THE PIANC NEWSLETTER

Permanent International Association of Navigation Congresses

Spring 1996

Special Features in this Issue:

Lancaster Becomes Chairman, U.S. Section, PIANC p.2
Corps Revetment Program p.3
Wetlands Mitigation Banking Guidance p.4
PIANC Commissioners Visit Vietnam p.6
New Technique in River Engineering p.8

In Each Issue:

Publications p.14
Activities p.16

Notes from the Secretary:

On behalf of the members and staff of the U.S. Section, PIANC, I would like to extend a warm welcome to **Mr. H. Martin Lancaster**. Mr. Lancaster became the Chairman of the U.S. Section, PIANC on January 31, 1996, when he was sworn in as the Assistant Secretary of the Army (Civil Works). A biographical profile of the Chairman is the lead article in this issue of the Newsletter.

It is a pleasure to announce that **Dr. Anatoly Hochstein**, Director, GW/LSU Ports and Waterways Institute, and a U.S. National Commissioner, has agreed to serve as the Chairman of the U.S. Section Congress Papers Committee. Dr. Hochstein will manage the process of obtaining papers for the 29th International Congress, which will be held June 5-12, 1998, in Tangier, Morocco. The Permanent Technical Committees I and II, the Permanent Environmental Commission and the Joint Commission for Sport and Pleasure Navigation will discuss proposals at their Spring meetings. The Executive Committee will consider the list of subjects at its meeting on March 5, 1996. In May, the final list will be submitted to the Permanent International Commission for approval. Additional information will be forthcoming.

Planning for the one day workshop on **Vessel Traffic Conflicts on Waterways Used by Recreational Boaters** has been completed and registration information was mailed early in February. **Mr. Richard Dornhelm**, Chairman of the Organizing Committee, has developed an outstanding program and assembled a list of knowledgeable speakers. News of the workshop has generated a great deal of interest. If you would like additional information, please contact the Office of the U.S. Section, PIANC.

Announcement of the PTC II working group on fendering resulted in a response from an unusually large number of well-qualified members who are interested in the subject of the working group. **Mr. Mark T. Faeth**, P. E., Partner, Han-Padron Associates, was selected as the U.S. Section representative to the working group. We hope to have a strong U.S. Section subcommittee composed of those members who wrote expressing their interest, as well as others who may want to join the effort.

Thomas Ballentine
Secretary, U.S. Section, PIANC

The U.S. Section, PIANC *Newsletter* is published quarterly by the U.S. Section of the Permanent International Association of Navigation Congresses. Send address corrections or other correspondence to DuWayne A. Koch, Editor, U.S. Section, PIANC, ATTN: CECW-PK, 20 Massachusetts Ave., NW, Washington, DC 20314-1000, or telephone (202) 504-4312. The *Newsletter* is an independent publication of the U.S. Section, PIANC and does not necessarily represent the views of the Army Corps of Engineers or any other agency of the United States Government.

H. Martin Lancaster Named Chairman, U.S. Section, PIANC

H. Martin Lancaster became the new Chairman of the U.S. Section, PIANC when he was sworn in as the new Assistant Secretary of the Army for Civil Works in a private ceremony on January 31, 1996. Mr. Lancaster was a Special Advisor to the President and Director of the U.S. Arms Control and Disarmament Agency on the Chemical Weapons Convention.

H. Martin Lancaster is the new Assistant Secretary of the Army (Civil Works)

As Assistant Secretary, Mr. Lancaster will be responsible for the Department of the Army Civil Works program for conservation and development of the national water resources; policy and program direction of Arlington National Cemetery and the Soldiers' and Airmen's Home National Cemetery; U.S. Army Corps of Engineers civil works program support for other Federal agencies; and program direction of the Corps' foreign activities, except those exclusively in support of United States military forces abroad. At the direction of the Secretary of the Army, Mr. Lancaster also will carry out functions assigned to the Secretary by the Secretary of Defense relating to the Panama Canal Commission and oversee the Panama Canal Treaty Implementation Plan.

Dr. John H. Zirschky, the Acting Assistant Secretary for Civil Works since February 1994, will serve as Mr. Lancaster's Principal Deputy.

Mr. Lancaster served as a Member of the U.S. House of Representatives from 1987 until 1995. Following his time in office, he served as a Special Assistant to the Governor of North Carolina, his home state.

Mr. Lancaster graduated from the University of North Carolina at Chapel Hill in 1965 and received a law degree from the University of North Carolina Law School in 1967. After his release from active duty with the Navy, Mr. Lancaster returned to his home town of Goldsboro, North Carolina, and entered a private law practice.

In 1978 he was elected to the North Carolina House of Representatives, where he served until his election to the U.S. Congress. In his second term, he chaired the Committee on Highway Safety, and in his third and fourth terms, the Judiciary Committee. During his last two terms, he was rated by the North Carolina Center for Public Policy Research as the fifth most effective member of the House of Representatives.

In 1989, Speaker of the House Tom Foley appointed Mr. Lancaster as the House Observer to the Chemical Weapons Negotiations in Geneva. He was a frequent visitor to Geneva, met often with participants in the talks in Washington, and wrote and spoke frequently on the chemical weapons issue.

Mr. Lancaster is married to the former Alice Matheny, and they have two daughters, Ashley and Mary.

Corps Revetment Program-- Taking a Bite out of Sloughing Banks

By Karen Magruder

Add a little butter and syrup and you'd think you had oversized waffles. That is, until you attempt to slice off the first bite and realize the squares are steel and concrete.

