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**Six Largest U.S. Yards Form Association -
Editorial by Duane "Buzz" Fitzgerald,
CEO, Bath Iron Works**



**International
Boatbuilding
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**Casino
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JANUARY 1995

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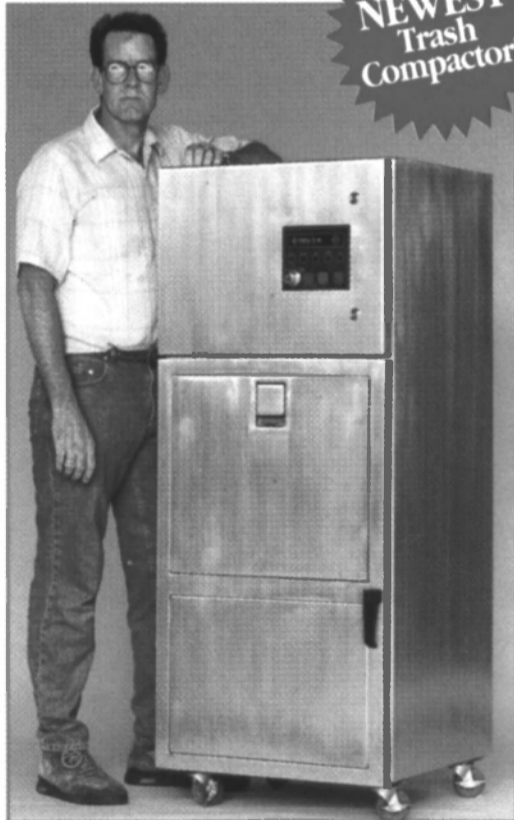
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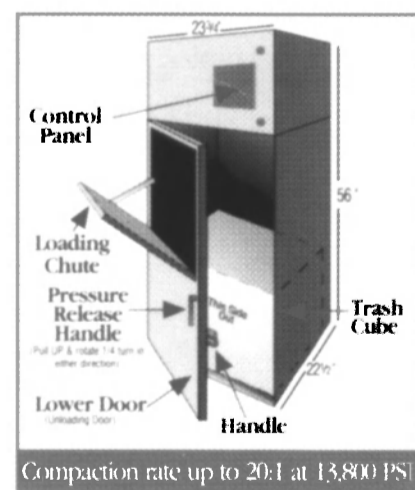


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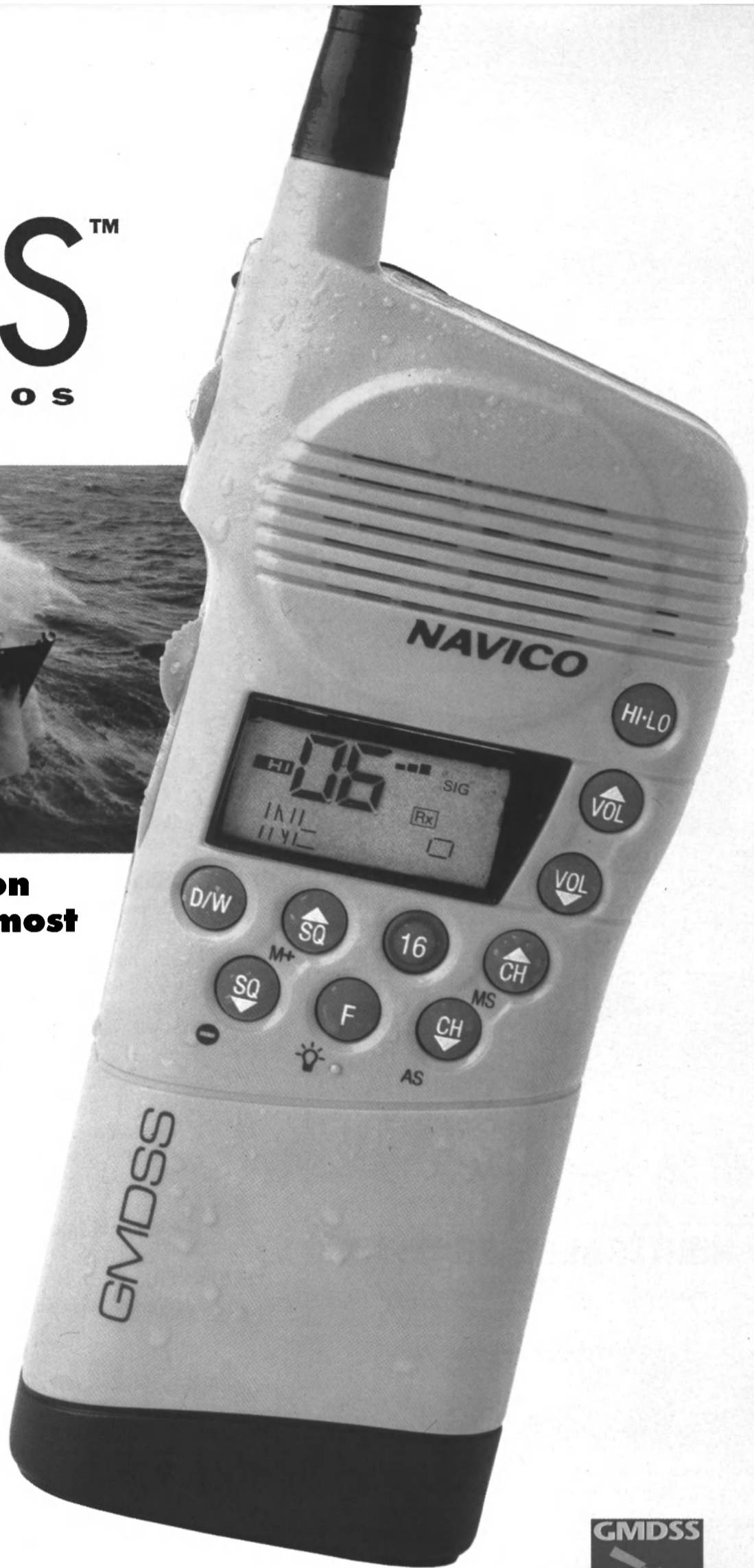
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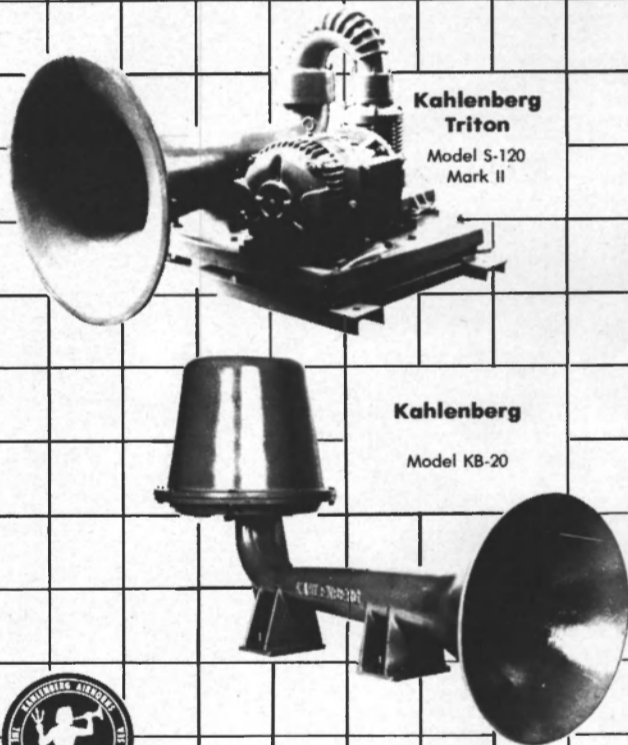
ON THE COVER

