

ClassNK

MAGAZINE
58th Edition 2006

Technical Essay



Special Article



Focus on Japan



Stories from the Sea



ClassNK around the World



ClassNK

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Natural Gas Hydrates: future fuel and a new shipping sector?



Development of the Indian Ocean Tsunami Warning System



Kitakyushu: NK in Sasebo, Usuki and Kokura



**Land from the sea: Tokyo reclaimed
The Japan Coast Guard in brief**



NK Hamburg and Kuala Lumpur



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Chairman's Message

Chairman's Message: NK Magazine 2006

Welcome to the 2006 ClassNK Magazine. As always, I am very pleased to have the opportunity to review and introduce the annual NK Magazine, which once again has a wide cross section of interesting articles.

This year's "Special Article" looks at the development and implementation of the Indian Ocean Tsunami Warning System, which was initiated after the December 2004 tsunami that devastated parts of Indonesia, Thailand and lands even further away. Although no system can prevent tsunamis, nor the damage they do, let us hope that when fully implemented, this system can at least save the lives of those most immediately threatened.

This year's "Technical Essay" takes an interesting look at Natural Gas Hydrates (NGH) and then looks at the potential of manufactured Natural Gas Hydrates. A system to manufacture Natural Gas Hydrates from otherwise uneconomical natural gas fields may offer the possibility of making existing, but untapped natural gas resources more available, and in the process may create a whole new shipping sector, NGH carriers.

"Focus on Japan" visits the island of Kyushu or more specifically the northern part of the island, where NK has three service sites, in Sasebo, Usuki and Kitakyushu.

In this year of the World Cup, the staff of NK Hamburg has sent an interesting profile of their city from Germany. The staff of NK Kuala Lumpur office has also sent an interesting profile of their city from Malaysia, both of these for the "NK Around the World" section.

The first section of this year's "Stories from the Sea" is sub-titled "Land from the Sea", and looks at the topic of reclaimed lands in Tokyo. It really is quite surprising to learn just how much of what we call Tokyo, actually used to be Tokyo Bay. We then take a brief look at the Japan Coast Guard, whose profile has been raised somewhat this year by a big hit summer movie called "Umizaru", a story dealing with a team of elite JCG rescue divers.

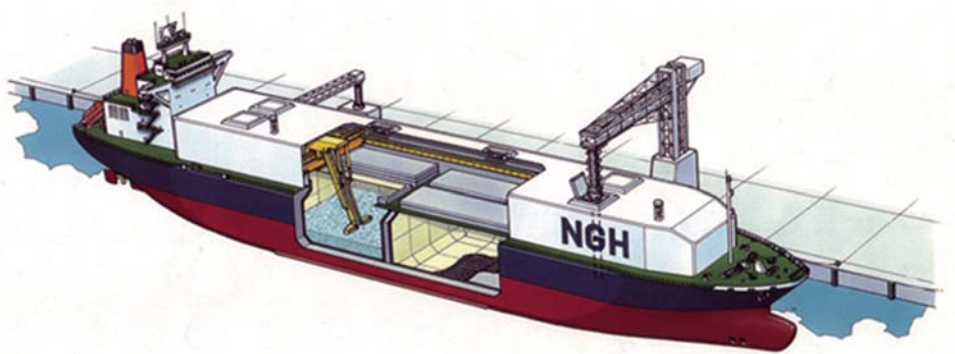
"Topics and Events" covered briefly include the appointment of new board members, incorporation of the Common Structural Rules into the NK rules, our participation in various trade fairs, and some new office openings.

So I hope you too enjoy reading this year's NK Magazine.

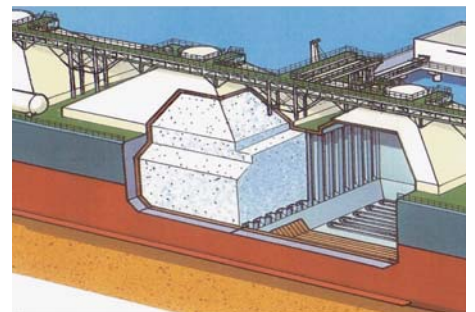
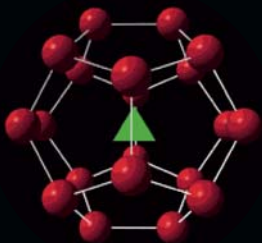
Kenji Ogawa
Chairman and President

Natural Gas Hydrates:

future fuel and a new shipping sector?



NGH Carrier Concept image



Independent tank structure

Without a doubt two of the biggest challenges we all face today are global warming and rising energy costs. It is not surprising then that natural gas is becoming ever more important as a common energy source. Natural gas is abundant, cheaper than oil and burns cleaner in terms of greenhouse gases. For those of us in the shipping arena, the most obvious sign of this natural gas boom is the explosion in LNG ship orders. However, currently developed reserves will not last forever, and the LNG production process is relatively expensive. For our part of the equation, for example, in shipping, a single large LNG carrier can now cost over US \$200 million.

Technical Essay

Above icon pictures provided by:
Mitsui Engineering & Shipbuilding Ltd. (top);
Japan Oil, Gas and Metals National Corporation (bottom)

Natural Gas Hydrates: future fuel and a new shipping sector?



NGH pellets look and feel like ice balls, but will burn



NGH pellet production pilot plant

Interestingly, by some estimates, more than half of the world's potential natural gas reserves are known, but totally untapped, they are the small and large Natural Gas Hydrate (NGH) reserves that can be found all around the world. Gas hydrates are naturally occurring crystalline substances basically composed of just water and natural gases, whereby a solid water-lattice traps gas molecules in a cage-like structure, known technically as a clathrate. In practice this means bulk quantities look and feel like snow or ice or an icy slurry, depending on the conditions. These natural gas hydrates can be found both in permafrost regions (not so common) and beneath the sea in the sediment of outer continental margins (more common). While methane, propane, and other gases can be included in this type of clathrate structure, methane, the gas we most commonly associate with "natural gas", hydrates appear to be the most common and the amount of methane sequestered in gas hydrates is

enormous. Since detailed studies are rare, estimates vary widely and range from about 100,000 to 270,000,000 trillion cubic feet, but in any case, it is commonly agreed that the amount of gas in the natural gas hydrate reserves of the world greatly exceeds the volume of known conventional gas reserves. Some have even suggested that it is possible that gas hydrates may represent an inexhaustible energy resource, as they may be renewable due to the way they develop.

While all this sounds very exciting and promising, the reality is that there is currently no commercial exploitation of this resource. This is because the technical difficulties associated with extraction the NGH are currently unsolved. However, one very interesting possibility has arisen out of all the interest in NGH and that is the development and production of "artificial" or manufactured NGH.

