

PIANC Bulletin

Quarterly Newsletter of the International Navigation Association U.S. Section
 Permanent International Association of Navigation Congresses (PIANC)

Summer Issue

Third Quarter 2007

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

Dear Members,

On behalf of PIANC USA, the U.S. Army Corps of Engineers, and all of our generous sponsors and cooperating organizations, it is my pleasure to extend this invitation to join us in Louisville, Kentucky, for the Smart Rivers 2007 Conference, September 16-19, 2007. This upcoming conference has been organized to bring together the nation’s and the world’s top professionals in our inland waterways industry, including more than 200 port and waterway executives, policy, and technical professionals.



MG Riley

The Smart Rivers Conference series is a joint effort to benchmark best practices for inland waterways on both sides of the Atlantic, and to help those waterways better integrate themselves into the global supply chain. Previous conferences have highlighted the strategic similarities and differences of the U.S. and European Union (EU) inland waterways systems. For example, while the U.S. system moves much greater volumes of goods on its river system, the European system moves higher value goods, especially on container barges. The EU also seeks to convert the “social benefits” of waterway transportation, such as road-way congestion-mitigation and pollution-reduction, and targets them into market based subsidies to encourage the modal shifts. It is clear that we have

INSIDE...

- President’s Message 1
- PIANC NEWS
- Smart Rivers 2007 Conference-Registration Now Open..... 2
- The Future of the U.S. Inland Navigation System-Meeting the Challenges: Smart Rivers Pre-Conference Workshop 5
- Batra Becomes New PIANC International Vice President..... 6
- Engler Elected as PIANC Central Region Vice President 6
- PIANC Eastern Region Vice-Presidential Election-Call for Nomination 7
- Call for Technical Articles: PIANC On Course Magazine..... 9
- Call for Technical Papers: International Navigation Seminar at PIANC Annual General Assembly 2008, Beijing, China 9
- Sudar becomes PIANC USA Secretary, and Other Staff Changes.. 10
- Anne Sudar Assumes Role as Secretary, PIANC USA..... 11
- EnviCom Working Group 10 Update..... 12
- EnviCom Working Group 13 Update..... 12
- MarCom Working Group 42 Update 12
- MarCom Working Group 52 Update 13
- Young Professionals Corner..... 13
- INDUSTRY NEWS
- The Eighteenth World Dredging Congress, Lake Buena Vista, FL 13
- An Overview of Jacksonville District, USACE: Remarks at the WODCON XVIII Opening Ceremonies 14
- Richard Wainio Delivers Keynote Address to WODCON XVIII..... 18
- Accomplishments and Challenges to the U.S. Dredging Industry: Remarks to the Eighteenth World Dredging Congress 19
- WODA Environmental Commission Panel at WODCOM VIII 22
- Dredging and the U.S. Army Corps of Engineers: Remarks at WODCON XVIII..... 25
- Derek Wilson Receives Best Student Paper Award at WODCON XVIII..... 28
- Seaport Security: Excerpts from Testimony before the House Committee on Homeland Security; Subcommittee on Border, Maritime, and Global Counterterrorism 29
- Corps Demonstrates Environmental Restoration is Indeed Possible: With Dredged Material from Navigation Channels in the Hudson-Raritan Estuary 30
- Engineering Firm Wins Award for Montgomery Point Lock and Dam Design..... 33
- Corps Convenes 2007 Infrastructure Systems Conference 35
- Corps Civil Works Directorate Strategic Direction..... 37
- Nominate a Colleague for an ASCE/COPRI Award 38
- Upcoming Related Conferences..... 39
- Welcome New PIANC Members 39
- About PIANC..... 40
- PIANC USA Commissioners 41

much to learn from each other and this conference will provide the forum for doing so.

The 3-day conference will include technical sessions, field tour opportunities, industry exhibits, a technical short course and networking events. You will have the opportunity to see up close the latest innovations being undertaken at the McAlpine Locks as part of the conference technical tour. But the strength of the conference lies with the technical program, with more than 30 presentations addressing state-of-the-art technical aspects of subjects including (a) Sustainable Inland Navigation, (b) Changing Markets (c) Policy Comparisons, (d) Project Determinations, (e) Reliability and System Use, (f) Port Management, and (g) Future Industry Challenges.

This Smart Rivers 2007 Conference promises to be the best ever, having a full array of nationally and internationally recognized speakers. Don't miss this opportunity to network with your industry peers and enhance your professional knowledge. Register today!

We look forward to seeing you in Louisville in September.

Sincerely,

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

PIANC NEWS

Smart Rivers 2007 Conference – Registration Now Open

September 16-19, 2007
Seelbach Hilton Hotel
Louisville, KY
www.pianc.us

Registration is now open for the Smart Rivers 2007 Conference, September 16-19, 2007. The conference will focus on “Positioning Inland Navigation as a Powerful Link in the Global Supply Chain.” Professionals interested in sharing knowledge and experience to achieve a better and more efficient integration of inland navigation waterways (rivers and channels) into an integrated intermodal transport system are invited to register and attend this important conference.

The 3-day conference will include technical sessions, field tour opportunities, industry exhibits, a technical short course, and networking events.



McAlpin Locks and Dam, Ohio River, Louisville, Kentucky.

Conference Topics

- Sustainable Inland Navigation
- Changing Markets
- Policy Comparisons
- Project Determinations
- Reliability & System Use
- Port Management
- Future Industry Challenges

Register by August 3, 2007 and SAVE \$50!



PROGRAM

Smart Rivers 2007 Conference

September 16–19, 2007

Seelbach Hilton
Louisville, Kentucky

www.pianc.us



EARN UP TO 19 PROFESSIONAL
DEVELOPMENT HOURS (PDHs)
AT SMART RIVERS 2007!



FREQUENTIS Defense Inc.



Part of Pittsburgh
Commission

REGISTRATION FORM

Smart Rivers 2007 Conference

September 16-19, 2007

Seelbach Hilton Hotel, Louisville, Kentucky, USA

For rapid registration go to www.pianc.us

Register by August 3, 2007 to Save!

(PLEASE PRINT OR TYPE ALL INFORMATION)

Last Name _____ First Name _____ Middle Initial _____

First Name/Nickname (for badge) _____ Credentials _____

Organization _____

Mailing Address _____

City, Province _____ State _____ Postal Code _____ Country _____

Email Address _____ Business Phone _____ Fax _____

In case of emergency please contact _____

Check here if you require special accommodations. A PIANC USA representative will contact you to discuss your needs.

