



**President’s Message** by Major General  
*Don T. Riley, President, U.S. Section, and Director  
of Civil Works, U.S. Army Corps of Engineers*

Dear Members,

PORTS 2007 will be an important event to advance our knowledge and address the challenges for marine transportation system growth. I encourage you to participate.

The event will offer an all-encompassing array of professional/technical papers important to port and harbor development. These papers will address complex, innovative, and state-of-the-art technical aspects of planning, design, construction, maintenance, and operations of worldwide port and harbor facilities.



**MG Riley.**

Our Nation’s ports, harbors, and channels play essential roles in economic development, homeland security and the global war on terrorism. These facilities are experiencing significant challenges in throughput capacity and sustainability. Ports, harbors, and channels not only serve as gateways for imports and exports, they are also major hubs for tourism, moving thousands of cruise line passengers each year. As economic engines for our Nation, ports directly affect large segments of our population, generating thousands of jobs with strong wages. They also play an important role as embarkation points for military personnel, supplies and equipment bound for wherever they are needed.

**INSIDE.....**

- *President’s Message..... 1*
- PIANC NEWS**
- *Woodley and Riley to Chair Technical Roundtables at PIANC USA Annual Meeting 2007 ..... 2*
- *Young Professionals Corner ..... 3*
- *PIANC Annual General Assembly to be Held in Cochin (Kerala) India..... 5*
- *PIANC U.S. Section Central Region Vice President Election - Call for Nominations ..... 5*
- *Welcome New PIANC Members! ..... 7*
- *Sponsorship Opportunities at the Annual Meeting ..... 7*
- *PORTS Conference..... 8*
- *Call for Papers - 2008 PIANC De Paeppe-Willems Award Contest - PIANC..... 10*
- *The First Hemispheric Conference on Environmental Port Protection ..... 10*
- *PIANC Working Group 13: Best Management Practices Applied to Dredging and Dredged Material Disposal Projects for Protection of the Environment ..... 11*
- *PIANC Working Group 47: Criteria for the Selection of Breakwater Types and Their Optimum Safety Levels..... 12*
- *PIANC Working Group 49: Horizontal and Vertical Dimensions of Fairways ..... 13*
- *PIANC Working Group 52: Criteria for the (Un-) Loading of Container Ships ..... 14*
- *In Memory of Ron Conner..... 14*
- INDUSTRY NEWS**
- *American Association of Port Authorities Welcomes FY07 Port Security Grants..... 15*
- *Port Leaders Question Administration’s Proposed FY08 Under-Funding of Port Security and Dredging..... 16*
- *Port of Houston Security Tightened..... 18*
- *Vets Rally Behind Army Corps-Navy Team to Free Intrepid ..... 20*
- *Port of Long Beach Welcomes New State Rule on Cleaner Ship Fuel..... 23*
- *Port Expansion to Help Preserve Morris Island, South Carolina... 24*
- *Army Corps and Port Combine Forces to Save the Willamette ..... 26*
- *Touring the Blair Waterway..... 27*
- *JAXPORT Sets Records in Revenue, Cargo in 2006 ..... 30*
- *Pittsburgh District Announces 2007 Lock Maintenance Closure ... 32*
- *Underwater Grading for Berth Maintenance at Port of Portland, Oregon..... 34*
- *Corpus Christi Celebrates Packery Channel Opening..... 37*
- *Upcoming Related Conferences..... 38*
- *PIANC USA to Increase Dues..... 39*
- *About PIANC ..... 39*
- *PIANC USA Commissioners ..... 40*

By strategically investing in port, harbor, and navigation infrastructure development, the Federal government and its non-Federal partners are taking critical steps in providing improved access for newer class vessels, while at the same time protecting the aquatic environment. These system improvements also lower the costs of marine transportation, which gets passed onto the consumer in the form of lower prices.

A diverse group of people involved in the successful development and operation of port and harbor facilities will attend PORTS 2007 and hear presentations; exchange ideas; debate points of view; discuss case studies, methods, procedures, standards, and techniques; and share experiences, innovative solutions, and lessons learned.

Join us in San Diego, March 25-28, 2007, to attend PORTS 2007 and PIANC USA's annual meeting. PIANC USA Commissioners and members will hold a general membership meeting and technical presentations as part of the overall conference. In addition, the conference exhibit hall will showcase companies who provide goods and services to the ports and harbors industry.

Sincerely,

Major General Don T. Riley  
President, U.S. Section, and Director of Civil Works, U.S. Army Corps of Engineers

## PIANC NEWS

### Woodley and Riley to Chair Technical Roundtables at PIANC USA Annual Meeting 2007

Join us in sunny San Diego, California, for PIANC USA's annual meeting to be held on Tuesday, March 27, 2007, in conjunction with the Ports 2007 Conference (March 25-28, 2007, [www.portsconference.org](http://www.portsconference.org)) at the La Costa Resort.

The organizing committee for the meeting has an exciting afternoon planned with two technical roundtable discussions on "hot topics" that are of great interest to our members. Mr. John Paul Woodley, Jr., Assistant Secretary of the Army (Civil Works), and Major General Don T. Riley, U.S. Army Corps of Engineers (USACE), Director of Civil Works, will each chair and provide keynote remarks for a

roundtable discussion that will be held in an open forum format. Mr. Woodley and his panel of experts will discuss "Environmental Issues as They are Developing in the European Union, and Their Influence



**Mr. John Paul Woodley, Jr.**

in North America," with a focus on topics such as cold ironing, EU water directives, ballast water, etc. MG Riley and his panel of experts also will discuss "Port Security." Audience participation will be encouraged to stimulate a lively dialogue of these important topics.

#### **Environment Roundtable:** (1:30 pm to 3:00 pm)

- Mr. J. Paul Woodley, Jr., Assistant Secretary of the Army (Key Note Address)
- Robert Engler, Ph.D., Moffatt-Nichol (Moderator)
- Todd S. Bridges, PhD, USACE ERDC
- Stacy G. Jones, P.E., Halcrow HPA
- Geraldine Knatz, Port of Los Angeles

#### **Security Roundtable:** (3:30 pm to 5:00 pm)

- MG Don Riley, USACE Director of Civil Works (Key Note Address)
- Thomas H. Wakeman, DESc, Port Authority of New York and New Jersey (Moderator)
- CPT John Holmes, Port of LA
- E. Doug Sethness, P.E., Ch2M Hill
- Robert S. Johansen, P.E., JWD Group/ A Division of DMJM Harris

The general membership meeting in the morning will cover important issues of concern to the U.S. Section, including new activities for the upcoming year. PIANC members will also hear about the latest innovations related to the newest working group projects. For example, Jack Cox, The RETEC Group, Inc., will provide an update on RecCom's activities in the U.S. In addition, Ken Connell, USACE Coastal and Hydraulics Laboratory and the 2007 U.S. winner of the De Paepe-Willems Award, will present his paper on "Modeling Navigation Channel Infilling and Migration at Tidal Inlets: Sensitivity to Waves and Tidal Prism."

Lunch will be held in the Ports conference exhibit hall, giving you the chance to view the showcase of companies who provide goods and services to port and harbor industries. Take advantage of the time to discover exciting new developments in the field while networking with industry colleagues.

Later that evening, you will have the option to purchase a ticket to join fellow PIANC and COPRI/ASCE members aboard the USS Midway for a gala dinner. Located in downtown San Diego at Navy Pier, the USS Midway provides a dynamic and enriching experience to cap off our day-long event. Besides the ship itself and the breathtaking views of the city and bay, you can also explore the Midway Museum containing numerous restored airplanes, jets, helicopters, and flight simulators. Dinner will be served on the flight deck with the dramatic lights of downtown San Diego in the background and stellar views of San Diego Bay on all sides.

Don't forget, if you are planning to attend the Ports Conference, you will get the opportunity to hear PIANC USA President, MG Don T. Riley, speak as the Ports conference key-note luncheon speaker on Monday, March 26. MG Riley will speak on the latest developments from the USACE regarding Hurricane Katrina recovery and other developments.



*La Costa Resort, San Diego, California, USA.*

Even if you do not plan to attend the Ports Conference, we encourage you to join us for a full day of activities planned for PIANC members. Registration for the meeting is free to all, but due to limited space, pre-registration is required. You will find the registration form for the PIANC USA Annual Meeting in this issue of the *PIANC Bulletin* and on the website. Look for more information and sponsorship materials on the PIANC USA website ([www.pianc.us](http://www.pianc.us)), and via e-mail announcements. For questions, please contact Kelly Barnes at 703-428-9090 or [Kelly.J.Barnes@usace.army.mil](mailto:Kelly.J.Barnes@usace.army.mil). See you in San Diego!

## **Young Professionals Corner**

*by Jessica McIntyre*

The first Young Professionals Commission (YPCOM) was held September 29-30, 2006, in Palermo, Italy. Representatives from Austria, Belgium, France, Germany, Italy, Spain, the U.K., and the U.S. were in attendance. Other members of YPCOM include representatives from Japan, South Africa, and the Netherlands. Positions for the

newly formed YPCOM were elected, and are as follows:

- Holger Schüttrumpf (Germany, Chairman).
- David Romero Faz (Spain, Co-Chairman).
- Jessica McIntyre (USA, Secretary).



*PIANC Young Commissioners and Observers (left to right): David Romero Faz (Spain), Jurgen Trogl (Austria), Holger Schuttrumpf (Germany), Bruno Lemaire (France), Elio Ciralli (Italy), Eric Marcone (Italy), Jessica McIntyre (USA), Peter Troch (Belgium), Ridha Bentiba (UK), Pietro Chivaccini (Italy), Guglielmo Migliorino (Italy).*

In addition to the internal positions of YPCOM, YP Observers for each technical Commission were selected. Up to two members of YPCOM are invited to attend and participate in each technical Commission meetings as non-voting members. The YP Observers for this term are as follows:

- MarCOM: Peter Troch (Belgium); Alternate, Ridha Bentiba (UK).
- EnviCOM: Eric Marcone (Italy); Alternate, Bruno Lemaire (France).
- InCOM: Natascha Dofferhoff (Netherlands); Alternate, Jürgen Trögl (Austria).
- RecCOM: Jessica McIntyre (USA).
- CoCOM: Mags Ruthenavelu (South Africa); Alternate, Eric Marcone (Italy).
- ProCOM: To be determined.

Over the past year, YP involvement in working groups has increased. There are five InCOM working groups with a total of 17 YP members (including 11 students from France) and eight MarCOM working groups with a total of 15 YP members.

CoCOM is initiating a new effort in PIANC that focuses on the formation of National Sections through the formation of YP groups within the country first. South Africa will be used to formulate a model for this effort.

### Upcoming Events in the USA

Are you attending the PORTS 2007 conference in San Diego this March? Please let us know! There will be a PIANC and COPRI sponsored welcome reception for YPs Sunday, March 25<sup>th</sup> at 5:30 p.m. before the Conference icebreaker reception. Come meet other Young Professionals attending the Conference, and meet the Commissioners/Board members of PIANC and COPRI. Also, look for the PIANC table at the Conference to find out more about the USYP.

Please contact your USYP representatives if you are interested in becoming more involved in the USYP (PIANC USA Young Professional Group). Involvement can be anything from receiving information via email of upcoming events/opportunities for YPs to participation in a technical working group to assistance with the formation of the USYP. Please send your contact information and areas of interest to Shana Heisey at [Shana.A.Heisey@usace.army.mil](mailto:Shana.A.Heisey@usace.army.mil), or Jessica McIntyre at [jmcintyre@moffattnichol.com](mailto:jmcintyre@moffattnichol.com).

We look forward to hearing from you!



*Jessica Allen McIntyre, P.E., is a Project Engineer for Moffatt & Nichol, a consulting firm specializing in waterfront facility planning and design. As a member of PIANC, Jessica serves as*

*one of the U.S. representatives of YPCOM, and is the YPCOM Secretary. Jessica holds a BS in Civil Engineering and BA in Environmental Ethics, Policy, and Science from North Carolina State University, and a ME in Civil Engineering from the University of Florida.*

## **PIANC Annual General Assembly (AGA 2007) to be held in Cochin, Kerala, India**

The 2007 Annual General Assembly (AGA 2007) of PIANC will be held from April 16-19, 2007, at the Le Meridien Resort and Convention Centre in Cochin, Kerala, India. The website for additional information on events, attendance, and accommodations can be found at: <http://www.piancaga2007.com/>. Please note hotel reservations should be made before March 15, 2007.

