



# THE PIANC NEWSLETTER

Permanent International Association of Navigation Congresses

Winter 1995

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## Message from the Secretary

Well, we're off and running into what has every indication of being an exciting New Year. I hope it will be one of the best for all of our members and readers. We, in the U.S. Section, PIANC, will be doing our best to make 1995 one of our best for you.

We'll be starting off with PORTS '95 in Tampa, Florida, from March 12-15, joining the American Society of Civil Engineers (ASCE) for the second time in sponsoring this specialty conference. There has already been a tremendous interest in our program of over 36 panels and 144 speakers. It's our only conference in 1995, so try to attend!

As I write this letter, elections are underway for the second of three U.S. Section, PIANC Regional Vice Presidents. We're all looking forward to enhanced participation on the regional level once they're in place. If you have any ideas concerning regional activities,

please contact the Vice President in your region or drop us a line.

The U.S. Section, PIANC will host the 1995 General Assembly of the Permanent International Commission in New Orleans in May. It has been ten years since the United States hosted this meeting of PIANC Commissioners from around the world. Two newly organized committees, Membership (Chuck Connors, Chairman) and Conferences (John Pisani, Chairman), are considering new ideas in both areas. Let the chairmen hear from you.

The newsletter is now on a firm schedule for a quality publication. Your ideas and articles are invited. We appreciate the time those readers who responded took to answer the survey in the last issue of the newsletter. If you have not returned the survey, please do so. If you've misplaced it, we will be happy to provide another one.

So, let us know what you like and don't like. And don't forget about the PIANC Bulletin. All members are eligible to submit articles for publication to Charles Calhoun, the Chairman of our Publications Committee.

That's it for this time. Have a great 1995, and make PIANC a part of it!

### PORTS '95

**PIANC Get Together**  
Interested in meeting other PIANC members?  
Join us at Ports '95  
No-host Lunch - 13 March 1995  
Time: 12:00 - 1:30 P.M.  
Place: To Be Announced  
POC: Mary Jane Robertson 703-355-0286

## Vellinga Gives Sir William Harris Lecture

Dr. Pier Vellinga gave the third PIANC Sir William Harris lecture on December 3, 1994, at the Telford Theatre in London. A representative of the Netherlands government, Dr. Vellinga is known internationally as a leading scientist and policy-maker in the field of global environmental change.

The title of Dr. Vellinga's presentation was "Entering the 21st Century: How Can Society Respond to the Global Environmental Challenge?" He feels that the main environmental issue for the next century will be population growth along with its attendant per capita use of resources. "The more people, the more suffering-- especially in areas with limited resources availability or limited resource management capabilities such as in Africa," he explained.

The real challenge, then, is to increase our capacity to deal with population growth through education and management. Since populations are usually concentrated along the coastal zones, a reduction in wetland loss will figure prominently in sustainable development.

The unwanted side effects of global climate change such as 40 percent more rain and higher runoff and discharges is another problem we will be facing in the near future. Many nations, particularly the small island states, are not capable of adapting to higher sea levels. If climate change and sea level rise could come more gradually or their rate could be predicted, it would be easier to adapt to them.

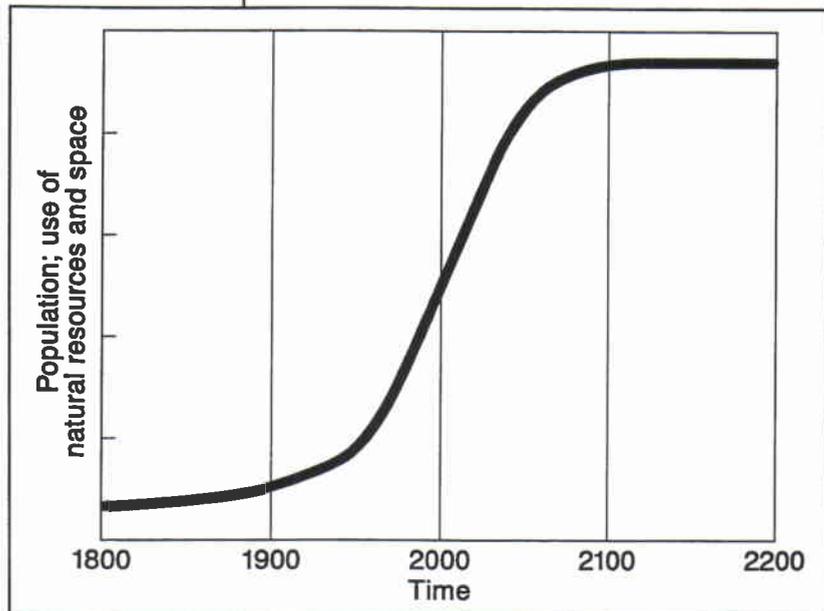
Unfortunately, climate is unpredictable. We need to limit CO<sub>2</sub> emissions and other greenhouse gases. We need to speed up our transition to a

more energy-efficient society and, over time, become a renewable energy society.

Global smog and eutrophication pose yet additional threats to the global environment. So what can we do? We have already shifted our attention from concentrated industrial sources to diffuse environmental pollution from environment to development and quality of life. We have also shifted towards a process-oriented environmental policy.

There is still room for improvement. Dr. Vellinga suggested that resource use per capita can be greatly reduced by increasing the efficiency of resource use and changing our food consumption patterns. Unemployment keeps increasing as we substitute more and more machinery for people--primarily because it is cheaper. In Europe, the cost of labor is even higher because of special taxes on labor. We need to develop a system where scarce environmental goods and services and consumption are taxed--not the labor used to produce them.

