

DAILY SHIPPING NEWSLETTER



DAILY SHIPPING NEWSLETTER : Wednesday 22-05-2002



**Operation
Enduring Freedom**



An **E-2C "Hawkeye"** assigned to the "Bluetails" of Carrier Airborne Early Warning Squadron One Two One (VAW-121) conduct a combat mission in support of [Operation Enduring Freedom](#). The Bluetails are embarked with Carrier Air Wing Seven (CVW-7) aboard Kennedy

EVENTS, INCIDENTS & OPERATIONS

Responding to industry demand for offshore liquefied natural gas (LNG) terminals, ABS launched its "Guidance Notes for Building and Classing Offshore LNG Terminals" at this year's annual Offshore Technology Conference. The Guidance Notes provide industry with a comprehensive document outlining ABS procedures for LNG classification and cross-references ABS and other relevant industry documents

DAILY SHIPPING NEWSLETTER

for building LNG terminals.

Areas of emphasis within the Guidance Notes include the terminal structure; the hull design; the mooring system; the offloading system; LNG containment systems; process facilities; and support and safety systems. The document also addresses LNG terminal installation, hook-up and commissioning and surveys during construction and operation. Designers and operators also may consider risk-based alternatives to strict compliance with prescriptive rules. The Guidance Notes facilitate industry development of both gravity-based and floating terminals contemplated for offshore installation.



India puts cargo ships on alert

THE Indian government has put all Indian merchant ships on alert as threat of an Indo-Pakistan war loomed. All Indian ships were directed to report their voyage plans to the government on a round the clock basis. Under India's Merchant Shipping Act the Director-General of Shipping is empowered to direct ships to "follow a prescribed route or divert any ships so licensed to follow another route," a government notification stated. SS Naphade, the nautical advisor to the Indian government, summoned representatives of Indian shipping companies yesterday for a briefing on the notification. Meanwhile security has been beefed up at all major ports to guard against possible terrorist attacks on ports, Chennai Port Trust chairman P Baskaradas said.

Chilean ferry towed to shore



ONE of the world's southernmost passenger ferries, **Magallanes**, has had to be towed to shore after a mechanical failure at sea off Chile. The 1978-built vessel was towed 160 km to the regional capital of Puerto Montt after one of its engines overheated while

carrying 75 people, 51 vehicles, 1,200 cattle, containers and wood. Local owner Naviera Magallanes said the ship was on a scheduled service from the port of Chacabuco when there was metal meltdown in one of the 3,600 HP engines. The tug Halcon LL went to the ferry's aid, adding 24 hours to the normal crossing. The Chilean-flagged Magallanes is the only ferry in a fleet of nine ships managed by Santiago-based Nisa Navigation. A company spokesman said the mechanical failure was not uncommon in such an engine.

Murder seafarers to be deported

TWO Filipino crewmen who have admitted killing a Japanese officer on the Panama-registered tanker Tajima last month will be deported from Japan to Panama. The two Filipinos have been kept under guard on board the vessel since the Japanese-owned tanker arrived at Himeji port last month. Because the incident occurred while the ship was in international waters it is the flag state, Panama, which holds criminal jurisdiction over the case, Japanese officials said. According to the Japan Coast Guard,

DAILY SHIPPING NEWSLETTER

the Panamanian government had requested the Japanese government to provisionally detain the two Filipinos pending their hand-over. The tanker is owned and operated by Kyoei Tanker Co.

CASUALTY REPORTING



Faulty pipe work clue to blaze on DFDS ferry

DFDS suspects faulty installation of a hydraulic pipe was responsible for the fire on board the Princess of Scandinavia last week, the third blaze in the vessel's troubled 26 year history.

Ironically, the work was undertaken "in recent months" to ensure compliance with the Safety Of Life At Sea convention.

But a spokesman for the Copenhagen-based ferry operator refused to name the company it believes to be responsible until a full investigation definitively establishes the cause or causes.