## **PIANC U.S. Section Central Region Vice President Election – Call for Nominations**

The call for nominations has commenced to replace the elected Commissioner for the PIANC U.S. Section Central Region Vice President whose term expires in 2007. States that fall under the Central Region include: Alabama, Arkansas, Illinois, Indiana, Iowa, Kansas, Kentucky, Louisiana, Michigan, Minnesota, Mississippi,

Missouri, Nebraska, Ohio, Oklahoma, Tennessee, Texas, West Virginia, and Wisconsin. Submit your name and a brief biography to Kelly Barnes at [kelly.j.barnes@usace.army.mil](mailto:kelly.j.barnes@usace.army.mil) or by mail at PIANC USA, 7701 Telegraph Road, Casey Building, Alexandria, Virginia, 22315. The nomination period will close on March 15, 2007.

The U.S. National Commission, which is composed of 11 members, is the central governing body of PIANC USA. The Chairman is the Assistant Secretary of the Army (Civil Works); the President is the Director of Civil Works, U.S. Army Corps of Engineers; and the Secretary is employed by the U.S. Army Engineer Institute for Water Resources. Of the eight other representatives, there are three Vice-Presidents elected by the membership of the Eastern, Central, and Western Regions, and five Commissioners representing other government agencies and industry who are selected through nomination and appointed by the Chairman.

Mr. Charles C. Calhoun, Vicksburg, MS, is the current Central Region Vice President on the U.S. Commission and his term expires on June 30, 2007. Mr. Calhoun completed a long and distinguished career at the U.S. Army Corps of Engineers Waterways Experiment Station (WES) when he retired in 1999 as the Deputy Director of the Coastal and Hydraulics Laboratory (CHL). He currently serves as a consultant and highly sought after speaker for seminars on leadership development. His presence will be missed on the U.S. Commission.

### **Responsibilities**

The responsibilities of the U.S. National Commission are to manage the activities of PIANC in such a manner as will best advance the purposes of United States maritime and inland waterway interests, and to promote the objectives of the U.S. Section of PIANC in the United States. See complete list of responsibilities from the U.S. Section Rules and Regulations at the end of this article under **Duties**.

## Election and Term of Office

The election of the Central Region Vice President shall be by general election of the membership within the central region. Nominations shall be solicited 4 months prior to the election, which shall be by written ballot at least 60 days prior to the expiration of the term of the serving Commissioner. Elections shall be by mail, submitted to the Secretary of the U.S. Section. Results of the election shall be reported to the Chairman of the U.S. Section no later than 30 days prior to the expiration of the term to be filled for appointment. Installation of elected Commissioners shall be made by the Chairman upon receipt of election results, and the term shall begin on the date of installation and shall be for 4 years unless otherwise indicated by the Chairman. An elected commissioner may run for a second 4-year term. No person may serve more than two consecutive terms on the U.S. National Commission. No person in the active service of the United States Government shall be appointed or be a candidate for election without the prior approval of the head of the individual's government Department or Agency.

## Election Schedule

January – March 2007: First-quarter issue of the PIANC *Bulletin* distributed. Solicitation announcement for Central Regional Vice President will be issued in the *Bulletin*, on the website, and e-mailed to members in the Central Region. Names and brief biographies will be collected for those nominated for Central Regional Vice President. The nomination period for the Central Regional Vice President will close on March 15, 2007.

April 2007: Ballots for Central Regional Vice President will be mailed or e-mailed to members in the Central Region no later than April 6, 2007.

May – June 2007: Election for Central Regional Vice President closes on May 25, 2007. Votes tallied and new Central Regional Vice President announced to the Chairman no later than May 31,

2007. Installation of elected Commissioners shall be made by the Chairman upon receipt of election results, and the term shall begin on the date of installation. Winner announced no later than June 30, 2007.

## Duties

As stated in the U.S. Section Rules and Regulations (Article VII – Duties of Officials):

### 7.03 Members of the U.S. National Commission shall:

- a. Serve as delegates to meetings of the Permanent International Commission (PIC).
- b. Provide direction to the U.S. Section in the accomplishment of missions prescribed in Article I.
- c. Actively support the Association, promote membership, assist with technical meetings, and have oversight responsibility for a functional area of the U.S. Section.
- d. Assure that provisions of the Rules and Regulations are observed with respect to membership, elections, selection of delegates, and administration.
- e. Promote the value and participation in the Gustave Willems Award competition.
- f. Provide articles and information for publication in the U.S. Section, PIANC Newsletter.

### 7.04 The Regional Vice Presidents shall:

- a. Organize and administer regional activities as defined and approved by the National Commission, and represent the membership of the region before the Commission.
- b. Recommend to the President of the National Commission appointments of regional representatives or committee members.
- c. Coordinate all regional activities including designation of the host organization and

planning of the annual conference in his/her region.

- d. Report on regional activities to the National Commission.
- e. Promote membership in the region.
- f. Seek greater involvement of the private sector, universities, and state and local government organizations in PIANC.
- g. Organize regional seminars and other programs and activities for benefit of the membership.
- h. Encourage participation of regional members in standing technical committees, working groups, and study commissions, and recommend participants.
- i. Assist Principal U.S. Representatives to InCom, MarCom, RecCom, CoCom, and special commissions in administering the involvement of the regional membership in international working groups and study commissions, and other national and international activities as appropriate.
- j. Promote the value and participation in the Gustave Willems Award competition.
- k. Provide regional information for publication in the U.S. Section, PIANC Newsletter.

## Welcome New PIANC Members!

by Jeanene Nieberding

PIANC USA would like to introduce and welcome some of our newest members. They have now joined PIANC's world-wide network of professionals in the field of inland and maritime navigation and ports.

Anjana Chudgar, U.S. Army Corps of Engineers  
Kenneth Connell, U.S. Army Engineer Research and Development Center

John Ramsey, Applied Coastal Research and Engineering, Inc.

Please continue to encourage your friends and colleagues to join PIANC USA so they can start to receive all the benefits that PIANC has to offer! Refer them to [www.pianc.us](http://www.pianc.us) for a membership application.

## Sponsorship Opportunities at the Annual Meeting

Is your company looking for extra exposure? Sign up today to sponsor the PIANC USA 2007 Annual meeting and receive the following benefits:

- Signs with company name and logo prominently placed at the meeting.
- Company flyer or brochure inserted into conference registration packet.
- Company name and logo listed in the on-site printed program.
- Special recognition from the podium during the meeting.
- Company name and logo listed as a sponsor on the PIANC USA Website.

**Sponsors will be identified according to the level of donation:**

**Gold Level--\$2,500**  
**Silver Level--\$1,000**  
**Bronze Level--\$500**

You can find the Sponsorship Form on the PIANC USA website at [www.pianc.us](http://www.pianc.us). For more information or questions, please contact Kelly Barnes at 703-428-9090 or [Kelly.J.Barnes@usace.army.mil](mailto:Kelly.J.Barnes@usace.army.mil). Thank you for your support!

[WWW.PORTSCONFERENCE.ORG](http://WWW.PORTSCONFERENCE.ORG)

30 Years of Sharing Ideas...  
1977-2007

# PORTS™ 2007

March 25-28, 2007

La Costa Resort | San Diego, California USA

## THE MOST EXCITING PORTS™ CONFERENCE EVER!

Ports™ 2007 brings professionals from around the globe together with an impressive array of program content covering all aspects of port development during the 9 sessions consisting of more than 140 presentations.

### CONFERENCE TOPICS:

- Port Planning
- Environmental Issues and Mitigation
- Waterways & Channels
- Landside Transportation
- Terminals & Specific Facilities
- Specific Technical Topics
- Security
- Life-cycle Management
- Non-traditional Projects

### TECHNICAL WORKSHOPS:

- Vessel Berthing & Mooring
- Geotextile Tubes for Dredged Material Dewatering
- Coastal Hazard Analysis & Mapping

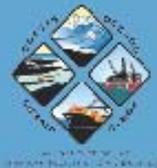
### EXCEPTIONAL KEYNOTE SPEAKERS:

- **Dr. Jim Wright**, Chief Engineer Naval Facilities Engineering Command
- **Captain Paul E. Wiedenhoefft**, Commander of the Coast Guard Sector Los Angeles/Long Beach
- **Major General Don T. Riley**, Director of Civil Works, U.S. Army Corps of Engineers.

### VALUABLE NETWORKING FUNCTIONS:

- Golf Tournament
- Icebreaker Reception in Exhibit Hall
- Awards Luncheon
- Gala Banquet on USS Midway

### Co-Sponsors



### Co-Hosts



### Cooperating Organizations



### WHO SHOULD ATTEND?

This conference has been developed for all professionals involved in any aspect of port design, development, management or construction including:

- Engineering related to land or water port access.
- Planning, design, rehabilitation, inspection or repair of marine terminals.
- Environmental planning for ports.
- Transportation planning for ports.
- Security for ports and harbors.
- Construction of Port Facilities

**EARN UP TO 15 PDHs!!**

**TECH TOURS AND ROUNDTABLE DISCUSSIONS:** Three Technical Tours: San Diego Bay Working Water Front Tour, UCSD Englekirk Center Structural Research Laboratory and the San Diego Bay Harbor Excursion. Two Roundtable Discussions: "Marinas 2020" and "Natural Disasters".

**SPONSORSHIP/EXHIBIT OPPORTUNITIES AVAILABLE!**

## REGISTRATION FORM

### PIANC USA ANNUAL MEETING 2007

La Costa Resort, Carlsbad

San Diego, California

March 27, 2007

For more information: [www.pianc.us](http://www.pianc.us)



Join us in sunny San Diego for PIANC USA's annual meeting to be held in conjunction with the ASCE/COPRI Ports 2007 conference. PIANC USA Commissioners and members will hold a general membership meeting in the morning and technical sessions in the afternoon, all set against the backdrop of La Costa Resort, one of the foremost convention facilities in Southern California. Registration for the meeting is free to all, but due to limited space, pre-registration is required.

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FULL NAME & CREDENTIALS:

TITLE:

ORGANIZATION & ADDRESS:

E-MAIL ADDRESS:

OFFICE PHONE:

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ARE YOU A "FULL REGISTRANT" FOR PORTS 2007?  YES  NO

IF NOT, WILL YOU NEED A LUNCH TICKET?  YES  NO

Lunch for the PIANC annual meeting will be held in the Ports conference exhibit hall, giving you the chance to view the showcase of companies who provide goods and services to the ports and harbors industry. A ticket is required for the event. If you are a registered for the Ports conference, the lunch ticket is included in your registration. If you are not registered for the Ports conference, PIANC will provide your lunch ticket.

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NOTE: Please return this form to Jeanene Nieberding at PIANC USA, 7701 TELEGRAPH RD, CASEY BLDG, ALEXANDRIA, VA 22315, or FAX to 703-428-8171, or EMAIL to: [Jeanene.M.Nieberding@usace.army.mil](mailto:Jeanene.M.Nieberding@usace.army.mil). For QUESTIONS or to phone in your registration, CALL 703-428-6370.



## Call for Papers – 2008 De Paepe-Willems Award Contest Permanent International Association of Navigation Congresses (PIANC)

February, 2007

The De Paepe-Willems Award is given by PIANC for the most outstanding technical paper prepared on an aspect of waterborne transport. Categories include policy, management, design, economics, integration with other transportation modes, technology, safety, public involvement, and the environment. The competition is open to anyone 35 years of age or under.



**Ir. Gustave Willems**  
1901 - 1982



**Ir. Robert De Paepe**

The U.S. Section's award winner in 2008 receives a \$1,000 U.S. Savings Bond, an expense-paid trip to the 2008 U.S. Section Annual Meeting, and an individual membership in the U.S. Section PIANC for 5 years. The U.S. Section winner's paper is forwarded for international competition in 2008. The international winner in 2008 receives a

trip to the 2008 Annual General Assembly. The International award winner receives € 5,000 and a 5-year individual membership.