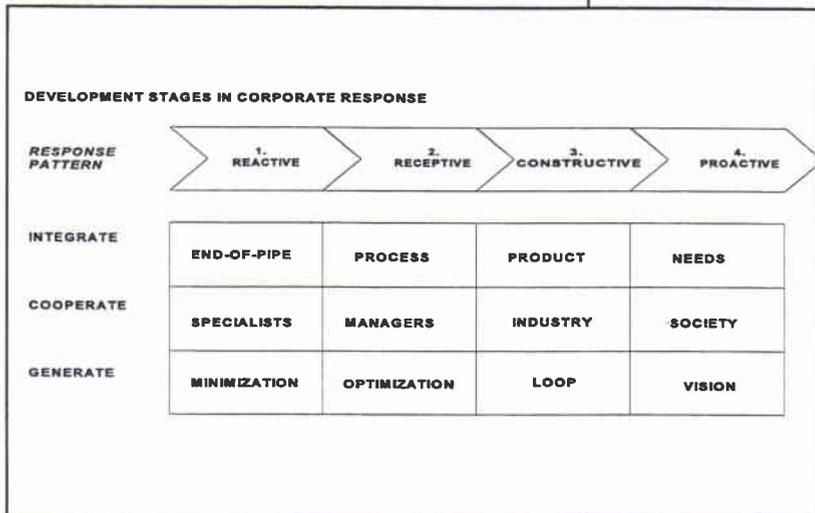
According to Dr. Vellinga, other required changes include urban and rural degradation, better development of third-world countries and



*The S-curve concept for world population, use of resources and space, concentration of CO<sub>2</sub> and tropospheric O<sub>3</sub>, nutrient emissions, loss of biodiversity, etc.*

their natural resources, and aiming research at increasing efficiency and resource use considerably.

How can we make these challenges work? A good way to start is to follow Pieter Winsemius' four-step analysis of how private industry responds to global environmental change: reactive (defensive), receptive, constructive and proactive responses.



*Four phases in corporate response on the environmental challenge (McKinsey, 1993).*

One of the examples Dr. Vellinga cited was the port authorities' response to the environmental aspects of dredging. In the reaction phase, they deny that the dredged material is really contaminated and minimize dredging. In the receptive phase, they want to optimize dredging by defining various classes of pollution. In the construction phase, they strive to recycle the dredged material and separate the contaminants. In the final, proactive phase, they want to reduce contamination at the source and make the producers of the pollution liable.

### GATT to Increase U.S. Agricultural Exports

With the approval of the U.S. House of Representatives and Senate, President Clinton announced the participation of the United States

in the Uruguay Round expansion of the General Agreement on Tariffs and Trade (GATT). The agreement is the product of 7 years of negotiations. It will provide a framework for trade among 124 nations, requiring reduced levels of government support, export subsidies, and import protection.

GATT is projected to increase world income and cause a demand for agricultural products, particularly income-sensitive commodities like meat, fruit, and other specialty crops. Increased consumer demand for beef, pork and poultry will also increase foreign demand for U.S. feed grains and soybeans.

The USDA estimates the increase in U.S. exports, under the Uruguay Round GATT agreement, will range between \$1.6 billion and \$4.7 billion by 2005. In 1993, U.S. agricultural exports totaled \$42.6 billion. Added exports in grains and animal products will make up nearly 75 percent of the increase.

Projected Increases in U.S. Agricultural Exports under GATT* (Million dollars)		
Commodity	Change from Baseline	
	FY 2000	FY 2005
Grains and feeds	490-1,940	1,950-3,910
Cotton	50-290	60-590
Animal products	740-1,660	1,690-2,510
Horticultural products	180-280	200-370
Oilseeds and products	170-530	810-1,330
Total	1,630-4,700	4,710-8,710

\*Valued at point of export  
Source: Effects of the Uruguay Round Agreement on U.S. Agricultural Commodities, March 1994, Economic Research Service, Office of Economics, USDA

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## Interagency Working Group Publishes Report on Dredging Policy

In 1993, while recognizing the important role ports play in our economy, defense and environment, President Clinton acknowledged that the process for dredging and maintaining the Nation's ports sometimes does not work as well as it could. As a result, Secretary of Transportation Federico Pena convened the Interagency Working Group on the Dredging Process to develop a new National Dredging Policy.

Deputy Maritime Administrator Joan Yim chaired the Working Group Steering Committee, made up of 10 individuals from five other Federal agencies including: John Zirschky, Acting Assistant Secretary of the Army for Civil Works, U.S. Army Corps of Engineers; Bob Perciasepe, Administrator for Water, U.S. Environmental Protection Agency; and senior political representatives of the U.S. Department of Interior's Fish and Wildlife Service, and U.S. Department of Commerce's National Marine Fisheries Service and Office of Coastal Resource Management.

The Group's objectives were to promote greater certainty and predictability in the dredging review process and dredged material management and facilitate effective long-term management strategies for dredging and disposal needs at national and local levels.

The Group conducted public outreach meetings around the country. They found that ports and harbors have a strong impact on our country's competitiveness in world trade and national security as well as on our coastal, ocean, and freshwater resources. Based on these findings, they concluded that ports and harbors must be protected, conserved, and restored.

The new Dredging Policy will follow these principles:

- ◆ The regulatory process must be timely, efficient, and predictable, to the maximum extent practicable.
- ◆ Dredged material management must be conducted on a regional basis by a partnership of Federal, state and local governments, natural resource agencies, public interest groups, the maritime industry and private citizens.
- ◆ Dredged material managers must become more involved in watershed planning, recognizing upstream sources of pollution to harbor sediment contamination.
- ◆ Dredged material should be viewed as a resource, which can be used for wetland creation, beach nourishment, and other development projects.

The Group prepared "The Dredging Process In The United States: An Action Plan For Improvement," in December 1994. It contains the Working Groups's recommendations for improvement of the dredging process in the United States, focusing on four problem areas.

In the area of **Strengthening Planning Mechanisms**, the recommendation is to create regional and local dredged material management plans.

To **Enhance Coordination and Communication in the Dredging Project Approval Process**, National and Regional Dredging Issue Teams should be established with emphasis on early identification and resolution of dredging problems.

To address the **Scientific Uncertainties About Dredged Material**, the Action Plan calls for improving the guidance used to evaluate contaminants in dredged material, and identifying the best scientific methodologies for contaminated sediments.

In the final area, the Working Group identifies ways to **Fund Dredging Projects Consistently and Efficiently**. A key point is a revision to the current Water Resources Development Act (WRDA) to allow consistent Federal-local cost sharing of all disposal alternatives of dredged material. The Working Group also endorses user

fees to help pay for the management of ocean disposal sites.