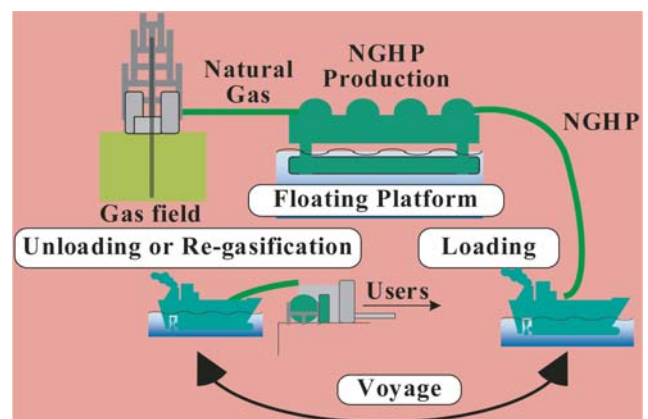


NGH FPSO concept image

Currently, it is estimated that about 40-60 per cent of the world's regular natural gas reserves are defined as "stranded" or in other words, they are in small or remote fields far from existing pipelines or gas infrastructure. Because the infrastructure associated with developing these fields for regular LNG production and transport is very expensive, they are not considered economically viable. In comparison with the conventional Liquefied Natural Gas (LNG) which needs to be produced and stored at the extremely low temperature of -162°C , the production cost for manufactured NGH is much lower. Obviously LNG has a higher ratio of gas to volume, so the transportation cost per unit energy of manufactured NGH is higher than that of LNG. However, the facilities required for manufactured NGH production, storage, transport and gasification can be greatly simplified because NGH only requires the much milder conditions of -20°C under normal atmospheric pressure. Manufactured NGH is solid like snowy ice and can be made from natural gas and water at moderate pressures and temperatures. As one cubic meter of hydrates can contain up to 180 cubic meters of natural gas, and NGH can be transported stable at about -20°C under normal atmospheric pressure, it offers the possibility of more economical and safe transport of natural gas. As a result, the total cost of an NGH system including production, storage, transportation and gasification, therefore, is much cheaper than that of LNG in the long run, but more importantly it makes previously inaccessible reserves available to an energy hungry world. This manufactured

NGH is expected to be especially interesting for smaller gas fields where the huge start-up costs of normal LNG production systems are not viable. It is estimated that today, with only the 30 or so best fields in production worldwide, there is scope for a further 970 smaller or remote natural gas fields to be developed.

A world leader in developing the technology for production and shipping of manufactured NGH is Japan's Mitsui Engineering and Shipbuilding Ltd., (MES). With the assistance of the New Energy and Industrial Technology Development Organization (NEDO), MES has completed a pilot manufactured NGH production plant capable of producing 600 kg/day of high-speed production manufactured NGH. More importantly, MES has built, in collaboration with National Institute of Advanced Industrial Science and Technology and the University of Osaka, a process plant for pelletizing, transportation, storage and high pressure regasification of NGH on mass, as a joint study project with Japan Oil, Gas and Metal



NGH production process diagram

Natural Gas Hydrates: future fuel and a new shipping sector?

National Corporation. They have successfully achieved continuous regasification of NGH under high pressure on mass. According to these studies, production methods may end up using around half the energy of a conventional LNG plant. Also, the pellets produced by this system offer good filling and flow efficiency, as well as good maintenance of the so-called 'self-preservation' effect, reducing boil-off gas.

Together with the National Maritime Research Institute and Osaka University and with the support of the Corporation for Advanced Transport & Technology, MES is now developing an NGH carrier, which will constitute the most important part of the NGH transport chain.

The manufactured NGH is pelletized into round balls for transport which greatly improves the cargo handling efficiency, and an independent tank system is envisaged for the NGH carrier. The study of the loading and unloading of NGH pellets to and from the carrier envisages the use of a mechanical conveyor system, loading the NGH pellet to the cargo hold by a horizontal conveyor, and unloading from the cargo hold by a vertical conveyor onto a horizontal conveyor on the deck for the shore transport and regasification. With regasification, there is quite a large volume of residual water; however, it may be possible to return this to the NGH carrier for use as ballast water which, on arrival back at the gas field it could be recycled for NGH production.

One issue still to be resolved is that the manufactured NGH pellets are not presently recognized as a ship cargo, and will need to go through an international standardization process. As a first step in this process, ClassNK has

cooperated with MES and the National Maritime Research Institute in a preliminary study on the safety requirements for NGH pellet carriers. The study aimed to achieve equivalent safety levels as LNG carriers and to follow the IGC Code as near as possible, given that NGH is actually a solid, not gas or liquid to which the Code applies. Key issues studied included structural integrity, low temperature hazards and fire hazards. Given the nature of NGH, toxicity, corrosivity and reactivity are all negligible. While structural integrity is relatively straight forward, low temperature hazard issues include primary and secondary barrier considerations as well as insulation for the cargo space. Similarly, fire hazard issues such as elimination of fuel, oxygen and sparking were looked at. All the studies were based on a conceptual ship model, as shown in figure 1.

All these projects have clearly demonstrated the great potential of NGH for the transportation and storage of natural gas from small fields.

Were this technology to be fully developed and the untapped natural gas fields of the world finally opened up, not only would it be an enormous step towards meeting the world's energy needs with an environmentally friendly fuel, but a whole new industry would evolve. And happily for us, a whole new class of ship, NGH carriers, would be a major part of the new industry.

For more information on this topic, please visit the following websites which were the basis of most of this article.

http://www.mes.co.jp/english/mes_technology/ngh.html
http://www.rina.org.uk/rfiles/navalarchitect/gas_oct03.pdf
<http://www.ipt.ntnu.no/~jsg/presentasjoner/GudmundssonDelhiFebruary2005.pdf>
http://www.odp.usyd.edu.au/odp_CD/oceplat/opindex2.html

Development of the Indian Ocean

Tsunami Warning System

What is a Tsunami?

A tsunami is a series of waves generated when a body of water, usually the ocean, is rapidly displaced on a massive scale. Most often tsunamis are the result of earthquakes, but huge landslides, volcanic eruptions and even large meteorite impacts can also cause a tsunami. The term tsunami actually comes from the Japanese language and is made up of two Chinese characters, one meaning *harbor* (“tsu”, 津) and the other *wave* (“nami”, 波). The term is thought to have been created centuries ago by fishermen who, even though they had not noticed any big wave while fishing in the open seas, came home and found their home villages devastated by the tsunami, and therefore thought that tsunamis must only happen in harbors and elsewhere close inshore. This is because a tsunami has a much smaller wave height offshore, but a very long wavelength (often hundreds of kilometres long), which is why they generally pass unnoticed at sea, forming only a passing “hump” in the ocean. In the past Tsunamis have often been referred to as *tidal waves*, because as they approach land, they look like a wild onrushing tidal surge, rather than the sort of cresting waves that are formed by wind action upon the ocean. However, since they are not actually related to tides, the term is considered misleading and its usage discouraged by oceanographers.

Tsunami alert system



Development of the Indian Ocean Tsunami Warning System

At 0100 GMT on 26 December 2004 a magnitude 9.3 earthquake occurred on the sea floor near Aceh, northern Indonesia. The quake generated a powerful wave spreading in all directions and resulting in the strongest tsunami the world has seen for over forty years. In the east, the tsunami surged ashore without warning just north of Phuket, Thailand, hitting the beaches with waves up to 10.5 metres high and at speeds of up to 8 metres a second (29 kms/hr). In the opposite direction, to the west, the tsunami continued on, without warning, taking close to two hours to reach Colombo, Sri Lanka and then the east coast of India. Almost eight hours after the tsunami had hit Asia, the fishing communities of Somalia and Kenya still had no idea that the wave was coming. The lack of a tsunami warning system in the Indian Ocean, and its consequences soon became clear to all. The tsunami is estimated to have killed over 240,000 people. Half a million people were injured, one million displaced, at least five million more needed urgent assistance and it severely affected over 158 million more. In addition to the lives lost and affected, the communities and countries impacted suffered many billions of dollars in economic impact.