Abstract submittal will be open for the 2008 competition starting **February 1, 2007**. The deadline for submitting paper abstracts for the 2008 contest is **April 1, 2007**, with technical paper submittals required by **August 1, 2007**. Please visit the U.S. Section's website for a complete listing of available awards and scholarships (<http://www.pianc.iwr.usace.army.mil/>), and the International PIANC website for information on qualifying for and preparing DePaepe-Willems papers for competition (<http://www.pianc-aipcn.org/>). For more details contact Edmond Russo, Chairman, Publications Committee, PIANC USA, at [edmond.j.russo@erdc.usace.army.mil](mailto:edmond.j.russo@erdc.usace.army.mil).

## The First Hemispheric Conference on Environmental Port Protection

The U.S. Section of PIANC is working with the Inter-American Committee on Ports (CIP), Organization of American States (OAS), regarding the "First Hemispheric Conference on Environmental Port Protection." The meeting will be held in Panama City, Panama, April 10-13, 2007.

The general objective of this First Hemispheric Conference on Environmental Port Protection is to offer a platform for spreading, updating, and exchanging information and technology regarding aspects related to environmental protection to orient the port sector towards sustainable development within a framework of cooperation policy.

The following are the specific objectives of the Conference:

- Promote exchange of information on issues related to environmental protection in ports in the American hemisphere.

- Create awareness in the port sector about the importance of environmental protection as value added to their activity.
- Strengthen the port sector's sustainable development.
- Provide incentives to the port's environmental management as a tool to promote the port sector.
- Present experiences and activities related to environmental port management to different members of the hemispheric port sector.
- Facilitate cooperation between countries, businesses, and institutions with the purpose of strengthening environmental port security.
- Minimize the use of the environmental variable as an instrument of disloyal competition by publicizing universally accepted environmental management systems.
- Promote the training of the port sector's human resources on issues related to environmental management.
- Create awareness on the integration of the environmental variable into port development plans.

The Conference will be held at the Hotel Continental. There will be simultaneous translation in English and Spanish.

The Conference will also allow for an Exhibition Room and tours of maritime facilities in both Coasts and the Canal. For those traveling with guests, there will be a Companion program that includes visits to tourist sites to Casco Viejo and the area of the Panama Canal. There will also be a visit to the Duty Free zone in the province of Colón.

If you are interested in attending, please contact Bruce Lambert ([Bruce.Lambert@usace.army.mil](mailto:Bruce.Lambert@usace.army.mil)), who is coordinating the U.S. Section involvement in the Conference. You can also visit the OAS-CIP website (<http://www.oas.org/CIP/default.asp>) for more information.

## PIANC Working Group 13 (WG13): Best Management Practices Applied to Dredging and Dredged Material Disposal Projects for Protection of the Environment

### Scope of work

WG13 is working on a report that will provide guidance on appropriate selection of management practices to achieve a balance between risk to the environment and cost and effectiveness factors. The report will be the most comprehensive compilation of management practices published to date. A major benefit of this WG13 effort will be an objective means to determine "best" management practices for specific dredging project scenarios.



*Left to right, Front row; Dena Dickerson (EL U.S.), Gerard van Raalte (PIANC The Netherlands), Makoto Fujino (PIANC Japan), Christine Adnitt (PIANC UK), Axel Netzband (PIANC Germany), and Paul Schroeder (EL U.S.). Second row; Chuck Dickerson (EL U.S.), Kevin Reine (EL U.S.), Doug Clarke (PIANC EL U.S.), Tom Borrowman (EL U.S.), Stefan Bolam (PIANC UK), Jarrell Smith (CHL US), Wouter Dirks (PIANC The Netherlands), Tim Welp (CHL U.S.), and James Clausner (CHL U.S.). WG13 members in attendance not shown are Andre van Hassent (The Netherlands) and Phil Spadaro (U.S.).*

## Meeting location

The most recent meeting of WG13 was held in Vicksburg, Mississippi, U.S., during the week of November 13, 2006. The meeting was hosted by Dr. Douglas Clarke of the Environmental Laboratory (EL) of the U.S. Army Engineer Research and Development Center (ERDC). The meeting was attended by Axel Netzband (Germany, Chairperson), Christine Adnitt (UK, Secretary), Stefan Bolam (UK), Makoto Fujino (Japan), Wouter Dirks (The Netherlands), Gerard Van Raalte (The Netherlands), Philip Spadaro (U.S.), Andre van Hassent (The Netherlands), and Douglas Clarke (EL, U.S.).

The WG also met with dredging experts from ERDC to conduct a review of the draft management practice selection framework. At the conclusion of the meeting, WG13 briefed Dr. Robert Engler, ENVICOM Chairman, on the status of the group's effort.

One additional meeting is planned to assemble a final draft of the WG13 report.

## WG13 tour

A tour was provided of laboratory facilities at ERDC. The tour included observations and briefings in the Coastal and Hydraulics Laboratory (CHL) to understand physical models involved in the Hurricane Katrina response, and in EL to view experiments related to capping of contaminated sediments, sediment transport mechanisms, and swimming capabilities of sturgeon.

## PIANC Working Group 47 (WG47): Criteria for the Selection of Breakwater Types and their Optimum Safety Levels

### Scope of work

The objectives of WG47 are to implement safety and cost optimization in generalized life-

cycle simulations to provide a comparison of breakwater types and appropriate safety levels for design.

## Meeting location

The most recent meeting of WG 47 was held in San Diego, California, in conjunction with the American Society of Civil Engineers International Conference on Coastal Engineering, September 2, 2006. PIANC USA sponsored the WG47 meeting. The meeting was attended by Prof. Dr. H. F. Burcharth (Chairman, Denmark), Dr. H. Schüttrumpf (Secretary, Germany), Mr. S. Sigurdarson (Iceland), Mr. K. Shimosako (Japan), Dr. J. van der Meer (The Netherlands), Dr. J. Melby (USA), Prof. R. Tomasicchio (Italy), and Prof. W. Allsop (UK).



*Standing with Ms. Sarah Rollings, Project Engineer, Sempra LNG, in front of 15 cu m CORE-LOCs are (left to right) Prof. William Allsop (UK), Prof. Hans Burcharth (Denmark), Ms. Rollings, Dr. Jeffrey Melby (USA), and Mr. Kenichiro Shimosako (Japan).*

## Meeting results

A draft technical report describing safety and cost optimizations with respect to life-cycle simulations for various breakwater types and

appropriate levels of safety for design is 80 percent complete.

### WG47 tour

Members of PIANC WG47 toured Sempra LNG's Energia Costa Azul unloading, storing, and regasifying LNG import terminal construction site near Ensenada, Baja California, Mexico, on September 1, 2006. The group observed casting of caissons and CORE-LOC<sup>®</sup> concrete armor units.

## PIANC Working Group 49 (WG49): Horizontal and Vertical Dimensions of Fairways

### Scope of work

The objective of WG49 is to review, update, and expand design recommendations on horizontal and vertical dimensioning presented in the report of WG30 (1997) titled "Approach Channels: A Guide for Design". WG49 will be considering recent developments in simulation and design tools, and sizes and handling characteristics of new generation vessels.

### Meeting location

The WG49 meeting was held at HR Wallingford, Howbery Park, Wallingford, UK, on November 10, 2006. The majority of the group members were in attendance (17 members, five guests); three members were absent. Attending members included Martin Boll (Germany), Michael J. Briggs (USA), Larry Cao (Canada), Captain Don Cockrill (IMPA, UK), Werner Dietze (Germany), Rink Groenveld (The Netherlands), Jarmo Hartikainen (Finland), Jose R. Iribarren (Spain), Mark McBride (UK), Hans Moes (South Africa), Terry O'Brien (Australia), Kohei Ohtsu (Japan), Sahil Patel (South Africa), Carlos Sanchidrian (Spain), Esa Sirkiä (Finland), Jos Van Doorn (The Netherlands), and Marc Vantorre (Belgium). Guests included Stephen Cork (Chairman, British

Section of PIANC, UK), Ian Mathis (Institute for Water Resources, USA), Sarah Mouring (U.S. Naval Academy, USA), Jennifer Waters (U.S. Naval Academy, USA), and Gillie Watson (HR Wallingford, UK)



**Left to right, Front row: Mark McBride (UK), Jennifer Waters (USA), Sarah Mouring (USA), Werner Dietze (Germany), Larry Cao (Canada). Second row: Martin Boll (Germany), Jos van Doorn (The Netherlands), Jose Iribarren (Spain), Kohei Ohtsu (Japan), Esa Sirkia (Finland). Third row: Marc Vantorre (Belgium), Captain Don Cockrill (UK), Rink Groenveld (The Netherlands), Ian Mathis (USA), Sahil Patel (South Africa). Fourth row: Terry O'Brien (Australia), Carlos Sanchidrian (Spain), Stephen Cork (UK), Jarmo Hartikainen (Finland), Hans Moes (South Africa), and Michael Briggs (USA).**

### Meeting results

WG49 discussed a possible questionnaire and identification of channels/waterways that can be used for detailed analysis. The Group split into three sub-groups to discuss report structure, sections dealing with vertical dimensions, and sections concerning horizontal dimensions. The Group then reconvened to discuss and make writing assignments for individual sections. Drafts reports were made available for the meeting held in

Belgium in February 2007 and will be available at the upcoming meeting in the USA in April 2007.

### WG49 tour

Several members of WG49 were given an information tour of the HR Wallingford physical model facilities and Ship Simulator. Both are very important in designing harbors and channels, and predicting horizontal and vertical channel dimensions.

## PIANC Working Group 52 (WG52): Criteria for the (Un-) Loading of Container Ships

### Scope of work

The goal of WG52 is to collect prototype data on loading/unloading productivity of container ships at berth as a function of the wind and wave conditions in the harbour. These data will build a database to confirm (or reject) the findings from an earlier model study, and update the recommendations of the report of WG 24 (1995). It was found that the values presented in the PIANC 1995 report were predominantly based on experience with small container ships. The rapid growth of larger vessels during the past decade has led to ships with much greater length and beam, greater height of the containers on deck and, consequently, much greater height of the crane driver above the holds.

### Meeting location

The kick-off meeting of WG52 was held in Brussels, Belgium, on November 21-22, 2006. The meeting was attended by E. D. Allen (USA), H. A. Mohns (Germany—Chairman), C. A. Boysons (UK), H. Yoneyama (Japan), and M. P. C. de Jong (The Netherlands). There will be a teleconference in February 2007, and two face-to-face meetings in May and November, 2007.

## In Memory of Ron Conner



Ronald R. Conner, 50, economist and water resources planner with the U.S. Army Corps of Engineers' Institute for Water Resources, passed away on January 6, 2007, of cancer at the National Naval Medical Center in Bethesda, Maryland. We are stunned at his sudden passing. Ron was an accomplished professional and a true friend to so many of us. He will truly be missed.

Ron was born October 27, 1956, and grew up in Oxnard, California. After graduation from high school, he followed his father's footsteps and joined the Navy. In 1979, while on duty in the Mediterranean, he suffered severe injuries from a car accident, which required him to retire. After returning home, Ron attended the University of La Verne in California, graduating cum laude with a Bachelor's Degree in Economics and Business Administration. He then began his career with the Corps of Engineers as an economist at the Los Angeles District and, in 1990, became Chief of the Economics and Social Analysis Branch. In 1995, he moved to the Washington area after accepting a position with the Planning and Policy Division in the Directorate of Civil Works at Headquarters, U.S. Army Corps of Engineers. Ron also worked as an Emergency Response Program Manager at the Corps' Headquarters.

In 2002, Ron moved to the Corps' Institute for Water Resources at Fort Belvoir, Virginia, where he was a Senior Economist and served as Secretary of the U.S. Section PIANC from 2002 until 2005.

While serving in this position, he traveled to Norway, Australia, Japan, and Belgium. One of the highlights of his time as Secretary was his role in organizing the 2005 Annual General Assembly in Charleston, South Carolina. Among other accomplishments, Ron was instrumental in establishing the Interagency Flood Hazard Advisory Teams, and developing Flood Risk Management Initiatives to improve collaborative partnerships with the Federal Emergency Management Agency, the National Association of Storm and Flood Water Management Agencies, and the Association of State Floodplain Managers. Such accomplishments led to recognitions for Leadership Awards of Excellence, and a Commander's Award for Civilian Service.