The January issue of *Maritime Reporter & Engineering News* is dedicated to accomplishments in the passenger vessel segment. This year's selection of outstanding vessels vary widely in style, size and service; ranging from a 59-ft. (18-m) wave-piercing catamaran; to a 245-ft. (74.7-m) riverboat casino; to a 72.6-ft. (22-m) submarine. The binding thread among all of the selections is a dedication to quality, safety and service on the part of the designers, builders, suppliers and owners. The Passenger Vessel Annual starts on page 27.

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Six U.S. shipbuilders have come together to form the American Shipbuilder's Association. Here's a sneak preview of the group's plans.
by Duane D. "Buzz" Fitzgerald, CEO, Bath Iron Works

27 Passenger Vessel Annual

MR/EN reviews some noteworthy passenger vessels delivered in 1994. Also, discover what's new at the Passenger Vessel Association show, including a preview of exhibitor plans.



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Business prospects are good in this niche market following legislative victories in Indiana and Louisiana.
by Dan Maniotis, Senior Editor



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Speed vessels buoy the mid-size market: Vosper Thornycroft starts marketing new FRP hovercraft; FBM TriCat hits 52 knots in sea trials.
by Andy Smith & Carol Fulford, International Editors



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Volume 57

Founder: John J. O'Malley 1905-1980

Wärtsilä Wins Gas-Diesel Engine Contracts

In two recent projects, Wärtsilä Diesel has received orders for a total of 12 gas-diesel engines. Four Wärtsilä 16V32GD engines will power a Floating Production Storage and Offloading (FPSO) unit being built by Far East Levingston Shipbuilding in Singapore for Smedvig AS in Norway. The second project involves the conversion of a Russian submarine repair vessel by Golar-Nor/McDermott for the first phase of BP's Foinaven plan in the North Sea.

For more information on Wärtsilä
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Port Of Portland Advisor: Find Operator Or Sell PSY

The Port of Portland has been advised by the investment firm of Kidder, Peabody & Company either to sell Portland Ship Yard (PSY), or at least find a global operator for the entire facility, so that the port may "focus on its transportation mission." The executive summary of the report said that since finding a buyer under present market conditions may be difficult, the port should contract with a single operator with a global reach to operate the entire facility.

The recommendation came in a study the port hired the firm to complete. The study and its findings were presented to the Port of Portland Commission by the firm at a public meeting on Dec. 22, 1994. It was stated in the study that the selection of an owner or operator for PSY who could attract business from foreign vessels as well as keeping the business base of U.S.-flag vessels was a key element in the success of the yard. It was also stated that repairing cruise ships could be one possible focus for the yard.

ABS Earns ISO 9001 Certification

The American Bureau of Shipping (ABS) has attained ISO 9001 (1994) quality system certification. The certification is a single, global certificate covering 154 offices around the world, covering all ABS support functions. In addition, two ABS affiliates, ABS Marine Services and ABS Quality Evaluations, Inc. also attained ISO 9001 certification for their operations.

For more information on ABS
Circle 170 on Reader Service Card

Bazan To Build New Ferry

Empresa Nacional Bazan and Compania Buquebus signed a contract for the construction of a new 413-ft. (126-m) fast ferry, built entirely of aluminum, which will operate on the River Plata, between Argentina and Uruguay. Delivery is scheduled for October 1996. The *Alhambra*, the name under which

the new vessel is to be built, will be driven by six Caterpillar engines and five waterjets.

Iversen To Oversee Silversea Cruises' U.S. Operations

Silversea Cruises Ltd. has appointed **Bob Iversen** as managing director, overseeing the company's U.S. operations. **John Bland**, the

current president, will retire.

AWO Takes Lead In Safety


The Board of Directors of the American Waterway Operators (AWO) voted unanimously to establish the AWO Responsible Carrier Program — a comprehensive safety program for barge and towing companies. A significant new initiative the Responsible Carrier Pro-

gram is the fruit of the labor of a specially constituted task force of senior barge and towing industry executives, which dedicated more than eight months to formulating the final plan. The program includes three principal parts: management/administration; equipment/inspection; and human factors. AWO's board of directors set January 1, 1998 as the target date for full member compliance with the Responsible Carrier Program.

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NNS To Develop Construction, Repair Facility In UAE

Tenneco, Inc. announced that its shipbuilding division won a major competition to develop a new shipbuilding and ship repair business in the United Arab Emirates (UAE). The UAE Offsets Group and Newport News Shipbuilding (NNS) signed a letter of intent to develop a new business venture, Abu Dhabi Ship Building Co. (ADSB), for the construction and repair of naval and commercial ships.

Abu Dhabi Ship Building will be located in the Mussafah Industrial Area adjacent to the Mussafah Channel. It will provide repair services for commercial and naval ships operating in UAE and regional waters. New construction capabilities will include commercial tugs, boats, barges and Naval and Coast Guard ships.

