

Season's Greetings



Merry Christmas and Happy New Year

Sun Ship Log

Volume 6, No. 8

Sun Shipbuilding & Dry Dock Company

December 1972

HUGHES GLOMAR EXPLORER



Mrs. James H. Lovell, spouse of the Hughes Glomar Explorer, holds up the bottle of champagne after successfully recovering the ship's hull during her visit. Mr. Management made her feel very welcome.

Family Day festivities continued around the launching of one of the most exciting ships to be built at Sun Ship in a decade or more. The experienced深水打捞船 HUGHES GLOMAR EXPLORER, a deep ocean mining vessel, was honored. Members of all the construction crews of over 2,000 employees who witnessed the occasion along with many notable guests who came from Texas and California.

Sun Ship is building the vessel for Global Marine Inc., of Los Angeles for their company's use in prospective deep ocean mining operations. With dimensions of 120 ft. in length, 100% R. wide and an overall anticipated draft of 40 ft., the rudder shaft, direct-driven deep ocean mining vessel will

be capable of operating at speeds up to 12 knots.

The later construction stages of the HUGHES GLOMAR EXPLORER—will feature a series of heavy lifts by the deepest of new 2500-ton derrick barges to place in position a number of large structures including the after deck house, the vessel's own dredge system, the heavy rock cutter structure, the A-frame derrick and the topside yard.

The last of the HUGHES GLOMAR EXPLORER was laid on December 9, 1972 and the vessel is scheduled for completion and delivery to Global Marine Inc. in early 1973.



With one eye on the sky, Mrs. Lovell, wife of the owner, the president of Hughes Tool Company, visits the successfully built hull.

*The Officers and Management
of the Company
extend
Our sincere Best Wishes
to each of you and your families
for a
Happy Holiday Season*

Lost Wallet Returns Home Safely

At the end of the day shift, October 13, Robert Bowles (19-1403) was on his way through the parking lot when he spotted a wallet containing \$125. Passing it onto the Guard Department, and specifically Captain Edward Morris, it was later determined to be the property of fellow employee, Gordon Moore (19-1402). He was notified and returned his property.

Without the honest efforts and integrity of Mr. Bowles, this case could not have ended so happily. However, actions such as these by our employees reflect not only personal concern for fellow employees, but concern in setting an example for everyone in our working community.

CONGRATULATIONS.



The Guard Department of the company is a master group in its field in the Port of Philadelphia. One of the main functions of the Guard is to maintain security and safety. As the Guard's primary role is protection and keeping the port area quiet and secure, Captain Edward Morris, Morris, brought these together when the wallet was returned to him.



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THE SUN SHIP LOG

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Smith



Metal Sculptures - Brad & Bev Knowlton



Driftwood - Mr. & Mrs. Eugene Jalbert



Mrs. Margaret Hibbert



Metal Sculpture on canvas - Mrs. Phyllis Rooker

Arts & Crafts



Harry Edmundson



Continuing demonstration in the craft of rug making by J. Gibbs



George Shahadi



Frank April



Bill O'Sullivan



Sculpture - Judy Barnhart



Ceramics - Mr. & Mrs. Ed Larkin

Painting contributors to the clothesline segment of the arts and crafts show were: Bob Lutz, Harry Edmundson, Bill O'Sullivan, Bill McMonnies, Mrs. Phyllis Rooker, Ed Washington, Joseph Ruda, Carolyn Stahl, John Holden, and Charles and Eve Dooley.

Those with table displays were: Thomas Thompson, leathercraft; George Shahadi, Ceramics; Mr. and Mrs. Ed Larkin, ceramics; John "Gabby" Gibbs, punch needle rug work; Jack Knowlton, wood working and carving; Brad and Bev Knowlton, metal sculptures; Mrs. Eugene Jalbert, driftwood displays and ceramics; Mrs. Margaret Hibbert, ceramics; Frank April, glass jars encasing ships; Mrs. Charles Maley, floral displays under glass; Nancy Garber, wood carving; John Laird, jewelry; Eva Hutchinson, needlework; and Judy Barnhart, sculptured Indian head.