Registration Fees

Category	By August 3	After August 3	Amount
MEMBER (PIANC OR COOPERATING ORGANIZATION)			
Full Registration	\$320	\$370	_____
SPEAKER OR MODERATOR			
Full Registration	\$320	\$370	_____
NON-MEMBERS			
Full Registration	\$370	\$420	_____
STUDENT (proof of full-time student status required)			
Full Registration	\$150	\$150	_____
DAILY REGISTRATION			
Monday	\$200	\$200	_____
Tuesday	\$270	\$270	_____
PRE-CONFERENCE WORKSHOP			
Title	\$150	\$150	_____
TOURS			
Historic Steam Boat (Sunday)	\$30	\$30	_____
Technical Tour (Wednesday)	\$30	\$30	_____
ADDITIONAL TICKETS			
Opening Reception (Sunday)	\$60	\$60	_____
Luncheon (Monday)	\$35	\$35	_____
Luncheon (Tuesday)	\$35	\$35	_____
Gala Dinner (Tuesday)	\$75	\$75	_____
European Discount*		-\$100	_____

REGISTRATION TOTAL (pay this amount)

Please answer the following questions so we may serve you better in the future:

- The organization I work for is:
 Private Government Education Military Other
- My position is: Partner/Principal Senior Manager
 Middle Manager Technical/Professional Manager
 Faculty Student Retiree
- How many previous Smart Rivers Conferences have you attended, including this one? 0 1 2 3
- My age group: Under 25 25-40 40-49 50-65 Over 65
- I am: male female

Payment

To pay by credit card:

VISA MasterCard American Express

Card Account Number

Expiration Date Required: Month Year

Verification Number†

†For your safety/security you are required to enter your card's verification number. For Visa, MasterCard or Discover cards, the verification number is a 3-digit number printed on the back of the card. It appears as the last 3-digits on the right. For American Express cards, the verification number is a 4-digit number printed on the front of your card. It appears after and to the right of your card number.

Signature: _____

Name on card: _____

To Pay by Check: payable to U.S. Section PIANC (in U.S. dollars, drawn on a U.S. bank – you must include attendee's name in the memo area of the check)

To Pay by Purchase Order: P.O. #, company name & address or other billing address (this includes Government PO use)

Mail or Fax registrations to:
 Smart Rivers Conference
 c/o Leading Edge Marketing and Planning
 650 Ritchie Hwy, Suite 305
 Severna Park MD 21146 USA
 FAX: 410-544-6395 OR you may register on-line at www.pianc.us.

Questions regarding Registration: phone 410-544-6710

Full payment must accompany all registration forms. Registration forms will not be processed without payment or a copy of a purchase order.

*Discount only applies to the first 30 registrants from Europe (see p.10).

Pre-Conference Workshop

- “The Future of the U.S. Inland Navigation System – Meeting the Challenges”
Sunday, September 16, 2007; 1:00 p.m. – 5:00 p.m.
Cost of course: \$ 150

Technical Tours

- McAlpine Locks and Dam
- Jeffboat Shipyard
- Falls of the Ohio
- Historic Steamboat Cruise on the Ohio River aboard the *Belle of Louisville*

The 2007 conference, organized by PIANC USA, will be the third in a series of international joint conferences on synergies for an efficient waterway system in Europe and the U.S. The conference expects to draw more than 200 port and waterway executives, policy, and technical professionals from the U.S. and Europe.

For on-line registration and the detailed conference agenda, go to www.pianc.us.

The Future of the U.S. Inland Navigation System – Meeting the Challenges: Smart Rivers Pre-Conference Workshop

Sunday, September 16, 2007

1:00 p.m. - 5:00 p.m.

Cost of course: \$150 (register at www.pianc.us)

Course Instructors: Nicholas Pansic, Vice-President, *MWH*, and Chairman, *ASCE/COPRI Waterways Committee*; Dr. William A. McAnally, Professor, *Mississippi State University*, Charles Spitzack, *USACE*; Dr. Dennis Wichelns, *Hanover University, Indiana*

The Future of the U.S. Inland Navigation System will be a stimulating interactive workshop to (a) learn, (b) examine, (c) share, and (d) explore the unique challenges facing the 12,000 miles of

U.S. inland navigation waterways. You will earn 4 Professional Development Hours (PDHs) for this course.



Bayou Boeuf Lock, Louisiana.

Why Attend?

- To learn the 10 guiding principles for sound design of navigation projects.
- To examine key performance metrics that measure multimodal systems and their impacts on waterway investment and management.
- To share ideas on how professional and personal ethics guide organizational behavior in waterway systems.
- To explore case studies of North American and European approaches to balancing functional, environmental, and financial interests to create sustainable waterways.

The Challenge

The U.S. inland navigation waterway system is but one element of a large-scale intermodal transportation system that is planned, built, operated, and maintained through a unique public/private partnership. Unlike the more integrated European systems, overall U.S. policy is implemented through separate Federal government entities with overlapping yet divergent missions. This “portfolio” approach to asset management has

led to inadequate and often misplaced infrastructure investment, and incremental advances that do not always serve the larger public good.

Why do Metrics Matter?

Current performance metrics for the U.S. inland navigation waterway system provide no guidance for balancing conflicting objectives of efficient transport of goods with environmental sustainability. We need to improve how we measure transportation system performance so that desirable outcomes are attained.

Sustainable Navigation

Learn how the innovative Navigation and Environmental Sustainability Program (NESP) seeks to balance needed infrastructure improvements with ecological restoration and enhancement in the vital Upper Mississippi River System.

The Role of Ethics

Do professional codes of practice and ethics provide sufficient guidance for decision-making regarding future investments in waterways? How do we properly recognize and address the competing interests of efficiency and the environment? What guidance does our personal and professional code of ethical conduct provide when the decision is not clear-cut? How will we know if the “right thing” is being done? Answers to all these questions, and more, will be learned from the Smart Rivers pre-conference workshop “The Future of the U.S. Inland Navigation System – Meeting the Challenges”.

Register today at www.pianc.us.

Batra Becomes New PIANC International Vice President

Shiv Batra, PE, Bellevue, Washington, is a new Vice President on the PIANC International Executive Committee. At the PIANC Annual

General Assembly (AGA) in India this past April 2007, Mr. John Paul Woodley Jr., Assistant Secretary of the Army (Civil Works) and PIANC USA Chairman, put forward the candidacy of Shiv Batra for the representation of North and South America. His candidacy was accepted by both the Council and the AGA. Mr. Batra will replace Thomas Wakeman, DESc, from the Port Authority of New York and New Jersey.



Shiv Batra, newly elected Vice-President on the PIANC International Executive Committee.

Mr. Batra currently serves as Co-Founder, CEO, and President of INCA Engineers, a U.S.-based consulting firm that provides civil, structural, hydraulic, mechanical, and electrical engineering, and surveying services to public and private clients. He has over 30 years of engineering experience, and has been a prominent advocate and active member of PIANC USA and the U.S. engineering community for more than two decades.

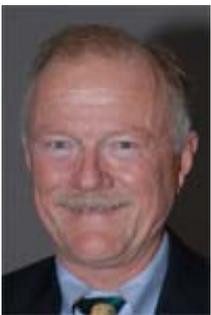
PIANC would like to thank Tom Wakeman for his many years of dedication as Vice-President, and welcome Shiv Batra to his new role.

Engler Elected as PIANC Central Region Vice President

Dr. Robert M. Engler, Vicksburg, Mississippi, Senior Environmental Scientist with Moffatt and Nichol, was recently elected to serve as the Central Region Vice President for the PIANC USA Commission. Dr. Engler assumed this position on July 1, 2007, replacing Mr. Charles C. Calhoun, also of Vicksburg, Mississippi.