The Working Group's participating agencies are taking steps to implement all 18 recommendations of the Action Plan as soon as possible.

To obtain a copy of the full report, please call the Maritime Administration at (202) 366-1765/5471.

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## Ports Encouraged By Interagency Report on Dredging

Public port authorities welcomed the report of the Interagency Working Group on the Dredging Process. They felt it recognizes the dredging crisis and affirms the Federal agencies' commitment to improve the dredging process at the nation's ports.

The American Association of Port Authorities (AAPA) has long been an advocate of adopting an official national dredging policy. AAPA applauds the recommendations to establish such a policy and to adopt policy and legislative changes which provide for Federal cost-sharing of upland and confined dredged material disposal.

According to AAPA President Erik Stromberg, "The report is an important, even critical, step toward establishing a more responsive regulatory system and provides for a more efficient national transportation system. Although the report's

recommendations won't solve all of the nation's dredging problems, it focuses on a number of solutions that should assist the ports and the environment."

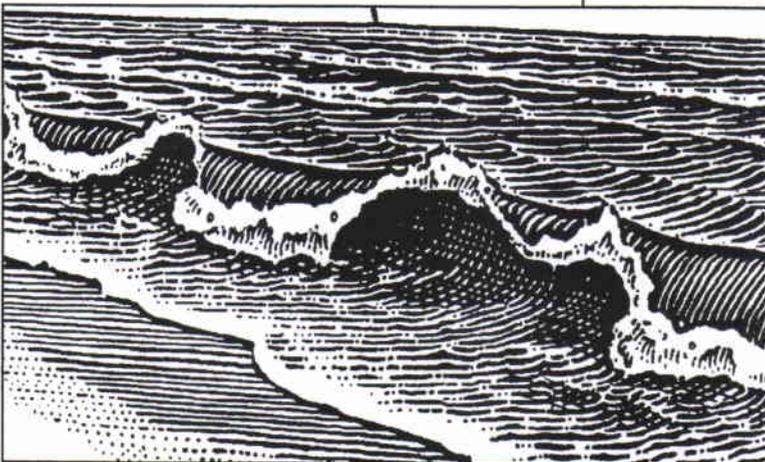
Stromberg added, "These are practical and implementable solutions that AAPA has sought to bring to the attention of the public and policy makers for years. While the ports stand to gain with the implementation of this report, the real beneficiaries of solving the dredging crisis are America's consumers who can purchase imports at lower costs and businesses seeking export opportunities."

Stromberg concluded, "While AAPA does not endorse every recommendation in the report, and much work lies ahead to ensure that Federal agencies implement the recommendations properly to reduce delays in dredging projects, we believe the report represents a very important step in the right direction."

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## Mixed Reactions to Dredging Policy Report

"The Dredging Process In The United States: An Action Plan For Improvement," prepared by the Interagency Working Group on the Dredging Process, appears to establish a tone of cooperation among the interest groups involved in channel maintenance projects. Nevertheless, representatives of maritime interests voiced disappointment with the report at a recent meeting of the New York Harbor Operations Committee. They believe it lacks clear directives and offers no potential solutions to the disposal problems encountered in coastal communities.



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## Profile of a PIANC Founder

### *James Clark Sanford*

Born in 1859 in Palmyra, New York, James Clark Sanford graduated second in his class from the United States Military Academy at West Point in 1884. He immediately began serving in the Corps of Engineers and would continue this service for 42 years.

During that time, he proved to be a major contributor to the development of the suction dredge. For many years, he supervised the construction of sea-going, self-propelled dredges which operated throughout the United States from Pensacola Harbor to the Delaware River to Passes of the Mississippi and Galveston Harbor.

COL Sanford supported the work of the Permanent International Association of Navigation Congresses from its inception. He felt PIANC could gather valuable information on projects such as those performed by the U.S. Army Corps of Engineers. Once Congress recognized PIANC officially in 1904, COL Sanford was made the disbursing officer for funds allotted by Congress. He held this office for close to 20 years as he traveled from post to post.

COL Sanford also represented the United States at many business meetings of the Commission and Council and served as a delegate from the United States to several Congresses. Because of him, the United States had greater representation than it was entitled to on a strictly per capita basis. One of his most memorable successes was at the 12th PIANC Congress in 1912, held in Philadelphia, where he was the General Secretary.

From 1912 to 1923, COL Sanford was the glue that held the American Section together. Together with BG William H. Bixby, he prevented the almost certain disintegration of the American Section when World War I precluded holding any Congresses. In recognition of his services to



PIANC, the Association made him a life member of the Commission from the United States.

COL Sanford spent many years in foreign service, including posts as Military Attache to the United States Legations at London, Paris, Berlin and St. Petersburg. His last assignment was in Detroit, Michigan, where he was in charge of the lake survey and improvements in the Lake Rapids District and Lakes Division. He retired in 1922.

Returning to the United States after an extensive tour of Europe and Northern Africa with his wife, Col Sanford died at sea on Christmas Day in 1926.

(Editor's Note: If anyone knows the whereabouts of COL Sanford's descendants, please let us know. We failed in our attempts to contact his daughter Faith (Mrs. John A. Fletcher), last known to reside in Annapolis, Maryland.)

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## Lock Maintenance Innovations Save Towing Industry Millions

The Louisville Engineer District has saved the navigation industry millions of dollars by using team work and innovation to decrease maintenance closure times for Ohio River locks.

Markland Lock and Dam, for example, was closed only 40 days for maintenance in 1994, compared to 150 days in 1981 and 1984. In the early 1980s, the work had to be spread over two different years to avoid a long, one-time closure. The District estimates that a day of main chamber closure can cost the towing industry as much as \$300,000.

The lower Ohio River is the busiest reach of impounded waterway in the United States, with 100 million tons of commodities passing through each year. Louisville District operates eight lock and dam sites between Cincinnati, Ohio, and Cairo, Illinois.

"We have systematically developed methods to decrease the maintenance downtime on these locks," said Ken Matthews, director of Operations at the District.