The venture will be a public joint stock company, with the UAE's National Investor, 10N, serving as investment advisor and coordinator, and the UAE Offsets Group anticipates that a number of investors from the UAE will be interested in the new company. The investment advisor and coordinator will lead a team which includes the National Bank of Abu Dhabi, Ernst & Young, the UAE law firm Hadeef-Al-Dhahiri and Assoc. and the international law firm Simmons & Simmons.

Newport News Shipbuilding has stated its intention to invest in ADSB. The National investor is coordinating the initial public offering of stock, which is planned for early 1995.

"It is intended that this new company provide a profitable investment opportunity, with the majority of the shares in the shipbuilding and ship repair business to be held locally," a spokesman for the UAE Offsets Group said. "Other benefits should include the transfer of shipbuilding know-how into the UAE, development of a naturalized shipbuilding workforce, establishment of a local, cost-competitive major refit service for the UAE Naval forces and Coast Guard, as well as civilian operators, and the provision of world-class quality in ship repair and construction." The company's initial focus will be on the ship repair side, expanding to the construction of larger vessels as heavier lift capability and equipment come on line.

For more information on Newport News Shipbuilding
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Shipbuilders Announce Incorporation Of American Shipbuilding Association

Six of the U.S.'s largest shipbuilding companies — employing more than 90 percent of the U.S. workers involved in ship construction — have formed a new, Washington, D.C.-based industry group, the American Shipbuilding Association (ASA). (See related editorial, page 8)

The founding members of the group include: Avondale Industries, New Orleans; Bath Iron Works, Bath, Maine; General Dynamics, Electric Boat Division, Groton, Conn.; Ingalls Shipbuilding, Pascagoula, Miss.; National Steel and Shipbuilding Co. (NASSCO), San Diego; and Newport News Shipbuilding, Newport News, Va. ASA members are the largest private employers based in Virginia, Mississippi, Maine and Louisiana, and among the largest in both Connecticut and California. Together through ASA, the companies will work to focus public and government attention on the need for additional action to preserve America's capability to build major naval vessels and large oceangoing commercial ships.

ASA members build all of the U.S. Navy's major combatant ships and large auxiliary ships, including: nuclear powered aircraft carriers; amphibious assault ships; amphibious landing ships; attack submarines; fast

ammunition supply ships; fleet oilers; AE-GIS guided missile destroyers; strategic ballistic missile submarines; and strategic sealift ships.

The Navy shipbuilding budget, as has been well recorded, has sharply declined in recent years. ASA members are implementing aggressive cost reduction programs and working to re-enter commercial markets in order to help sustain the unique defense capabilities their shipyards and skilled workers possess. ASA elected officers for 1995 include: **Albert L. Bossier, Jr.**, CEO of Avondale; **Duane D. "Buzz" Fitzgerald**, CEO of Bath Iron Works; **Jerry St. Pé**, CEO of Ingalls Shipbuilding; **W.R. "Pat" Phillips**, CEO of Newport News Shipbuilding; **James E. Turner, Jr.**, CEO of General Dynamics Electric Boat Div.; and **Richard H. Vortman**, CEO of NASSCO.

For additional information on American Shipbuilding Association members, circle the corresponding number on the Reader Service Card in this issue.

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Krupp MaK Wins Engine Orders For Container, Cargo Vessels

Krupp MaK of Kiel, Germany received an order to supply engines for a series of five container vessels owned by Elite Shipping I/S. The engines are for 5,400-dwt vessels which measure 320 ft. (100 m), with a capacity of 650 TEU. The vessels will be built by Aarhus Flydedock A/S. The 8M 552C type engines to be used on the ship operate on heavy fuel and have an output of six MW. The engines will be delivered continuously between spring 1995 and the beginning of 1996. Krupp MaK also received an order for four propulsion engines of the M32 type for a series of four seagoing dry cargo vessels owned by Russian Shipping AS of Stavanger. The vessels will be built by the Russian shipyard OKA in Navashino, and each will be equipped with one propulsion engine model 8M32, with an output of 3.5MW.

For more information on Krupp MaK
Circle 53 on Reader Service Card

Raytheon To Buy Anschütz Marine Navigation Business

Raytheon Co. has entered into an agreement to buy the marine navigation business of German-based Anschütz & Co., GmbH.

Terms of the transaction were not disclosed. Raytheon expects to complete the acquisition, which is subject to German government approval, by early this year.

Located in Kiel, Anschütz is a leading maker of gyrocompasses, autopilots and steering control systems for the commercial and military marine market. Anschütz will become part of Raytheon Marine Co., a \$140-million marine electronics company which sells to the merchant shipping, commercial fishing, recreational boating and government markets worldwide. The new organization will also provide complete integrated ship navigation systems for the commercial shipping fleet, including autopilots, gyrocompasses and radars.

For more information on Raytheon
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Maritime Reporter/Engineering News

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Bondareff Named To MarAd Chief Counsel Post

Maritime Administrator **Albert J. Herberger** announced the appointment of **Joan M. Bondareff** as the Maritime Administration's chief counsel.

She will also serve as a member of the Maritime Subsidy Board.

"**Joan Bondareff** brings a

unique perspective and broad experience to MarAd during this critical time for the American maritime industry," Mr. **Herberger** said.

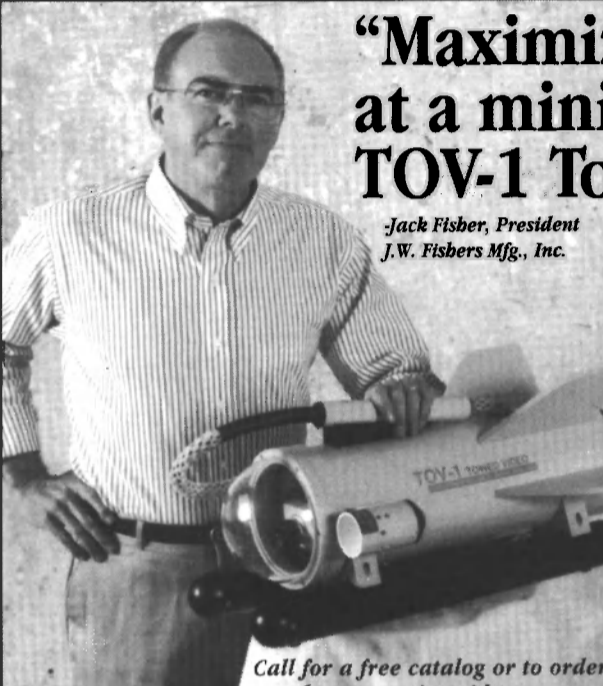
Her strong maritime background, legal experience and Capitol Hill service will be extremely beneficial to the agency and the maritime industry."