You have just experienced a culinary encounter with some of the oldest work within the U.S. Army Corps of Engineers. The Mississippi River bank stabilization program, otherwise known as the revetment operation, was in its infancy before the Civil War and matured in the ensuing years.

Revetment is an engineering process of overlaying banks of the Mississippi River with material to prevent the water from eating away at the slopes. For centuries before the Corps program began, trees, parts of towns and levees fell prey to the river currents.

"In the late 1800s and early 1900s, most of the mat was created from willow trees which became more and more difficult to obtain and labor was scarce," said Dennis Norris, chief of the mat sinking unit.

In the 1800s, engineers experimented with woven willow mat and "fascine-type" bundles of parallel willows held together by poles and wire.

"The mat required weights to anchor it and hold against the force of the river," Norris said. "Fabricating and sinking willow mats was labor intensive and sometimes had limited success in harnessing the tremendous forces of the river."

By 1917, the willow branch mats had been replaced with the first successful use of articulated concrete mattress or flat slabs of concrete wired together.

"When you see a stack of mat, you are only seeing one of several phases to the operation," Norris said. "A contractor on shore casts the mat at our fields in Richardson, Cates, Greenville, Delta and St. Francisville."

From the casting field, the mat-loading unit places the mat onto barges for the trip to the work site. At the site, the barges are moved into place as needed for the mat-sinking unit to begin the sinking operation.

Additionally, the bank grading unit prepares the riverbank before the mat is placed. Dozers prepare the shoreline above the water level and a barge-mounted dragline smooths out the underwater surface in preparation for the mat placement.

Specially designed traveling gantry cranes move the mat in 4- by 25-foot sections from the supply barge and place them on the fabrication barge for workers to make into a 140-foot-wide mat.

The towboats, Motor Vessel (M/V) Benyaurd, M/V Mississippi, and the M/V Lipscomb, push the barges to the work site and the M/V Harrison places them into position.

The unit also has the equivalent of a floating hotel so the men can work 10-hour shifts for 12 days, then go home for two days. A fully staffed galley prepares and serves meals throughout the day and night shifts.

"This is seasonal work during the low-water periods of the year," Norris said. "Some of the areas we work are so far removed from civilization, it wouldn't be practical for the people to attempt to sleep ashore."

"Our work this year began at River Mile 954 near Cairo, Illinois, on August 1 and will continue through mid-November, taking us all the way to the mouth of the Mississippi River below New Orleans, Louisiana.," Norris said. "In addition, we will spend several weeks on the Atchafalaya River."

Although much of the work goes on just as it has for years, there are some changes under way. The Corps, on a nationwide basis, is moving to the total quality management philosophy of doing business better, cheaper, and faster. Partnerships and cooperative agreements take the limelight in today's operational lingo.

For instance, during last year's off season, the revetment operation's living quarters were moved to Greensville, Mississippi, following the ice storm in February. The Mississippi Power and Light Company reimbursed the Corps for its crew quarters. This kept emergency powerline repair crews from driving up to two hours away from the work area for showers and sleep.

For years, the mat was smooth on the surface. The Corps is currently testing a rough-surfaced mat for environmental reasons.

From early testing, the rough surface appears to encourage aquatic life in the river ecosystem. The roughness creates a new niche for creatures to hide, even in areas of the river where the current often runs fast.

The revetment operation is one of many methods the Corps of Engineers is working on to meet the changing pallet of American needs.

Federal Wetlands Mitigation Banking Guidance Finalized

by Dr. Robert Brumbaugh

Five federal agencies have finalized guidance for **wetland mitigation banking**. This is an important new form of providing compensatory mitigation for permitted adverse impacts to wetlands and other aquatic resources.

The guidance, released in the November 28, 1995, **Federal Register**, represents the consensus of the Department of the Army (Army Corps of Engineers), the Environmental Protection Agency, the Fish and Wildlife Service, the Natural Resources Conservation Service, and the National Marine Fisheries Service.

A wetland mitigation bank typically involves a relatively large block of wetland or a suite of wetland sites where wetland functions and values have been produced (referred to as credits) through restoration, enhancement, creation, or in exceptional circumstances, preservation of a wetland. These credits can be used to compensate for unavoidable wetland losses due to developments on wetland sites (e.g., harbor dredging or disposal of dredged materials). Basically, the bank can compensate (provide mitigation credits) for multiple development projects off-site.

Mitigation banks provide:

- An alternative to mitigation at the site of the development project. Regulatory and resource agencies support wetland mitigation banking because it may provide environmental benefits not provided by individual, piecemeal mitigation projects.

- Larger wetland areas than individual mitigation projects. In many cases, these are better ecologically and better in terms of planning.

- An alternative to the "postage stamp" nature of many individual mitigation projects. Advantages to regulators include increased efficiency in review and compliance monitoring of mitigation projects. Advantages to permit applicants who need to provide compensatory mitigation can include reduced and more certain mitigation costs and elimination of a "double permit" process.

- An opportunity to facilitate watershed-based wetlands planning.

The guidance affirms the federal agencies' strong support for mitigation banking as an important

opportunity for achieving the Clinton Administration's Wetland Plan. It fully promotes and encourages mitigation banking in the private sector and endorses a watershed-based approach for integrating mitigation banking goals and objectives with local needs.

While the guidance is specific on key policy issues at the national level, flexibility has been maintained to allow field regulatory offices latitude in interpreting the guidance to address local needs and interests.