Ron also traveled extensively for pleasure including trips to Iceland, Scotland, Greece, France, Turkey, China, Japan, Bermuda, Italy, and Switzerland. He was interested in historic preservation and conservation, and gave generously to various charities supporting his interests, including the National Trust for Historic Preservation and the Jonsson Cancer Center Foundation at UCLA. Ron was an avid soccer fan and a longtime supporter of DC United. With his soccer friends, he traveled to Great Britain for English Premiership matches, and this past summer to Germany to support the U.S. National Soccer Team in the World Cup.

If anyone would like to contribute to a charity on Ron's behalf, suggestions include the Jonsson Cancer Foundation at UCLA and the National Trust for Historic Preservation.

## INDUSTRY NEWS

### American Association of Port Authorities (AAPA) Welcomes FY07 Port Security Grants

#### Increased Funding, Eligibility Set Stage For Improved Seaport Security *by Aaron Ellis*

The American Association of Port Authorities (AAPA), on January 9, 2007, welcomed news from the Office of Grants and Training within the Department of Homeland Security (DHS) that Round 7 of the Port Security Grant program is now open for applications. As part of a unified Infrastructure Protection Program, the seventh round of Port Security Grant awards will provide nearly \$201.2 million to eligible applicants, while the remainder of the \$210 million Congress appropriated for fiscal year 2007's program will pay for administering it.

"This year's appropriation represents a 20 percent increase over the \$175 million that Congress appropriated for port facility security grants in fiscal year 2006," said Kurt Nagle, AAPA president and CEO. "Because of the changes that AAPA was able to get enacted in the Safe Port Act of 2006 (signed into law on October 13, 2006), all port facilities included in local Area Maritime Security Plans are eligible to apply."

Mr. Nagle noted that while AAPA applauds the funding increase and lifting of eligibility restrictions in this year's Port Security Grant program, "...we regret that Congress didn't fund the program to its full \$400 million authorized amount."

Susan Monteverde, AAPA's vice president of government relations, says the FY07 Port Security Grant Program's priorities are similar to those of FY06, with a few notable exceptions, such as the addition of training and security exercises.



*Kurt J. Nagel, President and CEO, American Association of Port Authorities.*

As in Round 6, expenses relating to the Transportation Worker Identification Credential program, which the Transportation Security Administration began rolling out in 2006 to approve worker access to secure port areas, will be eligible for funding as part of maritime domain awareness. Other funding priorities continued from Round 6 include increased situational awareness, prevention and detection of improvised explosive devices (IEDs), and national preparedness goals.

New for Round 7 is a system of grouping eligible ports into four risk-based tiers. The top eight port areas applying for grant funds that DHS classifies as being at the highest risk are grouped in Tier I. They will compete for approximately \$120 million of the \$201 million available. In many cases, multiple port areas have been grouped together to reflect geographic proximity, shared risk, and a common waterway. Port area grant applicants assigned to Tiers II, III or IV will compete for a portion of the total funds set aside for their respective tier: \$40.2 million in Tier II; \$30.2 million in Tier III; and \$10 million in Tier IV. DHS will assess risk to port areas using a methodology consisting of threat, vulnerability, and consequence factors, and will award funds based on that analysis and the effectiveness of proposed investments by each applicant.

As in FY06, all entities receiving FY07 Port Security Grant awards will pay a cost-share amount

to participate. Public entities, such as seaport authorities, must pay 25 percent, while private entities, such as sightseeing cruise and petroleum terminals, will have to pay 50 percent. Funding for ferry-related security projects is now available through DHS's Transit Security Grant Program, also administered by the Office of Grants and Training.

Those receiving grant awards will have up to 36 months to complete their project(s), which is 6 months longer than in 2006.

Upon completion of the grant application process, DHS will announce the winners of Round 7 awardees on its Web site, <https://www.portsecuritygrants.dotts.net>. This list will also be posted on the "Government Relations" section of AAPA's Web site, [www.aapa-ports.org](http://www.aapa-ports.org).



*Aaron Ellis, Communications Director, American Association of Port Authorities.*

## **Port Leaders Question Administration's Proposed FY08 Under-Funding of Port Security and Dredging** *by Aaron Ellis*

At a news conference on February 5, 2007, at the National Press Club in Washington, DC, the top two leaders representing public port authorities in the United States responded to the Bush Administration's recommended FY08 appropriation levels for the Department of Homeland Security's Port Security Grant program, and the portion of the

U.S. Army Corps of Engineers' Civil Works program that provides crucial navigation access to ports.

Representing the American Association of Port Authorities (AAPA) was Kurt Nagle, President and CEO of the AAPA, and Warren McCrimmon, Seaport Director of Ohio's Toledo-Lucas County Port Authority, who also serves as AAPA's U.S. Delegation chairman.

In its proposed fiscal 2008 budget, the Bush Administration recommends the Department of Homeland Security's (DHS) Port Security Grant program—the only federal program that assists public ports to fund marine facility security improvements—receive \$210 million in Congressional appropriations. This is the largest amount the President has ever recommended as a line item for this program, and it is equal to what Congress appropriated in fiscal 2007. Still, it is in stark contrast to action taken last fall when Congress approved and the President signed into law the SAFE Port Act of 2006, authorizing \$400 million a year in Port Security Grant program appropriations—the level that AAPA recommended.

The Administration's budget request calls for an 8 percent overall increase in DHS's budget in fiscal 2008, but recommends no increase for port facility security.

“The federal share of the seaport facility security funding partnership needs to be increased to the level the President and Congress approved in the SAFE Port Act,” said AAPA's Mr. Nagle.

Since its inception in 2002, the Port Security Grant program has provided much-needed help to address immediate security needs and assessments. But federal money allocated in the first six rounds of the program—about \$876 million—accounted for only one-fifth of what seaports identified as needs. For more than 4 years, AAPA has urged the Administration and Congress to annually fund the

program at the \$400 million level. AAPA has also urged DHS to allow the grants to reimburse expenses such as security personnel and long-term security equipment maintenance.

Although airports, first responders, and research and development centers receive most of the federal attention and funding for security and terrorism prevention, seaports—which support 5 million jobs and annually handle \$2 trillion worth of cargo and more than 9 million cruise ship passengers—remain largely under-funded at the federal level. As a result, they must divert limited port resources to pay for enhanced security, in some instances at the cost of improving their facilities to handle fast-growing trade volumes.

According to Mr. Nagle, the Administration's budget request also seeks an insufficient amount to fund the Corps of Engineers' Civil Works program, which is vital to meet the navigation needs of America's seaports and the businesses they serve. Although \$1.1 billion to \$1.3 billion in funding from the Harbor Maintenance Trust Fund (HMTF) is needed to maintain federal navigation channels, the Administration's budget calls for only \$735 million.

U.S. port development and maintenance is a shared responsibility of federal, state, and local governments, with extensive private sector participation. The federal government maintains harbor access channels, while individual ports spend more than \$2.1 billion annually to construct and maintain the landside terminal facilities, dredge their own berths, and contribute to channel improvement cost-sharing programs.

Overall, the Administration is requesting \$4.871 billion for the Corps' Civil Works program, compared to the \$4.733 billion it requested last year, representing about a 3 percent increase.

“We're pleased the President's budget request for the Corps' overall Civil Works program appropriation is about \$141 million more than last

year's request. If accepted, that would translate to \$28 million more coming out of the HMTF to pay for navigation channel maintenance," stated Mr. Nagle. "While we applaud any incremental increase in funding for this program, the President's proposed budget still falls far short of the more than \$1 billion that is needed annually to maintain the nation's navigation channels at their required depths and widths. Proper funding would help reduce shipping costs for America's businesses, making the products we buy and sell less expensive."



*Warren McCrimmon,  
Seaport Director, Toledo-  
Lucas County Ohio Port  
Authority, and AAPA U.S.  
Delegation Chairman.*

Mr. McCrimmon, AAPA's U.S. Delegation chairman, noted that it is particularly troubling that the Administration recommends short-changing navigation channel maintenance when the money to dredge the country's shipping lanes to their required levels has been "prepaid" by the users of those waterways via payment of a cargo tax on imports and domestic freight. He said AAPA will continue to work with the Administration and Congress this year and in future years "to help put the 'trust' back into the HMTF", and to assure that federal appropriations for the Corps' Civil Works program are raised to meet the needs of businesses and the port industry.

Mr. Nagle noted recent reports about a rise in U.S. exports as being "...good news for American businesses trying to compete in overseas markets." However, he said that this type of news would be much more common if the harbor maintenance taxes collected from U.S. importers and domestic shippers were used exclusively for their intended

purpose, which is to maintain the country's shipping lanes at their authorized levels, thereby improving access and reducing transportation costs.

Mr. Nagle added that the U.S. economy, environment, and national defense depend largely on how well we can ensure deep-draft shipping access to our seaports and protect them against terrorism.

## **Port of Houston Security Tightened**

### **Additional Funds, Customs Agents**

*by Port of Houston Authority, Houston, Texas*

The tough task of keeping the world's 10<sup>th</sup> largest port safer just became a little easier.

The U.S. Department of Homeland Security just awarded the Port of Houston Authority (PHA) an additional \$1.754 million from the Round 6 federal port security grants. The funds will be used to help pay for enhanced access control and closed-circuit television (CCTV) systems, and PHA will pay for the portion of the projects' costs that are not covered by the grant.

To date, the PHA has been awarded a total of \$33.29 million in federal port security grants.



*Port of Houston Authority security officer  
inspecting container arriving at the Port.*

"In a world of threats and risks ranging from hurricanes to terrorist acts, security remains a top priority for the PHA, and we greatly appreciate the

vital support from the U.S. Department of Homeland Security,” stated James T. Edmonds, PHA Chairman.

“To help maintain the uninterrupted, free flow of cargo that is so essential to the economic vitality of the Houston region, the port authority will put these federal grant funds to good use in bolstering our technological capabilities,” said Edmonds. “This will greatly complement our ongoing efforts to work cooperatively with congressional leaders, the U.S. Coast Guard, and all of our port security partners at the local, state, and federal levels.”

The PHA has an ongoing, cohesive port security program involving infrastructure enhancements and installation of communication and surveillance equipment and technologies. “Every dollar helps us address additional security concerns and create a safer, more secure port,” said Russell Whitmarsh, PHA chief of police. “We know that there are still areas for improvement. As technology and knowledge changes, we have to be prepared to move forward to enhance the port’s security,” Whitmarsh added.



*Port of Houston, Texas, Container D.*

The funding will be used to install identification card readers at the PHA’s Barbours Cut container and cruise terminals, Sims Bayou, and the south side of the Turning Basin. Access control technologies will also be installed at Barbours Cut’s administration building, the Port Coordination

Center, and the executive building. This project also includes the fiber connection of CCTV systems at the Turning Basin. The estimated cost for completion of this project is \$1.18 million.



*James T. Edmonds, Port of Houston Authority Chairman*

A second project will add access control and CCTV systems at Morgan’s Point and access control at the Woodhouse Terminal for an estimated cost of \$1.16 million.

Security got a further boost recently when the U.S. Senate unanimously approved an amendment to the Port Security Improvement Act of 2006 that will provide an additional 275 Customs and Border Protection (CBP) officers at the PHA and other U.S. ports. President George W. Bush has signed the act into law.

The key amendment was introduced by U.S. Senator Kay Bailey Hutchison, and it raises the total number of new officers called for in the bill to 1,000 nationwide.

“Port security is an integral part of our national defense and economic security. This bill addresses port vulnerabilities and provides a much-needed increase in security funding and the numbers of Customs and Border Protection Officers,” Hutchinson said. “An attack on the Port of Houston, or other port with petrochemical facilities, could interrupt our energy supply, cripple our economy, and threaten millions of lives.”



*Texas U.S. Senator Kay  
Bailey Hutchison*

Hutchinson has long supported tightening port security.

“The port authority is fortunate to have friends like Senator Hutchison on Capitol Hill,” said Edmonds. “I commend Senator Hutchison for working with all of our port security partners at the local, state, and federal levels to raise the importance of port security as a national priority.”