Prior to joining MarAd, she was senior counsel to the House Merchant Marine and Fisheries Committee. In that position, she devel-

oped and drafted legislation on a wide range of ocean, coastal and maritime issues, including maritime reform and shipbuilding support legislation.

Ms. **Bondareff** spent more than 11 years in various professional staff positions at the Department of Commerce's National Oceanic and Atmospheric Administration.

From 1982-87 she served as assistant general counsel for Ocean Services.




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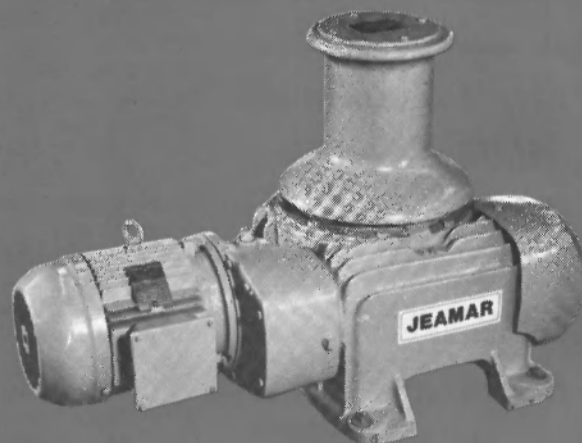
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American Shipbuilding Association

Yards take action today to ensure the U.S. shipbuilding capability tomorrow

by Duane "Buzz" Fitzgerald, CEO, Bath Iron Works

The six largest shipyards in the U.S. formed the American Shipbuilding Association (ASA), a new Washington, D.C.-based industry trade association. The six yards include Avondale, Bath Iron Works, General Dynamics' Electric Boat Div., Ingalls Shipbuilding, National Steel and Shipbuilding, and Newport News Shipbuilding.

The ASA will work to focus public and government attention on the need for additional action to preserve America's capability to build major naval ships and oceangoing commercial vessels.

Among them, ASA member shipyards build all of the U.S. Navy's complex combatant ships and large auxiliary ships including: AEGIS guided missile destroyers; aircraft carriers; amphibious assault ships; amphibious landing ships; attack submarines; fast ammunition supply ships; fleet oilers; strategic ballistic missile submarines; and strategic sealift ships.

The Navy shipbuilding budget has dramatically declined in recent years.

ASA members have taken steps to restructure operations and re-enter commercial markets.

Doing so can help sustain the unique defense industrial base capabilities that the ASA member shipyards and skilled workers possess.

Prior to the November 1994 formation of the ASA, the six largest U.S. yards had relied primarily on the Shipbuilders Council of America (SCA) to represent its namesake industry the public and our national leaders.

In addition to the major Navy shipbuilders, the SCA membership has included a number of smaller firms engaged primarily in ship repair, the building of coastal and inland waterway commercial vessels, and the building of smaller, mostly non-combatant, naval vessels and craft.

The interests and policy objectives of the large new construction yards and those of the smaller yards and repair firms have grown increasingly different as conditions in the industry have changed in the post-Cold War period.

U.S. shipbuilding yards must find

ways to re-enter the world market for commercial ships, a market that almost completely disappeared for U.S. yards and suppliers when our government terminated the Construction Differential Subsidy (CDS) program without corresponding action by our trading partners.

The response by our trading partners to the end of CDS in 1981 was not to follow suit and end their direct subsidy programs. Instead, they expanded their ship construction and shipyard infrastructure subsidies.

They have dominated the market for more than a decade. In that time, they have become highly proficient at constructing commercial ships.

The case for preserving the defense shipbuilding industrial base has not been made in recent years with clarity.

The member yards of the American Shipbuilding Association confront a very different challenge: to retain the unique capability to design and construct complex Navy ships. We must diversify our businesses and adopt the best practices of commercial shipbuilding while also preserving those skills, systems and business practices that are essential and unique to the design and construction of complex ships for the U.S. Navy.

Preserving elements of our shipbuilding industrial base will mean little if we are unable to preserve and advance the capability and tech-



Duane "Buzz" Fitzgerald

nology to design and build ships critical to our national defense.

ASA member companies have actively supported recent government efforts to revitalize commercial shipbuilding — the expanded Title XI loan guarantee program, MARITECH matching funds for commercial shipbuilding technology development, and negotiation of an international agreement on shipbuilding subsidies.

American Shipbuilding Association member companies appreciate the efforts of the Clinton Administration and the Congress to revitalize commercial shipbuilding in the last several years. But we contend that the magnitude of the challenge our industry confronts has not yet been fully understood or addressed.

Foreign shipbuilders have an enormous advantage as measured by the small number of labor hours they expend to build large oceangoing ships.

The advantage has been established and sustained, because of their access over many years to a wide mix of major support programs from their governments. The OECD Agreement on Shipbuilding does not solve the problem.

The proposed agreement permits foreign governments to continue to subsidize commercial ship prices another four years and to provide shipyard infrastructure assistance indefinitely.

It isn't a choice of building warships or commercial ships. We must preserve the capability to do both.

American Shipbuilding Association members have advocated temporary government support to level the playing field to make the necessary transition.

Twice in the last session of Congress, the U.S. House of Representatives passed — by overwhelming margins — legislation that contained such a program, the Series Transition Payments (STP) program.

Unfortunately, the Administration chose to oppose the program and the Senate was unable to act.

The situation was not helped when some of the smaller U.S. yards chose during last session's Congressional debate to argue that a STP program was not necessary and that an OECD Agreement (apparently in any form) combined with Title XI loan guarantees would more than adequately level the playing field in commercial shipbuilding.

As reflected and conveyed through the Shipbuilders Council of America, especially last year, our industry has not spoken with one voice. Great confusion has ensued.

Our industry's interests, and, we believe, the national interest, were poorly served because of that.