The guidance was partially based on the findings of the National Wetland Mitigation Banking Study being conducted by the U.S. Army Corps of Engineers Institute for Water Resources. The first phase of the two-phase national study focused on a review of mitigation banking as practiced to date. The results of that study have been presented in a series of six reports. The current phase of the study focuses on commercial mitigation banking, watershed-based wetlands planning, and development of technical tools to assist implementation of banking.

The concept of mitigation banking is rapidly gaining acceptance across the country and the finalized mitigation banking guidance would enhance this. In mid-1992, there were about 40 wetland mitigation banks, most of which were less than five years old and sponsored and used by state highway departments. Several were sponsored by port authorities. Almost all ventures were developed with the intention of being used by the sponsoring entity. Today, the number of banks easily exceeds 200.

Few banks were developed to provide compensatory mitigation for general development needs, until the last two years. Most applicants for permits to develop wetland parcels were not able to use banks unless they had the interest, time and funds to set up a bank for their own use. Thus, the opportunities for better and more economical mitigation were lost to most wetland permit applicants. These banks are referred to as "commercial banks."

The first privately-sponsored commercial bank was permitted by the Corps in December 1992. Now almost a dozen privately-sponsored ventures offer compensatory mitigation credits.

There are also numerous ventures sponsored by public agencies for non-profit organizations that offer to provide (i.e., sell) compensatory mitigation credits. Public agencies typically are interested in sponsoring banks for use by the general public as a means to lessen the mitigation obstacles to development such as lower mitigation cost and red tape. Public agencies may also see banks as a way to achieve regional or local wetland goals.

Non-profit, non-governmental organizations have become very interested in banking. They see providing compensatory mitigation supply as a way of financing and furthering their particular natural resource conservation goals. The new Federal mitigation banking guidance provides both public and private entities the opportunity to explore innovative arrangements to expand the opportunities for successful compensatory mitigation.

For more information on the Federal Mitigation Banking Guidance and the National Study, please contact Dr. Robert Brumbaugh, manager of the National Wetland Mitigation Banking Study at (703) 355-2370.

Wetland Mitigation Banking Session

The U.S. Section, PIANC will sponsor a session on "Wetland Mitigation Banking" at the Transportation Research Board's Summer Meeting in Long Beach, California, on July 17, 1996.

Organized by the Corps of Engineers' Institute for Water Resources (IWR), the session will focus on

port experiences with this natural resources management concept and on new opportunities. IWR has been conducting a National Study of Wetland Mitigation Banking and has assisted in the preparation of Federal Guidance for Mitigation Banking (finalized on November 28,1995, in the **Federal Register**--see previous article).

This session will have two panels. The first panel will focus on specific experiences for the Ports of Long Beach and Los Angeles and lessons learned by the California Department of Transportation. A second panel will focus on the relevance of the new Federal Guidance on Mitigation Banking and new trends in entrepreneurial banking. The session will end with a roundtable discussion on the opportunities provided by banking.

For more information, please call the session organizer and manager of the National Wetland Mitigation Banking Study, Dr. Robert Brumbaugh at (703) 355-2370.

PIANC Commissioners Visit Vietnam

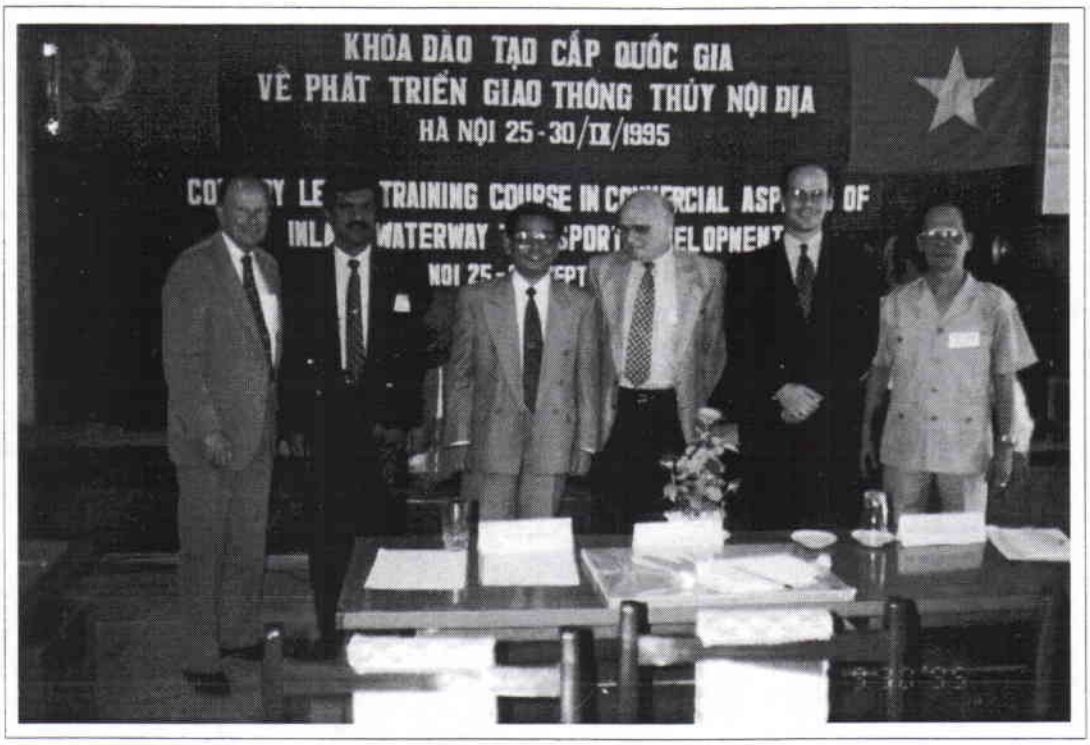
by Mr. Charles Lehman

In September, a group headed by Dr. Anatoly Hochstein of the George Washington University/Louisiana State University National Ports and Waterways Institute, along with Charles Lehman, both national commissioners of PIANC, and Paul Kent went to Vietnam under the auspices of the United Nations. They delivered a series of lectures on the commercialization and privatization of their inland waterway system.

