOMARINE) |
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