The Princess of Scandinavia has now suffered six casualties since it was built in 1976, three of them fires, Lloyd's List has established.

A DFDS spokesman described the number of blazes as "an absolute coincidence". He added: "We check engines all the time. It is one of those things you can't cover for."

In the latest incident on the 22,528 gt ferry, an engineroom fire broke out on Friday night, while it was on route from Newcastle to Gothenburg via Kristiansand with almost 900 people on board.

Six helicopters from Britain and Norway were scrambled, while 20 vessels and five rigs were put on evacuation alert as the vessel drifted without power for several hours.

The crew quickly got the fire under control and the Princess of Scandinavia eventually managed to limp into Kristiansand some eight hours late.

At about 0400 yesterday it left the port for a repair yard in Fredericia, Denmark, where it was expected to arrive at 1600.

DFDS said that although a full survey of the damage had yet to be undertaken, it was intended to return the vessel to service as soon as possible.



Meanwhile, the Danish shipping authorities have launched a probe into the blaze, which is expected towards the end of June.

A spokesman for Lloyd's Register added that the ship had last been surveyed in December 2001, and was rated 100 A1.

Records maintained by Lloyd's Marine Intelligence Unit, a sister company of Lloyd's List, show that the ship has been involved in five other incidents since the late 1970s.

DAILY SHIPPING NEWSLETTER

The most serious came in 1989, when it was known as Tor Scandinavia.

Arson in a stairwell was responsible for a fire that broke out when most of the passengers were asleep.

Two people died and seven were airlifted off suffering from smoke inhalation and 32 subsequently hospitalised.

In October 1993, there was another engineroom fire 40 miles west of Denmark, which was also rapidly controlled.



In June 1994, while in dry dock, the Princess of Scandinavia developed an 11° list after sustaining hull damage including a hole, cracking and structural failure. Its double bottom tanks were punctured, leading to a fuel oil leak and water in the engineroom.

June 1995 saw an oil leak into ballast tanks, which necessitated pumping 1,000 litres of oil into Gothenburg harbour.

In September 1999, cracks in four 12 cylinder diesel engines took six months to repair.

ATLANTIC OSPREY (U.K.)

London, May 17 -- Following received from Coastguard Holyhead MRSC, timed 1952, UTC: At 1603, UTC, ro/ro Atlantic Osprey (3640 gt, built 1986), VSQQ4, in ballast, reported in lat 53 34N, long 04 28.8W, Skerries Lighthouse bears 208 (deg) True, at 10 nautical miles, stopped in water making repairs due engine problem. Concern raised regarding vessel's position to the TSS off Skerries Lighthouse. At 1610, UTC, vessel reported problem not as bad as initially thought. Bringing full power back and continue with passage south-west approaches on sea trials. At 1714, UTC, vessel reported further engine problems and having to stop again. Position lat 53 30.3N, long 04 49.1W, south-west lane of Skerries TSS. At 1744, UTC, vessel reported clear of TSS and reported fuel pump problems. Position lat 53 30.6N, long 04 50.4W, drifting westerly at 2.6 knots. At 1821, UTC, vessel in position lat 53 29.9N, long 04 53.2W, drifting south-west at 3.7 knots. Cannot tell exact problem but know fuel pump problem to main engine. London, May 17 -- Following received from Coastguard Holyhead MRSC, timed 2102, UTC: Ro/ro Atlantic Osprey under way 1932, UTC, problem solved

OUR LADY OF MEDJUGORJE (PHILIPPINES)

Manila, May 20 -- Ro/ro Our Lady of Medjugorje (4433 gt, built 1979), Puerto Princesa for Manila, had a fire on board early this morning off the main Philippine island of Luzon. The Philippine Coast Guard said the fire broke out at 1013 hrs off Nasugbu Point, Batangas province, southern Luzon. The fire started when a welder doing construction work on board the vessel accidentally set fire to a pile of foam and other combustible material near the welding site. The vessel's master reported that a fire alarm was raised and the fire was extinguished after a few minutes. There were no fatalities or injuries. The vessel is due at the Manila's North Harbour terminal this afternoon. The Philippine Coast Guard said that it would summon the vessel's master to explain why welding operations were allowed while the vessel was under way, which was a clear violation of safety rules. -- Lloyd's List Correspondent.