“The announcement of these additional Customs and Border Protection cargo inspectors is great news not only for the Port of Houston Authority but the entire Houston region,” stated Edmonds. “These additional officers will definitely help ensure safety and security at the port and protect the free flow of trade through our facilities. They will significantly improve our ability to inspect the millions of containers that enter the U.S. annually,” he added.

## **Vets Rally Behind Army Corps-Navy Team to Free Intrepid**

### **A Very Special 29-Day, 29-Minute Emergency Operation**

*by JoAnne Castagna, Ed.D.*

Felix Novelli was 19 years old when he was assigned to the USS Intrepid during World War II. He clearly remembers the enormous horror and splendor he experienced while onboard the aircraft carrier, including his first attack. Today, Novelli is

81, lives in Southampton, New York, and continues to support his fellow sailors.

On December 6, he was present at the moving of the Intrepid from New York City Pier 86 to receive refurbishment and repairs in New Jersey – a move that would not have been possible without the tireless work of the U.S. Army Corps of Engineers, New York District; the U.S. Naval Sea Systems Command and its salvage contractor, Donjon Marine Co. Inc., many state and city agencies, and McAllister Towing Company.

Today, the retired warship proudly serves as the Intrepid Sea, Air, and Space Museum. It is the world’s largest naval museum and has been berthed at Pier 86 on Manhattan Island in the Hudson River since 1982.

The aircraft carrier was saved from being scrapped by the Intrepid Foundation, a charitable organization started by the New York City-based Fisher construction and real estate family. The Foundation through its Fallen Heroes Fund, Center for the Intrepid, and Fisher Houses, responds to the hardships of military service and meets a humanitarian need beyond that normally provided by the Department of Defense. The Fisher Houses at military hospitals worldwide provide assistance to the families of critically injured servicemen and women.

In addition to its World War II service, the 925-ft-long ship saw action in the Korean and Vietnam conflicts. “The Ghost Ship,” as she was known by the enemy, also tracked Soviet submarines during the Cold War, and served as NASA’s prime recovery vessel for Mercury and Gemini capsules in the 1960s.

After 24 years, officials of the Intrepid Foundation recognized that the ship needed repairs and refurbishment as well as a rebuilt public pier to serve the 700,000 visitors each year. In August 2006, the museum received a federal permit from the U.S. Army Corps of Engineers to dredge an

access channel from the berthing area out to the main federal channel of the Hudson River, a “driveway” to facilitate moving the vessel to Bayonne, New Jersey, where it would undergo inspection and necessary repairs. Intrepid’s contractor, Jay Cashman Dredging Inc., completed the work in October 2006.



***USS Intrepid docked at Pier 86 on the Hudson River on Manhattan’s west side. (photograph courtesy of Peter Shugert, U.S. Army Engineer District, New York).***

River mud had accumulated around the ship like a bun around a hot dog. The dredging operation removed approximately 16,000 cu yd of river sediment that was mixed with Portland cement and beneficially reused as interim cover in the closure of the former Fresh Kills landfill in Staten Island.

On November 6, an “Intrepid on Leave” celebration was conducted by Intrepid Foundation officials to give the ship an elaborate send-off to its temporary home. Several public service agencies’ vessels were invited to escort the ship down river, including four Corps workboats to lead the flotilla.

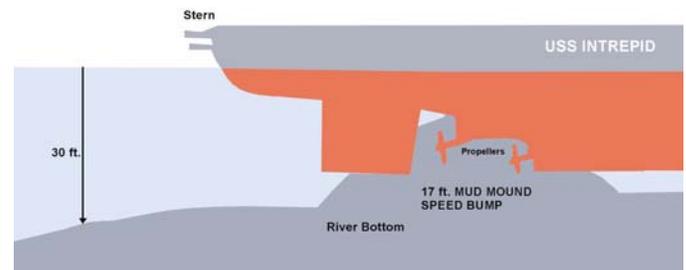
During this initial attempt to remove the engineless ship, seven tugboats began to pull and the Intrepid literally got stuck in the mud. The 27,100-ton ship moved stern first, backward, about 15 ft before its four giant propellers, each

measuring 16 ft in diameter, dug into the river sediment and prevented any more movement. Try as the straining tugs did, it would not budge. The effect of this first attempt was a compacted “speed bump” of river mud under the ship’s fantail.

Museum officials immediately called numerous government agencies for help, including Pentagon officials. The U.S. Army Corps of Engineers, New York District, was tapped to respond because it is the closest federal agency with expertise. Within 2 hr Col. Nello Tortora, District Commander, and technical experts were on the adjacent pier assessing the situation.

“Things looked bad,” said Tom Creamer, Chief of Operations for the District. “The stern of the ship was 2 ft higher than the bow. At low tide, the aircraft carrier was only resting on the bow and the stern’s speed bump. This was adding serious stresses to the hull, placing the ship in a precarious situation. We quickly realized that this was not a simple matter of more dredging, but a grounded ship that needed to be carefully freed,” Creamer added.

The Corps recommended Intrepid officials reach out to the U.S. Navy’s salvage experts to join the team, since the Navy has unique knowledge and experience freeing large ships. The U.S. Naval Sea Systems Command was assigned the salvage operation. The next day, the Navy expert salvage contractor, Donjon Marine Co. Inc., Hillside, New Jersey., had an assessment team at the Intrepid. Donjon salvage divers surveyed below the waterline to inspect the vessel for any damage and determine the extent of the speed bump.



***“Speed bump” under USS Intrepid fantail.***

Soon the Navy was working with the Corps, Intrepid Foundation, and state and city agencies to quickly execute a unique and highly visible dredging operation to remove compacted sediment from around the propellers and shafts. The Navy brought technical and contractor expertise to the Army-Navy partnership. The Corps provided project oversight and integration. “Because this is our home turf, the District team members had the local knowledge and existing relationships with stakeholders, government agencies and officials, and the media,” said Col. Aniello Tortora, the District Commander. “We executed this mission as a joint military operation with daily progress meetings and situation reports. Key members of the Naval Sea Systems Command and the Corps of Engineers worked 24/7 until the job was done,” he added.



*Colonel Aniello L. Tortora,  
Commander, U.S. Army  
Corps of Engineers, New  
York District.*

The team devised a 3-phase execution plan. First, dig the existing driveway deeper and wider, and add an access trench on the south side of the vessel from the Intrepid’s stern to beyond its trapped propellers and shafts. Second, utilize a drag bar to drag from under the stern and rake the sediment out. And third, airlift or vacuum the remaining mud from under the ship’s fantail.

“We had to work ‘round the clock because there was a lot of mud to be moved and we only had 29 days to the next high tide. That would be the next day for highest tide which would provide an extra 5 ft of water to get her out. That was going to be our best shot, and we didn’t want to miss the opportunity,” said Creamer.

“We also had to move swiftly because of environmental reasons,” said Peter Shugert, Chief of Public Affairs for the District. “We were concerned because the Intrepid was in a precarious state, and her hull plates could separate and leak petroleum-contaminated bilge water into the river. We also were very concerned about the return to the river estuary of the anadromous fish species for the winter spawning season.” Donjon Equipment included an environmental dredging bucket to minimize any adverse water quality and fisheries impacts.

After almost 3 weeks of work and the removal of approximately 39,000 cu yd of river mud, salvage divers were able to touch the exposed propellers and shafts, showing that the dragging and dredging operations were working and the ship would soon be ready for tow. Another challenge of this operation was to beneficially use the dredged material as much as possible. The sediment was tested for pollutants and found to be acceptable for beneficial reuse.

On a crisp, clear December 6 morning, the 29<sup>th</sup> day of the emergency operation, officials from the Intrepid Foundation, the Corps, the Navy, Intrepid vets (including Felix Novelli), and the media stood on Intrepid’s flight deck. Surrounded by McAllister tugboats, Corps harbor workboats, U.S. Coast Guard cutters, New York City police boats and fireboats, and a flock of helicopters over the Hudson, it was time to try again.

But it was not over yet. There were still several challenges. The morning was the coldest of the year with constant winds of 10-20 knots coming across the Hudson out of the west pushing against the ship. The Hudson River’s high tide and slack water were not at the same time. When the tide was the highest, the river’s strong current had not stopped yet, and were still running upriver at over 5 knots.

The operation started at 8:30 a.m. and, after 29 min of relentless pulling by five powerful

McAllister tugboats and the combined force of 21,000 hp, the Intrepid gave in and said goodbye to New York City at 8:59 a.m. The ship moved gracefully out of the berth, through the newly dredged driveway, and out to the main Hudson River federal channel in a slow but majestic voyage 5 miles down the Hudson River.



*U.S. Army Corps of Engineer vessels Gelberman and Hayward lead the USS Intrepid being towed slowly down the New York Harbor stern-first enroute to its temporary dock in Bayonne, New Jersey (photograph courtesy of Peter Shugert, U.S. Army Engineer District, New York).*

On the way down river, the Intrepid slowed slightly on passing the World Trade Center site. Twenty former crewmembers unfurled a 100-ft U.S. flag from the superstructure to honor those who died there September 11, 2001.

The Intrepid paused again briefly on passing the Statue of Liberty enroute to the ship's temporary home, the Bayonne Dry Dock Company at the former U.S. Army Military Ocean Terminal, Bayonne, New Jersey, where the 63-year-old ship will begin a long-overdue refurbishment. Novelli said that part of this work would involve renovating the lower decks where he and his crewmembers lived. The ship will then be moved to Staten Island, New York, for interior renovations before returning to a rebuilt Pier 86 in late 2008.

For more information about the Intrepid Sea, Air, and Space Museum, please visit [www.intrepidmuseum.org](http://www.intrepidmuseum.org).



*USS Intrepid receives a water cannon salute in New York Harbor as tugboats slow it down, allowing the ship to pause near the Statue of Liberty national monument (photograph courtesy of USS Intrepid Sea, Air, and Space Museum).*



*Dr. JoAnne Castagna is a technical writer-editor for the U.S. Army Corps of Engineers, New York District. She can be reached at [joanne.castagna@usace.army.mil](mailto:joanne.castagna@usace.army.mil).*

## Port of Long Beach Welcomes New State Rule on Cleaner Ship Fuel

**Ocean Vessels to Burn Low-Sulfur Fuel Starting in January 2007** by Port of Long Beach, CA

Port of Long Beach, CA, officials praised a new California state rule on cleaner-burning ship fuel, which took effect January 1, 2007.

The new regulation, adopted by the California Air Resources Board (CARB) in 2005, requires large ocean-going vessels, including container and cruise ships, to use low-sulfur fuels in their auxiliary engines within 24 nautical miles of the California coastline. The regulation will reduce emissions of harmful diesel particulate matter (PM), smog-forming nitrogen oxides (NOx) and sulfur oxide (SOx).

“This is a significant step forward for cleaner air,” said Long Beach Harbor Commission President James C. Hankla. “To achieve greater emissions reductions we count on our state partners, such as CARB, to set and enforce standards. We applaud CARB for taking this crucial step.”



**Containership offloading at Port of Long Beach, California, Pier F.**

The new regulation will address emissions from ships operating near shore and at berth. Auxiliary engines are used to provide electricity for ship operations such as lighting, cooling, and other on-board functions.

“The new cleaner-fuel regulation is an important interim step while the Port of Long Beach implements shore-side electricity for ships at berth as well as its own, more stringent low-sulfur fuel requirements”, Hankla noted. Under the San Pedro Bay Ports Clean Air Action Plan, a comprehensive strategy to reduce air pollution from all port-related sources, the Ports of Long Beach and Los Angeles have committed to provide shoreside electrical power, thus enabling ships to shut down their auxiliary engines entirely.

According to CARB, the regulations will bring about immediate emissions reductions from ships’ auxiliary engines. About 75 percent of ocean-going vessels now use a dirtier grade of diesel fuel in their auxiliary engines. From those ships’ auxiliary engines, the new regulations will result in a

75 percent reduction in PM, 80 percent reduction in SOx, and 6 percent reduction in NOx, according to CARB.