Bob Willis is the Chief of the Maintenance Engineering Branch, which consists of the Louisville Repair Station and an engineering staff. He explained that the District's tremendous increase in productivity has resulted from years of innovations. "The key to our success is the teamwork and ingenuity of our craftsmen, their supervisors, and the engineers." says Willis.

The Louisville Repair Station typically doubles the size of the repair crew by hiring temporary workers for major maintenance projects. The use of experienced crew leaders, for additional supervision, improves the efficiency of the expanded work force.

Examples of equipment innovations include:

- ◆ **Jacking Systems** developed by the District use 200-ton capacity hydraulic jacks to raise and lower the massive lock gates.

- ◆ **Power Climber Baskets** mounted on stands at both ends of each lock gate provide safe access for personnel to remove, replace, and adjust the contact blocks at each end of the gates.
- ◆ **Scaffold Supports** designed and fabricated by District personnel hang on the gates and support scaffolds for vertical access to the gates, remaining in place throughout the project.
- ◆ **Personnel Boom Lifts** provide quick and safe access for inspection, adjustments and repair work.
- ◆ **A Construction Elevator** provides access to the upper end of the chamber, eliminating the need to frequently climb 70 feet of scaffold stairs or use crane baskets to enter and exit the chamber.
- ◆ **Permanent Rigging** is kept on equipment which is moved by cranes during a closure -- welding machines, tool boxes, scaffold sections, etc.--saving time spent finding and attaching properly-sized rigging.
- ◆ **Preassembled Scaffolds and Pump Piping** are used to minimize assembly time during lock closures.
- ◆ **Rental Equipment** is used extensively when the District expands its work force for a major job.
- ◆ **Portable Tool Sheds** stocked with commonly used tools and parts are placed on the gate sills, saving numerous trips, up to 1/4 mile, from the work area to the repair fleet.
- ◆ **Manifold Systems for Compressed Air and Oxygen** increase the number of air tools and torches which can be used and reduce work area clutter, decreasing equipment damage and increasing worker safety.

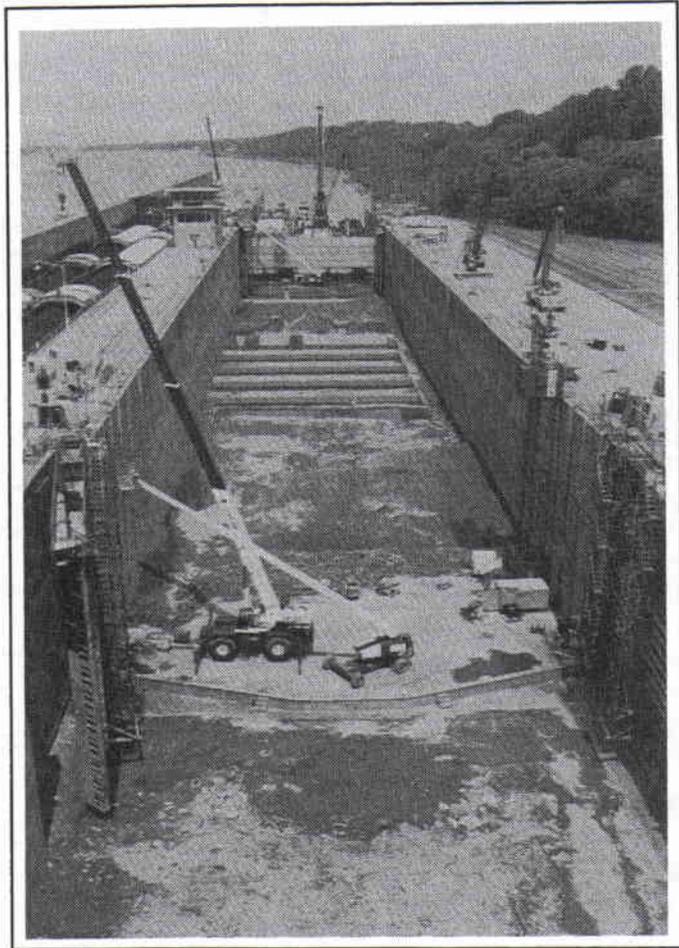
By late 1997, the district plans to have a floating crane (gatelifter) to lift the lock gates, then acquire spare gates for each lock. The gatelifter will decrease closure time for major maintenance to as little as two seven-day closures per

chamber. It will also eliminate a separate closure, of up to 42 days, for painting the miter gates in the chamber.

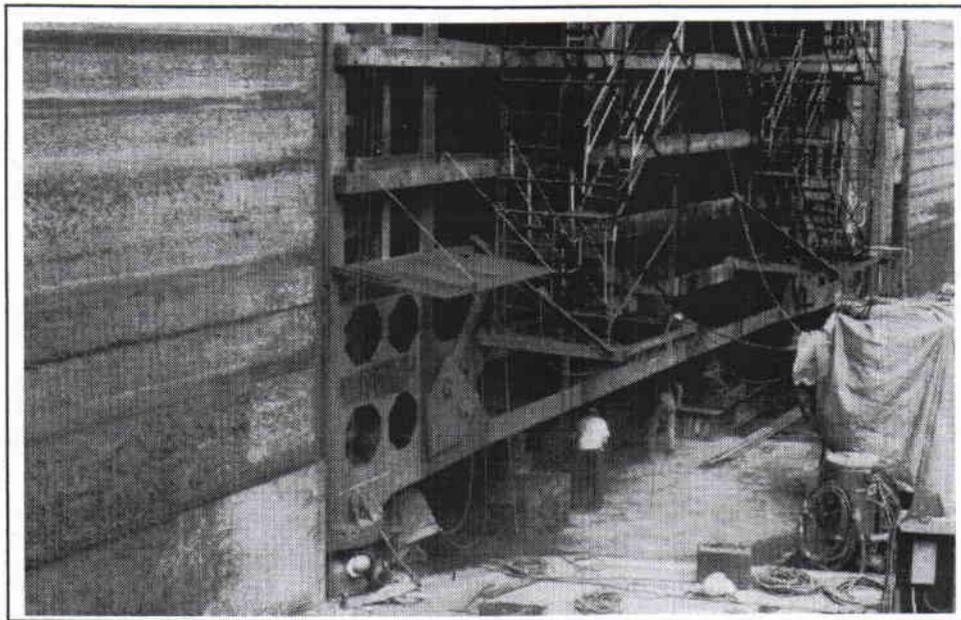
Miter gates will then be repaired and repainted at the storage site. The gatelifter will also be able to quickly and safely deal with the potential catastrophic failure of a lock gate, something not currently available.