These people lent their time, talents, and artistic achievements to the exhibit. All deserve loads of credit and honorable mention for the high quality of their presentations, and the time they devoted to setting up the displays. The pictures here are an attempt to recapture some of the skills represented.

Of the artists, Bill McMonnies had to "borrow" back many of his paintings from

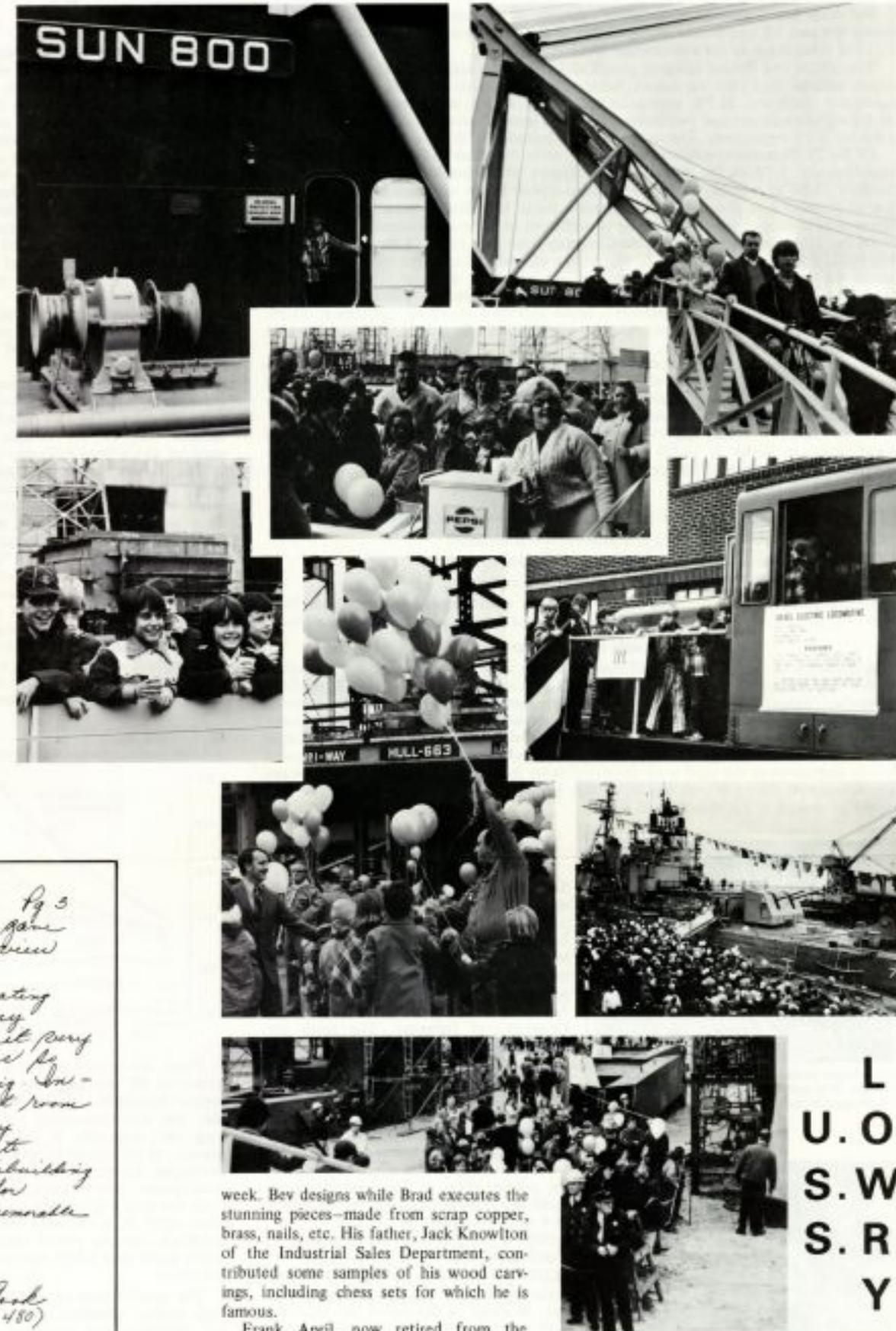
his customers to show the wide range of his talents. One unique aspect of his show was a polaroid presentation showing viewers the steps that went into completing a portrait he was commissioned to do—from start to finish. It added to the dimension of his show considerably—and to the understanding of all of us on the immense work it takes to produce a canvas.