In the year after this tsunami, efforts began to try to develop a system to prevent this scale of tragedy ever happening again in the region. But it was quickly realized that this cannot be achieved by each country working independently, there needs to be region wide cooperation and coordination. In this case the United Nations has taken on this important role through the Intergovernmental Oceanographic Commission

(IOC) of UNESCO, which was established in 1960 and acts as the United Nations' focal point for ocean sciences and ocean services. Through the combined resources and abilities of its 133 Member States, it coordinates large-scale projects designed to address regional, national and global problems and ensures that equitable access to information and operational oceanographic services are freely available to all. Most importantly it also has the expertise it has acquired during the past forty years it has been running the Pacific Tsunami Warning System (ICG/ITSU). This international service supported by the International Tsunami Information Centre (IOC/ITIC) has - until now - been the only tsunami warning system anywhere in the world. If the Indian Ocean had had a similar system then much, if not all of the recent tsunami losses could have been mitigated. The long experience of the Member States of the IOC is currently being fast-tracked to help the Indian Ocean countries to benefit from an interim tsunami advisory system and to undertake the building of a full-fledged Tsunami Warning and Mitigation System, with the initial operational date forecast for July 2006.



DART
(Deep-ocean Assessment
and Reporting of Tsunamis)
buoy



Provided by Mainichi Newspaper

The first step in the new system is “detection”. Quick detection is crucial to the success of the next stage which is “warning”.

Until now, tsunami detection has relied largely on the Global Seismic Network, a research network of seismographs that detect the location and depth of earthquakes. However tsunamis do not only result from earthquakes and the relationship between earthquake location and intensity to tsunami formation is very complex and far from predictable. Therefore the detection component of the Indian Ocean Tsunami Warning and Mitigation System is to be comprised of three different but integrated networks of instruments in addition to the seismographic network. These include a sea level recording network as well as the deployment of deep sea pressure sensors, which continuously transmit data in real-time to warning centres. One of these systems is the Global Ocean Observing System (GOOS) which includes observations using many types of instruments and platforms constantly reporting both in realtime and in delayed mode on the state of the ocean and is active in the coordination of a number of observation networks in the Indian Ocean. Another is the system of DART buoys, DART standing for Deep-ocean Assessment and

Reporting of Tsunamis DART buoys are critical to improve the rapid detection and forecast of tsunami as they can be deployed offshore, near areas where tsunamis may be generated. Each DART system includes a seafloor bottom pressure-recording (BPR) instrument that can detect small sea level changes and send then this data to a companion surface buoy which has satellite transmitters for real-time communications. When there is a seismic event the observations are used in computer models to predict the direction of wave propagation and when the tsunami might hit the shore. There is also the Global Sea Level Observing System (GLOSS) which is a global network of tide gauges. These sea level stations can detect the presence or absence of a tsunami generated wave after a strong earthquake by measuring sea level changes. The resulting data can also be used for storm surge monitoring and modeling, production of flood maps and monitoring of long-term sea level change. The IOC of UNESCO is currently coordinating the upgrade of the GLOSS network of tide gauges in the Indian Ocean to enable them to measure and broadcast continuously. By mid-2006 twenty-three stations will be continuously transmitting data in real-time.



Development of the Indian Ocean Tsunami Warning System

Of course even after this detection system is fully established, just as important is the next step which is “warning”. In order to benefit from the tsunami detection systems being put in place, every country’s Government must designate a National Agency, with operational capabilities 24 hours a day 7 days a week to act as its National Tsunami Warning Centre. Designated Warning Centers, receiving all the information from the detection networks must then be responsible for getting the information to coastal communities and alerting all those under threat. National and local officials must develop appropriate emergency plans and be able to respond to warnings within minutes, as well as be able to communicate them to local populations via sirens, mass media, specialized radio systems, and other notification technologies such as SMS messages. All this has to be done in the local language of each area and it has to take into account various cultures, religions and local issues.

So far , twenty-six countries in the region have established official Tsunami Focal Points to receive interim advisory information based only on seismological information from the operational centers serving the Pacific in Hawaii and Tokyo. These countries are: Australia, Bangladesh, Comoros, East Timor, France, India, Indonesia, the Islamic Republic of Iran, Kenya, Madagascar, Malaysia, the Maldives, Mauritius, Mozambique, Myanmar, Oman, Pakistan, Seychelles, Singapore, South Africa, Sri Lanka, Tanzania, Thailand, the United Arab Emirates, the United Kingdom and Yemen.

Fact Box : The first big test: the system gets a pass and a fail.

By early July 2006 the IOC announced that an interim Tsunami warning system had been established for the Indian Ocean region. Little did they know how soon it would be put to the test. On Sunday July 23rd, a magnitude 7.7 undersea earthquake occurred about 200km off the coast of the Indonesian island of Java. The first part of the system, the detection worked well, and within 17 minutes the Pacific Tsunami Warning Center in Hawaii, acting as the interim center for the Indian Ocean system, had analyzed the data and sent a tsunami warning to the relevant authorities in Jakarta, warning of the risk of a tsunami.

Unfortunately part two of the system, the local warning systems in the coastal areas had not yet been established, so while some local officials had received text message warnings, there was no way to alert the masses. As a result, some 700 people were killed, over 1000 injured and more than 20000 families displaced. As a result, Indonesia is re-doubling its efforts to put the local warning infrastructure in place.

For more information on this topic, please visit the following websites which were the basis of most of this article.

<http://en.wikipedia.org/wiki/Tsunami>

<http://www.tsunamiwave.info/>

<http://unesdoc.unesco.org/images/0014/001448/144870e.pdf>

<http://news.bbc.co.uk/2/hi/science/nature/4524642.stm>

Kitakyushu:

NK in Sasebo, Usuki and Kokura



A view of Sasebo from Yumihari

ClassNK has over twenty local offices across the length and breadth of Japan, so every year it is a real challenge to decide which one to profile for this magazine. This year we decided to kill a few birds with one stone, three in fact. Having previously covered the Nagasaki office in Kyushu, we decided to profile the northern half of the southernmost of Japan's four main islands. NK has three service sites in northern Kyushu or "Kita-Kyushu" as it is known in Japanese, Sasebo, Usuki and the "Kita-Kyushu office" in Kokura.

Flying into Kita-Kyushu in the middle of a

Japanese summer and one day after a typhoon passed through, we stepped out into a mugginess, the oppressiveness of which I had not experienced since a previous life as a postgraduate student in New Guinea. As such, the air conditioning of the airport bus and taxi to our first appointment was a welcome relief. Oshima Shipbuilding is one of several yards covered by the Sasebo office and is situated, conveniently for us, on the way from the airport, albeit requiring a slight detour onto the island of Oshima, via the spectacular Oshima Ohashi bridge.