Dr. Engler will be a welcome addition to the U.S. Commission. He has an esteemed professional career, with experience in water resource, environmental, and engineering-related research, and he has been involved with PIANC for more than 30 years. Engler has been with Moffatt and Nichol since 2006, but prior to joining that firm, he was a Research Scientist for 34 years at the U.S. Army Engineer Research and Development Center (ERDC), Waterways Experiment Station, Vicksburg, Mississippi. He served as interagency liaison for the USACE on scientific and technical issues regarding dredged material disposal testing and evaluative guidelines, criteria, and regulations. He also served as a Technical Consultant to the USACE Chief of Engineers on environmental regulatory criteria and guidelines, and has served as an expert witness in controversial environmental litigation and hearings.

Dr. Engler received his Ph.D. in Geochemistry of Flooded Soils and Sediments, and has made notable contributions that have advanced the state-of-the-art in the geochemistry of dredged material, flooded soils, sediments, toxic substances, aquatic disposal, and domestic/international regulatory criteria. Dr. Engler has been an active member of PIANC since the 1970s. He championed the formation of the international Environmental Commission in the early 90s, and has served as the PIANC international chairman of EnviCom since its approval in 1994.



Dr. Robert M. Engler, newly elected Central Region Vice President for the PIANC USA Commission.

PIANC Eastern Region Vice-Presidential Election – Call for Nominations

The call for nominations has commenced to replace the elected Commissioner for the Eastern Region Vice President whose term expires in 2007. States that fall under the Eastern Region include Connecticut, Delaware, Florida, Georgia, Maine, Maryland, Massachusetts, New Hampshire, New Jersey, New York, North Carolina, Pennsylvania, Puerto Rico, Rhode Island, South Carolina, Vermont, Virginia, and Washington DC. Submit your name and a brief biography to Anne Suder at R.Anne.Sudar@usace.army.mil or by mail to PIANC USA, 7701 Telegraph Rd., Casey Bldg., Alexandria, Virginia 22315. The nomination period will close on September 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; 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.

Thomas H. Wakeman, DESc., New York, New York, is the current Eastern Region Vice-President on the U.S. Commission, and his term expires on December 31, 2007. Dr. Wakeman has more than 30 years experience working as an engineer and scientist in the marine environment and maritime sector. Currently he is Program Manager, Regional Port Programs, for Port Authority of New York and New Jersey. He has served two terms as the Eastern Region Vice-President, and his presence will be greatly missed.

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 PIANC USA in the United States. See complete list of responsibilities from the U.S. Section Rules and Regulations at the end of this notice under *Duties*.

Election and Term of Office

The election of Eastern Region Vice-President shall be by general election of the membership within the Eastern 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 PIANC USA. The results of the election shall be reported to the Chairman of the PIANC USA 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

July 2007: Solicitation announcement for Eastern Region Vice-President will be issued in the *Bulletin*, on the website, and e-mailed to members in the Eastern Region.

August - September 2007: Names and brief biographies will be collected for those nominated for Eastern Region Vice-President.

The nomination period will close on September 15.

October 2007: Ballots will be mailed or e mailed to members in the Eastern Region no later than October 5.

November 2007: Election closes on November 26. Votes tallied and new Eastern Region Vice-President announced to the Chairman no later than November 30.

January 2008: 1st quarter issue of the *Bulletin* distributed. Result of Eastern Region Vice-President election announced in *Bulletin* and on website.

Duties

As stated in the PIANC USA Section Rules and Regulations (Article VII – Duties of Officials):

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

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

7.04 The Regional Vice-Presidents shall:

- Organize and administer regional activities as defined and approved by the National

Commission, and represent the membership of the Region before the Commission.

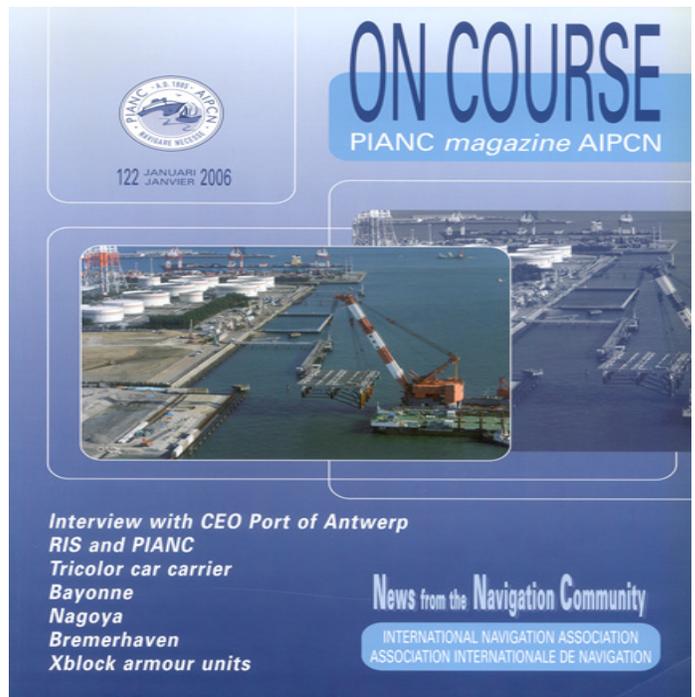
- Recommend to the President of the National Commission appointments of regional representatives or committee members.
- Coordinate all regional activities, including designation of the host organization and planning of the annual conference in his/her region.
- Report on regional activities to the National Commission.
- Promote membership in the region.
- Seek greater involvement of the private sector, universities, and state and local government organizations in PIANC.
- Organize regional seminars and other programs and activities for benefit of the membership.
- Encourage participation of regional members in standing technical committees, working groups, and study commissions; and recommend participants.
- Assist Principal U.S. Representatives to InCom, MarCom, RecCom, CoCom, EnviCom, 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.
- Promote the value and participation in the Gustave Willems Award competition.
- Provide regional information for publication in the PIANC USA Bulletin.

Call for Technical Articles: PIANC *On Course* Magazine

PIANC invites you to submit a technical article for inclusion in the quarterly magazine, *On Course*. Technical articles can treat current issues in the field of inland, maritime, or recreational navigation, or articles related to environmental topics. In particular, descriptive articles are solicited on major

infrastructure projects and programs, rather than theoretical and mathematical articles previously used. *On Course* is a unique publication with an international reach among highly qualified experts, so articles and projects will gain world-wide exposure.

More information on the magazine *On Course*, and guidelines for preparing an article, can be found at: <http://www.pianc-aipcn.org/publications.php>.



Call for Technical Papers: International Navigation Seminar at PIANC Annual General Assembly 2008, Beijing, China



In conjunction with the 2008 PIANC Annual General Assembly (AGA) to be held in Beijing, China, there will be a technical seminar for which the conference organizers are now accepting abstracts. The International Navigation Seminar will be an international forum where engineers from around the world can exchange know-how and experience amongst themselves and their counterparts.

Furthermore, it offers a great opportunity to learn more about China's navigation development, and to network with Chinese engineers.