*James C. Hankla is President of the Long Beach Board of Harbor Commissioners. Mr. Hankla has worked in various government positions for more than 30 years, including 11 years as Long Beach City Manager before retiring in 1998.*

Under the new regulations, ships must use fuels with sulfur content at or below 0.5 percent. By January 1, 2010, the maximum allowable sulfur content will be 0.1 percent. Vessel operators must maintain meticulous records and will be subject to state fines for non-compliance.

## **Port Expansion to Help Preserve Morris Island, South Carolina**

**South Carolina State Ports Authority Environmental and Community Mitigation Package Eclipses \$10 Million** *by Byron Miller*

Port expansion at the former Charleston, South Carolina, Navy Base will include funds to help preserve Morris Island, and carry out a host of other environmental and community mitigation activities in the local area. The Trust for Public Land will receive funds to protect Morris Island as part of a multi-million dollar plan aimed at mitigating impacts of major port expansion at the former Navy Base.

The long-anticipated U.S. Army Corps of Engineers Final Environmental Impact Statement for port expansion was released December 15, 2006. It includes what is perhaps the largest single environmental mitigation plan in the state's history.

The State Ports Authority has been proactive in the mitigation process, working with environmental and community groups. In addition to operational and construction measures that will avoid and minimize negative impacts, the plan includes more than \$10 million in mitigation activities. A keystone component in the mitigation plan are funds to protect the 126-acre Morris Island site as a public space for future generations, an effort that has generated tremendous public, corporate, and political support.

"This contribution by the State Ports Authority takes us much closer to our goal of raising the \$5 million we need to secure Morris Island for public ownership, and initiate the process by which it can be responsibly managed," said Slade Gleaton, The Trust for Public Land's "South Carolina director. "As the Charleston area grows, these special places will become more and more important," said Gleaton. "This is our last chance to ensure that Morris Island will belong not to one company or individual, but to the entire community."



*Morris Island, located at the southern entrance to Charleston Harbor, South Carolina (photograph courtesy of The Trust for Public Land).*

The more than 70-page mitigation program summarizes the environmental consequences of port expansion, and provides solutions to reduce, rectify and compensate for direct and indirect impacts. The plan also includes mitigation for the dedicated Port Access Road that will connect the terminal to I-26.

"The Ports Authority is committed to responsible development," said Bernard S. Groseclose, Jr., the Ports Authority president and CEO. "We're addressing the impacts of port development in a fair and very thorough way."

When compared to similar large-scale projects, the Ports Authority's mitigation effort is certainly aggressive. The Vought mitigation activity for 40 acres of impact in North Charleston was \$4.75 million. Port expansion at the former Navy Base will impact about 10 acres of tidal marsh, 2 acres of freshwater wetlands and 57 acres of sub-tidal bottom fill.

To offset indirect environmental impacts and serve the public interest, the Ports Authority's mitigation plan includes support for large-scale land preservation efforts. With advice from The Trust for Public Land and from The Nature Conservancy, the plan includes \$1 million for the Morris Island protection effort and \$1 million toward protecting land through the Cooper River Initiative, a broad-based consortium of environmental agencies and groups.

To deal with direct impacts to aquatic resources and wetlands, the Ports Authority will recreate 22 acres of tidal marsh at a site in the lower harbor, restore more than 5 miles of oyster reefs in and around Charleston Harbor, and purchase mitigation bank credits. These projects are expected to total another \$2.5 million.

In addition to the traditional environmental mitigation, the Ports Authority, the City of North Charleston, and surrounding neighborhoods worked for months on initiatives to ensure the most positive

impact from the terminal. This culminated in May with an agreement for \$4 million in community programming to fund education and job training programs, establish an affordable housing trust, and other projects.

For the first time in any port-related mitigation plan, the Ports Authority has included activities specifically to address any impacts on the surrounding community.

“The City and the Ports Authority have collectively raised the bar in terms of public involvement throughout this process,” wrote Michael A. Brown, president of the Lowcountry Alliance for Model Communities (LAMC), in a letter supporting the mitigation plan. LAMC is a group that represents seven neighborhoods around the terminal site and dealt with port expansion issues.

The Ports Authority will also make available a 3-acre site for the benefit of the recently announced Clemson Restoration Institute on the former Navy Base.

A record of decision is expected in April 2007 on the Corps of Engineers Final Environmental Impact Statement.



*Byron Miller is Director of Public Relations for the South Carolina State Ports Authority. In this capacity, he is responsible for external communications, and serves as the Authority's spokesman. Mr. Miller is active in many professional associations and community organizations. He currently*

*serves as president of the Propeller Club of the Port of Charleston. Mr. Miller joined the Ports Authority in 1993.*

## Army Corps and Port Combine Forces to Save the Willamette

### Liquid Highway's Depth Critical for 49 Marine Terminals and Thousands of Local Jobs

by Michael Kaplan

Last year, 1,224 ships and barges stopped at the 49 marine terminals on the Lower Willamette River, that strip of liquid highway located between the Broadway Bridge in downtown Portland and the confluence with the Columbia River. While the ships and barges came in all different shapes and sizes carrying everything from gasoline and grain to concrete and new Corollas, they all had one thing in common – not one of them floats on silt. That poses a serious problem because the Willamette River navigation channel has not been maintenance dredged in nearly 10 years, and it is filling up with silt.

To address this looming issue, the U.S. Army Corps of Engineers (Corps) and Port of Portland hosted a public scoping meeting December 7, 2006, to kick off efforts to perform maintenance dredging on the Willamette. The Corps is the federal agency responsible for maintaining the river's channel depth at 40 ft. The Port, which owns three marine terminals on the Willamette, is the project's non-federal sponsor.



**Port of Portland, Oregon, on the Willamette River.**

The Corps has not performed maintenance dredging since 1997 because sediments in the Lower Willamette became part of the Portland Harbor “Superfund” site in 1999. Legal and technical issues regarding dredging within the boundaries of a superfund site have delayed maintenance dredging, and they have yet to be resolved. However, sediment buildup continues to reduce the Willamette’s ability to support its 49 marine terminals and thousands of marine industry workers.

“The severity of shoaling is beginning to outpace the river pilots’ ability to work around it, and if nothing is done, the river will lose its ability to serve as a freight transportation corridor,” said Port Project Development Manager Alan Willis. “That would have a very negative impact on Portland’s economy because it will diminish or stop completely activity at Willamette River marine terminals employing thousands of workers with family-wage jobs.”

At the scoping meeting, the Corps presented the public with the steps they’ll take to create a Dredged Material Management Plan (DMMP) for the Lower Willamette River.

The DMMP is a comprehensive 20-year plan for managing the sediments the Corps needs to remove from the Lower Willamette River federal navigation channel to maintain a 40-ft depth for safe navigation.

During the meeting, Corps officials presented project objectives and dredged material management alternatives. Afterward, they sought comments from the public about what other issues the DMMP and Environmental Impact Statement (EIS) should address. The EIS will evaluate the potential impacts of reasonable alternatives for managing dredged material in a least-cost, technically feasible manner that meets federal environmental standards. The EIS will include evaluations of the social, economic, and environmental impacts of dredging methods to

identify a preferred alternative. The Corps will continue to hold public meetings as the planning for the DMMP continues.

For additional information please visit the Port’s DMMP website:

[http://www.portofportland.com/Prj\\_Mar\\_DMMP\\_Home.aspx](http://www.portofportland.com/Prj_Mar_DMMP_Home.aspx).



*Michael Kaplan is an intern with the Port of Portland’s Community Affairs, and Media and Government Relation departments. He is currently pursuing a master’s degree in Public Administration at Portland State University.*

## **Touring the Blair Waterway**

*by Port of Tacoma, Washington ([Pacific Gateway magazine](#))*

Borrowing the immortal words of singer-songwriter Bob Dylan, “the times, they are a-changing” on the Port of Tacoma’s Blair Waterway.

A complex mix of projects—designed to maintain and improve the environment while providing room for the growth of existing and future customers—is literally changing the geography of the 2.5-mile stretch of water that is home to much of the Port’s business.

Without disrupting the Port’s ever-increasing activity, dredges are widening the waterway to accommodate the largest ships afloat, and even bigger ones now on the drawing boards.

The transformation of the Blair Waterway has been fast by any standard. Two of its four container terminals have been built within the last 8 years,

and the other two have received extensive renovations within the last 4 years.

### All aboard!

During a 2-hr November 2006 voyage on the Sea Scout vessel *Charles N. Curtis*, Port officials hosted media representatives and detailed a host of development and environmental projects. “The enormity of these projects is difficult to appreciate until you come out of the water and see the change,” said Port Commissioner Dick Marzano.



*Tacoma, Washington, Port  
Commissioner Dick Marzano.*

As the ship meandered its way up the Blair, Executive Director Timothy J. Farrell explained that Tacoma is unique among North American ports in its ability to grow to twice its geographic size, and to quintuple its volume to about 10 million TEUs at existing and future terminals.



*Port of Tacoma Executive  
Director Timothy J. Farrell.*

“Every one of our terminals has on-dock rail, and every terminal we design and build in the future will have on-dock rail,” Farrell said, noting that 73 percent of the Port’s international container cargo leaves on trains. “One of the huge benefits to

the community is reduced truck traffic, less wear and tear on infrastructure, and better air quality.”

At the mouth of Blair Waterway sits Husky Terminal, whose principal steamship customer is the Japanese carrier “K” Line. The terminal officially opened in July 2005 and was quickly expanded to its present size on 93 acres.



*Japanese “K” Line container ship being offloaded  
at Husky Terminal, Port of Tacoma, Washington.*

Across the waterway is Alaska carrier Totem Ocean Trailer Express (TOTE). The Port completed a \$12 million upgrade of the facility in 2003. Unlike the Port’s other container terminals, where cranes lift the boxes on and off the ships, TOTE uses ramps to load and unload truck trailers and vehicles.

“More than 70 percent of all cargo to Alaska comes through our Port,” said Marzano, who also works as a longshoreman. “I’m amazed at the ability of our people to move 53-ft truck trailers through spaces on the TOTE ships,” he added.

The 1997 removal of a narrow drawbridge that once crossed the waterway at the south end of the TOTE and Terminal 4 (now Husky Terminal) cleared the way for new terminal development in upper portions of the Blair.

While this opened the Blair, the old bridge reach created a pinch point in the waterway. To improve

navigation safety, the Port recently widened the old bridge reach. Combined with another widening program near the head of the waterway, the Port will remove approximately 2.9 million cu yd of earth.

Senior Project Manager Doug Saathoff explained the projects are the start of a long-term effort to make the Blair 850 ft wide, enabling the Port to berth the big container ships of the future on each side while one passes down the middle of the waterway. The same ships also will be able to use the turning basin at the head of the Blair, now enlarged to a 1,700-ft diameter.

In 1999, Hyundai Merchant Marine was the first beneficiary of the bridge removal when Washington United Terminals was opened on a 60-acre facility with on-dock rail. Over the years, this modern container terminal was expanded to its present size of 80 acres, and is now in the midst of another expansion, bringing the terminal to 100 acres.

Also with an eye to the future, the Port is close to finishing the demolition of a World War II vintage aluminum smelter on the southeast side of the waterway. The smelter was closed by Kaiser Aluminum several years ago and purchased by the Port in February 2003.



***Hyundai Merchant Marine on-dock rail operations at Washington United Terminals, Port of Tacoma.***

Environmental Program Manager Bill Evans, who has been overseeing the demolition at the 96-acre site, said it involved taking down the

building totaling 750,000 sq ft, including a 500-ft-tall stack. To date, the project has generated more than 18,000 tons of wastes—all properly disposed of. “But we recycle about three times as much materials as we have generated in the way of waste material,” said Evans, noting that the recyclables included 25,00 tons of steel, and over 36 million pounds of other materials.

When all structures have been removed and environmental cleanup work complete, the former Kaiser site will be developed into the Port’s next major marine terminal on the Blair Waterway.

### **Environmental Stewardship**

Lou Paulsen, Senior Director of Facilities Development, explained how modern marine terminal development goes hand-in-hand with environmental stewardship. “If you’re a vessel master coming into the Port of Tacoma, you can bring your vessel into a port with modern cranes on state-of-the-art terminals with near-dock infrastructure that moves cargo swiftly to inland markets,” he said.