Kitakyushu: NK in Sasebo, Usuki and Kokura

At Oshima shipbuilding we were met by Mr. Satoru Ueki, a manager from the business department who gave us an overview of operations and the cooks tour of the facilities. The total yard area is around 760,000m³ and the actual dock has two 300t Goliath cranes. The dock is unusual in that while technically two docks, in the unflooded condition it looks like one big dock, and as the width allows side by side construction, there can be four ships at various stages of construction in the dock at the same time. Two can then be rotated out and the process continues. The yard is capable of building a variety of ship types from tankers to PCCs and even semi-submersible heavy loaders, but largely focuses on dry cargo carriers especially bulk carriers. Oshima has delivered over 400 bulk carriers so far and currently builds about 30 per year. Like most Japanese yards at the moment, it has a full order book through till 2009, and is constantly looking for ways to improve productivity. With this in mind, and possibly with a view to slowing down a little himself, the company owner and CEO Mr. Sho Minami, last year recruited former Toyota executive Mr. Tadashi Nakagawa as President. It seems that Oshima is keen to learn from Toyota's production system, in their endeavours to further increase production in the future.

Heading on into the Sasebo office we stopped off for a late lunch at the areas most famous tourist attraction, Huis Ten Bosch. Although it was my second visit, I was still impressed with the size, scope and attention to detail in this full scale replica 17th century Dutch town. Opened in 1992, it has a network of over 6 kilometers of



Hull block production at Oshima Shipyard

canals, windmills and replicas of famous Dutch buildings, complete with an exact copy of the Palace of Queen Beatrix of the Netherlands. In order to ensure their authenticity even the bricks were imported from The Netherlands, at a total cost of \$2.5 billion.



Oshima Shipyard,
Huis Ten Bosch and Kakiemon Hall



We finally arrived in Sasebo late afternoon and made our way to the NK office. After the usual formalities, the genial General Manager Mr. Saida suggested we should quickly visit the near by Yumihari mountaintop observatory to get the best view of Sasebo and the bay at sunset. Acting on his advice we took a taxi to the summit where the driver generously switched off the meter and gave us a guided tour of the peak. As it was dusk and a little overcast, the view was not as spectacular as it clearly could be, but nevertheless afforded an excellent overview of Sasebo and the bay. Back at the NK office one of the local staff, a recent postee from Tokyo, offered to take us for dinner to introduce us to the local specialty, one that Sasebo is apparently famous for throughout Japan. Having traveled extensively over many years in Japan and experienced quite a number of, shall we say, unique and interesting local specialties, I braced myself in anticipation. There was however, no squid intestines or sea urchin roe to be had that night, instead we were offered the famous “Sasebo Burger”. This pleasant surprise, a huge, very un-Japanese burger packed with a large beef pattie and lashings of fresh salad was a meal on its own. How was it, I wondered aloud that this quaint Japanese port town of around 260,000 people, could develop such a burger as its local specialty. The answer lay in the fact that Sasebo has since 1946, been home to a U.S. Navy base. Today U.S. Fleet Activities Sasebo is home to seven regular and specialized support ships of the Seventh Fleet and some 5,600 military members and their families as part of the Forward Deployed Naval Forces. No doubt a very healthy market for such a good hearty burger.

The next day, our main task was to make our way from Sasebo on the west coast to Usuki on the east coast. The choices were a round about train trip or a rent-a-car to drive across the island exploring a few of the key attractions along the way. Not a difficult choice. An hour or so out of Sasebo, and then a bit further on are two intimately linked towns with a long, if slightly ironic history, Arita and Imari. The irony is that so called “Imari porcelain” famous around the world with porcelain aficionados and collectors was originally made in Arita. It was however shipped to the world through the nearby port town of Imari, in crates so stamped, and hence was labeled as such. The most famous of the early proponents of the local style of Arita overglaze colored enamels was Sakaida Kakiemon (1596-1666), whose descendents have maintained the tradition. The current Kakiemon (the 16th), has been proclaimed a national living treasure in Japan, and we visited the small museum like display center on the fringe of Arita town. While there can be no questioning of the exquisite beauty of the products, even this culturally challenged writer could appreciate it, a spot of shopping is not for the faint hearted, with a single tea cup selling for around \$250. For the more budget conscious shopper, this writer suggests a side trip the “Porcelain Village”, a theme park like complex also on the fringes of Arita, replete with a historical reproduction of the famed hillside kiln, pottery workshops for kids, souvenir shops full of more affordable, but still very nice porcelain ware of all types and of course yet another full sized reproduction classical European baroque style palace, which seems almost mandatory in the area.



Kitakyushu: NK in Sasebo, Usuki and Kokura



Driving on to Imari itself, we hoped to catch a glimpse of maritime history in this old town, but unfortunately nothing remains of the old port, the current facilities very industrially focused and not unlike any other small modern port. Fortunately for us the other thing that Imari is famed for is the local beef, known as “Imari-gyu”. Although the NK daily travel allowance doesn’t quite stretch to high class Japanese steak houses for lunch, we were able to find a local lunch spot which included a small, but very delicious portion of the local product in the set lunch. Freshly fortified, we embarked on the next leg of the long drive to Usuki.

Passing through the famed Beppu hot spring district (and in the process embarrassingly mistaking steam clouds billowing from the hillside for low hanging real clouds) we skirted the largest east coast town of Oita and went directly to the NK Usuki office about 15 minutes on. Usuki has a quaint fishing village feel to it

that belies its clout as a regional shipbuilding center. The Usuki office, officially a sub office of the Kita-Kyushu office, is a relatively new building, more than comfortably housing its dozen staff.

Up early the next day, we went directly to Minami Nippon Shipbuilding for the launching of their latest vessel, the 41,000gt product tanker, the “Breezy Victoria”, built for Mitsui O.S.K. Lines, Ltd. Our guide, Mr. Yamada, General Manager of the Quality Control Group and After Sales Service Group, showed us around the yard, which has a single dock, is best described as compact and therefore very well organized with an efficient layout. The compact size is made possible by the fact that most blocks are constructed on an assembly line system in the nearby Oita Works that are strategically located next to the Nippon Steel Corporation Oita Works, saving time and transport costs.

Pleasingly against current trends, the launching was a traditional slipway launch which I must say, is impressive no matter how many times you see it. The ceremony was also accompanied by the full pomp of a live brass band, and for the first time in my experience an “Iwai Mochinageru” whereby the VIP guests toss small chewy rice cakes by the handful into the crowd of locals, especially school kids, attending the launch.

As it was right next door we paid a short courtesy call on Shitanoe Shipbuilding, where the Director of the manufacturing division Mr. Hisao Wakabayashi kindly walked us through the current refitting of the dock facilities which will increase it to 150m long.

These main duties dispensed with and with a little time left before returning our rent-a-car and taking the train to Kita-kyushu, we went in search of the “Usuki Sekibutsu” or “Stone Buddhas”. Just 4km out of Usuki, they are a group of figures of Buddha carved out of the natural rock wall of a local cliff. Similar such carvings can be found around Japan but these were the first of their kind designated as a National Treasure. With more than 60 figures, the group is the largest scale such group in Japan and is believed to have been carved between the 12th and 14th century. The path on which the carvings can be found winds its way up the side of a mountain, so with the temperature hitting about 35 degrees Celsius and the humidity at about 80% we convinced ourselves that the first half a dozen carvings, which were themselves very impressive, were surely a representative sample and we didn't need to climb all the way to the top.