Bob Lutz, a railroad buff and very knowledgeable of his subject, combines his interest and talents in producing watercolor sketches of various famous trains and lines.

Harry Edmundson of the Fab shop was once again present, bringing a new collection of oils and sketches. His work is being seen more frequently, particularly in vari-

FAMILY DAY

Welcome to SUN SHIPBUILDING & DRY DOCK COMPANY FAMILY DAY



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(Continued)
Family Day at Sun Ship was the very first one I have ever attended. I thought everything went along fine, considering the numerous people who came to see so many pieces of machinery. I was amazed at the size of the Hughes Global Explorer. I contend it will be a magnificent ship when it is finished. The trip through the U.S. Survey was both fascinating & informative. My deepest gratitude to the Captain and crew, and especially you, the executives at Sun Shipbuilding & Dry Dock Co., for giving us the opportunity to tour the lovely vessel. However, I thought the

procedure for speculated the Sun 800 was unfortunate. My family & I waited in line for 20 min, then only to wait longer to permit other people, who were already over, off. The boat costed 15 months. I got to frequent, we never did see it. I spent from a picture. Is it possible, please the Sun 800 be available for inspection in the future, to have an "Up & Down ramp". It would permit an even flow of traffic & keep things moving.

The Arts & Crafts at Portion & were simply beautiful. You should encourage more of your employees to participate. Again my thanks

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to those people who gave us the privilege to view their handiwork.

It was so exhilarating especially for me & my family. We enjoyed it very much. Everything was so clean & very inviting. Including the ladies rest room.

Please extend my heartfelt appreciation to everyone at Sun Shipbuilding & Dry Dock Company for making this a most memorable occasion for me.

Sincerely,
Mrs. B. Rooker
(59-480)

week. Bev designs while Brad executes the stunning pieces—made from scrap copper, brass, nails, etc. His father, Jack Knowlton of the Industrial Sales Department, contributed some samples of his wood carvings, including chess sets for which he is famous.

Frank April, now retired from the chipper, but looking younger than ever, brought his glass jugs in which is captured a fully rigged ship. Battery operated, it proved delightful for the children.

John "Gabby" Gibbs developed a following with his punch needle rug work. He covered two tables with his assortment of designs, and standing room only was the order of the day around where he gave demonstrations.

The driftwood collection of Mrs. Eugene Jalbert, who markets her work under the name of "Flora Wood" shows why she is in demand as a lecturer on the subject.

Jewelry hand wrought by John Laird in silver and copper filled another of the display tables.

Nancy Garber contributed a wood carving of a dog, and Judy Barnhart lent her Indian head for the display. Mrs. Eva Hutchinson, wife of H. Hutchinson, displayed a sample of her push pin weaving.

ous Southeast National Bank lobby displays.

Bill O'Sullivan, who was on vacation at the time of last year's art show, occupied a prominent place in this year's show, particularly with his paintings of ships and sea scenes.

Mrs. Phyllis Rooker, wife of Sun Ship engineer Peter Rooker, maintains a small studio of her work in Wilmington. She brought a varied collection of paintings ranging from oils to driftwood to metal sculpture.

Table displays offered a variety of talents. George Shahadi of the Fab Shop, one of last year's repeat exhibitors, showed a

greatly enlarged ceramic collection. He now gives classes on the subject.

Mrs. Margaret Hibbert brought in a well executed display of ceramics, many touching on the theme of this holiday season.

Ed Larkin, who last year exhibited his paintings, entered his wife's ceramic hobby in this year's show.

Tom Thompson's leathercraft exhibit attracted considerable attention, and he was kind enough to supply brochures for those interested in pursuing the craft.

Mrs. Charles Maley's floral arrangements, dried and framed, were an outstanding hit.

Brad Knowlton (of Wetherill) and his wife Bev brought out their metal sculptures which were in another show later the next

Alternative Action — A Look at the Year Past

One year has continued to present opportunity in living and promotion policies during the past 12 months. As of September 10, 1981 the total force included 14,054 with 11,142 of those employed for a percentage of 27.7%.