“If you’re a juvenile salmonid,” Paulsen continued, “you can swim down the Puyallup River and find respite and food here at various habitat sites before working your way out to the open ocean after gaining size and strength.” He concluded, “economic development and the environment are important when it comes to maintaining our Community’s excellent quality of Life.”



*Lou Paulsen, Senior Director of Facilities Development, Port of Tacoma.*



*Contractors work on the Port's 20-acre expansion of Washington United Terminals.*

This article and photographs are courtesy of the Port of Tacoma, Washington, North America's sixth-busiest container port. For a free subscription to *Pacific Gateway* magazine or other Port of Tacoma publications, please visit [http://www.portoftacoma.com/publication\\_form.cfm](http://www.portoftacoma.com/publication_form.cfm).

## **JAXPORT Sets Records in Revenue, Cargo in 2006**

### **Sixth Straight Cargo Record** by Robert Peek

The Port of Jacksonville, Florida (JAXPORT), set new port records for revenues earned and cargo tonnage handled in fiscal year 2006, the third consecutive year JAXPORT has achieved record performance in both areas. Highlights of fiscal year 2006 (ending September 30) include the following:

- According to unaudited financial statements, JAXPORT's annual operating revenues grew to a record \$38.5 million, a 13 percent increase over the record \$34.0 million achieved in fiscal year 2005. Operating income grew 15 percent to \$10.4 million in FY06, up from \$9.0 million in FY05. (JAXPORT's annual external audit is underway and

final numbers will be reported upon its completion.) JAXPORT earns operating revenue primarily by leasing port property and equipment to dozens of private sector port users, including shipping lines, stevedoring agencies, and automobile processing companies.

- Total cargo shipped through JAXPORT facilities grew to a record 8,696,543 tons in FY06, a 3 percent increase over last year's record 8,448,654 tons. This marks the sixth consecutive year of cargo growth at JAXPORT and the third straight year of record tonnage.

- JAXPORT experienced strong gains in two of its four cargo types: the shipment of vehicles – primarily passenger cars, trucks and heavy equipment – grew by 12 percent, with 609,967 units moving through JAXPORT. Additionally, breakbulk cargoes – which include lumber, paper, steel, poultry, and other non-containerized commodities – jumped 50 percent to 1.2 million tons in 2006, primarily on the strength of new paper imports. Meanwhile, containerized cargoes – primarily consumer goods – fell 2 percent to 4 million tons, while bulk cargoes – including

crushed limestone and other aggregates – fell 8 percent to 2.2 million tons.



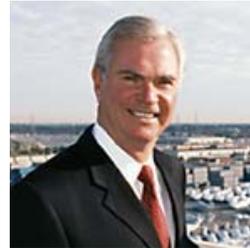
*Talleyrand Marine Terminal, Port of Jacksonville, Florida.*

Also in FY06, a total of 128,745 passengers embarked on cruise ships departing the JAXPORT Cruise Terminal, down slightly from the 138,289 embarkations in 2005, but still up 50 percent over the 85,382 embarkations in 2004. The 2005 spike in passengers was anticipated, as it reflects one cruise line's decision (Celebrity Cruises) to sail from JAXPORT for a short period of time as it redeployed its vessel from New York to South Florida. Currently, one cruise line, Carnival Cruise Lines, sails year-round from JAXPORT.

“We are very pleased to again achieve record performance both financially and operationally,” said JAXPORT Executive Director Rick Ferrin. “This success is attributable to the hard work of our tenants and customers, the dedication of JAXPORT employees, and the strong leadership from our Board of Directors.”

JAXPORT recently has secured new business which will help maintain strong performance in the coming years. A major shipping line, Mitsui O.S.K. Lines, Ltd., (MOL), last year signed a 30-year lease agreement with JAXPORT to provide direct container ship service between Jacksonville and ports in Asia beginning in 2008. Two other shipping lines, Nordana Line (USA) Inc. and Atlantic Container Line, both began service from

JAXPORT in 2006. More recently, APM Terminals, a long-time tenant at JAXPORT, recently signed a new 25-year lease to continue operations at the port. Additional new business is expected to be announced in 2007.



*Executive Director Rick Ferrin, Port of Jacksonville, Florida.*

“Projected growth in our core cargo and cruise business, coupled with these new agreements, position JAXPORT for continued strong financial health for many years to come,” said Ron Baker, JAXPORT's Deputy Executive Director and Chief Financial Officer.

Baker noted that two nationally-recognized financial ratings agencies recently assigned favorable ratings to the Authority. In September 2006, Moody's Investors Services assigned JAXPORT a rating of “A2,” while Fitch Ratings assigned JAXPORT a rating of “A-stable.” The agencies noted JAXPORT's competitive position as a container port, its status as one of the nation's largest vehicle processing centers, and its diverse revenue streams supported by long-term contracts with private tenants.



*Robert Peek is Communications Director for the Jacksonville Port Authority, where he has worked since 1995. He provides external communications in support of Authority programs and oversees the Authority's international brand management program. Peek holds a Master's Degree in Public Administration and is accredited by the Public Relations Society of America.*

## Pittsburgh District Announces 2007 Lock Maintenance Closures

The U.S. Army Corps of Engineers Pittsburgh District on January 5, 2007, announced planned schedule of lock and dam (L&D) maintenance and contract work that will result in lock closures and/or delays to navigation traffic during 2007 along the Allegheny, Monongahela, and Ohio Rivers. This maintenance schedule was developed in cooperation with the Waterways Association of Pittsburgh, and is subject to change due to emergency or unusual conditions, or funding issues in FY07. A supplemental notice to navigation will be issued approximately 1 month prior to the start of each job.

### C. W. Bill Young L&D, Allegheny River



The C. W. Bill Young L&D is located across from Acmetonia, PA, just above the Pennsylvania Turnpike bridge. Work here from March 12-30, will renovate the 8 ft x 10 ft land wall filling valve and operating machinery, and repair hydraulic pipelines. The 56-ft x 360-ft chamber will be open with intermittent delays to navigation.

### Charleroi L&D 4, Monongahela River



Charleroi L&D 4 is located at Charleroi, PA. Work here from April 10-12, will replace upstream lock gates. The 56-ft x 720-ft chamber will be closed and no river traffic will be able to pass through the lock, resulting in major delays to navigation. Work here from April 12-25, will renovate 10 ft x 12 ft middle wall filling valve and operating machinery. The 56-ft x 720-ft chamber will be open with intermittent delays to navigation.

### Locks and Dam 3, Monongahela River



L&D 3 is located at Elizabeth, PA. Work here from May 8-17, will renovate downstream miter gates, anchorages, and operating machinery, and will repair emptying valve operating machinery in the 56 ft x 720 ft lock land chamber. This chamber will be closed. The extended 56-ft x 751-ft river chamber will be open with minor delays to navigation.

### Lock and Dam 9, Allegheny River



L&D 9 is located near Rimer, PA. Work here from May 21-25, will replace hydraulic pipeline crossovers. The 56-ft x 360-ft chamber will be closed with minor delays to navigation. (Note: The East Brady Bridge over the Allegheny River will be under construction through August 2007. Boat traffic may be restricted at times. Additional information can be found at [www.eastbradybridge.com](http://www.eastbradybridge.com).

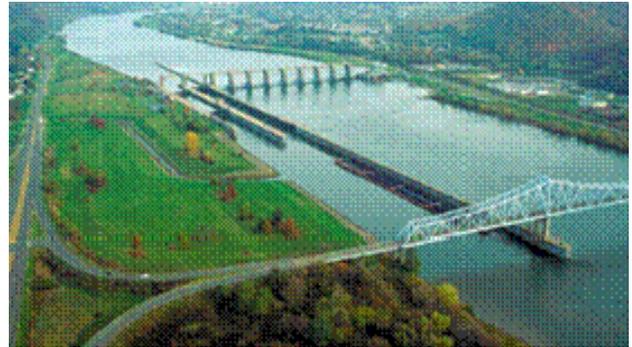
### Braddock L&D, Monongahela River



Braddock L&D is located at Braddock, PA. Work here from June 26 - July 5, and again from July 23 - August 1, will repair upstream miter gates and install new downstream maintenance bulkhead dam sill in the 110-ft x 720-ft chamber. This 110-ft x 720-ft chamber will be closed. The 56-ft x 360-ft chamber will be open with major delays to navigation. Work here from July 23 - August 1, will install new downstream maintenance dam sill

in the 110-ft x 720-ft chamber. This 110-ft x 720-ft chamber will be closed. The 56-ft x 360-ft chamber will be open with major delays to navigation.

### Hannibal L&D, Ohio River



Hannibal L&D is located across from New Martinsville, West Virginia. Work here from July 16 - August 24, will dewater the 110-ft x 1,200-ft lock chamber, and repair lock gates and seals. The 110-ft x 1,200-ft chamber will be closed. The 110-ft x 600-ft chamber will be open with moderate delays to navigation.

### Emsworth L&D, Ohio River



Emsworth L&D is located near the towns of Emsworth, Avalon, and Ben Avon, Pennsylvania. Work here from September 10-14, will repair downstream middle wall lock gate and anchorage in the 110-ft x 600-ft chamber. This 110-ft x 600-ft chamber will be closed. The 56-ft x 360-ft chamber will be open with major delays to navigation. Work here from September 17 - October 19, will dewater the 56-ft x 360-ft chamber, repair filling and emptying

valves, and renovate downstream miter gates. The 110-ft x 600-ft chamber will be open. The 56-ft x 360-ft chamber will be closed with minor delays to navigation.

### Montgomery L&D, Ohio River



Montgomery L&D is located about 5 miles downriver from Beaver, PA. Work here from October 28 - November 16, will renovate the 13 ft x 14 ft land wall filling and emptying valves and will renovate operating machinery. The 110-ft x 600-ft chamber will be open. The 56-ft x 360-ft chamber will be closed with intermittent delays to navigation.

### Pike Island L&D, Ohio River



Pike Island L&D is located near Wheeling, West Virginia. Work here from November 26 - December 14, will renovate land wall filling valve and operating machinery. The 110-ft x 1,200-ft chamber will be open. The 110-ft x 600-ft chamber will be closed with minor delays to navigation.

### Additional Information

Information for this article was obtained from the internet web site of the U.S. Army Corps of Engineers, Pittsburgh District. Updates pertaining to these scheduled closures, and other pertinent information about activities within the Pittsburgh District, may be found at <http://www.lrp.usace.army.mil>.

### Underwater Grading for Berth Maintenance at Port of Portland, Oregon

by M. A. Hermans, W. R. Haynes, M. J. Harrison, and J. L. Hawkins, Port of Portland

#### Background

Portland Harbor receives approximately 1,000 vessels per year, and roughly 27.5 million tons of waterborne trade, with major cargo streams being grain and mineral bulks and automobiles. The Port of Portland operates four Marine Terminals, three of those located on the Willamette River and one located on the Columbia River.

The sediments found at the Port's berthing areas are relatively coarse-grained with substantial percentages of sand. Columbia River sediments are mostly sand, while the Willamette River sediments are typically more silty. Some of the terminals have a gradual but rather steady influx of new sediment, while some other berths or terminals exhibit either no consistent sedimentation pattern or no long-term net influx.

The maximum draft at most berths of these terminals is 40 ft. While some berths stay at or below their required depth naturally without any action from the Port, several other berths require dredging in order to maintain the proper depth. Maintenance dredging projects at Port of Portland terminals typically vary in volume from about 2,000 to about 35,000 cu yd, and in frequency from about every 2 years to as long as 10 years.

## Port of Portland dredging program

The Port's maintenance dredging program has experienced significant changes over the last several years. With the elimination of in-water disposal as an option, and some portions of the Portland Harbor being listed as a Superfund-site, maintenance dredging projects have become more complex, labor intensive, and expensive.

Because the lengthy timelines, high cost, and efforts associated with preparation of dredging projects had grown so out of balance with their small scale, the Port sought a better way to address small-scale shoaling at its berths.

The method that was selected is the use of an underwater grading beam pulled by a self-propelled barge to flatten high spots, thereby relocating sediments within the footprint of the berthing area. Although simple in nature and not new to the dredging community, use of this methodology at the Port's berths was not without challenges.