Returning our car in Oita, we boarded a local super express and 90 minutes later arrived in Kokura, home of the NK Kita-Kyushu office. In contrast to the previous two days in the relative calm of rural Japan, Kokura was a typical bustling big Japanese regional city, and the NK office just a ten walk from the town center, albeit in 36.4 degree heat at 5:30 in the afternoon. In the absence of the General Manager, We were met by the Deputy General Manager, Katsutoshi Takahashi.



Takahashi san met us the next morning for our last day of activities in Kita-Kyushu and we drove to Mitsubishi Heavy Industries Shimonoseki Shipyard and Machinery Works. For the geographically fastidious, it should be confessed that crossing the bridge to Shimonoseki technically takes one off the island of Kyushu and back onto the main island of Honshu, but as it falls under the jurisdiction of NK Kita-Kyushu, we shan't quibble. The total area of the site is over 260,000m², so having seen our fair share of shipyards over the previous three days we decided to focus on the machinery works. The site produces a wide range of marine and related machinery (not to mention the top secret off-limits hangar sized building undertaking a special project for Boeing) the most impressive of which is the selection of deck cranes. Standard cranes, slim cranes and heavy duty cranes capable of hoisting loads ranging from 30t to 100t are manufactured on site. Fortunately for us a pair of large cranes had just completed testing and were being loaded onto a ship for delivery as we toured the facility.



Kitakyushu: NK in Sasebo, Usuki and Kokura

As interesting as watching cranes being loaded was, even more interesting was that this otherwise non-descript smallish private industrial dock, afforded a distant glimpse of Japanese samurai folklore. In all of Japanese samurai folklore, probably the most celebrated swordsman was Musashi Miyamoto, and arguably his most famous duel was his defeat of another legend, Kojiro Sasaki on the beach of the island of Ganryujima (also known as Funajima) on April the 14th, 1612. All this, visible just a couple of hundred meters off the very dock we stood upon.

A quick tour of the large shipbuilding yard across from the machine works, saw time creeping up on us and after greetings and the quick tour of the yard we headed off having completed a very full four days in Kita-Kyushu. Well almost...

As I winged my way back to Tokyo late Friday afternoon, my young business department colleague elected to go beyond the call of duty

and stay on for the famous Hakata Gion Yamakasa festival that would start the very next day.

The next day, I went to Kushida shrine in Hakata to see famous festival “Hakata Gion Yamakasa” festival, which is held from the 1st to the 15th of July and has history stretching back over 750 years. A Yamakasa is a portable shrine which is used to symbolically “carry” a specific deity during the festival parades. At the climax of the festival, local teams carry Yamakasas through the town in the very early morning, in a race known as “Oiyama”. Although on the morning I attended it was as early as 4:30am, there was already a lot of people there to get a good place to see the rush. Fortunately however I managed to get a good position to enjoy the festivities and be impressed by such excitement at 4:30 in the morning.



A view of Ganryujima from Mitsubishi Shimonoseki dock



Hakata Gion Yamakasa (www.cocoj.jp/~yamakasa)

Land from the sea: Tokyo reclaimed



Water pumping station on reclaimed land in Tokyo bay

Anyone who has visited Tokyo has probably, at some point in time experienced the feeling of being somewhat overwhelmed. At some point in time there is bound to be a feeling of too something. Too many people, too much noise, too many choices, the list goes on, but in all its history, the one thing Tokyo has never had too much of, is land.

Not only is Japan a small country with a large population, but much of the land that exists is not usable or not suitable for the required use. As a result, Japan has a long history of reclaiming land from the sea. The history of land reclamation in Tokyo for example, basically starts from the very beginning of Tokyo itself.

In the very early 1600's, Tokugawa Ieyasu, was the great unifying warlord who had had an overwhelming victory at the Battle of Sekigahara, and planned to build Edo castle, the beginning of the rise of the town of Edo, the town that is now Tokyo. However, a vast amount of land was needed to build a port for the many large vessels carrying building materials as well as many lumberyards. Land was scarce, so Ieyasu ordered military commanders from across the country to level the nearby Mount Edo Kanda in order to fill in part of Edo bay and create the land needed. Later the land was gifted to loyal supporters and today much of this original reclaimed land makes up what is called now known as "kabuto-cho". This is Japan's wall street, the downtown financial district and home to the Tokyo Stock exchange.

Another part of this reclaimed land is the area known as Tsukiji, (in fact the word "tsukiji" actually means reclaimed from the sea) which is famous to many around the world as Tokyo's fish market, but it wasn't always so. In fact by the mid 1700's when the foreign presence was being felt politically in Japan, the Government decreed that all foreigners should be housed in a single district. As it had been reclaimed from the sea, so too was Tsukiji reclaimed from the favored lords it had been granted to and a foreigners only district was created.



Stories from the Sea



Land from the sea: Tokyo reclaimed

Not surprisingly the foreigners didn't really take to the segregation and eventually the law was repealed and much of the reclaimed land area lay virtually abandoned. With the great Kanto earthquake of 1923, Nihombashi, site of what was then Tokyo's central market, was devastated. There was furious debate about where the new market should be located but finally the new Tokyo central market opened in Tsukiji on December 01, 1923, just four month's after the devastating earthquake. In an ironic twist, the current Tsukiji market will soon move yet again, to newly reclaimed land. It will move to Toyosu on a newly reclaimed Island 2.5 km away in Tokyo bay and it is expected that the move will happen around 2012.

Although there had always been small reclamations going on, the early 1900's just before and after the great Kanto earthquake saw an explosion of major new land reclamations. The first big project was completed in 1937 and became known as "Harumi", site of the international trade fair center famous as the site of the early Tokyo Motor Shows. Today, the area blends in as just another Tokyo suburb and if you didn't know, you would never guess it was reclaimed land.

The reclamation projects of the 80's and 90's on the other hand are unlikely to be mistaken for anything else, as they are essentially huge artificial Islands built up in the middle of Tokyo bay. Reached by the 918m "Rainbow Bridge" (as well as by ferries and subway), the two main blocks are known as "Rainbow Town" and "Odaiba". While the motivation and intent for the lands may have waxed and waned with the

economic tide over the last 20-30 years, in all fairness it should be said that the final result is not only a remarkable engineering feat, but has also been a remarkable success overall. Today they include some of the architectural highlights of Tokyo such as the Tokyo Big Sight and Fuji TV building, as well as condominiums and huge shopping malls and entertainment complexes. In addition to becoming a business area, Odaiba has become one of the most popular places to visit on weekends and holidays.