PRINCESS OF SCANDINAVIA (DENMARK (INT. REGISTER)

London, May 19 -- A press report, dated today, states: Danish investigators have boarded passenger ro/ro Princess of Scandinavia docked in Norway to study the damage caused by engine-room fires. The blaze cut the vessel's power and left it adrift for hours in the North Sea. The vessel will be out of service for at least a week, operator DFDS said. The cause of the fire still was unclear, but DFDS spokesman Thor Johannesen said initial crew reports appeared to blame oil leaking from a hydraulic

DAILY SHIPPING NEWSLETTER

tube. Johannesen said other DFDS ferry routes in the North Sea and Baltic Sea were not affected. "Of course we will evaluate the situation that has appeared and see if there are improvements that can be made," Johannesen said, adding that he was "very satisfied" of how the crew handled the situation. "They took no chances and immediately contacted rescue services on land and informed and gathered the passengers," he said. The ferry, which left Newcastle on Friday (May 17), had been scheduled to sail on to Gothenburg. DFDS provided alternative travel arrangements for passengers heading to Gothenburg and those wishing to return to Britain.

SPIEGEL GROVE (U.S.A.)

London, May 19 -- A press report, dated today, states: The Key Largo Chamber of Commerce today hired Resolve Towing and Salvage, of Fort Lauderdale, to finish scuttling Navy transport Spiegel Grove, which sank accidentally hours before crews had planned to send it to the bottom of the sea to create an artificial reef. The 510-foot vessel was today resting upside down in about 130 feet of water six miles offshore, with its bow sticking out of the sea. The salvage company intends to float the vessel using air bags and a compressor to remove water from the hull. Tugs and water currents will then be used to roll it. "The ultimate objective is to get the ship upright," said Joe Farrell, president of Resolve. "At the very least, we hope to get Spiegel Grove on its side." Marine biologists have said the ship, which went down prematurely on Friday (May 17), will be the largest ever intentionally sunk to create an artificial reef. Spiegel Grove was decommissioned in 1989 and sat in a Navy shipyard in Virginia for almost eight years.

SHIPYARD NEWS

VOSPER THORNYCROFT

Vosper Thornycroft (VT) has added to its portfolio of vessels built for the Royal Navy following the naming of **HMS Echo**, the first of two advanced oceanographic and hydrographic survey ships. VT was appointed prime contractor to build the survey ships in June 2000 and sub-contracted the construction to Appledore Shipbuilders in Devon. HMS Echo is due to arrive on the South Coast in June for final work and will be handed over in Autumn this year. The second new ship, **HMS Enterprise**, will be handed over in Spring 2003.

Once in service, the ships will be among the most advanced survey vessels in operation. They will work with the Fleet in worldwide frontline operational roles, including supporting mine warfare and amphibious operations as well as undertaking specialist surveying tasks necessary for the long-term effectiveness of the Royal Navy. The 3,500 tonne ships will be equipped with the latest survey systems, including multi-beam echo sounders and modern side scan sonars, as well as advanced navigation and communication systems. The sophisticated survey suite will enable them to collect highly accurate data between the surface and the seabed. Survey motor boats and RIBs for the ships are being supplied by VT subsidiary Halmatic.

REMONTOWA SHIPYARD

Earlier this year Remontowa Shipyard (Gdansk, Poland) concluded the contract for a complex conversion of the rail ferry "**Oresund**". Remontowa competed for this conversion against renowned European shipyards, however, good knowledge of the Scandinavian market as well as excellent references from other conversions helped to secure this contract. "**Oresund**", built over 20 years ago in Norway, will be transformed into the passenger-car-rail ferry for operation on the Stockholm – Turku route.