At the AGA 2007, President Eric Van den Eede launched the call for papers. It is his desire that "the technical seminar will be a mix of Chinese and foreign speakers, and that it will be a great opportunity for the exchange of information," so stated President Van den Eede. Prepare abstracts now, and plan to attend the technical seminar. Please note the following important dates:

- 22 September 2007: Deadline for receiving abstracts by e-mail (MS Word Files).
- 20 October 2007: Notification of abstract acceptance, subject to peer review.
- 16 January 2008: Full paper in required format by e-mail (MS Word Files).
- 23 February 2008: Notification of paper acceptance and early registration begins at a special reduced registration fee.
- May 2008: International Navigation Seminar.

For more information about paper topics, dates, how to submit abstracts, etc., please visit www.jtzn.net.cn/piancchina_eng.

Sudar becomes PIANC USA Secretary, and Other Staff Changes

Anne Sudar will rejoin the Secretariat of the PIANC USA, this time as Secretary to replace Bruce Lambert. Bruce has accepted a new position to serve as the Executive Director of the Institute for Trade and Transportation Studies (ITTS), a new institution which will be set up in New Orleans, Louisiana. During his last 2 years while serving as Secretary, Lambert was instrumental in leading PIANC USA in developing a strategic plan and for engaging in greater outreach to other navigation related organizations such as the American Association of Port Authorities (AAPA) and the Organization of American States-Inter American Committee on Ports (OAS-CIP). He was largely

responsible for the signing of two Memorandums of Understanding (MOUs) with the OAS-CIP, and with the Autoridad Maritima Portuaria (El Salvador). His efforts will be missed, but we wish him luck in his new endeavors.



Anne Sudar, new Secretary of PIANC USA.



Bruce Lambert, previous Secretary of PIANC USA.

Anne Sudar will replace Lambert as Secretary effective July 9, 2007. Sudar worked with Ron Conner from 2002 to 2005 on PIANC activities, and is very familiar with the organization and the people. She was deeply involved with the planning and execution of the AGA held in Charleston, South Carolina, in May of 2005. As Secretary, Anne will assume the responsibilities of a Commissioner of the U.S. Section. Her additional duties will include: (a) Program Management, (b) Strategic Planning, (c) Partnering, (d) Participating in PIANC International activities, (e) Attending relevant conferences, and (f) Supporting the ASA (CW) and the Director of Civil Works in their roles as Chairman and President of the PIANC USA.

Anne brings to this position 33 years of diverse professional work experience. Eleven of these have been with the Institute for Water Resources (IWR), U.S. Army Corps of Engineers. She has been involved with a wide range of projects including: (a) the Inland Waterways Users Board,

(b) Transportation Research Board, (c) Scenario-based Strategic Planning for the Corps Civil Works program, (d) Future Directions work, and (e) Partnering with the Natural Resources Conservation Service.

Sonja Stewart joined IWR and the PIANC team in April 2007, to replace Jeanene Nieberding. Before coming to IWR, Stewart provided administrative support for the Division Chief of Research Division, Topographic Engineering Center, Engineer Research and Development Center, for 3 years. She brings 10 years of administrative support and office management experience to IWR and PIANC. Stewart's duties include: (a) general administrative support, (b) membership management, (c) Commissioners travel, (d) official correspondence, (e) preparation of decision memoranda and briefing books, and (f) conference management support. Nieberding had worked with PIANC for the past 3 years, and her presence will be missed. Kelly Barnes will continue in her role as the PIANC Deputy Secretary.



Anne Sudar Assumes Role as Secretary, PIANC USA

Dear PIANC USA Members:

I am very happy to be assuming the role of Secretary of the U.S. Section of PIANC. You may remember that I worked with Ron Conner on PIANC Secretariat activities from 2002 to 2005, culminating with the 2005 AGA in Charleston, South Carolina.

This position brings with it much responsibility, and I will do my best to lead and add value to PIANC members. Fortunately, I have an excellent team here at IWR, including Kelly Barnes who serves as Deputy Secretary, David Grier who will be carrying on much of the Latin American work

that Bruce Lambert began, and Sonja Stewart and Theresa Hoang who will be providing administrative support.

The Commissioners have recently developed a Strategic Plan for PIANC USA, and our team will work to ensure that progress is made towards the four goals (Membership, Young Professionals, International Relations, and Partnering). However, we need to engage the general membership as well if these goals are to be achieved. The full plan is available at www.pianc.us, and I encourage you to take the time to read it and think about how you can contribute.

I firmly believe that much of the value of PIANC lies in the Technical Working Groups that bring national representatives together to investigate and report on important issues related to navigation. During my tenure as Secretary of PIANC, I intend to elevate the work of these groups, and publicize their findings to the widest extent possible.

Our next event will be Smart Rivers 2007, September 16-19, in Louisville, Kentucky, and I hope to see many of you there. A preliminary program and registration information is available at www.pianc.us. And for the fall of 2008, we are planning a PIANC Annual Meeting in Mobile, Alabama that will focus on the environmental aspects of navigation, and coastal issues.

If you have any questions or ideas about PIANC, please do not hesitate to contact me. I look forward to hearing from you.

Sincerely,

Anne Sudar
Secretary, PIANC USA
(703) 428-7166

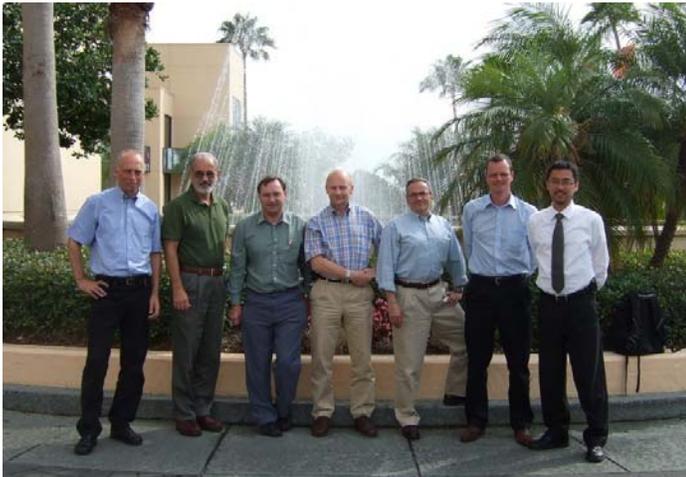
R.Anne.Sudar@usace.army.mil

EnviCom Working Group 10 (WG10) Update: Environmental Risk Assessment of Dredging and Disposal Operations

Status of Work

The PIANC Environmental Commission WG10 has completed its assigned task. The Group has submitted an invited article to *Ports and Harbors Magazine*. It will be published in a future unspecified issue.

EnviCom Working Group 13 (WG13) Update: Dredging Project Management Practices for Protection of the Environment



WG13 attendees at the May 30, 2007, meeting in Orlando, Florida (left to right): Axel Netzband (Hamburg Port Authority, Germany), Douglas Clarke (U.S. Army Engineer Research and Development Center, USA), Peter Whitehead (ABP Marine Environmental Research Ltd, UK), Gerard van Raalte (Hydronamic BV, The Netherlands), Phil Spadaro (BBL-Arkadis, USA), Wouter Dirks (Van Oord, the Netherlands), Tom Wang (Anchor Environmental, USA).