It has been estimated that over the last 60 years, around 20,000 hectares of the water surface of Tokyo bay has been filled in and there have also been a number of proposals that could double that amount in the next 60 years. In the 1980s, there was even talk of moving the capital to new land that would cover all of Tokyo Bay. This is not as fanciful as it may sound since the Uraga Channel at the mouth of the bay is less than 9km wide at its narrowest point, and in spite of difficulties posed by a sea trench that is more than 200m deep, it would be technically possible to construct a dike that would separate Tokyo Bay from the sea. If the seawater were pumped out, the shallow areas of the bay could easily be filled in. However the impact of such a move, both socially and environmentally would be huge, and as the population of Japan finally starts to plateau, it seems unlikely that such a drastic proposal could ever be justified in terms of need.

For more information on this topic, please visit the following websites which were the basis of most of this article.

<http://www.insite-tokyo.com/column/douglas/index9.html>
<http://www.fas.harvard.edu/~chgis/meetings/papers/Siebert-TokyoVisual.PDF>
<http://web-japan.org/nipponia/nipponia5/sp01.html>
<http://www.tse.or.jp/english/guide/history/kabuto/index.html>

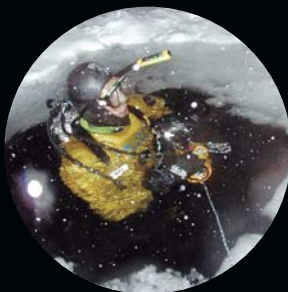
The Japan Coast Guard in brief



Nobody who has been living in Japan this past summer could have missed at least hearing the theme song for the smash hit summer movie “Umizaru: limit of love”, the sequel to the 2004 hit “Umizaru”. The original movie, also a huge hit, was a fairly straight forward movie about 14 young men who want to be a part of the Japan Coast Guard’s (JCG) elite team of salvage and rescue divers. This work is dangerous, often involves exhuming the dead from sunken ships, and is relatively unknown if not totally unappreciated by the general public. Or at least that was the case until this movie, which has done more to raise the profile of the JCG than any of its real life heroics.

Japan is an island nation comprised of four main islands and around 3,500 smaller ones. With a total land area of 377,818 square kilometers the coastline is jagged and complex with a total length of 29,000 kilometers. It is not surprising then that Japan has a large and professional coast guard. The Japan Coast Guard, part of the Maritime Safety Agency, under the oversight of the Ministry of Land, Infrastructure and Transport, was founded in 1949 and has over 12,000 personnel.

Their main officially designated duties are Search and Rescue, Hydrographic and oceanographic surveying and Maritime traffic management. Additionally, the JCG has two special forces units: the Special Security Force (SSF) (Tokubetsu Keibi tai) and the Special Security Team (SST) (Tokushu Keibi tai). Special rescue units, with highly developed specialized skills, have also been established. In order to perform these duties the JCG is divided into several departments. The Administration Department handles public relations, international relations, personnel management, budgets and other administrative functions as well as policy development. The Equipment & Technology Department handles all shipbuilding and construction of JCG’s airplanes, while the Guard & Rescue Department is responsible for the maintenance of public order, oil pollution response and Search and Rescue.



Stories from the Sea

The Japan Coast Guard in brief

The Hydrographic and Oceanographic Department conducts hydrographic surveys, oceanographic observations and undertakes the provision of navigational charts, publications and the provision of information that is required to ensure navigational safety. Finally the Maritime Traffic Department is responsible for the implementation of navigation safety measures, as well as the construction, maintenance and operation of Aids to Navigation. In addition, the Japan Coast Guard Academy located in Kure, Hiroshima prefecture is a university established within the Coast Guard for the purpose of training students to become officers while schools in Maizuru and Moji train the enlisted staff. There is also a specialized aviation training school in Sendai. However, more than half of the senior posts in the JCG Headquarters are assigned to civilians. The Commandant, Vice Commandant (Policy), and many of the Director Generals are civilians, although they do have a nominal rank and appear in Uniform in the Sea Review.

One particularly important role for the JCG is cooperation with foreign organizations which is absolutely essential in order to successfully execute tasks such as international maritime crime prevention, search and rescue activities which extend over broad areas of sea and marine environmental protection on a global scale. The JCG is also involved in global maritime safety operations through international cooperation activities such as accepting foreign trainees and dispatching experts abroad. JCG has since 2001 for example been cooperating with countries surrounding the Malacca straight where a number of vessels, including Japanese vessels had been subject to pirate attacks.

The one notable difference between the USCG and the JCG is that the JCG does not have any role in flag/port State Control. In principle, JCG neither carries out flag State inspection nor Port State Control inspection. On occasions when the JCG carries out causality investigations, they do this as a function of judicial policy role, not as a function of the flag Administration

The JCG fleet

The JCG fleet comprises over 500 vessels of all shapes and sizes, right up to the Shikishima class patrol ships at 7,175 gt. With the exception of the USCG ice breakers, they are in fact the largest coast guard patrol vessels in the world, and play an active role in ensuring the safe transport of Japans nuclear fuel. As such they are the only vessels in the fleet with some capacity for military operations, having different armament and damage control systems.

Earlier vessels in the JCG fleet were often modeled on the traditional British corvette type long range escort ships, but over the last 20 years the fleet has evolved into more specialized vessels more suited to a variety of tasks such as search and rescue (including towing and underwater operations) or high speed patrols.

For more information on this topic, please visit the following websites which were the basis of most of this article.

http://en.wikipedia.org/wiki/Japan_Coast_Guard

http://www.kaiho.mlit.go.jp/e/index_e.htm

http://www.mlit.go.jp/english/2006/2006_pamphlet/23.pdf

NK Hamburg and Kuala Lumpur

Hamburg



The official name of the city is 'Free and Hanseatic City of Hamburg', Hanseatic referring to a centuries old trading guild of member cities with geographic, trading and cultural links. About 1,750,000 people

live on 755.16 square kilometers with Hamburg being the second largest city in Germany, the second largest harbour in the European Union and the 9th largest port world-wide with transhipments of 7 million TEU and 115 million tons of goods per year. Although situated several kilometres up the river Elbe, it is considered a sea harbor due to its ability to handle ocean going ships. Other important local industries include the aerospace industry with companies Airbus, which has one of its two assembly plants located at Hamburg and media businesses, about half of Germany's national newspapers and magazines are produced here. Hamburg is an international trade city and the commercial and cultural centre of Northern Germany. It is centrally located between Continental Europe and Scandinavia and between the North Sea and the Baltic Sea. It lies at the junction of the river Elbe and the river Alster, and the city centre is beautifully set around Lake Alster, which is an artificial lake that is the largest of its type in the center of a city worldwide. The many canals in Hamburg are crossed by more than 2,300 bridges, which is more than Amsterdam (1,200) and Venice (400) combined. The skyline of Hamburg features the high spires of the five principal churches, covered with green copper plates.



ClassNK
around the world





NK Hamburg and Kuala Lumpur

Hamburg is also known for giving the Beatles a start in their musical career in the early 1960s when they played at the Star-Club, which was located in the district St. Pauli near the famous street Reeperbahn, sometimes called “the dirtiest mile” worldwide as it traverses the famous red light district. Interestingly though the name Reeperbahn comes from the old Low German word Reep meaning “a heavy rope for a ship” as in former times these ropes were produced around there for the nearby harbor. Nowadays, Hamburg is also known as the musical-city because of the density of musicals shown (Cats, Phantom of the Opera, The Lion King, Dance of the Vampires, Dirty Dancing). More and more tourists discover the beauty of Hamburg, and in Germany only Berlin counts more visitors per year. After German reunification in 1990 and the joining of some Eastern European and Baltic States into the EU in 2004, Hamburg and Hamburg Harbour become more and more important as the ‘GATE TO THE WORLD’.