DAILY SHIPPING NEWSLETTER



A new superstructure with cabins for 364 passengers and the upper car deck will be built and the shape of the aft part of the ship will be modified. These major changes will result in the ferry extension by 4 meters in length and adding/renewing more than 1000 tons of steel. In addition, three new ramps and two new cargo winches will be installed. The ship's systems will also be modernized, with most modifications planned for piping, electrical and hydraulic systems. New safety system, complying with the latest international conventions, will be implemented.

VYBORG SHIPYARD

Vyborg Shipyard JSC (Russia) delivered a multi-purpose semi-submersible platform, which has just arrived to the mooring location close to Oslo. This bare-deck platform was designed by Moss Maritime AS (Norway). The platform is of a catamaran type with two pontoons and six stabilizing columns supporting the upper structure. Main dimensions are 118,6 x 70,4 x 40,6m and the hull weight is about 15 000 tons.

The new semi will be able to operate in diverse environments from harsh arctic areas to tropical seas. The design provides maximum flexibility for arrangement of alternative topsides depending on the function of the platform. It may be used as a drilling platform or as a floating production platform. Other configurations are also possible. The flat top deck can carry a load of about 20,000 tones. Depending on the equipment to be installed on board the platform, it will be possible to operate it at the sea depths from 80 down to 2 500 m.



AUSTAL SHIPYARD

Austal Limited announced securing of a contract for two 41.5 metre passenger/cargo catamarans for ferry operator Ofotens og Vesteraalens Dampskibsselskad ASA (OVDS) of Norway. The two new aluminium catamarans will be built by Austal subsidiary, Image Marine and are due for delivery at the end of April 2003. This contract adds to the 39 metre live-aboard catamaran currently under construction at Image Marine for operation in the Maldives, and follows closely the delivery of two 37 metre river catamarans for a Portuguese operator.

DAILY SHIPPING NEWSLETTER



The two 41.5 metre catamarans, with an operating speed of approximately 34 knots, will have the capacity to carry 216 passengers and 12 tonnes of refrigerated cargo and will feature a functional, commercial interior outfit. Austal's Managing Director, Mr. Bob McKinnon said the contract was won in very competitive circumstances, including competition from local Norwegian shipyards. "This is the second contract for a Norwegian client by the Austal group and is the result of a concerted team effort by Image and Austal sales and design staff," Mr. McKinnon said. With the large vehicle/passenger ferry market still not as buoyant as we would like, it is very pleasing to continue to win orders across our product portfolio."

Newbuilding orders rise in Japan

NEWBUILDING orders for Japanese shipyards rose marginally for fiscal 2001. Total orders received in terms of aggregate tonnage was 12M GT, which was 1.3 per cent higher than for fiscal year 2000. Orders for a total of 337 ships were valued at ¥1,145.3Bn (\$8.9Bn), according to the Ministry of Land, Infrastructure and Transport. A total of 342 ships aggregating 12.4M GT were launched. Total orders to date stand at 344 ships of 16.4M GT. A direct comparison with rival yards in Korea is not possible due to the varying criteria used to compile statistics. The total order book for Korean yards stands at 450 ships of 15.4M CGT. The Japanese government, however, includes only merchant ships larger than 2,500 GT and longer than 90m for the purposes of newbuilding data.

ROUTE, PORTS & SERVICES HAPPY DOLPHIN (PORTUGAL)



Top : **HAPPY DOLPHIN** as seen in La Spezia 04-04-2002 – Photo : Piet Sinke

Happy Lines will replace beached passenger ro/ro **Happy Dolphin** (7187 gt, built 1969) with a slightly larger chartered ferry in the first week of June, the company chairman promised on Friday (May 17), and will fulfil its obligations to the thousands of passengers booked on the company's planned sailings to Corsica. The promise of a new as yet unnamed vessel follows ten days in which the company has

had to put passengers arriving at docks in La Spezia on to competitors' services. Happy Dolphin has been arrested by Happy Lines at La Spezia.