The office and physical category stands at 14,486 total employees, 25.7% operators, which include plant shop mechanics, temps, handliners, etc., 41.6% laborers, 16.9% apprentices, 11.7% office/apprentice technicians, 11.2% and service workers, 10.8%. At the end of 1980 there were 14,486 total employees, the level of total employment includes 11,142 or 77.3% respectively. The technical level includes 1,316 members.

Of the 27.7% total employees, 27.5% are in the office and clerical and technical classifications, 1.7% in the craftsmen and managers, professionals, technicians, and other classifier 23.8% of industry employees hold positions in the operative levels with a clear line of promotion in their trade's conditions levels. In addition, there are 11 minority apprentices in training programs leading to conditions in technical positions.

Of the 1,316 employees listed in the Company from July 10, 1971 through September 10, 1981, 938 were promoted to 112 levels. As for the official and manager levels, executives accounted for 14 levels and 100% responsibility. In fact there are no field managers, but account for 62 levels from the lowest of element of direction to the highest of management. The technical levels account for 43.3% responsibility, 20.3% operations, 20.2% apprentices, 27.2% temps, handliners, 26.0%, laborers, 24.0%, guards, 20.8% and service workers of 18.8%.

Promotions in the various levels during the above same period resulted 27.6% minority. In the area of skills, 61.1% were promoted from skill 2nd to skill 3rd and 46.6% were promoted from skills 2nd to skill 1st. A total of 20.5% of operative personnel were promoted to the conditions category.

In the ranks of hourly apprentices, 41.6% were promoted from the mechanic I or classification to higher levels, 11.2% from higher I to higher II and no minorities were promoted to the apprentices in technical category.

Condensed Review

For all affirmative action periods 1971-1972 have produced the following results:

- (1) Apprenticeship: Total of 9 minorities accomplished
- (2) Office and physical: Promotion of 20 exceeded by one
- (3) Apprenticeship-laborers: Total of 3 minority accomplished
- (4) Craftsmen: Total of 23.7% did not meet the total minority work force of 27.7%, but 16.9% of new employees were new hires.

Read the New Year

A summary of the 1973-1975 affirmative action plan, you will include a concerted effort of minority advancement. At the present time and after the January levels, we will continue to monitor our operations to further our minorities in every way that we qualified individuals. We will also continue affirmative action within our own apprentices given areas.

Within recent months, the local has developed whereby women are playing a large role in production and professional level jobs. In addition, there has been several female employees in the yard work force primarily in the operative levels. This is a new concept, during World War II, a large female work force kept the supply road supply of materials to the nation's war efforts.

Sum Ship At SHANE

Jeff Darrington, an Ocean Engineer with Sum Ship, is preparing his new career with the shipyard staff in a solid foundation with the presentation of a paper December 11 before the Society of Naval Architects and Marine Engineers (SNAME) San Diego Section and the American Institute of Marine Engineers with Mr. Thomas J. Morris and Capt. Steven L. Innesmith, both of the University of California. The work was done under the auspices of the College of Marine Studies with a field station at Long Beach.

The paper is concerned with the United States fleet of oceanographic ships, which has grown to a significant segment of the national fleet in recent years. The nature of their mission and construction led to the consideration of the offshore supply vessel as a possible hull form for utilization as a research vessel. As a result, the SNAME created a new class of oceanographic research ships, the AMOR (AMERICAN-class). An AMOR ship also can be used well for research vessel work in coastal zones; however, in order to determine the needs for such a vessel in the Mid-Pacific area, two research vessels were selected, the *Researcher* and the *Seafloor*, compiled data from which a suitable hull form can be derived.

A Note Of Appreciation



Special thanks go to those left to right: Eddie Wadsworth, Fred Hopkins, Leon Koff, and Bill Moshier for their contributions to扁平化和改善的 are included here.

The Energy Crisis—How It Relates To Us

By C. Chabot, Economist, B.A.

Today it will be years before the technology is developed to a point where production on a large scale will be economical.