The ASA member companies, employing more than 90 percent of U.S. shipbuilding workers, believe that the only way to preserve this country's capability to build warships is to preserve the major Navy shipbuilding yards through continued Navy programs and more focused policy action to assist us in achieving a re-entry into the international commercial market. Neither element alone will sufficiently maintain this nation's vital defense shipbuilding industrial base, or its unique capabilities.

Re-entering the commercial market is key.

We must do that in order to preserve the skills to design and build warships into the next decade at the low production rates that already characterize the status of naval shipbuilding.

Diversification into commercial shipbuilding will help keep the costs of naval ships affordable, despite low production levels.

It isn't a choice of building warships or commercial ships. We must preserve the capability to do both.

A Commonly Asked Question From Our Readers



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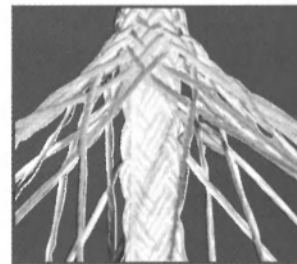
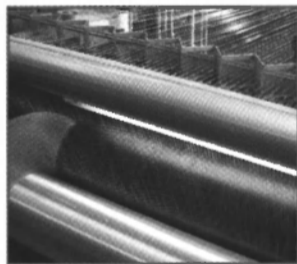
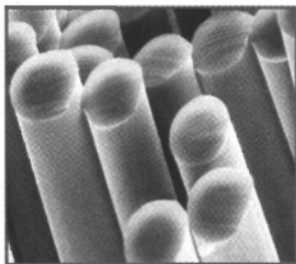
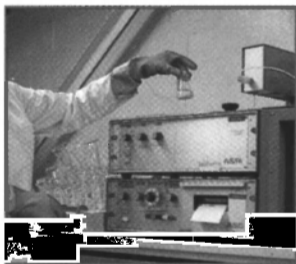
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At AlliedSignal Fibers, we pride ourselves on a history of supplying solutions to a customer's specific application. Our polyester for ropes and cordage is engineered to be cost-effective and provide the

When considering any type or brand of polyester, be aware of the engineered properties required for your application. The more important question is: which polyester is the best engineered product for the specific application?

For further information, contact AlliedSignal Fibers, 224 West 35th Street, Suite #1500, New York, NY 10001.

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Circle 20 on Reader Service Card

Dupont Names Wintzer To Market Corian

Dupont Corian has appointed **Peter Wintzer** of Intercor Marine AB as consultant, with responsibilities to market and promote the Corian product range to the marine industry. Corian solid surface material is suitable for use in cruise liners (both newbuilds and refurbishments), conventional and fast ferries, casino and excursion boats, naval ships, megayachts, power and custom-built boats.

For more information on Dupont
Circle 71 on Reader Service Card

Wilkes Named Texaco VP

Lester A. Wilkes has been appointed vice president of Manufacturing Reliability for Texaco USA, effective Dec. 1., 1994. Mr. Wilkes is returning to Texaco after six years with Star Enterprise, most recently as president and CEO. Star Enterprise is a 50/50 joint venture between subsidiaries of Texaco and Saudi Aramco that refines, distrib-

utes and markets petroleum products under the Texaco trademark in 26 East and Gulf Coast states and the District of Columbia.

For more information on Texaco
Circle 74 on Reader Service Card

Moquin Named King's National Sales Manager

Ronald J. Moquin has been appointed national sales manager for King Engineering Corp., Ann Arbor, Mich. He will serve as a liaison between the factory and King's technical representative/distributor network in 40 cities. King Engineering specializes in the design and manufacture of tank level gauging systems and instrument grade compressed air filtration systems.

For more information
Circle 73 on Reader Service Card

Carroll Becomes TMM's Liner Services Director

Transportacion Maritima Mexicana SA de CV (TMM) an-

nounced the appointment of **Lee S. Carroll** as liner services director. Mr. Carroll joins TMM from Sea-Land Service, Inc. where he was vice president and general manager for the Caribbean and Central America division since 1992. He joined Sea-Land in 1965. Mr. Carroll succeeds **Luis Goya**.

OMI Receives Safety Certificate From DNV

OMI Corp. has become one of only two U.S. shipping companies to receive Det Norske Veritas' (DNV) Safety and Environmental Protection Certificate. In a presentation at OMI's New York headquarters, **Helge Dan Tangen**, vice president and head, division Americas of DNV, presented **Jack Goldstein**, president and CEO of OMI, with the certificate.

NRC's Smith, Ives Join American Marine

John Ives and **Gerald P. Smith**, both formerly of National Response

Corporation (NRC) of Calverton, N.Y., have joined American Marine Corporation (AMC) of Ossining, N.Y. — Mr. Ives as executive vice president and Mr. Smith as the company's marketing vice president.

American Marine Corp. is a full-service, level E provider of OPA 90 response coverage. In addition to oil and hazardous waste containment, cleanup, temporary storage and disposal, the company supports a range of industry needs in marine salvage, emergency lightering, marine firefighting, diving and emergency towing.

Seay Elected Tidewater VP

Tidewater Inc.'s board of directors has elected marine division executive **Austin M. Seay** as vice president. Mr. Seay manages the company's marine operations in the Asian Pacific, and is responsible for a fleet of approximately 45 vessels operating in 10 countries. Mr. Seay joined Tidewater in 1978, and has managed foreign operations for Tidewater in Mexico, Venezuela, China, the North Sea, Scotland, Egypt and Brazil.



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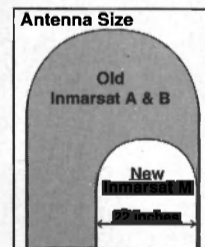
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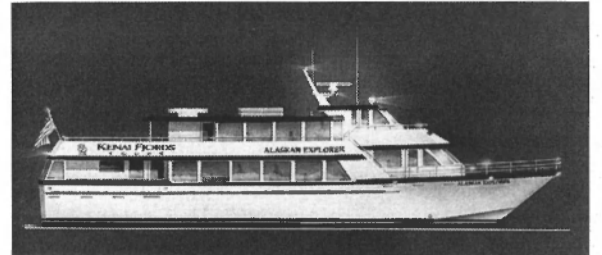
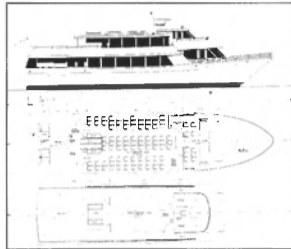
Maritime Reporter/Engineering News

Westport To Build Kenai Fjord Tours Boat

Kenai Fjord Tours, which hosts day excursions out of Seward, Alaska, to Kenai Fjords National Park, will take delivery of a new, 100-ft. (33-m) by 23-ft. (7-m) boat built by Westport Shipyard in the spring. The vessel was designed by Jack Sarin, Naval Architects of Bainbridge Island, Wash. and the 149-passenger boat will be U.S. Coast Guard-certified for coastwise service.