Downtime for major maintenance of the Ohio River Locks in Louisville District has decreased significantly in the past fifteen years, and it is likely to decrease even further with the use of the gatelifter. The teamwork and efforts of innovative people working to minimize delays at some of the busiest locks in the country have made this possible.

For more information, please call Mr. Peter Frick, Project Engineer, Maintenance Engineering Branch, Operations and Readiness Division, (502) 582-5600.



*Dewatered chamber of Newburgh Lock and Dam*



*Maintenance on the Markland Lock and Dam*

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## **Last Session of Congress Leaves Boating Facilities Issues Unresolved**

None of the legislation affecting public boat ramps and marinas passed the 103rd Congress.

Permanent funding for the Wallop-Breaux Fund's Boat Safety Account and new monies for states to build and maintain facilities for transient, non-trailerable boats over 26 feet in length (H.R.4477/2373) were not approved. Unfortunately, these provisions were appended to a broader Coast Guard authorization bill on which a House-Senate Conference Committee failed to reach agreement.

Under the Oil Pollution Act of 1990, all structures in or on navigable waters must comply with \$150 million liability insurance requirements. H.C.R262 would have exempted marinas with a fuel storage tank capacity of less than 42,000 gallons from that regulation.

Also failing to pass was the proposal (S.209) to excuse marinas from an IRS rule that prohibits selling commercial blue-dyed diesel fuel to recreational boaters.

It is expected that these legislative proposals will resurface in the 104th Congress.

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## **Meeting to Amend 1972 London Convention**

The 17th Consultative Meeting of Contracting Parties to the Convention on the Prevention of Marine Pollution by Dumping of Wastes and Other Matter (London Convention (LC)) was held at International Maritime Organization Headquarters in London from October 3-7, 1994. The Department of State and the Environmental Protection Agency represented the United States with assistance from the Army Corps of Engineers, the National Oceanic and Atmospheric Administration, and the Department of the Navy.

The meeting was conducted to facilitate negotiations to amend the 1972 London

Convention, as amended. Other issues addressed were:

- ◆ Technical assistance efforts with the Russian Federation to avoid further dumping of radioactive wastes at sea
- ◆ Implications to LC 1972 with the forthcoming entry into force of the United Nations Convention on the Law of the Sea (UNCLOS)
- ◆ Related developments in other fora.

For more information, please contact Mr. Bryan Wood-Thomas, Environmental Scientist, Office of International Activities, U.S. Environmental Protection Agency, 401 M Street, SW, Washington, DC 20460, (202) 260-6983.

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## **EPA Updates Ocean Dumping Sites**

On November 29, 1994 (59 FR 61128), the U.S. Environmental Protection Agency (EPA) revised the regulations (40 CFR part 228) containing the list of EPA designated ocean dumping sites. This rule:

- ◆ Reorganizes the way in which the sites are printed in the Code of Federal Regulations.
- ◆ Eliminates listings of expired or terminated sites.
- ◆ Eliminates listings of sites which lie landward of the baseline of the territorial sea.
- ◆ Corrects technical errors in the list of ocean dumping sites.
- ◆ Makes conforming technical changes to the regulations.

These changes are not substantive in nature but are needed to improve the clarity and accuracy of the list of ocean dumping sites. In addition to these clarifying changes, this rule de-designates the Cellar Dirt Site in the New York Bight and the Newburyport, MA, dredged material site. Those sites are no longer being used, and there is no demonstrable need for their use in the future.

For more information, please contact Ms. Susan Hitch, Office of Wetlands, Oceans, and Watersheds, U.S. Environmental Protection Agency, 401 M Street, SW, Washington, DC 20460, (202) 260-9178.

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## Environmental Advantages of Inland Barge Transportation

The Maritime Administration (MARAD), U.S. Department of Transportation, recently published "Environmental Advantages of Inland Barge Transportation," dated August 1994.

According to this report, transportation has substantially shaped the growth and development of the United States. To sustain and enhance that economic growth and the productivity of commerce, the nation needs a healthy and responsive transportation system. Consequently, it has been the policy of the United States to make investments that will allow its transportation system to be the leader of tomorrow's growth and prosperity and to take full advantage of new and emerging transportation technologies.

At the same time, the nation has followed a policy of ensuring that its transportation system supports safety, security, conservation of energy, and environmental quality. The report compares the three modes of surface freight transportation, i.e., rail, truck, and barge, with respect to energy efficiency, safety, congestion, air/noise pollution, land use/social impacts, and environmental aspects.

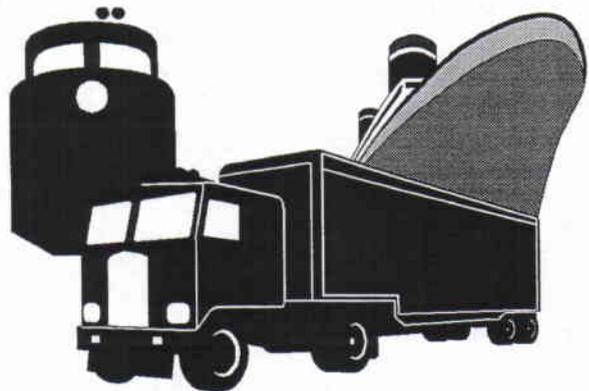
The report concludes that the companies that make up the barge and towing industries have a reputation for a strong environmental stewardship. They're dedicated to improving the compatibility of their operations with the environment by eliminating environmental incidents and reducing environmental hazards to an absolute minimum. This commitment is evidenced by the following fundamental principles that these operators have established:

1. Make environmental protection a priority in business planning.
2. Maintain active and effective environmental policies and programs designed to protect the environment.
3. Conduct business and operate and maintain vessels and facilities in a manner that protects

the environment, as well as the safety of employees and the public.