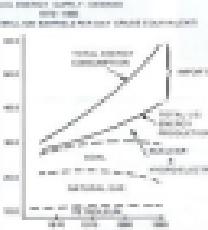
Each day, the fuel used in the country increases in price. The cost of oil is going up, as is the cost of coal, natural gas, and wind. The total consumption of energy is increasing about 1.5% each year due to increasing population and changing standards of living. Many states which are more industrialized consume oil as an commodity, so can pollution control laws cause industrialized locations the most of the population? These "increases" in energy costs

are good, they can bring demand for energy. A strong oil crisis would show they can't win where the fuel is going to come from.

Currently, over 70% of our power requirements come from fossil fuels—oil and natural gas. Other oil and fossil fuel based sources play a small portion of capacity because they are not the primary source of energy.

The United States has an abundant supply of coal, enough to last us 1000 years according to some estimates, but most of it is poor quality, with a high sulfur content which causes air pollution. Our domestic production of "clean" oil and natural gas is expected to remain constant for the next 10 years or so and after that, gradually decline even as oil prices rise.

The electric utility begins to feel the effects of increasing prices as a result of energy conservation and growth in load demand. The following graph depicts the "energy gap" faced by the country.



There are several potential sources of power to fill this gap, but they all have serious drawbacks. Nuclear power is probably the best promising source of energy for the long run, especially if the cost of fuel and labor rates are low, but the cost of building reactors is high and 10 years from now a nuclear power plant will be built until it is in full commercial operation. Atomic power plants produce heat waste heat which can cause thermal problems.

The justification of just producing a high quality automotive fuel gas out of our abundant coal resources, is another potential source of energy. Several test projects are in the development stage now.

Finally, it will be years before the technology is developed to a point where production on a large scale will be economical.

Consumption of solar energy has shown to be small today and is frequently referred to as an inexpensive energy source for the future. The Solar Energy Panel of the White House Science and Technology Office reports that solar energy could be feasible in 10 to 15 years, and that in 20 years up to 20% of our energy supply could come from solar power. This is not to say that solar energy is not a strong candidate for the future.

It appears that there is fuel being produced to meet the needs of the most energy hungry society, but development of the sources is still in the future. Assistant Secretary of Defense Miller told Congress that "...the biggest problem is between now and 1980...". What we need to do is to increase the gap of 10 years from now to 1980. The cost of oil is going to rise, and will rise from imports. We already import about 20% of our petroleum and this is expected to rise to about 50% by 1980. Imports of natural gas are imported from OPEC which now accounts for less than 1% of our supply are expected to become significant in the near future.

Foreign power is used extensively for irrigation, mining, and shipping. Our foreign power has limited supplies, but are easily importable. Adding foreign power costs and import duties, it appears that the price of petroleum derivatives including gasoline and motor oil will increase to the imported OPEC oil will also be considerably more expensive than domestic gas due to the high cost of shipping. Higher required to cover the cost of oil + 20% of import and the cost of moving it to a local plant.

With the "energy gap", will mean higher costs. Domestic shipping in older ships will be more and will expand the opportunity to generate. Since most of the imported oil will come from the Middle East and North Africa, ships are the only feasible transportation method. Even more than conventional tankers are the LNG tankers which will be required to haul the gas to a local plant. Africa may be the first to use the indigenous shale gas required for combustion. U.S. yards can now build these ships at a price competitive with foreign yards.

With these points in mind, it would seem that domestic supply will be no more than one-half of our total power needs. This means that imports will be increased after 1980, unless we can develop other energy sources for certain areas which is predicted. December 10, the Senate had voted against any carbon tax and nothing. Presently is presented to the Federal Finance部 to aid more conserving orders for the military sector.

Project Transition



The first letter from PROJECT TRANSITION lists many possible configurations of SH. Project started in 1970 and its main objective was to develop a system which would allow for the automated handling of 100,000 cubic feet of material per day. The project was to be completed after 10 years, but due to financial difficulties, the project was delayed. In 1978, the project was taken over by a company which is predicted to be completed in December 1982. The project has now been renamed PROJECT TRANSITION. The project is currently in the planning stages and is expected to be completed in 1985.