Because increasing complications impeded the Port's ability to perform necessary maintenance dredging, the Port initiated a process to develop more efficient and cost-effective methods for berth maintenance. The alternative deemed most viable was an operation modeled after what is sometimes referred to as "dragging," "sweeping," or "knock-down." The Port decided to develop a solution based on these methods, and called it "underwater grading." As long as there is no excess of material, but rather just some spots at the wrong elevation, then underwater grading makes good sense, much like grading would be exercised to even out some elevations at an upland site.

## Regulatory agency involvement

Although a preliminary legal analysis indicated that no permits would be required, as no material would be removed or newly discharged into waters of the United States, this was certainly somewhat of a grey area, potentially subject to a different

opinion. For this reason, and because the Port wished to work collaboratively with the agencies in the development phase, the Port applied for and ultimately received approval under the regular dredging framework, such as the Army Corps of Engineers 404 Permit, Oregon Division of State Lands Permit, and Oregon Department of Environmental Quality 401 Water Quality Certification.

## Characteristics of Port of Portland underwater grading

- Grading would only take place within the berthing area, applying both to the high spots to be removed as well as to the low areas where the sediments would be deposited.
- Only those berthing areas containing a relatively small volume of high spots, and in which the average depth is substantially deeper than its minimum required depth, would be candidates for underwater grading.
- The beam would remain close to the bottom, to be slightly lifted and lowered only between grading runs.
- If a large volume of sediment had accumulated above grade, and/or if the total berthing area was too close to its required depth leaving no room to place the graded sediments within the berthing area, then regular maintenance dredging would be the proposed approach.

## Advantages of underwater grading

- Shorter timeframe.
- No disposal requirements.
- Fewer operational impacts.
- Cost savings.
- Fewer environmental impacts.

### Underwater grading apparatus

A warping tug provided the large flat stable platform needed for winches, turning blocks, and fairleads that could all be located on deck to control the depth and position of a drag beam hung at a fixed depth under the vessel for performing underwater grading. The grading beam itself was 33 in. deep, with 12-in. flanges, and was 30 ft long. To obtain more grading capability, a 3-ft-wide by 0.5-in.-thick by 30-ft-long piece of steel was added to the bottom flange.



*Underwater grading drag beam on warping tug barge.*

### Underwater grading experiences

The first Port underwater grading project occurred at Terminal 5, Berth 501 (about 500 cu yd); Berth 501 Barge Slip (about 300 cu yd); and at Berth 503 (about 500 cu yd). The high spots were typically situated along the face of the dock, requiring numerous grading passes perpendicular to the berth with the beam pulling built-up sediments out and away from the dock. After the material was pulled away from the dock, the barge ran parallel with the dock to move the sediments to low areas within the berthing prism, filling in low areas with the sediments from the built-up areas.

The Port's second underwater grading project was performed at the container terminal, Terminal 6, specifically at Berths 604 and 605. The quantity of sediments above the minimum required depth of 40 ft was about 700 cu yd. The Terminal 6 underwater grading operation was performed in the same manner as for Terminal 5, where material was pulled out perpendicular to the dock and then distributed into low areas parallel with the dock.

During its use at Terminals 5 and 6, the warping tug barge proved to be extremely valuable, as the Port of Portland would not have been able to restore operating depth within a similar timeframe by use of dredging. In fact, the Port would almost certainly not have been able to restore the operating depths within the respective in-water-work windows for those terminals if dredging had been the only remedy. This is obviously an advantage that goes well beyond the cost savings that were also accomplished in this case, as compared to a dredging approach. Based on experiences gained from these two projects, it became clear that underwater grading is indeed a technically feasible and sound application for use in the described situations at the Port of Portland.



*Underwater grading activities underway at Terminal 5, Port of Portland, Oregon.*

## Upland grading tests

It was conjectured that the grading beam might be partly sliding along the river bottom. Upland tests were performed where the grading beam was hung from a loader and moved over a sandy parcel with some small humps. Conclusions were that teeth should be added to the leading edge of the bottom flange so it would provide better cutting action.

A subsequent test was performed after those teeth were added, confirming that its ability to cut into the sand had indeed been improved; but it also became apparent that more weight should be added to the beam in order to move more sand. That test showed that, once the beam was positioned at the right angle on the ground, it would quickly pick up sediment and pull a triangular wedge of sediment ahead of it. Once the base of that triangle reached about one to two times the height of the beam, no additional sediment was picked up; instead, the beam just skipped over the surface from that point, retaining the wedge ahead of it.



*Upland grading tests.*

## Conclusions

Based on these upland test and analysis of production data from the Port's first grading event, it was concluded that the grading beam used by the Port is capable of moving about 1 to 2 cu yd of

sediment per single pass, regardless of the distance. Once that volume of sediment is picked up by the beam, it is pulled forward until the beam passes over an area lower than the depth at which it is suspended. At that point, the sediment drops.

## Corpus Christi Celebrates Packery Channel Opening

*by Public Affairs Office, Galveston District*

An exuberant crown was on hand October 6, 2006, for the ribbon cutting ceremony that marked the opening of Packery Channel and the completion of the project officially known as "The North Padre Island, Nueces County, Texas, Storm Damage Reduction and Environmental Restoration Project."

The project, controversial from its inception some 40 years ago, not only opened the sand-filled channel, but also widened the beach an average of 550 ft and provided a jettied entrance channel that extends 1,400 ft into the Gulf of Mexico and 800 ft landward on both side of the channel. The jetties are designed to protect the channel from shoaling.



*Texas U.S. Senator Kay Bailey Hutchison and Mayor Henry Garrett cut the ribbon, opening Packery Channel on October 6, 2006. At the right is Mark Scott, city councilman. On the left is County Commissioner Chuck Cazales.*

The construction contract was awarded by the U.S. Army Corps of Engineers, Galveston District, to Luhr Brothers, Inc., and King Fisher Marine Services, L. P., a joint venture, on July 30, 2003, in

the amount of \$21,375.044. Completion of the project was originally scheduled for September 21, 2005, but was delayed due to damage by the storms of 2005 and 2006.



*Packery Channel, Nueces County, Texas.*

Authorization set the cost share at 65 percent federal and 35 percent local, with the local sponsor being the City of Corpus Christi. An estimated cost of \$34.986 million was established, based upon the original design done for Nueces County before the City withdrew as local sponsor. A value engineering analysis performed on the design by the Galveston District resulted in a project cost savings of \$4.75 million, according to Project Manager Carl Anderson.



*Packery Channel jetties are fast becoming a favorite spot for fishing.*

Corpus Christi Mayor Henry Garrett referred to the cost estimate of 40 years ago as being in the vicinity of \$ 1.7 million.

Senator Kay Bailey Hutchison was praised for her efforts in providing congressional funding for the project. "She was our Guardian Angel," said Mayor Garrett.

## Upcoming Related Conferences

2007

- [\*Inland Waterways Navigation Conference\*](#), March 6-9, Cincinnati, Ohio.
- [\*AAPA Spring Conference\*](#), March 19-20, Washington, DC.
- [\*\\*Ports 2007\*](#), March 25-28, San Diego, California.
- [\*\\*PIANC USA Annual 2007 Meeting\*](#), March 27, San Diego, California.
- [\*\\*First Hemispheric Conference on Environmental Port Protection\*](#), April 10-13, Panama City, Panama.
- [\*\\*PIANC Annual General Assembly\*](#), April 16-19, Cochin, Kerala, India.
- [\*The 25th International Association of Ports and Harbors World Ports Congress\*](#), April 27 - May 4, Houston, Texas.
- [\*Coastal Sediments 2007\*](#), May 13-17, New Orleans, Louisiana.
- [\*18th World Dredging Congress \(WODCON XVIII\), Western Dredging Association Annual Meeting, and Texas A&M University 39<sup>th</sup> Annual Dredging Seminar\*](#), 27 May - 3 June, 2007, Lake Buena Vista, Florida.
- [\*World Canals Conference 2007\*](#), June 13-15, Liverpool, England.
- [\*Coastal Structures 2007\*](#), July 2-4, Venice, Italy.
- [\*Coasts and Ports 2007\*](#), July 17-20, Melbourne, Australia.
- [\*Port Development and Coastal Environment \(PDCE' 2000\), Fourth International Conference\*](#), September 25-28, Varna, Bulgaria.
- [\*AAPA Annual Convention\*](#), September 30 - October 4, 2007, Norfolk, Virginia.

## PIANC USA to Increase Dues

### 2007 Dues

As decided at the last Annual General Assembly in May 2006, PIANC International will raise membership dues in 2007. Since we have to pay our dues to PIANC International in Euros, the conversion from U.S. dollars adds an additional cost on top of the new rates for PIANC membership. As a result, the U.S. Commission voted to increase dues for PIANC USA members effective January 1, 2007. The new PIANC USA membership fees are as follows:

- Individual member: \$120
- Student member: \$40
- Small corporate member: \$600
- Large corporate member: \$1,150

Adjusting the PIANC USA dues enables us to continue to meet our international commitment as well as to expand and re-energize our current programs and fund new initiatives. At PIANC USA, we are dedicated to being good stewards of our resources and we stretch every penny to make sure that your investment in our organization is being put to the best use. We thank you for your continued membership and support, and we look forward to working with you in 2007.

### PIANC USA Member Benefits

As a reminder, your PIANC USA membership entitles you to receive many outstanding benefits. We hope you are taking advantage of all of the following:

- **Quarterly electronic PIANC USA Newsletter, *Bulletin***, with news and articles related to navigation and PIANC news in the United States.
- **PIANC International Electronic Newsletter, *Sailing Ahead***, with international news updates for the navigation community.
- Complimentary or reduced registrations to **Conferences** such as the PIANC Annual General Assembly and World Congress, U.S. Section Annual Meeting, Ports Conference, SMART RIVERS, PIANC-COPEDEC Conference on Coastal and Port Engineering in countries in transition, etc.
- **PIANC Membership Directory**, an international network of like-minded professionals.
- Opportunity to develop “cutting edge” advancements in your profession by serving on **Technical International Working Groups**.
- **Networking Events** to strengthen your professional connections and business opportunities worldwide.
- **Professional Recognition** with awards such as the De Paepe-Willems Award, Jack Nichol Marina Design Award, and the PIANC USA Scholarship.
- **Young Professional** activities for students and professionals under age 40.
- **Quarterly Technical Magazine, *On Course***, with technical articles and news from the navigation community.
- **Technical Reports** in the field of inland maritime and recreational navigation, including environmental issues.

## About PIANC

**What is PIANC?** The International Navigation Association (PIANC) is a worldwide organization of individuals, corporations, and national governments. Founded in 1885 in Brussels, Belgium, it is concerned with maritime ports and inland waterways. The Association promotes contact and advances and disseminates information of a technical, economic, and environmental nature between people worldwide in order to efficiently manage, develop, sustain, and enhance inland, coastal and ocean waterways, ports and harbors, and their infrastructure, in a changing environment.

**Where is PIANC?** The international headquarters is located in Brussels, Belgium, at facilities provided by the Belgian Government. The headquarters of the United States Section is located in the Washington, DC area, within facilities provided by the U.S. Army Corps of Engineers.

**International Interaction.** The Annual General Assembly operates through a Council, which directs the working level permanent technical committees, international study commissions, and working groups.

**Working Groups.** Technical working groups are composed of participants from member countries who have interest in various subjects being studied. The groups gather, analyze, and consolidate state-of-the-art material from each country. The resulting reports are published and sent to each PIANC member. Working group reports and the International Bulletin are sent to each member from Brussels.

Every 4 years an International Congress, open to all members and other registrants, is held for the presentation and discussion of papers on subjects pertaining to waterways and maritime navigation.

PIANC also participates in technical activities with other organizations to study navigation problems and joins with them to present symposia on related subjects.

**In the USA.** The United States became a member of PIANC by Act of Congress in 1902. The Chairman of the U.S. Section is the Assistant Secretary of the Army (Civil Works). The Director of Civil Works for the U.S. Army Corps of Engineers serves as President. A National Commission of 11 individuals, which represent both private industry and the Federal Government, manages the Section. The U.S. Section has two standing and four technical committees, which promote the flow of information between members and facilitate cooperation with other national organizations. The committees are Membership,

Publications, Environment, Inland Navigation, Maritime Navigation, and Ports and Recreation Navigation.

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