The country of Vietnam is a little less than one-half the size of the state of Texas in area, but contains four times more the amount of people, or 72 million persons. It has over 2,300 rivers and canals, totaling about 42,000 kilometers (km) in length. Of these waterways, some 7,000 km are considered registered and managed for navigation.

All of the navigable channels are basically operated in natural conditions with little or no man-made infra-structure improvements. Although commodities are transported on the navigable rivers year round, operating conditions change depending upon the time of year.

The two main river areas are the Red River



From right to left: Charles Lehman, Vice President, American Commercial Barge Line Company; Captain Augustine Aebello, Maritime Expert, United Nations Economic and Social Commission for Asia and the Pacific; Dr. Ngo Xuan Son, General Director, Vietnam Inland Waterway Bureau; Dr. Anatoly Hochstein, Director, National Ports and Waterways Institute, Louisiana State University; Paul Kent, Associate Director, National Ports and Waterways Institute, Louisiana State University; Dr. Le Dinh Doanh, Director of Science and Technology Department, Vietnam Inland Waterway Administration.

and Thaibinh systems in the north and in the southern part of the country in the Mekong River and Dongnai River systems. Vietnam is basically a long, narrow country with the rivers in the center portion being fairly short with a rapid elevation slope. Except for very limited distances, navigation inland is not possible in the middle of the country without major costly improvements.

River navigation, however, has been a major means of transport in Vietnam for centuries, especially in the far north and the southern Mekong Delta area. Currently, about 20 million tons are being transported annually.

In the south of the extensive Mekong Delta, the tonnage carried by waterway is up to 70 percent of the total. The main commodities being transported include coal, cement, aggregate, agricultural products such as rice, fertilizer, petroleum products, and general cargoes.

Containerization is growing rapidly in Vietnam. In 1995, they moved about 36,000 TEUs, and expect a fourfold increase by the year 2000. Additionally, they have transported about 195 million persons and expect that number to be over 200 million by the year 2000.

The depth of water in the Red River system averages from 1.0 to 2 meters a month, and can rise to over 5 meters in depth, and even higher levels in the upper reaches. The waterway, which includes the City of Hanoi, the capital of Vietnam, uses relatively small equipment. Most barges have a capacity of about 200 tons. They are usually formed in tows made up of four barges pushed by a towboat of 135 to 150 horsepower. They are overhauled at about 20,000 hours, and at 40,000 hours are scrapped and replaced. The engines usually run about 1,500 hours annually, or one-fifth the average time for United States river towboats.

In the south of Mekong system, the average depth is between 3.5 and 4 meters. This waterway includes the city of Ho Chi Minh City, formerly Saigon. The barges operated in this area have a maximum capacity ranging from 600-800 tons. Water fluctuations are less in this area than they are in the Red River.

In 1993, Vietnam established an Inland Waterways Bureau under the Ministry of Transport. The country has also developed a long-range plan for the internal waterways. Included is elimination of a governmental subsidy program, and the commercialization or privatization of federally-operated inland transport enterprises.

Part of Vietnam's master plan for implementation includes upgrading certain waterway segments to assure project depths and channel widths, improvement of navigation aids, training personnel, modernizing terminals, and implementing laws governing the inland waterways.

The planning estimate for tonnage carried on the inland waterway system is expected to double by the turn of the century to about 40 million tons. By the year 2010, the Vietnamese expect their waterways will carry six times the present tonnage, or 120 million tons.

Many of the most ambitious plans cannot be executed by the government due to the lack of funds. The Vietnamese are seeking private investment for equipment and facilities in their country to be able to reach the goals they have set.

Moving from a labor intensive management structure of operations into one of new technology and modern labor saving devices will change many existing cultural practices in Vietnam. It will be exciting to observe as this country moves from an emerging economy to one fully competing with the rest of the world.

For additional information, please contact Mr. Charles Lehman at (812) 288-0553.

St. Louis District Develops New Technique in River Engineering

By Karen Chaney

A new technique in river engineering developed by the Corps of Engineers' St. Louis District will be used for the first time on the lower Mississippi River.

Corps of Engineers officials plan to award contracts next summer for the construction of six bendway weirs at Victoria Bend just north of Rosedale, Mississippi.

The bendway weir is a low-level, totally submerged rock dike that is positioned from the outside bankline of the river bed, angled upstream toward the flow.

The technique was developed by an engineer at St. Louis District, who tested his design through model studies at the Waterways Experiment Station in Vicksburg. It was first applied in 1989 at Dogtooth Bend in Missouri and later at three other locations on the Upper Mississippi River.

"We used revetments to stabilize the banks in the river bends, and they stop lateral migration of the river," explained Phil Combs, acting chief of the Vicksburg District's River Stabilization Branch. "But, by diverting its lateral energy downstream, the channel begins to deepen and point bars form, encroaching into the navigation channel. This results in a very narrow, deep channel and the bends become very tight."

The narrow channels and swift currents cause barge tows to use a maneuver called flanking to navigate the bends. Flanking requires a series of engine thrusts against the current that pivots the tow through the bend.