Miljoenenopdracht voor Boskalis in Singapore



Het Papendrechtse baggerbedrijf Boskalis Westminster heeft een opdracht in Singapore binnengehaald ter waarde van 136 miljoen euro.

Het gaat om een waterafvoersysteem voor het aanleggen van pijpleidingen. De opdracht levert drie jaar werk op. Boskalis werkt samen met het Griekse Archirodon, waarin het Papendrechtse bedrijf een belang van drie procent heeft

Havenbedrijf investeert fors

Het havenbedrijf Hesse-Noord Natie investeert ruim 270 miljoen euro in de nieuwe vestiging aan het Deurganckdok, de containerhaven pal ten zuiden van Doel.

De nieuwe vestiging, die in 2004 gereed moet zijn, levert zo'n 400 arbeidsplaatsen op. De fusiegroep telt nu 4500 werknemers. Hesse-Noord heeft haar containertrafiek inmiddels uitgebreid. Door een overeenkomst met New World Alliance verhuist de goederenaanvoer van dat rederijconsortium tussen China en West-Europa van Rotterdam naar Antwerpen. Het gaat om 90.000 containers (1 miljoen ton goederen) per jaar. De totale containeroverslag in Antwerpen kwam in 2001 uit op 46,2 miljoen ton.

In het Deurganckdok gaat Hesse-Noord Natie voornamelijk containers van de Zwitserse rederij MSC behandelen. De rederij heeft aangekondigd in de toekomst de aanvoer via Antwerpen verder te willen uitbreiden. Hesse-Noord heeft inmiddels ook contracten gesloten met de Canadese reder CP Ships voor de ingebruikname van een tweede terminal aan het Deurganckdok. En verder worden honderden miljoenen geïnvesteerd in de Westerschelde Container Terminal bij Vlissingen. Hesse-Noord Natie controleert na de fusie van Hesse-Natie en Noord-Natie 90 procent van de containeroverslag in de Vlaamse havens.

Naast de nieuwe terminal in Vlissingen heeft Hesse-Noord ook vergevorderde plannen voor uitbreiding van de activiteiten in Zeebrugge. Daarbij heeft het bedrijf het oog laten op de Bastenakenkaai in de voorhaven, waar de auto-overslag van dochter Combines Terminal Operators meer armslag zou moeten krijgen.

Topman Ph. Van Gestel voorziet vooralsnog geen verschuiving van de activiteiten van Antwerpen naar Vlissingen en Zeebrugge, twee havens aan diep vaarwater. "Het trafiekvolume van Antwerpen blijft zo enorm dat je dat niet zomaar verlegt naar die twee havens. In Zeebrugge zijn de verbindingen met het achterland trouwens niet het sterkste punt, al blijft de haven gezien zijn diepgang toch interessant voor sommige containertrafiek. Ik schrijf Zeebrugge dus zeker niet af. In Vlissingen moet je met je goederen hoe dan ook nog minstens 100 kilometer afleggen naar je klanten in het achterland. Vlissingen zal Antwerpen dus niet naar de kroon steken. Maar als Antwerpen z'n positie wil behouden, moeten de slibdrempels wel uit de Schelde worden verwijderd."

Hesse-Noord Natie heeft al in eerder stadium aangedrongen op een minimale diepgang van 13,1 meter om ook de grotere containerschepen probleemloos te kunnen ontvangen. Het havenbedrijf vreest niet zozeer de concurrentie met wereldhaven Rotterdam, maar vooral die van Hamburg. Van Gestel vindt dat de verdere verdieping van de Westerschelde sowieso te laat komt. Het bedrijf heeft daardoor al verschillende nieuwe lijndiensten aan de neus voorbij zien gaan