The vessel is based on a Series 9500 high speed hull (fiberglass construction with Airex/PVC core and fire retardant resin), which has been tank tested to 45 knots. However the *Alaskan Explorer*, as the boat will be named, will be powered by 3512 DITA Caterpillar engines — driven through 2.5449:1 ZF marine gears and developing 1,750 hp at 1,800 rpm — to a top speed of 28 knots. Features to be incorporated in to the vessel include Twin Disc's Power Commander engine controls with monitors at two control

stations. Ride control involves the Koop Nautic Sea Rocq 2030 system, a system from The Netherlands which reduces roll and corrects for listing, and incorporates electronic gyro, AVA sensor and 9.5-sq.-ft. fins. The exterior arrangement is designed to allow easy passenger movement between decks, and the plan will



allow more passenger on deck when the vessel tours the glaciers and bird rookeries found in the park.

For more information on Westport Shipyard
Circle 5 on Reader Service Card

Alaskan Explorer Particulars

Owner KenaiFjord Tours
Builder Westport Shipyard
Architect Jack Sarin, Naval Architects
Length 100 ft. (33 m)
Width 23 ft. (7 m)

Main engines Caterpillar
Gears ZF
Stabilizer system Koop Nautic
Bowthruster Wesmar
Generator Northern Lights
Air compressor Grainger
Seats Eknes Industries

Imodco Wins Contract To Supply Buoy System For Tanker Mooring

Calabasas Hills, Calif.-based Imodco Inc. won a contract from the Korean Petroleum Development Group (PEDCO) to supply a buoy system for installation near Pusan, S. Korea. PEDCO is the S. Korean government agency which stores petroleum reserves. According to Imodco, installation of the company's system for PEDCO, the seventh supplied to S. Korea by Imodco, will be complete in February.

The Catenary Anchor Leg Mooring (CALM) system is a self-contained offshore marine terminal which reportedly provides flexible, economical and reliable means for both mooring and transferring the fluid cargo of very large vessels. Once moored, the vessel is able to load or discharge its cargo while freely responding to wind, wave and current forces.

For more information on Imodco
Circle 57 on Reader Service Card

BethShip Gets ISO 9002 Certification

Bethlehem Steel's BethShip Div., Sparrows Point Yard, has become the first East Coast ship repair yard to be certified to ISO 9002, said David Watson, division president. "With the recent and projected reductions in the defense budget and the resultant halving of the Navy's 600-ship fleet, there is not enough Navy work to go around," he said. "The competition for the Navy work that remains has been and will continue to be fierce.

Therefore, in addition to remaining an outstanding shipyard for U.S. Navy and domestic ship repair, BethShip has increased its focus on the international commercial repair market."

For more information on BethShip
Circle 54 on Reader Service Card

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Anthony Del Gavio
President

Circle 215 on Reader Service Card

NNS's Waryas Previews Double Eagle Tanker At SNAME Meeting

Edward A. Waryas of Newport News Shipbuilding (NNS) presented a paper on NNS's re-entry into commercial shipbuilding at the second meeting of the New York Metropolitan section of the Society of Naval Architects and Marine Engineers (SNAME), held on Oct.



27, 1994 at the Whitehall Club in New York City. The meeting began with the award of certificates of appreciation for service on various committees to Allen Chin, Philip B. Kimball, Walter M. Maclean, Frank H. Sellars and Lawrence W. Ward. The guest of honor for the meeting was Thomas Jones Jr., a SNAME member since 1952.

Mr. Waryas's technical presentation, *Newport News Shipbuilding's Re-Entry into the Commercial Shipbuilding Market*, detailed how NNS — which has built only military vessels for the last 15 years — achieved the letter of intent for two Double Eagle tankers for Eletson Corp. of Piraeus, Greece,

An Oct. 27 SNAME meeting featured a presentation on Newport News Shipbuilding's strategy in re-entering the commercial market. From left to right: William Peters, section treasurer; Jan Ziobro, chairman, Papers Committee; Richard Rodi, section chairman; Edward Waryas, author; Alfred Bozzuffi, section vice chairman; and Christopher Reyling, section secretary.

including design development and marketing strategy. Mr. Waryas also offered hints as to what was soon to come — the actual contract signing, which took place a mere four days after Mr. Waryas' presentation, on Oct. 31. The contract is the first commercial ship order placed with a U.S. yard by a foreign owner since 1957.

New Cruise Ship To Be Called Costa Victoria

The new 75,000-ton cruise liner being built for Italy's Costa Crociere by four companies in the Vulkan Group will be named *Costa Victoria*, according to Nicola Costa, chairman and CEO of Costa Crociere.

Construction work on the ship is

currently on target, with the delivery scheduled for June of 1996. Vulkan Group members Bremer Vulkan Werft, Schichau Seebeckwerft, Lloyd Werft and STN Atlas Elektronik are building the luxury liner under joint responsibility.

For more information on the
Bremer Vulkan Group
Circle 59 on Reader Service Card

Austal Wins \$28 Million Ferry Order

Leading aluminum shipbuilder Austal Ships has confirmed an order for a \$28 million, 193.6-ft. (59-m) "Auto Express" vehicle-passenger ferry to operate in the Baltic Sea, from Hebrides Ship Ltd. of Vanuatu.

The vessel will be chartered to EMINRE AS, an Estonian joint venture company, to operate on its Tallink Express fast ferry service — replacing the Russian-built hydrofoils currently operated on the service.

The Estonian vessel will be a smaller version of the "Auto Express 79," the 260-ft. (79-m) vehicle passenger ferry currently under construction at Austal for Sea Containers Ltd. of the U.K.