Once you have been to Hamburg, you will always want to return: Hamburg is a beautiful city with a lot of green, parks are ideal for a rest. The lake Alster in the heart of the city invites sailing or boat riding or simply watching others doing so. Hamburg has a long history and tradition which are well preserved but is also open for many streams of influence.

As a city-state, Hamburg played and plays a special political role. The hanseatic spirit makes Hamburg an international trade city with connections all around the world and friendship with 8 sister cities. All different streams of

entertainment are offered and there is nothing which does not exist, from opera-house to theaters, musicals, clubs, colorful activities on the Reeperbahn, museums, concerts, exhibitions, festivals (f.i. Christopher Street Day), model railway, all kinds of sport events, from small local championships to international championships (Hamburg Marathon and Tennis Masters, to only mention the best known). Five matches of the recent football world-cup championship took place in Hamburg and the open-air fan-festivals attracted hundreds of thousands. The Hamburg people are said to be reserved, disciplined, and restrained. At first glance, this judgement is quite correct, no-one would take a seat at your table in a restaurant in order to not disturb you, nor would they show exaggerated feelings in public as effusive demonstrations and mawkishness are not our temperament, but once we warm up with you, you can always count on us Hamburgians!

The ClassNK Hamburg office was established on 1 April 1982, starting with a manager and a secretary. Since then, due to constant growth in clients and work, four the office is now responsible for ship surveys, audits, and industrial inspections throughout Germany and the Czech Republic. The German ship supply industry has a very high reputation world-wide and is booming. Thus also the number of industrial inspections carried out by Hamburg surveyors is ever growing and we expect a further increase. Close contacts with clients and shipowners, combined with a wide range of expert knowledge, are highly appreciated by them and our advice is well accepted and often used.

Kuala Lumpur



NK first established operations in Malaysia in February 1977 when Mr Kenji Murai arrived to carry out surveys in Malaysia for NK. On the 1st of August 1991, the society transferred its entire Malaysia operations to Nippon Kaiji Kyokai Classification of Ships Berhad (“ClassNK”). Today, ClassNK Malaysia has One (1) main office and Three (3) sub-offices with a total of Twenty One (21) staff located at *Kuala Lumpur* (“KL”), *Kota Kinabalu*, *Miri* and *Johor Bahru*. ClassNK established its first Malaysian Committee on the 22nd of July 2005, with Mr Hiroshi Hirose the current GM as the first Secretary of the Committee.

ClassNK KL, is located at Menara IMC next to the Concorde Hotel; the IMC building also sits walking distance to KL City Center (Twin Tower) and KL Tower. KL is the national capital of Malaysia and the heartbeat of the nation’s political, economic and financial area. Traveling by plane takes approximately Seven (7) hours from Japan to reach KLIA (KL International Airport) and another 1 ½ hour drive to reach KL city.

Johor Bahru is the second largest city in West Malaysia, after the national capital of KL. Johor Bahru, the city of Johor is situated on the Straits of Johor (also known as the Straits of Tebrau), which separates Malaysia and Singapore. Metropolitan Johor Bahru occupies extensive coastal land consisting of ecologically rich wetlands and important river systems.

Malaysia is comprised of 13 states and is located between 2° and 7° north of the Equator. The country consists of two geographical regions (West Malaysia or Peninsular Malaysia, and East Malaysia), divided by the South China Sea. The climate in Malaysia is warm and wet all year round and temperatures range from 21°C to 32°C.

Sarawak is the largest state in Malaysia, the third largest island in the world and is known as *Bumi kenyalang* (“Land of the Hornbills”). It has a coastline approximately 800km facing the South China Sea and the capital of is ‘Kuching’ (‘Cat’). Sabah is well known as ‘The Land below the Wind’ or ‘Negeri di bawah bayu’ due to its geographical location below the typhoon belt. Sabah is the second largest state in Malaysia and the state capital is Kota Kinabalu, which was formerly known as Jesselton.

Malaysia’s population is comprised of many ethnic groups, the population is approximately 26 million with 5 million citizens living in East Malaysia.

Today, there are Three (3) main ethnic groups in Malaysia. The Malays, are the largest ethnic group, making up more than 60% of the population. They are known for their gentle mannerisms and rich arts heritage. The second largest ethnic group is the Malaysian Chinese who form about 25% of the population and then the Malaysian Indians, about 10%. The remaining population is formed by many indigenous groups.

Although Malaysia is formed by many different races with various beliefs and cultures, all Malaysian are able to live in a balance and live in harmony under the same roof top and consider our self as a part on Malaysian.

Although Malaysia is ethnically and culturally diverse, with its strong political stability and the farsightedness of its leaders, the nation is working full force towards the status of a fully industrialized nation by year 2020, it plans to be the gateway to Asean in the future.

Malaysia has mostly escaped from big natural disasters such as earth quakes, volcano eruptions or major typhoons.

Attractions

The 88-storey (452 metres) Petronas Twin Tower is also well known as The KL City Centre (“KLCC”) is the tallest twin tower building in the world. Menara KL (KL Tower) at 515m above sea level. It is the 4th tallest tower in the world and is located in the Golden Triangle of KL.

Merdeka Square, a stadium once, holds the independence memories of all Malaysians, the historical Sultan Abdul Samad Building - houses the High Court of Malaya. The National Monument has large free-standing sculptures and the National Museum, filled with historical exhibits is built in a variety of different architectural styles. The National Mosque which gleams every bit as brightly as any of KL’s skyscrapers, can hold up to 10,000 worshippers.

The Batu Caves - large natural caves, reached by climbing 272 steps, house the Hindu shrine of Lord Subramaniam. The Templar Park covered with well-preserved rainforest, and natural habitats of much unique wildlife and finally, Genting Highlands, Malaysia’s the only casino; Facilities include four hotels, a theme park, restaurants, a theater, and golf courses. All these are the major attractions that are not to be missed.

KL is also often described as a shopping haven, for anything can be found in Chinatown, Little India, Central Market, local bazaars and the many luxurious shopping malls.

West Malaysia possesses many beautiful islands. Many of them are famous worldwide. Most famous islands in Malaysia are well developed with fun activities. For example Pulau Tioman, Pulau Redang, Pulau Rawa and Desaru are popular spots for scuba diving and snorkelling. Pulau Perhentian, which consists of two (2) islands - Pulau Perhentian Besar and Pulau Perhentian Kecil - have beautiful coral gardens within its waters.

Sarawak is famous for natural Caves and a National Park. The Niah Caves - valued for their guano and bird’s nests, the latter being used for medicinal purposes. Sarawak has some of the most extensive cave systems in the world including Deer Cave, Clearwater Cave and The Cave of the Winds. The Gunung Mulu National Park is a place for wildlife including exotic birds and butterflies, fish and mammals.