Meeting location

A short working meeting was held among members of the PIANC Environmental Commission WG13 in attendance at the Eighteenth World Dredging Congress (WODCON XVIII) in Orlando, Florida, May 30, 2007. Seven members were present, including the Group Chairman, Mr. Axel Netzband (Germany).

Status of the effort

WG13 is in the final stage of completing a draft document. One additional working meeting is planned for Rotterdam, the Netherlands, in July 2007.

MarCom Working Group 42 (WG42) Update: Life Cycle Management of Port Structures Guidelines for Implementation

Meeting location

Two meetings have been held recently; at Delft University, the Netherlands, March 2007; and in London, England, June 2007.

Attendees

Representatives from six countries were in attendance at both meetings: (a) the Netherlands, (b) United Kingdom, (c) Denmark, (d) Sweden, (e) Italy, and (f) the United States. Mr. Ron Heffron represented the United States.

Status of the effort

The PIANC Maritime Navigation Commission WG42 has completed a draft document. Revisions are presently being incorporated. Completion of the final manuscript is scheduled for 4th Quarter of 2007.

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

Scope of work

The PIANC Maritime Navigation Commission WG52 is in the process of preparing a report that will discuss the various technical issues associated with safe and efficient loading and unloading conditions of container ships. WG52 will then recommend values for acceptable ship motion during vessel operations. Recommendations will be based on evaluation of a questionnaire to be distributed.

Meeting location

The most recent meeting of WG52 was in Brussels, Belgium, June 6-7, 2007.

Attendees

Five members were in attendance, including Harry Mohns (Chairman, Germany), Dan Allen (USA), Martjin P.C. de Jong (the Netherlands), Jens Kirkegaard (Denmark), and Chris Boysons (UK).

Status of the effort

The first draft of the questionnaire has been developed. Task leaders have been assigned to finalize the questions, and to develop a target list to receive copies of the questionnaire. The report outline has been developed, and chapter lead authors have been identified. The questionnaire and draft report text preparation will proceed concurrently.

The next meeting of WG52 is tentatively scheduled for London, England, in October 2007.

Young Professionals Corner

Join the USYP!

Please contact your USYP representative (Jessica McIntyre, jmcintyre@moffattnichol.com) 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. Regular emails are sent to interested USYPs regarding upcoming activities for Young Professionals both on the national and international fronts. Please note that there is no additional fee to join the USYP if you or your company is already a member of PIANC USA.

We are still looking for Regional (East, Central & West) Representatives (two per region). If you are interested, please let us know.

Are you a Young Professional and currently serving on a PIANC Working Group? Let us know so we can update our files!

We look forward to hearing from you!

INDUSTRY NEWS

The Eighteenth World Dredging Congress (WODCON XVIII), Lake Buena Vista, Florida, May 27 - June 1, 2007

The 18th World Dredging Congress (WODCON XVIII), with the theme "Global Dredging: Its Impact on the Economy and the Environment", was held May 27 - June 1, 2007, at the Buena Vista Palace Resort and Spa on the Disney World properties in Lake Buena Vista, Florida. This congress and industry exhibition focused on world-wide dredging and its impact on the global economy and the world's environment.



Buena Vista Palace Resort and Spa, Buena Vista, Florida, site of WODCON XVIII.

This theme provided a unique forum between world-wide dredging contractors, port and harbor authorities, government agencies, environmentalists, consultants, civil and marine engineers, surveyors, ship yards, vendors, and academicians who work in the exciting and challenging fields related to dredging. Important discussions on the impact that dredging or the inability to dredge will have on the world economy and its environment highlighted the program.

WODCON XVIII was attended by almost 600 participants from all over the world, and attracted 50 industry supply exhibitors and engineering consulting firms, some of which brought equipment far too big to be placed in the exhibit hall and had to be viewed from the hotel parking lot. Because the overall quality of technical paper submissions was so high, the conference sessions had to be split into three, and in some cases four, simultaneous sessions.

Session topics included:

- Dredging Project Case Studies,
- Beneficial Uses of Dredging,
- Dredging Research,
- Sediment Management,
- The Poplar Island Environmental Restoration Project,
- USACE ERDC Research Initiatives,
- Environmental Aspects of Dredging,

- Survey and Positioning Equipment,
- Passaic River Sediment Remediation,
- Commencement Bay Sediment Remediation,
- Physical and Numerical Modeling,
- Dredging and Resuspension,
- Sediment Dewatering, Treatment, and Disposal,
- SLRIDT Site Remedial Dredging and Capping.

Additionally, three panel sessions were conducted: (a) World Organization of Dredging Associations (WODA) Environmental Commission Panel, (b) Western Dredging Association (WEDA) Safety Commission Panel, and (c) WEDA Environmental Commission Panel.

WODCON XVIII convened on Sunday, May 27, with registration and exhibitor set-up, followed by a golf tournament at Disney World's Palm Golf Course. For those who wished to participate, a tour was provided to the Kennedy Space Center which included lunch with an astronaut. An icebreaker reception was held that evening in the exhibit hall. Opening ceremonies and technical sessions commenced on Monday, May 28, beginning with welcome remarks by John Adams, President of the Western Dredging Association (WEDA); Rewert Wurpts, President of the Central Dredging Association (CEDA); and John Dobson, Chairman of the Eastern Dredging Association (EADA).

An Overview of the Jacksonville District, U.S. Army Corps of Engineers: Remarks at the WODCON XVIII Opening Ceremonies *by Colonel Paul L. Grosskrugger, Jacksonville District Commander*

I am pleased to welcome you to Orlando, and to WODCON XVIII. I want to tell you some things about the Jacksonville District of the Corps of Engineers which serves the State of Florida, Puerto Rico, and the U.S Virgin Islands. Our over-riding mission is, indeed, "Service". Our District office is located in Jacksonville, but we have local offices throughout the District's area of responsibility.



Jacksonville, Florida, location of the U.S. Army Corps of Engineers, Jacksonville, District headquarters.



Jacksonville District was established in 1884. It is one of the largest civil works districts in the nation and currently has the largest civil works mission in the nation. The Corps of Engineers missions include five broad areas: (a) water resources, (b) environment, (c) infrastructure, (d) homeland security, and (e) war-fighting. Jacksonville District contributes to all of these mission areas through a wide variety of programs and projects to.

Water Resources

Jacksonville District serves as a technical Center of Expertise for Coastal Shore Protection Planning.

Our system of harbors and waterways is one of the largest in the country. We operate and maintain:

- 61 navigation projects
- 17 deep water ports
- 28 shallow draft harbors
- 16 inland waterways
- 6 navigation locks
- 1,500 miles of shoreline
- 900 miles of inland waterways

Lake Okeechobee, at 730 square miles, is the nation’s second largest freshwater lake and the “Heart of the Everglades.” Jacksonville District manages the lake to maintain safe and environmentally appropriate water levels. We also manage the Herbert Hoover Dike, a 140-mile-long earthen dam that surrounds Lake Okeechobee and has protected thousands in the surrounding communities for over 65 years.



Lake Okeechobee.

Jacksonville District’s water resource program includes projects for (a) flood protection, (b) water management, (c) navigation, (d) aquatic plant control, and (e) technical assistance to local governments.