Superfast launches Scottish service



SUPERFAST Ferries has expanded its European network with the launch of the daily Rosyth-Zeebrugge route. The company has invested about \$200M in the service, including ships and other facilities. Superfast president and MD Alexander Panagopoulos told Fairplay he hoped the service would be profitable within two years. "Our revenue will come half from freight and half from passengers," he said. "There has been a great deal of interest from Scottish hauliers and exporters for this new service." The two ships operating the route are the HDW newbuildings

Superfast IX and Superfast X, which can each carry 624 passengers, 115 freight units and 100 cars. Panagopoulos would not be drawn on whether the company would re-start its Germany-Sweden service, suspended in April. He did, however, indicate that other potential routes from Rosyth to Germany and the Netherlands were being investigated.

New breaker for Pipavav

SEAKING Infrastructure, a shareholder in Gujarat Pipavav Port (GPPL), has set up a ship dismantling facility at Pipavav, to be operational in the next two to three months. The company has signed an agreement with Sumitomo of Japan to buy back 75 per cent of the dismantled vessels and equipment. "Since our focus is on old VLCCs, it will not affect Alang in any way," said a senior official from Seaking, the sole owner of the facility. The state-of-the-art facility, which has already obtained all clearances – including one from the pollution-wary Gujarat Maritime Board (GMB), can accommodate four vessels at once, and plans to buy scrap vessels from the open market.

Maersk Sealand, Evergreen apply for slot exchange

MAERSK Sealand and Evergreen Marine Corp. (Taiwan) have filed a slot exchange agreement with the US Federal Maritime Commission.

The 12-month agreement provides Maersk Sealand with space on Evergreen's weekly WAE service calling at Kaohsiung, Hong Kong, Osaka, Tokyo and Hakata to and from Tacoma, Washington, and Vancouver British Columbia, henceforth called Maersk Sealand's "Canadian Transpacific Service".

In return, Evergreen will be provided with space on Maersk Sealand's weekly MECL service via the Suez Canal between Colombo, Sri Lanka and Nhava Sheva, and Port Elizabeth, New Jersey, Norfolk, Virginia, and Charleston, South Carolina.

Arnold Wang, Evergreen's executive vice president of the corporate business division, said: "The efficient use of oceanborne tonnage and co-operation between carriers will provide built-in economies that will best serve our customers. We look forward to the success of this relationship."

DAILY SHIPPING NEWSLETTER

Craig Mygatt, director of Maersk Sealand's Pacific Eastbound Service, said: "Direct calls at Vancouver will significantly enhance our service portfolio to the Canadian market. Our customers are driving this decision."

The new service offerings are scheduled to begin in mid June 2002 pending FMC approval.

Swedish flag to save ferry run



© Miran Hamidulla

CASINO Express, a 36-year-old ferry that plies between the Finnish port of Vaasa and Umea in Sweden, will switch to the Swedish flag in an effort to save the loss-making operation. RG-Line, the owner of the 10,600-GT vessel, decided on the switch because the Swedish tonnage tax and net wage systems embrace passenger vessels as well as cargo ships, while in Finland passenger vessels are outside the regime. "This is purely a commercial decision. A tightrope walker mustn't carry extra weight," explained RG-Line

chairman Rabbe Gronholm. He calculates that the net wage system in Sweden will save the company euro0.8M (about \$730,000) a year compared to retaining the Finnish flag. The abolition of duty-free sales in 1999 hurt the service badly, but it is important for the region as about a quarter of the population of Vaasa speak Swedish as their mother tongue. There has been a ferry service on the route since 1948.