4. Develop and implement company programs that address education, training, and communications of environmental policies and procedures.
5. Maintain and update emergency response plans that allow the companies to respond swiftly to environmental incidents and minimize environmental damage.
6. Actively participate with government and other interested parties in creating responsible laws, regulations, and programs that safeguard the environment.
7. Seek out and respond to proposed environmental matters or concerns from either public or private sectors.
8. Strive to reduce vessel-generated waste and emissions by improving operating procedures.
9. Work in partnership with manufacturers, shippers, and vendors to enhance the safe transportation of products and the management of cargo residues and cleaning wastes associated with the transportation of cargoes.

For more information, please contact Mr. Paul V. Ackerman, Chief, Division of Domestic Shipping (MAR-832), Maritime Administration, U.S. Department of Transportation, 400 Seventh Street, SW, Washington, DC 20590, (202) 366-5517.



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## **EPA Issues Strategy to Reduce Health Risks**

The U.S. Environmental Protection Agency (EPA) has issued "EPA's Contaminated Sediment Management Strategy" (EPA 823-R-94-001), dated August 1994. The strategy describes specific actions that EPA will take to reduce environmental and human health risks associated with contaminated sediment. It does not propose new regulations.

According to the report, contaminated sediment poses ecological and human health risks in many watersheds throughout the United States. In these watersheds, sediment serves as a contaminant reservoir from which fish and bottom dwelling organisms can accumulate toxic compounds and pass them up the food chain. Sediment contaminants can be passed to larger fish, birds, and mammals until they accumulate to levels that may be toxic to humans. Toxic chemicals in sediment come from discharges of industrial waste and sewage; stormwater runoff from waste dumps, city streets, and farms; and air pollutants contained in rainwater.

The magnitude of the sediment contamination problem in the United States is evidenced in more than 1,200 state advisories that have been issued against consuming fish that have accumulated toxic bioaccumulative sediment contaminants.

More than 10 federal statutes provide authority to many EPA program offices to address the problem of contaminated sediment. This has resulted in fragmented, and in some cases duplicative, efforts to complete the necessary research, technology development, and pollution control activities required to effectively manage contaminated sediment. Often it has been difficult for EPA programs to agree even upon the fundamental question of whether sediment at a particular site poses ecological or human health risks.

The Contaminated Sediment Management Strategy was developed to streamline decision-making within and among EPA's program offices.

For more information, please contact Dr. Tudor T. Davies, Director, Office of Science and Technology, Office of the Assistant Administrator for Water, U.S. Environmental Protection Agency, 401 M Street, SW, Washington, DC 20460, (202) 260-5400.

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## **Louisville Tests Grease-free Gates**

An entire lock chamber can shut down because of a relatively small steel ball.

The huge, 250-ton gates on a Corps of Engineers lock turn on a pintle and bushing system. When the pintle doesn't take grease or becomes worn, the lock must be dewatered for inspection and repair. That shuts the chamber down to navigation.

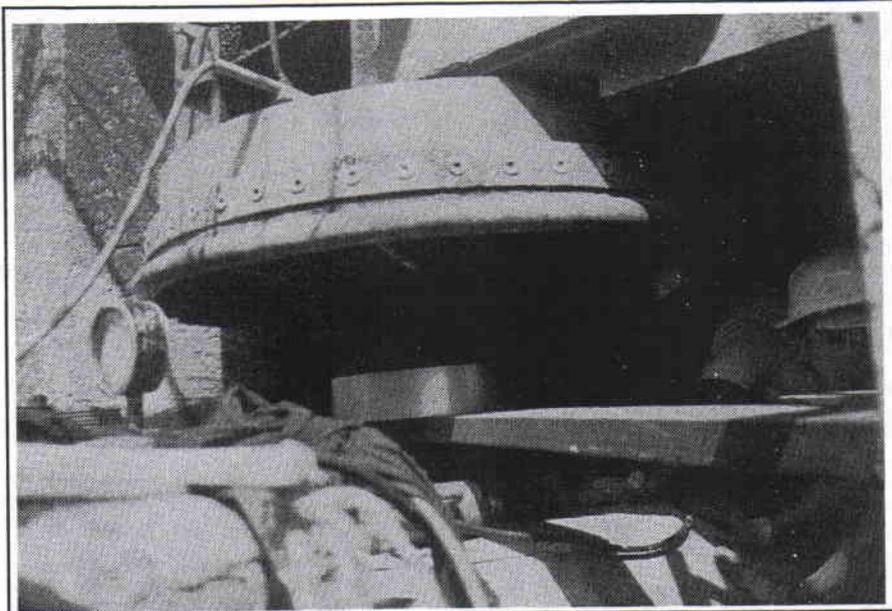
Most problems can be attributed to lubrication failures. These often are caused by broken or plugged grease lines or grease contamination from the silt-laden river. As the wear on the pintle accelerates, other problems begin to develop. These include increased wear on quoin blocks, poor miter seals and potential cracking of structural members.

Of the efforts to improve pintle performance, the most promising approach is to use greaseless bearing material for reliable service in the river environment. This would have several advantages over existing systems:

- ◆ Reliability would increase since there would be no grease lines to become damaged or plugged.
- ◆ Systems would be more environmentally friendly with no grease to get into the river water.
- ◆ Maintenance costs would go down since no grease would have to be purchased and the maintenance workload could be reduced.

The Louisville District looked at a number of materials and selected Thordon SXL, from the Thompson-Gordon Co. of Burlington, Ontario, Canada. Testing a scale model pintle and bushing indicated that a 20-year life of pintle and bushing is feasible.