Environment

Jacksonville District leads the way in ecosystem restoration, adaptive management, and interagency approach to planning and analysis. A proud member of the Federal Interagency Task Force for South Florida Ecosystem Restoration, we lead one of the most aggressive environmental restoration programs in the world. A major component, the

Comprehensive Everglades Restoration Plan (CERP), provides a framework for the restoration, protection, and preservation of a vast area of central and south Florida’s ecosystems, including America’s Everglades.



Everglades National Park.

The Kissimmee River Restoration Project will reestablish hydraulic characteristics for 43 continuous miles of river and reclaim 26,500 acres of flood plain wetlands. It will restore the ecological integrity of about 40 square miles of river ecosystem, reestablishing habitat for more than 300 fish and wildlife species, including three endangered species.



Kissimmee River restoration.

Jacksonville District is an active partner, along with the U.S. Fish and Wildlife Service and other federal, state, and local agencies, in providing an environment in which the Florida subspecies of the West Indian Manatee is assured safety and recovery in our nation’s waterways. The manatee, a slow-

moving, gentle marine mammal, has been on the endangered species list since 1967. Our locks now incorporate sensors that detect the presence of manatees and provide for their safety.



Florida manatee.

Infrastructure

The Jacksonville District is responsible for maintaining 1,500 miles of coastal shoreline. Florida is known for its pristine beaches and miles of shoreline. Millions enjoy the beauty of our coasts every year, as visitors flock to our beaches for recreation and relaxation, and many Floridians make the coast their home. Shoreline protection is a necessity in Florida, as hurricanes and storms annually threaten the coastline.

Since the 1970s, more than 115 miles of Florida shoreline has been renourished. Our projects performed successfully when an unprecedented four hurricanes ravaged the state in 2004. In 2005, Congress authorized \$154.5 million in funding for shore protection for over 70 miles of coastline following the 2004 storms.

Our waterways are vital to the nation as a major means of commercial transportation and as a component of our national defense. Jacksonville District’s navigation program includes 17 deep draft ports (greater than 15 ft in depth) in Florida and Puerto Rico, and about 28 shallow draft inlets. In addition to commerce, many of our ports support substantial cruise ship operations. In fact, the Port

of Miami is the largest cruise ship terminal in the world, as well as a major container port.

Additionally, we maintain approximately 900 miles of inland waterways, including the Atlantic Intracoastal Waterway from Fernandina to Key West, the Gulf Intracoastal Waterway, and the Okeechobee Waterway.



Atlantic Intracoastal Waterway.

Homeland Security

The U.S. Army Corps of Engineers provides disaster preparedness services and advanced planning measures to minimize the amount of damage caused by an impending disaster. We support the Department of Homeland Security and Federal Emergency Management Agency in carrying out the National Response Plan, which involves 30 federal departments and agencies in providing coordinated disaster relief and recovery operations.

War fighting

The U.S. Army Corps of Engineers was born on the battlefield of the American Revolution at Bunker Hill, and our civilians and soldiers have been among the first to respond ever since. As a branch of the U.S. Army, the Corps of Engineers plays a vital role in national defense by providing engineering, construction, and environmental management services for the Army, Air Force, other government agencies, and foreign governments. Our skills in managing large water and land

resource management projects are easily transferred to tactical engineering-related operations.

Last but not least, Public Outreach and Information

Public outreach is the means by which interested and affected individuals, organizations, agencies, and governmental entities are informed and engaged in our planning and decision-making processes. Through an effective, interactive public outreach and education program, we create and build partnerships, involve all segments of the community, promote mutual understanding, engender trust, build consensus, and improve the quality of life for the people we serve.



University of Florida mascots participate in Jacksonville District’s water safety program.

And again, our over-riding mission is “Service”. So again, welcome to Orlando, and have a great WODCON XVIII.



Colonel Paul L. Grosskruger, Commander, Jacksonville District, has a BS degree in Engineering Mechanics from West Point, New York, and an MS degree in Civil Engineering from Iowa State University. He is a registered professional engineer, has earned the Bronze Star, and has a Presidential Unit Citation among his many military honors.

Richard Wainio Delivers Keynote Address to WODCON XVIII

The keynote address to the Eighteenth World Dredging Congress (WODCON XVIII) was delivered to the opening session on May 29, 2007, by Richard A. Wainio, Port Director and CEO, Tampa Port Authority, where he discussed on-going activities and up-grade developments at the Port of Tampa, Florida.



Port of Tampa, Florida.

Mr. Wainio stated that the Port is founded on its (a) cargo capability, (b) cruise line industry, and (c) real estate holdings. The Port is building on a diverse base of bulk and general cargo, and is poised for major expansion with global container connections and direct container services to Asia. Tampa is one of the nation's fastest growing cruise homeports with over 900,000 passengers in 1906 enjoying state-of-the-art cruise terminal facilities. There is room to grow with over 5,000 acres of prime deep-water industrial sites available with excellent rail and truck access. Individual parcels up to 150 acres are available. The Port has about 1 million sq ft of warehousing and cold storage facilities.

“Our strategic location provides the most direct route to Mexico, Latin America, and the Caribbean, and the region's rapidly expanding load center hubs providing worldwide services,” stated Mr. Wainio. “With a main shipping channel depth of 43 ft for 41 miles, Tampa is also the closest full service U.S. port to the Panama Canal.”

Cargo Capability

Tampa is by far the largest Port in the state of Florida when measured by cargo tonnage throughput, handling approximately 50 million tons of cargo per year. The Port is capable of handling such a large volume partly due to its vast real estate holding. Such spacious land provides the Port Authority with the ability to develop a multitude of facilities capable of handling diverse cargoes. The Port's broad cargo mix can be attributed to several factors including:



Containerized cargo passing through Port of Tampa.

Location. The Port of Tampa is also the closest seaport to the largest metropolitan population in the state of Florida, and its central position provides the optimum location for distribution in the state.

Deep water. The main shipping channel leading to the Port is maintained at a depth of 43 ft. All public docks can accommodate vessels with a draft up to 41 ft at the deepest berth.

Facilities. The public cargo dock facilities in the Port include over 8,000 ft of linear docking space, about 750,000 sq ft of warehouse space, and about 250,000 sq ft of temperature controlled dockside warehouse space.

Shipping services. The Port offers regularly scheduled container shipping services throughout the world in addition to regularly scheduled general cargo and roll-on/roll-off service.

Market. The Tampa Bay region is the largest metropolitan market in Florida and 10th largest

consumer market in the U.S., with nearly 7 million people within 100 miles of the Port.

Tariff. The Port maintains competitive pricing and will consider special pricing agreements when cargo volume sufficiently warrants.

Cruise Line Industry

Tampa has fast become a favorite port of departure for a growing number of cruise guests who want to enhance the cruise experience with the charm and character of this truly international city. A strong drive-to market and a growing fly-in passenger market have helped to shine the spotlight on the Tampa Bay area.



Cruise ship making port-of-call at Tampa.