During peak activity periods, having to flank around a bend can cause traffic delays of as much as 12 hours and long lines of waiting barges at the bottlenecks.

"The intent of the bendway weir is to normalize the channel so it is not so deep and also to widen the channel to allow tows to drive through the bend instead of flanking," Combs said. "Anytime a pilot can drive through, it saves time and fuel, and it's safer also."

The weirs alter the spiraling action of the secondary currents. This not only controls excessive channel deepening but reduces outside bank erosion and eliminates the need for dredging the point bars.

The design used at Dogtooth Bend caused the channel to widen an average of 200 feet in the two months following construction. The swiftness of the river slowed considerably and towboat pilots reports marked improvement in maneuverability.

At this point, Combs said, plans are to build six weirs in Victoria Bend 20 feet below the low-water mark. The technique calls for using a dragline to place the rock several feet upstream and allow the rock to drift downward into the desired position.

But, he added, the Corps is working with the Lower Mississippi River Commission to develop plans and specifications that will allow traffic to pass with a minimum of disruption and still place the rock efficiently and effectively.

Combs also said an advisory group is being formed composed of Lower Mississippi Valley Division personnel, St. Louis District personnel and personnel from the towing industry to oversee the development of the specifications for the work.

"We are trying to draw the plans to minimize the short-term impact and still achieve the long-term benefits," Combs said.

For additional information, please contact Karen Chaney at (601) 631-5053

Dredging Projects Take on New Look

As the needs of government- and privately-funded dredging projects change, the dredging industry is responding by developing new techniques and technologies to meet those needs.

One change in the dredging industry pertains to the scope of work in a number of non-navigational dredging projects designed to enhance the way of life and the aesthetics of the environment. Nowhere is this more visible than in the explosion of new shoreline renourishment projects.

A good example is the T.L. James Marine Group's Duval County Beach Renourishment Project, which required the placement of 1.24 million cubic yards of sand over a 6.4-mile stretch, covering Jacksonville Beach, Neptune Beach, and Atlantic Beach. It incorporated innovative dredging techniques and environmental safeguards that a few years ago were unimaginable.

For this project, material had to be retrieved from an offshore borrow area, hauled eight miles to a near-shore site, and pumped onto the beach. Gulf Coast Trailing's hopper dredge, "Ouachita," got to use its new pump-out system. To maintain dredge position, the crew employed a floating hose discharge system with a single-point mooring system. This required custom manufacturing of the floating hose as well as the mooring anchors. This type of effort, once seldom used, is now becoming the norm for hopper dredge beach nourishment projects.

The protection of land structures has become a predominant issue of concern when using heavy machinery. To ensure that no structural damage occurred from dredging during this beach replenishment project, vibration monitoring tests. Prior to construction and again upon completion, 464 structures were inspected to ensure that no damage had occurred. In addition, seismographs equipped with a dual-alarm system were used to monitor vibration levels in front of each structure. As a result, homes and businesses were spared any impacts from the dredging equipment.

Merely placing sand on the beach is not sufficient anymore to ensure the longevity of a newly installed beach. For this project, sand trap fencing and sea oat seedlings were used as extra measures to retain the sand.

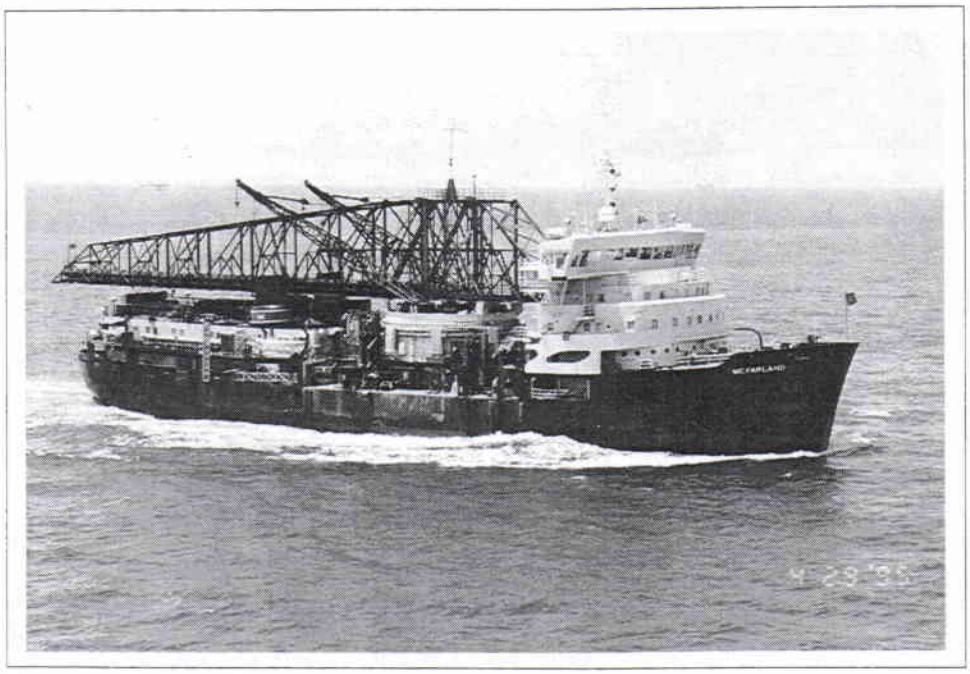
To perform the work with minimal disruption to marine life, the crew monitored the beach daily to detect the presence of sea turtle nests and relocated any built within the work area. During the May-August nesting season, 26 nests containing 3,000 eggs were relocated. Upon completion of the fill operations, T.L. James had the entire beach tilled to a depth of 36 inches to ensure that the soil was not too compact for the turtles to lay nests again next season.