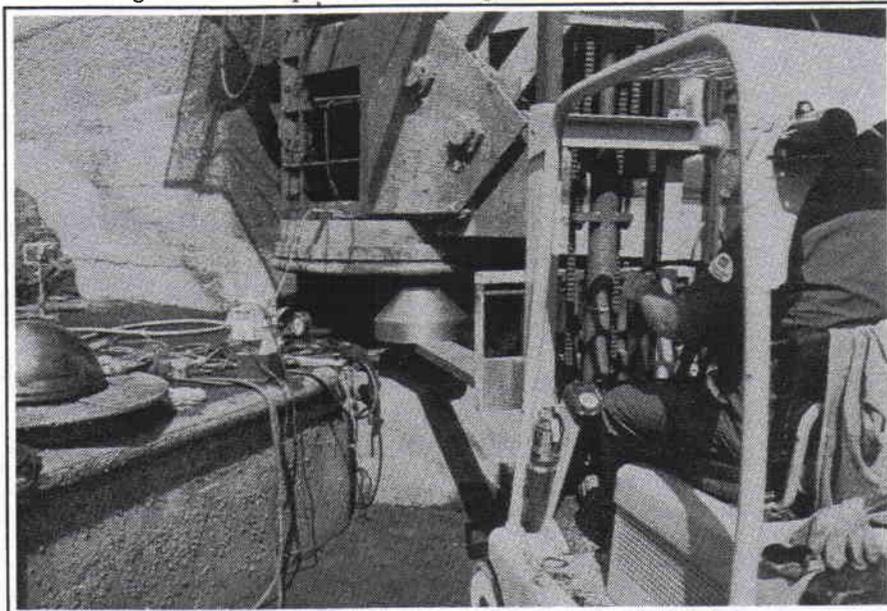
The next step was to fabricate a full-size greaseless pintle and bushing and install it in a lock. This was done in June of 1994 in the 600-foot chamber at the Cannelton Locks and Dam. The miter gates there are 62 feet wide, 59 feet tall and weigh 256 tons. The gudgeon pin bushing and the strut arm bushing were also replaced with Thordon SXL, making the entire miter gate greaseless.



*Installing the Thordon pintle and bushing at the Cannelton Locks and Dam*

Since the installation of the new material, lock operations and maintenance personnel have reported smooth operation with no difference from the grease-lubricated gates.

At the next scheduled pump out, the gate will be jacked up and the pintle and bushing inspected for wear. At that time, if all the test results are still positive, greaseless pintles will become the standard in Louisville District.



Photos: P. Frick

For more information, please contact Mr. Ross Woodbury, Project Engineer, Maintenance Engineering Branch, Operations and Readiness Division, (502) 582-5600.

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## Clean Vessel Act Offers Grants

Competitive grants available to states under the Clean Vessel Act of 1992 are having a noticeable effect in triggering surveys to determine where vessel sewage pumpout and dump stations are variously adequate or lacking.



For the first two years of funding availability, Fiscal Years 1993 and 1994, 37 states received \$11.7 million for 43 grants to accomplish surveys as well as to develop plans, construct pumpout and dump stations, and implement an education program. For Fiscal Year 1995, the Federal Aid Division of the U.S. Fish and Wildlife Service received grant applications from 36 states vying for the \$7 million available in the second round.

Ultimately, the state pumpout surveys should make a significant contribution to our knowledge of the number, size and location of marinas throughout the country.

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## Navy Dedicates New Test Facility

On October 3, 1994, the Naval Facilities Engineering Service Center (NFESC), Port Hueneme, California, dedicated a new facility to test and evaluate structures and materials exposed to severe marine environments.

The NFESC, in cooperation with the U.S. Army Civil Engineering Research Laboratory and the Composite Institute of the Society of Plastic Industries, established this facility to help combat corrosion such as biological damage from marine organisms. These forms of deterioration cost the U.S. Navy and the nation billions of dollars each year in losses to waterfront structures.

The 150-foot-long scale model structure, located in the harbor at Port Hueneme, will serve as a national center for the development, evaluation

and demonstration of new concepts and materials for upgrading, repair and life extension of waterfront structures. It will place a special emphasis on composite materials.

NFESC's mission is to provide specialized engineering, scientific and technical products and services on a worldwide basis in the areas of shore, ocean and waterfront facilities; amphibious and expeditionary operations; energy and utilities; and environmental engineering. The services provided include research, consulting and field engineering for Navy, Marine Corps, DOD customers and other Federal Agencies.

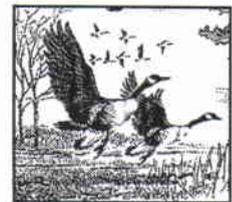
Under an agreement with the Army and Air Force, the Navy is responsible for RDT&E of facilities at the waterfront. The Advanced Waterfront Technology Test Site will help fulfill that role by serving as a test site for a number of joint projects in cooperation with the U.S. Army's Corps of Engineers and Construction Engineering Research Laboratory; the Composite Institute of the Society of Plastics Industries; the South Dakota School of Mines and Technology; and other universities and organizations.

For more information, please contact Mr. Don Brunner, (805) 982-1050, or Mr. Bill Huey, (802) 982-1271.

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## Wild Goose Association Changes Name

The Wild Goose Association is now the International Loran Association. The name change was announced at the 23rd Annual Convention and Technical Symposium by Mr.



Dale Johnson, the Loran advocacy group's president. The association is a non-profit organization with members from government, industry, academia and the user community worldwide.

"The name change reflects the growing international involvement and expansion of

Loran-C worldwide," President Johnson said. It will facilitate the efforts of the group's committee for a balanced radionavigation policy, which is currently carrying out a multi-faceted campaign to reverse U.S. Coast Guard initiatives for an early termination of Loran-C.

At the convention, members resolved to urge the U.S. Department of Transportation to endorse a mix of dissimilar terrestrial and satellite systems with Loran-C continuing as the major terrestrial component.

The next meeting will take place June 26-30 in Moscow, Russia.

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### Travel Advisory Discontinued

The PIANC Newsletter will no longer carry the Travel Advisory. The travel situation changes continuously, so the best thing to do before traveling abroad is call the State Department Advisory Voice at (202) 647-5225, FAX (202) 647-3000, BBS (202) 647-9225 (N-8-1,300/1200/960/14400 BPS) for specific information.



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### Call for Articles: PIANC Bulletin Number 90

The theme for PIANC Bulletin Number 90 is "Safety and Environmental Aspects of Marinas." Abstracts must be submitted by 1 April 1995 and final articles by 1 September 1995 to Mr. Charles C. Calhoun, Jr., U.S. Army Engineer Waterways Station, CERC-CEWES-CV-A, 3909 Halls Ferry Road, Vicksburg, Mississippi, 39180-6199.