NAVY NEWS

WHICH FOREIGN NAVY SHIPS WILL VISIT DUTCH PORTS & WHICH PORTS ARE VISITED BY DUTCH NAVY SHIPS

23 May 02	HNLMS Nautilus	A 853	Hoorn
24 May 02	HNLMS Harlingen	M 854	Dordrecht
27 May 02	HNLMS Van Galen	F 834	Valletta
30 May 02	HNLMS Cerberus	A 851	Enkhuizen
31 May 02	K/V Norkapp	W 320	Scheveningen
TBA May 02	FGS Loreley	M 2665	Den Helder
TBA May 02	FGS Loreley	M 2665	Rotterdam
01 Jun 02	HNLMS Jacob van Heemskerck	F 812	Hoek van Holland

Op marineschip is gulden nog munt

De gulden - in Nederland kom je er nergens meer mee. Maar aan boord van marineschip **Hr. Ms. Philips van Almonde** is hij nog steeds het gangbare betaalmiddel. Het schip vertrok op 10 december vorig jaar op een missie naar het Arabisch Schiereiland. Daarom werd besloten de gulden aan boord te handhaven als 'wettig betaalmiddel'. Pas na terugkomst in Den Helder op 14 juni moet de bemanning overschakelen op de euro. "Dat zal nog flink wennen worden", aldus opvarende sergeant-majoor W. Völker.

MOVEMENTS



TEXAS



TEXAS (8204963) Wilh. Wilhelmsen 1984 Hyundai Ulsan GT 49326 dwt 44081 TEU 2455 Loa 262.1m Bm 32.3m ex **Barber Texas-89** Van de Botlek naar Southampton.
Text Jan van der Klooster / Foto Piet Sinke

VICTORIA



The **VICTORIA** arrived Tuesday morning in the Port of Amsterdam.

Photo's: Han de Weerd / Pim de Goederen - Smit Pioneer

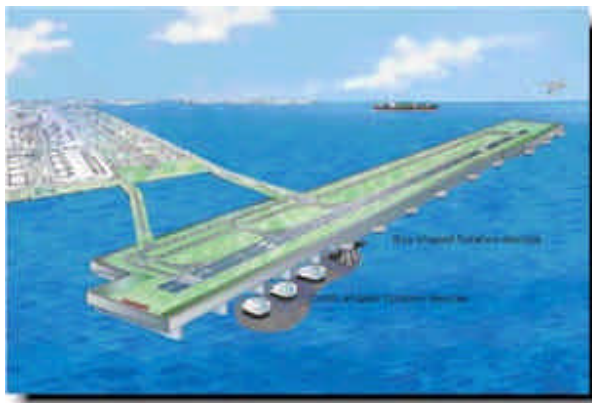


DAILY SHIPPING NEWSLETTER

AIRCRAFT / AIRPORT NEWS

The Japanese shipbuilding industry teamed up with steelmakers to establish the basics of Mega-Float technology, and built a 1,000-meter-long demonstration model of a floating airport. Using this model, they developed and confirmed the soundness of theory and necessary techniques for the construction and use of such airports. Joint developers also carried out important demonstration tests, taking off and landing of an aircraft on the Mega-Float model, with satisfactory results. As a result, in March 2001, the feasibility of Mega-Float type airports 1,000 to 4,000 meters in length was confirmed.

Currently, a 2,500-meter strip is being proposed for the expanded Haneda Airport. The initial study concluded that the Mega-Float technology is the best choice for the project: "The Mega-Float airport could be built more quickly at less cost; would be unaffected by ground quality; would be resistant to earthquakes; permit utilization of the internal space; be friendly to the environment; easy to expand, relocate or remove; and not disturb the flow of water if installed at the mouth of the Tama River."



RIJNMOND WEATHER

woensdag 22 mei

9 uur 's ochtends :
temperatuur: 17 graden
kans op neerslag: 50%
wind: matig (23 km/u) uit Z

5 uur 's middags :
temperatuur: 17 graden
kans op neerslag: 35%
wind: vrij krachtig (31 km/u) uit Z

HAVE A LOOK AT THE FOLLOWING **SITES** FOR SHIPPING INFO AND PICTURES OF SHIPS
AROUND HOEK VAN HOLLAND AT :

<http://www.scheepvaarthoek.nl>

&

<http://www.mcf-rotterdam.nl>