Together with the city, the Port continues to develop Channelside, a lively complex offering an enticing combination of dining, shopping, and IMAX cinema literally steps from the Port’s modern cruise terminals. Adjacent to Channelside, a stop at the Florida Aquarium is essential to those who crave the fascination of the underwater world. Minutes from Channelside are notable tourists stops such as Busch Gardens, Lowry Park Zoo, the Museum of Science and Industry, and Raymond James Stadium, home of the Tampa Bay Buccaneers.

Tampa now homeports five vessels from three cruise lines offering a variety of 4-, 5-, 7-, 8-, 10-, 11-, and 14-day cruise itineraries from Tampa, and ports-of-call by other lines stopping at the Port.

Invitation to Visit the Port of Tampa

Mr Wainio concluded his keynote address by thanking all the delegates to WODCON XVIII who had elected to participate in the field trip to the Port

of Tampa for a bus tour of the land-side facilities, and a boat tour of the water-side activities.



Richard A. Wainio, Port Director and CEO, Tampa Port Authority, Tampa, Florida.

Accomplishments and Challenges to the U.S. Dredging Industry: Remarks to the Eighteenth World Dredging Congress (WODCON XVIII), May 29, 2007 by Honorable John Paul Woodley, Jr., Assistant Secretary of the Army (Civil Works)

I am pleased to be with you this evening to celebrate accomplishments of our dredging community, and to share challenges I see for the U.S. dredging industry in the years ahead.

If I were giving this speech 30 years ago, I’d be speaking mostly to my own employees – in those days government dredges operated by Corps of Engineers carried out nearly all navigation dredging in the U.S. The rise of U.S. private dredging is one of the best success stories in American industry. Today, dredging contractors carry out 91 percent of our work by dollar cost, and 85 percent by volume. Work we do together is vital to the well-being of the Nation.

In 2004, U.S. harbors and waterways handled nearly 2.5 billion tons of cargo, including nearly 1.4 billion tons of foreign trade valued at nearly \$1.16 trillion. Foreign trade now accounts for 29 percent of our Gross Domestic Product, up from 8 percent in 1959. Total U.S. waterborne

commerce is forecast to at least double over next 20 to 25 years.

The growth of harbor use has resulted in record revenues to the Harbor Maintenance Trust Fund, which was established to fund maintenance of coastal navigation projects. The Fund has a surplus in excess of \$3.5 billion, and is growing annually. My office is pushing to increase spending from this fund to improve channel availability.

Navigation customers and stakeholders need to help the American public understand the importance of a resilient Marine Transportation System. Channel availability is decreasing and we need to seek additional funds to improve channel availability. America needs to understand and renew their commitment to its infrastructure, particularly navigation assets.

Larger vessels are coming on line in world trade, many requiring channel depths greater than 45 ft. Few U.S. ports presently have such depths.

We are making strides on several high priority dredging projects – most notably at New York Harbor and Oakland Harbor, two of our six national priority projects. Here in the U.S. we are heavily involved in dredging, both for new construction and maintenance dredging.

We find ourselves battling with the need to both reduce costs for dredging operations as well as manage disposal facilities and contracts. Like any business, we operate in context of many parameters: availability of dredging equipment, economics of the dredging project (including disposal), environmental considerations, and, of course, volumes and characteristics of material to be moved.

People often forget that dredging is really about creating and moving land – whether that land is in the ocean, or in a channel. Even when it is disposed, the material must be managed.

Economic benefits of dredging are clear, but I would like to enlist your support in demonstrating that environmental benefits can be just as real, and in developing new and innovative ways to put this dredged material to use.

For over two decades, the Corps of Engineers has promoted the concept that dredged material is a resource. You and I could probably list several dozen uses for dredged material. It can be used for beach nourishment, underwater berms, artificial islands, wetlands, etc. It can shelter fish spawning areas or build island and wetland habitat.

One of our favorite uses is to restore and establish wetlands. At the former Hamilton Army Airfield in Marin County, California, we are using dredged materials from Oakland Harbor to return the airfield to its wetland state.

While we are proud of our beneficial use of dredged material, we recognize it is not a cure-all. Beneficial use often increases cost of a project. The future will bring more challenges in dredged material management. Acceptable placement sites are rapidly dwindling.

As a first step we are working to establish a dredged material management plan for every Federal project. Ultimately, we will need to expand the concept, looking at sediments from the time when they enter a stream until they are ultimately placed for beneficial use or in a disposal area. The approach is similar to the holistic watershed planning we are striving for in all our projects.

One such initiative, which will make enormous use of our experience in uses of dredged material, is one that until a few years ago might have been impossible. The Corps and State of Louisiana are working together to restore and protect that State's shrinking coastal wetlands, and stem ongoing loss of 25 to 35 square miles per year.

The wetlands' and barrier islands' role in protecting inland, urban, industrial, and agricultural areas has taken on new urgency in wake of Hurricane Katrina. This will be a complex

undertaking that will likely involve resources all along the Gulf Coast and throughout the Mississippi River Basin. Our mission, in which I seek your support, will be to ensure that these restoration efforts are productive, cost-effective, and sustainable.

No one knows for sure how much it will cost to stabilize this coast. Many expect that it will exceed Everglades restoration in its scope and duration. But no one is better suited to solve this enormous hydraulic and environmental challenge than the Corps of Engineers and the Nation's dredgers.

While on the subject of coastal protection, I need to remind you that the 2007 hurricane season in the U.S. begins in 3 days, and runs until November 30. We need the dredging industry to be poised for response. We never know at the start of a hurricane season how bad it might be, but many indications are that it will be worse this year than last year. Year 2006 was a remarkably easy season after very rough ones in 2004 and 2005. We can not count on getting off so easy again this year.

In 2005, the dredging industry performed yeoman service after Katrina. The Mississippi River was closed from Natchez, Mississippi, to the Gulf. With support from the dredging industry, the Corps had the river open again to 12 ft depth the next day, 30 ft by September 1 (3 days after storm), 35 ft by September 2, and unrestricted by September 30.

The Corps opened the Gulf Intracoastal Waterway west of New Orleans by September 2, and east of the city by September 6. You were equally adept at keeping the Gulf Intracoastal Waterway open after Rita.

We must be ready to work together to help restore commercial navigation in critical ports, terminals, and waterways as quickly as possible.

In the U.S., our dredging work operates under a myriad of legal requirements: (a) the National Environmental Policy Act; (b) the Clean Water Act; (c) the Marine Protection, Research, and

Sanctuaries Act, (d) the Coastal Zone Management Act; and (e) the Endangered Species Act, to name a few. In addition, international agreements with the Great Lakes, the London Convention, the International Maritime Organization, etc., outline standards of practice.

Roughly 85 percent of all Corps projects involve some environmental window, such as monitoring sea turtles or fish migration. We see these things, though, not as burdens, but as calls for us to be good stewards of our Nation's resources.

There is another role of being good stewards, namely that we execute our jobs in a cost effective manner. Contracting and contract transparency are but two ways we ensure that we are doing the right thing at the right time for the right reason.

Stewardship also calls on us to work on continually updating our dredging research, to include improvements to system monitoring, airborne surveys, predictive models of dredging material placement, etc.