*(Condensed from an article in the **Journal of Commerce**.)*

Dredging--Not an Easy Occupation

by Joseph P. Villard

Today's dredge and merchant ships are manned by officers and crew members with similar backgrounds. They either go to maritime colleges to obtain a deck or engine license or down to the sea in ships at a young age to gain the skills necessary for a job in the dredging industry.



Dredge Ship McFarland

Shiphandling a dredge ship in narrow channels is not a vocation for the faint hearted. It is a skill that requires years of experience. The officers who start out on the bridge of a dredge ship at a young age are usually better suited for the hazards and close quarters situations that seasoned dredge masters and mates take for granted.

The dredge master/mate must be a skilled seaman, navigator, pilot, and mechanic. Each project the master/mate is assigned is different and must be carried out safely and efficiently. Tides and currents, bottom hazards and ship traffic must be considered, as well as prevailing winds, fog, seasons and items listed in the coast pilots. These must all be studied before the dredge arrives on the dredge site.

Getting to the dredge site may include a trip across the Gulf of Mexico, or any other large body of water. This is where the dredge master/mate becomes a navigator. In this day and age of global positioning systems (gps), navigation is a simple matter of inserting waypoints into your global positioning systems computer. Most dredge masters/mates still pride themselves on their navigation skills and back up the gps with the old fashioned method of using the sextant.

Once the master/mate gets to the dredge site, he must shift into the pilot mode. Unlike his deep-sea counterpart on a merchant ship, who takes on a state or Federal pilot when entering a harbor, the dredge master is usually the pilot himself. Piloting is a skill that a good dredge ship master/mate must have, because he must meet, cross and overtake large merchant ships, tugs, tows and a myriad of small craft.

A dredge master/mate must know the local courses and depths of water without referring to a chart. A dredge master/mate has to be able to communicate on a ship-to-ship VHF radio with other pilots, who may reference their position in a manner not readily indicated on the chart or from a chart one hundred years old. Stuttering or stammering that you didn't understand his request or intent will not sit well with the local pilot maneuvering a 1,000-foot bulk carrier and drawing 45 feet of water in a narrow part of the river, when you're in his way.

Dredging assignments are always a challenge. The Lower Mississippi River is probably the most difficult area I have ever dredged when considering the river current in the early spring, and the magnitude of traffic. Huge bulk carriers come steaming down the river with maximum draft, and sometimes, with borderline control. There is always traffic on the Mississippi River and dredge ships are placed in areas where there

is little maneuvering room, or room for error. One mistake and you could end up on the nightly television news.

New York Harbor has a vessel traffic system in place, and all vessels are responsible for reporting their positions at different reporting points. Awareness is the key to dredging New York Harbor. Unlike the Mississippi River where the traffic is either up or down, New York has traffic coming from every direction. Local knowledge is essential in New York, since swimming pools are referenced, sea buoys go by names that were used eons ago, and shoal names are used that no longer exist on the charts.

New England channels are unforgiving. If you touch the bottom or side of some of their channels, you can have a hole in your ship.

The old timers in the dredging industry have a saying-- "Once that mud gets in your blood, you're hooked." For a deck officer, working on a dredge ship can be fun if you have the right stuff. Sure, it can be boring and terrifying at times, but it's always interesting.

(Mr. Villard is the master on the **McFarland**, a dredge owned and operated by the U.S. Army Corps of Engineers, Philadelphia District.)

Waterway's Impacts on Local and National Economy

Research recently completed by West Alabama University at Troy State University and commissioned by the Tennessee-Tombigbee Waterway Development Council estimates that over 43,000 new jobs exist today because of the waterway. These jobs generate about $1.2 billion of additional wages or compensation each year. This significant economic impact is felt in the immediate project area, the four-state waterway corridor, and throughout the nation.

Although substantial, these estimated employment impacts are very conservative, since the research was based solely on data received from individual companies and other users of the waterway. It is difficult to establish all the waterway users since much of the commerce is through traffic affecting a very large region of the nation and some of the identified users did not respond to the survey.

Development benefits of this nature are considered an indirect but important benefit of waterways such as the Tenn-Tom. Established Federal policies use only the savings in transportation costs realized by shippers and the recreational use generated by the project to determine the economic feasibility of the waterway. However, the creation of new jobs and related growth are now a dominant policy concern of national, state, and local governments because of the emerging challenges of effectively competing in a global economy. Funding for public works projects like the Tenn-Tom is one of the few government investments that generate economic benefits and improve the quality of life for this and future generations.

The waterway's other benefits are also noteworthy:

- Commerce has grown each year since its completion, reaching nearly 8 million tons in 1994.
- Recreation and tourism total nearly 2.5 million visitor-days of use annually, which generates nearly $170 million of additional economic spending each year.
- The waterway has also attracted nearly $2.5 billion of private investments in new and expanded industries and related development.

The Tenn-Tom is a long-term investment, in its early stage of development. It still offers great potential for continued growth in its impacted region and the nation.

PIANC Commissioners Honored

Two PIANC Commissioners were recently honored by the National Waterways Conference (NWC).

At the NWC's annual meeting last fall, President Harry S. Cook, PIANC Commissioner Emeritus, was honored for his "leadership and vision" in promoting the inland waterways system. Mr. Scott Robinson, Muskogee Port Director said, "His dedication and commitment to the cause of the National Waterways Conference is exemplary. For a long period of time, Harry has been our quarterback on offense, championing expansion legislation, and our playmaker on defense, battling the imposition of user fees."