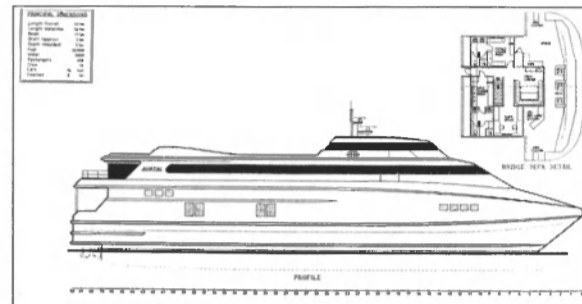
Principal dimensions of the new vessel are 196.5 ft. (59.9 m), with a molded beam of 55.8 ft. (17 m), molded depth of 18 ft. (5.5 m), and maximum hull draft of 6.6 ft. (2 m). Total deadweight of the vessel will be about 180 tons.

Propulsion will be by a pair of the latest V20 MTU 1163 engines, each developing 6,500 kW and driving KaMeWa waterjets.

Production of the vessel commenced in December 1994 at Austal's new \$18 million shipbuilding facilities on the Jervoise Bay waterfront, and will be delivered in November 1995.

"During the recent negotiations, Austal was very aware of the tragic accident involving the conventional Baltic ferry *Estonia*," said Austal Ships' Managing Director John Rothwell. He further explained

that catamarans have significant reserves of stability and furthermore, the car decks are located high above the waterline on the bridge deck structure between the hulls. "It is highly unlikely that such a car deck could become flooded, and if it did, it would not adversely affect stability,



with any entrained water simply flowing overboard," he said.

Stability of the vessel and passenger comfort will be further enhanced by Austal's fully computerized "Ocean Leveller" stabilizing system. This system was developed by Austal in conjunction with the Australian Maritime Engineering Co-operative Research Centre, and greatly reduces a vessel's vertical motion in rough sea conditions.

For more information on Austal
Circle 34 on Reader Service Card

Carrier Transcold Lands Three Major Orders

National Steel and Shipbuilding (NASSCO), Bremer Vulkan Shipyard and Kvaerner Masa Shipyard have awarded contracts totaling nearly \$8 million to Carrier Transcold's Marine Systems Group.

NASSCO chose Carrier to supply more than \$4 million worth of marine air conditioning and ship stores refrigeration for the new Sealift Ship construction program for the Military Sealift Command. Carrier Transcold will supply 35 marine centrifugal chillers and 14 refrigeration plants to a total of seven ships over the next several years.

Each shipset of equipment will include five 435-ton Marine 19XL centrifugal chillers with HFC refrigerant R-134a, which has a zero Ozone Depletion Potential. The 35 units, with special marine features, meet U.S. Coast Guard and ABS requirements.

Bremer Vulkan Shipyard of Bremen, Germany, placed a \$2 million-plus order for custom-designed 17-Series Centrifugal Chillers, also with R-134a, to be installed on a new Costa Cruise Lines ship.

Carrier Transcold was also chosen by Kvaerner Masa Shipyard, in Turku, Finland, to supply four marine 19XL centrifugal chillers with R-134a for a new cruise ship ordered by Laeisz Lines of Germany.

For more information
Circle 58 on Reader Service Card

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Circle 219 on Reader Service Card

Sperry Plans Joint Venture With Chinese Company

A delegation from China recently visited Sperry Marine in Charlottesville, Va. to draft a letter of intent between Sperry and Shanghai Marine Instrument Co. This was the planned next step in joint venture negotiations that Sperry Marine Chairman **John F. Lehman** initiated earlier this year in Beijing.

The joint venture will permit Sperry to build on the company's recent commercial sales and manufacturing progress and make available the advanced quality and high technology products manufactured in Sperry Marine's Charlottesville plant in the expanding Chinese maritime navigation equipment market.

For more information on Sperry
Circle 60 on Reader Service Card

British Maritime Technology Enters Technical Merge Agreement

British Maritime Technology Ltd. (BMT) and the Defense Research Agency (DRA) entered a long-term agreement to merge and jointly operate their technical resources for the hydrodynamic modeling of ships, underwater vehicles, marine structures and other specialized applications. The joint operation will include all hydrodynamic model making, measurement and analysis, will be centered on the DRA Haslar site at Gosport (Hants) and will be operated as the Haslar Hydrodynamic Test Center.

Under the agreement, a combined specialist team will manage and develop the comprehensive hydrodynamic testing facilities at DRA Haslar which will be supplemented by the relocation of hydrodynamic test equipment operated by BMT at Teddington.

For more information on BMT
Circle 66 on Reader Service Card

Seaward Awarded \$3.32 Million Contract To Operate, Maintain Air Force Vessels

Seaward Services, Inc. was awarded a five-year, \$3.32-million federal prime contract by the 325th Contracting Squadron of Tyndall Air Force Base to provide for the operation and maintenance of three 120-ft. (36.5-m) high speed missile retrievers and two 24-ft. (7.3-m) range clearance vessels. Seaward Services provides a variety of marine, engineering and technical support services to the Naval Surface Warfare Center (Ft. Lauderdale, Fla.), the Naval Undersea Warfare Center (Newport, R.I.) and the U.S. Environmental Protection Agency (Chicago).

For more information on
Seaward Services
Circle 63 on Reader Service Card

ABS In Agreement With USCG On Passenger Vessels

The American Bureau of Shipping (ABS) entered into an agreement of cooperation with the U.S. Coast Guard (USCG) to facilitate satisfactory control verification examination of foreign-flag passenger ships — ABS-class ships carrying more than 36 passengers — which

intend to trade in U.S. territorial waters.

"This is another in a long line of working arrangements between ABS and the USCG aimed at improving safety and administrative efficiency to the benefit of the marine industry," said **Robert Somerville**, ABS president.

Under the terms of this agreement, ABS will verify compliance with applicable USCG standards

during the design, plan review, and inspection phases of foreign-flag passenger ship construction or conversion projects. ABS will act as a single point of contact for the shipyard and owner while the USCG will maintain oversight. The direct line of communication and cooperative effort is designed to facilitate USCG acceptance.