Sabah Mount Kinabalu rises up to 4,095 meters, is the highest mountain in Malaysia, and is found in Kinabalu Park. Sabah is rich in natural resources and covered with unexplored thick rainforest.

Some interesting places in Sabah are; Pulau Sipadan, a heaven for scuba divers, Tanjung Aru resort; a well know luxury beach resorts, Turtle Islands Park - protect on endangered sea turtles and Gomantong Caves - populated with millions of swifts and bats; The Sandakan Orchid House and The Crocodile Farm - breed over 1,000 crocodiles.

The island of Labuan is 10km (6 miles) off the coast of Sabah is a duty free port with excellent duty free shopping. The wide expanses of white sandy beaches throughout the island also make Labuan a popular tourist destination.

TOPICS and EVENTS



New Board

In March 2006, the Society announced changes to its Board of Directors.

Executive Vice President Mr. M. Murakami and Managing Director Mr. T. Akahori retired, resulting in two new appointments. Mr. F. Imakita and Mr. H. Kitada joined the Board. The changes to the board are as follows:

New Board

Chairman and President K. Ogawa (front center)

Executive Vice President Y. Tsudo (front right)

Executive Vice President N. Ueda (front left)

Managing Director T. Kaji (back second right)

Managing Director K. Yamanaka (back second left)

Managing Director F. Imakita (back right)

Managing Director H. Kitada (back left)

Mr. Murakami and Mr. Akahori remain with the Society as Senior Advisers.

IACS CSR (Common Structural Rules) Incorporated into the *Rules*

The Common Structural Rules (CSR) for Double Hull Oil Tankers and Bulk Carriers, which two project teams (JBP & JTP) at IACS had been developing since 2003, were adopted by the IACS Council in December 2005. The CSR have been incorporated into the Society's *Rules*, and the CSR for Double Hull Oil Tankers and Bulk Carriers were approved at the meeting of the ClassNK Technical Committee held on 3 February 2006 (the first meeting of the year). These CSR Rules will be applied to newbuilding ships contracted after the 1st of April 2006.

For more details, please refer to the ClassNK website.

ClassNK Releases *GUIDELINES ON SHAFTING ALIGNMENT* as “PrimeShip-SHAFT”

The English edition of the *GUIDELINES ON SHAFTING ALIGNMENT* has been released. The stiffness of recently designed marine propulsion shafting has been drastically increasing, while hull structures have become more likely to deform as a result of cutting-edge optimized design and increases in size. This combination is reportedly one of the main causes of recent cases of alignment related main bearing damage.

Similarly, shafting design and installation practices vary between shipyards. This is also considered to be a potential factor that may sometimes contribute to shafting alignment related problems.

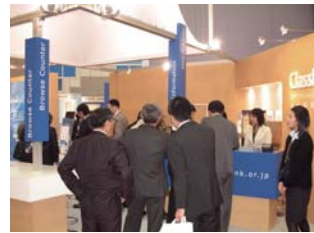
From this perspective, ClassNK has carried out intensive research in this area and released *GUIDELINES ON SHAFTING ALIGNMENT*, which reflect its wealth of experience and the latest research achievements in this field.

Having released the Japanese edition of the *GUIDELINES ON SHAFTING ALIGNMENT* in November 2005, ClassNK added amendments to the *Guidance to the Rules* and related explanatory notes as “Part B” and translated them into English.

The Guidelines comprise the major basis of “PrimeShip-SHAFT” as a new part of the “PrimeShip” series, following the release of “PrimeShip-Hull” (Hull Structure Assessment Service), “PrimeShip-HullCare” (Advanced Hull Maintenance Information Service), and “PrimeShip-CHEMISYS” (Chemical Properties Analysis Program).



Attendance at Marine Exhibitions: SEA JAPAN 2006



MARINTEC CHINA 2005



POSIDONIA 2006



CMA Shipping 2006



CMA Shipping 2006 was held from 20 to 22 March at the Westin Stamford Hotel, Connecticut, U.S.A., by the

Connecticut Maritime Association (CMA), which is one of the largest maritime organizations established in 1984, with major maritime associations in the state. The Society attended this exhibition for the first time.

At the NK booth, Mr. M. Homma, Regional Manager of NKNY, and Mr. T. Kinoshita, a manager of BND, met with customers, and various visual materials introducing NK were shown on a large plasma display as well as on panels. Even though it was the first time for the Society to participate, many visitors came to the NK booth, thus ending as a great success.



VIETSHIP 2006



VIETSHIP 2006 was held from 21 to 24 February this year. This is the third such biannual International Exhibition on Shipbuilding, Marine Technology and Transportation to be held in Vietnam, and is the first time that the Society participated in the exhibition. Some 150 companies were also represented at the exhibition mainly from among shipbuilders, machinery and equipment manufacturers. National booths were set up by China, Germany, Poland, and Norway to help better showcase the enterprises from these countries. There were also numerous companies with exhibits and visitors from Japan. The scale of participation at the fair highlighted the great interest in the shipbuilding industry in Vietnam. In addition, the Viet Nam Shipbuilding Industry Corporation (VINASHIN), one of the exhibition organizers, also held a signing ceremony at the exhibition site for contracts for the construction of newbuildings and technical cooperation, among other activities, which helped to focus attention on the development of Vietnamese shipbuilding industry. The chairman of the Vietnam Register, the vice president of VINASHIN, the former chairman of the Vietnam National Shipping Lines (VINALINES), and the presidents and other top leaders of the major shipyards, shipowners, and manufacturers in Vietnam visited the NK booth.

Establishment of Local Area Representative at Newcastle

On 1 January 2006, an Exclusive Surveyor was stationed at Newcastle, U.K., as a Local Area Representative (ClassNK London Office), i.e., a resident Exclusive Surveyor under the jurisdiction of the ClassNK London Office.



Also known as Newcastle-upon-Tyne, the city is situated on the River Tyne, in Northeast England. Founded in Roman times, Newcastle has a long history. It developed into an important port and industrial center during the 19th century and now is a major center for culture and science.

Opening of Guayaquil Sub-Office

On 1 April 2006, the Guayaquil Sub-Office was established in Guayaquil, Ecuador, further expanding the NK survey network in South America.



Guayaquil is the main sea port in Ecuador. The population is about 2.1 million, the largest in the nation. Guayaquil is the economic center of Ecuador and is located at the mouth of the Guayas River southwest of the capital, Quito.

Opening of the Miami Sub-Office

On 1 May 2006, the Miami Sub-Office was established in Miami, U.S.A., further expanding the NK survey network in North America.



Miami is a major seaside resort city in the southeast corner of Florida, in the southeastern United States. The city is blessed with a warm tropical climate and scenic beaches. The population is about 380,000.

Establishment of Local Area Representative at Visakhapatnam

A Local Area Representative was newly established at the city of Visakhapatnam within the jurisdiction of the Mumbai Office in India on 1 July 2006.

Visakhapatnam is located in the state of Andhra Pradesh in South India. The city is a major center for heavy industry with steel plants, fertilizer plants, a petroleum refinery, and various other industrial facilities. The Port of Visakhapatnam handles more cargo per year on a tonnage basis than any other port in India. The population is about 1.5 million.





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