Mr. Charles F. Lehman, a National Waterways Conference Vice-President and a PIANC Commissioner, received the National Rivers Hall of Fame Achievement Award. Mr. Vern Siegworth, President of the National Rivers Hall of Fame, described Mr. Lehman as "one of the few waterway industry leaders who has a good understanding of waterway operations of the barge industry and of the Washington political environment."

PIANC Member Dies

Austin E. Brant, Jr., retired President and Chairman of TAMS Consultants, Inc. and past President of the New York Association of Consulting Engineers, died at his home in Long Island, on January 11, 1996. A registered professional engineer in 28 states, Mr. Brant was a key figure in the engineering of ports, harbors and marine facilities and in the planning and design of transportation facilities throughout the world. He was a member of the U.S. Section, PIANC for many years.

International Travel on the Internet

by DuWayne Koch

The December issue of the **Government Executive** contains a very useful article for international travelers. Titled "Travel Goes On-Line" by Robert F. Agnew, the article provides an excellent summary of various sources of information available on the Internet. It includes everything from diseases to site descriptions and entry requirements for more than 160 countries.

Here are some of the best entries:

The Center for Disease Control
(http://www.cdc.gov)
Call up your country of interest and you'll get a list of diseases associated with that particular country, along with information on risk assessment and prevention.

The CIA Fact Book
(http://www.odci.gov/cia/publications/95fact/index.html)
This is a basic **World Book Almanac** on just about every country in the world. It includes climate, population, economy, and what places to visit.

U.S. State Department Travel Advisories
(http://www.stolaf.edu/network/travel-advisories.html)
This is the source which includes information on 160 countries and describes entry requirements, travel conditions, available medical facilities, areas of instability and more.

Mr. Agnew advises his readers not to skip the drug penalties topic and "warns travelers of drugs that may be in common use at home but are not acceptable in the country of travel. For example, the site informs travelers that attempting to carry Sudafed cold medicine or a Vick's inhaler into Japan could cause problems with entry."

The article also describes comparable information supplied commercially, by transportation companies, and by visitors bureaus. If you would like a copy of the **Government Executive**, write to: Government Executive, 1501 M. Street, NW, Suite 300, Washington, DC 20005.
And yes, it's on the Internet: govexec@tmn.com

PIANC Bulletin 1996 Publication Schedule

The PIANC Bulletin Editing Committee:

Bulletin 92 PTC II - "Shore-based Pilotage"
Articles submitted by U.S. Section members must reach the Publication Committee by 1 March 1996 and Secretariat by 1 April 1996.

Bulletin 93 SPN - "Economic Impact of the Introduction of Pleasure Navigation"
Articles submitted by U.S. Section members must reach the Publication Committee by 1 June 1996 and Secretariat by 1 July 1996.

Members may submit articles on a PEC theme of Environmental Management and Risk Analysis at any time; however, there is a six-month delay before publication, pending Editing Committee approval.

WES Offers Coastal Engineering Education Program

The third session of the Coastal Engineering Education Program will begin in August 1996. The one-year program, held once every three years, provides students with the basic academic coursework and practical training essential for solving modern-day coastal engineering problems.

The program is offered through the U.S. Army Engineer Waterways Experiment Station (WES) Graduate Institute jointly by Texas A&M University and WES Coastal Engineering Research Center. A Master of Engineering will be awarded upon successful completion of the program.

Interested Corps employees should apply now for this long-term training program through their local training office. For more information, please contact Dr. C.H. Pennington, Director, WES Graduate Institute, 3909 Halls Ferry Road, Vicksburg, MS 39180-6199 or phone: (601) 634-3549.

Nautical Newsletter Available

Floating the Apple is a community-based organization working to restore safe, universal access onto New York's waterways. Sponsored by The Open Space Institute, Inc., a non-profit public charity, Floating the Apple was created to reintroduce the public, especially young people, to the joys of rowing and sailing on New York's rivers.

The organization is offering an informative nautical newsletter published periodically called **The Hudson Harbor Herald**. With **The Hudson Harbor Herald**, Floating the Apple hopes to provide a forum for relevant articles, photographs, poems and cartoons and to keep members informed about the organization's activities.

Please address all contributions to Editor of **The Hudson Harbor Herald** at Floating the Apple, 400 West 43rd Street, 32R, New York, New York 10036. For more information, please contact Mr. Brian Brown at (212) 564-5412.

WRSC Offers FACTS Card

The Navigation Data Center of the Water Resources Support Center has a new publication called **The U.S. Waterways System - FACTS**. The wallet-sized **FACTS** keeps information such as the geographic distribution of waterborne activities and facilities, waterborne traffic by major commodities, and leading U.S. ports at your

fingertips. To receive your copy, please call Ms. Joyce Smith at (703) 355-3061 or fax (703) 355-0047.

Publications:

Clean Ships, Clean Ports, Clean Oceans: Controlling Garbage and Plastic Wastes at Sea
(ISNB 0-309-05137-1)
This is a new report from a National Research Council committee on the refuse that pollutes the nation's beaches and coastal waters. The Committee on Shipbourne Waste, chaired by Mr. William R. Murden of Murden Marine Ltd., concluded that to solve the refuse problem will require stronger leadership by the Federal government, better port systems for handling and disposing of vessel garbage, and a commitment from boat and ship operators to meet specific cleanup objectives. The cost of this report is $42.95. To obtain a copy, please contact the National Academy Press at (800) 624-6242.