For more information from ABS
Circle 64 on Reader Service Card

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Circle 202 on Reader Service Card

Romanian shipbuilding & design: Business is looking good

Icepronav is focal point of Romanian shipbuilding

by Kathleen Gleaves, contributing editor

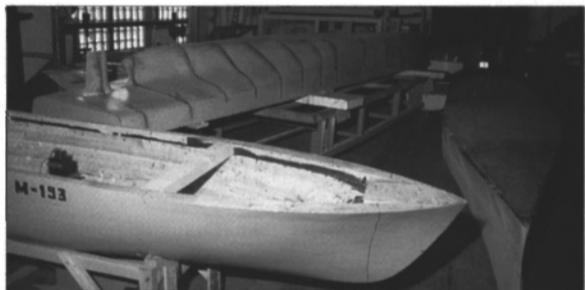
Forty years of Communist rule has left Soviet-dominated countries grappling with the free-market concept, but Romania has embraced its new freedom with true entrepreneurial zeal. Five years after the revolution, the country is eager to enter the world business market in perhaps its strongest suit, shipbuilding and design.

The Eastern block, along with a few countries straddling the socialist wall, kept Romanian shipbuilding at the peak of production during the Communist era.

Icepronav, S.A., the research and design institute for shipbuilding, played a vital role in the country's success.

The former director of shipbuilding for the Romanian government, **Gelu Kahu**, founded the Institute in 1966 and serves as its chairman today. Mr. **Kahu** worked for many years to convince his government of the need for such an all-encompassing institution.

He was the driving force behind the growth and diversification that led to Icepronav's current incarnation as one of the most unique de-



The Institute's model shop constructs wood and/or paraffin wax models for use in its test facilities.

sign, research and test facilities in the world. Its new general manager, Dr. **Jean Sever Popovici**, shares Mr. **Kahu's** confidence and enthusiasm for both the Institute's and Romania's future in the shipbuilding industry.

An educational/exchange arrangement with an engineering school in Trieste, Italy, gives Romanian engineers the opportunity to augment their education. In exchange, the Institute provides mentors and test facilities for student research. Many innovations in ship design have resulted from this partnership.

Icepronav employs a staff of 700, most of them licensed professional engineers, many of them holding doctorate degrees in marine engineering and naval architecture.

The diversified staff offers complete design documentation, specification drawings, working drawings and as-builts.

It also maintains a complete research and test facility consisting of two towing tanks, a maneuvering and seakeeping tank, a cavitation chamber, a wind tunnel, a fire testing lab and a noise/vibration lab. In addition, it has its own model shop and foundry constructing both hull and propeller models.

Test engineers work closely with design engineers. Design faults or areas for improvement are readily recognized during testing, and corrections can be made immediately via their computer design system. Their computer research and design capabilities are derived in part by the use of the TRIBON program from Kockums Computer System (KCS).

Designers select from a massive data bank of manufacturer-specific equipment and materials when selecting cables, piping, frames, motors, etc. The construction yard merely notifies the institute of its standard vendors and the computer will select those products in the design. It will also check to ensure that additional equipment is compatible with that vendor's product specifications. The bottom line: pipes and joints, flanges and bolts, motors and mounts all fit together.

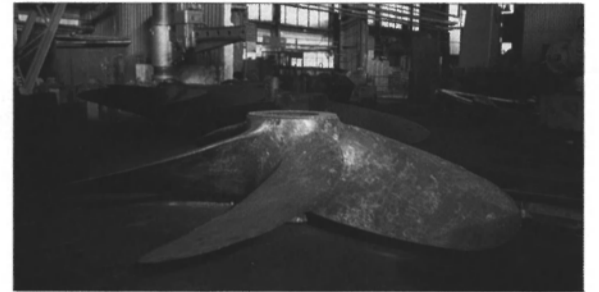
The institute's production list includes more than 3,000 ships. Its design library contains more than 200 different types of vessels, ranging from a 50-ton scow to a 150,000-dwt oil tanker; plus floating cranes, offshore drilling rigs and related marine structures. Not limited to working vessels only, they also design small- to medium-sized cruise ships and passenger ferries.

Ships are designed in accordance with and all existing regulatory bodies; ABS, U.S. Coast Guard, Lloyd's, DNV, et. al.

Tank Tests

Icepronav has been a member of the International Towing Tank Conference since 1990. Once a design is complete, Icepronav's hydrodynamics division enters the project. Models are produced and tested first in the tow tanks where the model's still-water performance is monitored, including wake, resistance and speed field around the ship.

Next the maneuvering tank is employed to check the seakeeping abilities of the vessel. The tank uses two banks of snake-action, wave-mak-



The Galati Foundry next door to the Institute casts the propellers and anchors designed by Icepronav.

ing panels, all computer-controlled and programmed to simulate wave conditions in any part of the world. Ships are tested for bending, sheering and torque under actual working wave conditions. Maneuverability and handling response in zigzag, circles, spirals and pull-outs are charted via strobe photography and stored in a computer for analysis and redesign, if needed.

The cavitation tunnel is used to accumulate data on new propeller designs, as well as verifying the most efficient propeller for a given hull. Not only the functioning of the propeller, but also the forces and moments on the propellers, rudders and nozzles are recorded. Propeller-induced forces on the stern and shaft line are also monitored.

Noise and vibration calculations are an integral part of the design process. Engineers con-

Shipbuilding in Galati, Romania

From the engineering University, to the shipyard itself, Galati is a shipbuilding town. Icepronav provides the design and research technology, and the foundry next door casts the propellers and anchors. The shipyard, situated a few blocks from the Institute, employs nearly 7,000. Additionally, the town ranks first nationwide in iron smelting production, providing the raw material for the shipyard.

Momentarily stunned by the collapse of the Soviet Union, its major foreign customer, and the financial confusion brought on by the country's own revolution, the shipyard has nevertheless quickly recovered. In only five years it is back to nearly full production capacity. Customer today come from Greece, Norway, Belgium, Israel, Italy, China and, slowly, Romania.

Political changes left the yard with several unpaid bills and unfinished vessels for customers who no longer existed. Its own newly-won freedom allowed it to market these ships itself, and most of them have been bought, finished and delivered. In some cases, additional vessels of the same design have been purchased by the new owners, most notably a cargo ship capable of beach landings.

Production Chief Engineer, **Horia Cristea**, points to, among other things, the recently acquired NC plasma cutting machines as evidence of the yard's continuing efforts to maintain state of the art status. Galati lies at the confluence of the Danube River with the smaller Siret and Prut rivers. Just 93 miles (150 km) from the Black Sea, Galati is the largest Romanian port on the Danube.



The Galati, Romania Shipyard.