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### PTCII Publishes Report

The Permanent Technical Committee II, Working Group Number 13, recently published Floating Breakwaters: A Practical Guide for Design and Construction as a supplement to Bulletin



Number 85. Chairman John G. Oliver (U.S. Engineer Division, North Pacific) and Mr. Donald D. Davidson (Waterways Experiment Section) represented the U.S. Section in preparing this report.

If you have not received your copy, please contact Ms. Mary Jane Robertson, U.S. Section, PIANC, (703) 355-0286, Fax: (703) 355-3171.

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### Poland to Hold PIANC Conference in Gdansk

The Marine Civil Engineering Department of the Technical University of Gdansk, Poland, will hold a PIANC Conference on September 1-5 1996. The theme is "Inland and Maritime Navigation and Coastal problems of East European Countries." To obtain the proposed agenda and a preliminary application, please contact Ms. Mary Jane Robertson, U.S. Section, PIANC, (703) 355-0286.

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### Membership Dues for 1995

- |                          |   |
|--------------------------|---|
| <input type="checkbox"/> | Full-Time Student--Under 30 Years of Age.<br>Annual Dues \$15.00* |
| <input type="checkbox"/> | Individual Membership. Annual Dues \$65.00                        |
| <input type="checkbox"/> | Small Corporate Membership.<br>Annual Dues \$320.00**             |
| <input type="checkbox"/> | Large Corporate Members.<br>Annual Dues \$640.00***               |

\* Does not include working group reports.  
\*\* Less than 20 employees who are directly concerned or interested in PIANC matters.  
\*\*\* More than 20 employees who are directly concerned or interested in PIANC matters.

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## Opportunity to Sponsor East European Representatives

To insure the participation of delegates from as many East European countries as possible, the Polish Section, PIANC has requested that we sponsor one representative from one East European country. They would like to have 18 representatives in this category. Funds collected as conference fees will be insufficient to cover their costs. Therefore, the Polish Section, PIANC is asking us to cover the costs associated with one participant-- approximately \$1,150 for travel, conference fees, meals, and hotel.

For additional information please contact Ms. Mary Jane Robertson, U.S. Section, PIANC, (703) 355-0286

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## Publications by PIANC Members

### Marinas and Small Craft Harbors

Tremendous growth in recreational boating has become a boon for professionals who can create suitable waterfront boat launching and marina facilities. In Marinas and Small Craft Harbors, authors Bruce O. Thebesian, P.E., and Ronald C. Kollmeyer, Ph.D., explain every step of waterfront facility design, including initial concept, financing, regulatory review, technical design and operations and maintenance.

The guide includes a foreword by PIANC member Neil W. Ross, President, International Marina Institute, Rhode Island, and costs \$59.95 (Can. \$74.95). To order, call 212-244-3336, x324, Fax: 800-248-4724, or write to Chapman & Hall, Inc., One Penn Plaza, 41st Floor, New York, New York 10119.

### Handbook of Coastal and Ocean Engineering

Three volumes of the Handbook of Coastal and Ocean Engineering by John B. Herbich are now available from the Gulf Publishing Company. The cost is \$195.00 for each volume or \$499.00 per set.

Volume 1 - "Wave Phenomena and Coastal Structures"

Volume 2 - "Offshore Structures, Marine Foundations, Sediment Processes, and Modeling"

Volume 3 - "Harbors, Navigational Channels, Estuaries, and Environmental Effects"

To order your copy (copies), please call 713-520-4444, Fax: 713-520-4438, or write to Gulf Publishing Company, Book Division, P.O. Box 2608,, Houston, Texas 77252-2608.

### Handbook of Dredging Engineering

The Handbook of Dredging Engineering by John B. Herbich is a compilation of the latest data on dredging technology, including theory and applications, dredging methods, equipment guidelines, and recommended practices. The handbook is available at a cost of \$59.50 from McGraw-Hill, Inc., by writing to 11 West 19th St., 4th Floor, New York, New York 10011, Attn: R. Handler or by calling 1-800-2-MCGRAW.



## Activities

### Inside PIANC

March 12-15, 1995	PORTS '95, Tampa Convention Center	Tampa, Florida
May 22 and 24, 1995	PIC Meeting	New Orleans, Louisiana
November 13-18, 1995	Third Seminar (Everyone Welcome) Permanent Committee for Development and Cooperation	Mormugao, India
September 1-5, 1996	Regional Conference Inland Marine Navigation and Coast Problems of East European Countries	Gdansk, Poland

### Outside PIANC

March 8 -10, 1995	National Waterways Conference Federal Affairs Seminar "Sizing Up the Republican Upheaval: How it Affects Navigation and Flood Control" Holiday Inn Capitol	Washington, D.C.
March 27 - April 7, 1995	The International Program for Port Planning and Management University of New Orleans Tel: 504-286-6519, Fax: 504-286-6272	New Orleans, Louisiana
April 23-24, 1995	Inland Waterways Business Development Conference, Marriott Bayside	Corpus Christi, Texas
April 23-26, 1995	American Water Resources Association 1995 Annual Spring Symposium "Water in the 21st Century: Conservation Demand, and Supply" Red Lion Hotel Salt Lake City	Salt Lake City, Utah
June 11-14, 1995	Pacific Congress on Marine Science and Technology Sustainable Aquaculture '95 Ilikai Hotel, Waikiki Tel: 808-956-6163, Fax: 808-956-2580	Honolulu, Hawaii
June 13-15, 1995	Infrastructure and Freight Handling '95 Flanders Exposition	Gent, Belgium
June 26-30, 1995	First International Radionavigation Conference and Exhibition "Planning for Global Radionavigation" Moscow '95	Moscow, Russia
November 30-December 2, 1995	International WorkBoat Show Diversified Expositions Tel: 207-772-3005, Fax: 207-772-5059	Portland, Maine

**Submit Your Articles and Photographs  
to the Editor, PIANC Newsletter**

Deadline for Articles, March 31, 1995  
See Page 1 for Address