Water Watch: What Boaters Can Do to Be Environmentally Friendly
This pamphlet is a project of the Foundation for Recreational Boating Safety & Education. Some of the topics covered include marine sanitation devices, anti-fouling paints, and engine maintenance. For more information, please write to: National Marine Manufacturers Association, 401 N. Michigan Avenue, #1150, Chicago, IL 60611.

Inland Towing Vessel Guide to Federal Pollution Regulation Compliance and Commitment
Published by the Coast Guard, the guide is intended to assist in developing waste management procedures for commercial towing vessels based on current Federal pollution prevention standards. For more information or copies of the guide, please contact Ms. Kathy Givens in the AWO Midcontinent Office at (314) 434-2534.

Journal of Hydrologic Engineering
The American Society of Civil Engineers is adding this journal to its technical journals program to present detailed information on new hydrologic methods, theories and applications to current engineering problems. The annual cost will be $26 for ASCE members and $117 for non-members. Sample issues are available upon request. For more information or to order, please write to: Publications Marketing at ASCE, 345 East 47th Street, New York, NY 10017-2398 or phone: (800) 548-2723.

Marine Structures Engineering
by Gregory P. Tsinker
This book is designed to help engineers meet the growing worldwide demand for construction of new ports and the modernization of existing ports and terminals. It offers practical information on all aspects of marine structures, including marinas, floating breakwaters, offshore moorings, and shiplifts. To order, please contact: Mr. Steve Hawe, Chapman & Hall, One Penn Plaza, 41st Floor, New York, NY 10119 or phone: (212) 564-1060.

Assessment of Port and Terminal Infrastructure Damage and Navigation Impacts - 1993 Upper Mississippi River Flood
To receive a copy, please contact: United States Department of Transportation, Maritime Administration, 400 Seventh Street, SW, Washington, DC 20590, Project Number: DTMA91-94-H 00031.

Docks and Marinas Bibliography - 1996 Edition
The 86-page bibliography lists more than 500 references under the following key subject headings: Marinas and Boatyards, Ecology, Hydraulic and Ocean Engineering, Wood Preservation and Treatment, Geotechnical and Structural Engineering, Mechanical and Electrical Systems, and Ice Engineering. To order your copy, please contact Prof. C. Allen Wortley at (608) 262-8991.

New PIANC Members

Individuals:

Bouzianis, Louis
Mercer Management Consulting

Donheffner, Paul
Oregon Marine Board

Grier, David V.
Army, Corps of Engineers

Corporations:

Port of Texas City

TECHNICAL WORKSHOP

VESSEL TRAFFIC CONFLICTS ON WATERWAYS USED BY RECREATIONAL BOATERS

Holiday Inn Capitol - 550 C Street, S.W.
Washington, D.C. 20024
May 10, 1996

Sponsored by the U.S. Section
Permanent International Association of Navigation Congresses
Committee on Sport and Pleasure Navigation

A block of rooms has been reserved at the rate of
$114.00 including tax for single or double occupancy.
To make a reservation, call the hotel at (202) 479-4000.
The block of rooms will be held until April 12, 1996

For more information,
call the U.S. Section, PIANC office @ (703) 355-0286

Activities

Inside PIANC		
1-5 Sep 1996	PIANC Conference on Inland Maritime Navigation and Coastal Problems of East European Countries	Gdansk, Poland
9-11 Oct 1966	Annual Meeting, U.S. Section, PIANC	
17-19 Jul 1996	Transportation Research Board Summer Meeting PIANC Panel on Port-related Issues "Wetlands Mitigation Banking: Through a New Era"	Long Beach, California
5-12 Jun 1998	29th PIANC Congress	Tangier, Morocco
Outside PIANC		
18-22 Mar 1996	HYPACK'96/Multibeam Workshop Mobile Convention Center POC: Pat Sanders, (203) 349-3800	Mobile, Alabama
1-3 Apr 1966	American Association of Port Authorities (AAPA) Legislative Agenda POC: Caren Coffenberry (703) 706-4712	Washington, DC
11-14 Jun 1996	Western Dredging Association WEDA XVII - Annual Meeting New Orleans Marriott Hotel	New Orleans, Louisiana
18-20 May 1996	CATS III Congress "Characterization and Treatment of Cleanup Sludge from Dredging, Sewage Sludge and Comparable Industrial Process Sludge"	Ostend, Belgium
17-22 Jun 1996	PACON '96 Seventh Pacific Congress on Marine Science and Technology "Solutions for the Pacific Century" POC: Paula Kuriyama (808) 956-6163	Honolulu, Hawaii
17-21 Jun 1996	11th International Harbour Congress	Antwerpen, Belgium
20-21 Jun 1996	Third European Research Round Table Confernce on Short Sea Shipping "Building European Short Sea Networks" FAX: +47 55 952250	Bergen, Norway
14-17 Jul 1996	Coastal Society 15 International Congress POC: D. Bailiff, e-mail: mbailiff@u.washington.edu	Seattle, Washington
14-17 Jul 1996	AWRA Annual Symposium SUNY College of Environmental Science and Forestry "Watershed Restoration Management" (315) 470-6571	Syracuse, New York
1-6 Sep 1996	25th International Conference on Coastal Engineering POC: ICCE '96, (512) 994-2376, Fax (512) 994-2715	Orlando, Florida
22-26 Sep 1996	AWRA 32nd Annual Conference "GIS and Water Resources" POC: Robert Moresi (813) 282-0111	Fort Lauderdale, Florida
5-7 Dec 1996	International WorkBoat Show Ernest N. Morial Convention Center	New Orleans, Louisiana