Regional Sediment Management allows us to see the larger system, and find ways to help plan and manage our dredging requirements. It is critical to ensure that we can control our costs so that our partners in the industry, who depend upon safe and reliable channels, continue to provide economic benefits to the U.S.

Before I close, I'd like to enlist your support for the Permanent International Association of Navigation Congresses (PIANC). I serve as Chairman of PIANC USA.

PIANC represents a unique combination of government, corporate members, universities, and private members. Its main efforts center around Working Groups - international experts working about 2 years on detailed analyses, and making recommendations on technical issues.

PIANC Working Group publications are accepted as international standards. Here in the U.S., we benefit from our members serving on these

working groups, studying problems in inland waterways and ports; maritime ports and seaways; recreational navigation; and the environment.

We find these PIANC exchanges extremely valuable not only for learning from the work of others, but also providing us exposure to new ideas and operations – and sharing ours with the international community.

In closing, I want to share a few thoughts on challenges facing the industry worldwide. We tend to forget who owns the navigation channels we depend upon, such as those in trans-boundary regions, or even within multiple jurisdictions. Do we really see dredging programs as being supportive of other nations’ economic development goals? How can we support good public/private partnerships in the dredging area? Can we help local governments understand the application of environmental laws and the role of dredging in actually supporting sustainable water resources (channels, rivers, lakes, etc.)?

As technical experts in dredging, we look to you for innovative ideas. There are opportunities to change the way we do business, save valuable resources, and improve our performance.

Together, we can ensure that our Nation’s water transportation system continues to be our trade window to the world. In so doing, we will do our part to keep the Nation’s economy strong, and preserving our natural treasures, our river and estuaries, for generations to come.

Thank you and have a great conference.



Honorable John Paul Woodley, Jr., Assistant Secretary of the Army (Civil Works).

WODA Environmental Commission Panel at WODCOM VIII: Addressing Environmental Issues are Key to Dredging Project Success Stories

Mr. Craig Vogt, Deputy Director of the U.S. Environmental Protection Agency’s Ocean and Coastal Protection Division, and Chairman of the WODA Environmental Commission, chaired a panel of eight international experts in the field of environmental dredging. The panel members each suggested a “Rule of the Road”, and discussed in detail how they believed their rule would enhance understanding of issues pertaining to dredging projects, and thus would contribute to greater success stories from the world of dredging.



Craig Vogt, EPA Ocean and Coastal Protection Division, and WODA Environmental Commission Panel Chairman, USA.

Rule No. 1: Regulations should be economically feasible and environmentally beneficial.

Neville Burt, Central Dredging Association (CEDA), UK, discussed the motivations that should lie behind every regulation that is formulated by the resource agencies. There is a need to understand the physics and ecology before making the regulation. Specific examples include: (a) overzealous application of environmental windows, (b) forcing removal of sediment from its natural (aquatic) environment, and (c) inappropriate use of silt screens to limit turbidity. Regulators should consider the consequences of not dredging before they make it either illegal or too expensive.



Neville Burt, CEEDA, UK.

Rule No. 2: Get all the facts before you start.

Dr. Robert Engler, Senior Environmental Scientist, Moffat and Nichol; and Environmental Commission (EnviCom) Chairman, PIANC USA; discussed the importance of having all the facts about a dredging project available for analysis before initiating any kind of dredging activity.

The purpose of the dredging project should be fully understood, whether it be for navigation, construction, mining, environmental, or other reasons. An understanding of the dredging process is necessary, beginning with the type of dredge (mechanical, hydraulic, special, others). All regulations pertaining to the project should be known (national, regional, and global). All of the stakeholders (partners) in the project should be well represented in the decision making process.

A full understanding of sediment management is necessary, and characterization of the material is vital including: (a) physical, (b) biological, (c) chemical (for dredging methods), (d) use, (e) placement or treatment options, and (f) impact assessment. Effects of the dredging process should be understood, and all alternative dredging processes should be considered. An assessment and mitigation alternatives for possible impacts should be developed. Recognize that dredged material is a resource, and consider the need for sustainable relocation of that resource. Be sure you know where to find pertinent and relevant information, from such sources as PIANC, CEEDA, WEDA, EADA, WODA, IADC, DCA, IMO, USACE, SEDNET, USEPA, and others.



Robert Engler, Moffat and Nichol, and PIANC EnviCom Chairman, USA.

Rule No. 3: Use of appropriate technology is encouraged through promotion of information sharing and capacity building.

John Dobson, Eastern Dredging Association (EADA) Chairman, Australia, described information sharing techniques beginning with use of the World Wide Web as a source of data and information. Other sources of pertinent knowledge can be derived from technical journals, and from published papers of conference proceedings and seminars. Capacity building includes educating everyone involved in a dredging project to fully understand the environmental aspects of the process. Additional training may be necessary to understand peripheral environmental issues not readily apparent at the beginning of planning for the dredging operation.



John Dobson, EADA Chairman, Australia.

Rule No. 4: Responsible contractors will respond to reasonable and responsible contract documents.

Ancil Taylor, Bean Environmental LLC; and Chairman, Board of Directors, Western Dredging Association (WEDA); discussed how contract documents that are developed in a reasonable and responsible manner will result in contractors being willing to apply responsible attitudes, techniques, and technology in performing a dredging activity. Speaking from his own broad personal experience,

Mr. Taylor described how contract documents that have been prepared with realistic expectations, realistic performance measurements, and an in-depth understanding of the overall dredge process, will yield a construction project that will meet the expectations of all parties involved.



*Ancil Taylor, Bean
Environmental LLC, USA.*

Rule No. 5: Joint client/consultant/contractor input is important in all stages of a project.

Gerard van Raalte, Hydronamic/Boskalis, The Netherlands, described the necessity of mutual input from all those involved in developing the dredging project. The client is the owner of the project. He knows his area, but he only participates in a dredging project ever so many years apart. He does not continuously maintain a working knowledge of the process. The consultant knows the theory and understands the complexity, but he lacks practical expertise in performing the project. The contractor knows the tools, and the practice. He also performs many dredging projects each year. Individually, neither knows all aspects of the dredging process. Together they (might) know everything. Through open communication starting at the conceptual stage of the project, they can together achieve the best outcome. The keywords are open and fair, and this will result in a win-win situation for everyone involved.



*Gerard van Raalte,
Hydronamic/Boskalis, The
Netherlands.*

Rule No. 6: Sediment is more than dredged material—Management schemes should be part of system-wide management.

Axel Netzband, Hamburg Port Authority, Germany, elaborated on why integrated sediment management concepts are essential for effective utilizing dredged material as a beneficial resource. Totally undisturbed natural waters do not need either dredging or sediment management. Natural waters are legitimately disturbed as necessary for human well-being. Several uses and needs are affected by sediments (navigation, agriculture, hydropower, nature conservation, marine protection, etc.). Nature itself needs protection and sustainable management. Dredging activities as well as other uses have effects on the environment. Comparable effects occur naturally as well. Dredging may relocate contaminants, if there are any in the sediment. Nature may do the same. A true win-win solution results from a system-wide management of sediments (including dredged material).



*Axel Netzband,
Hamburg Port
Authority, Germany.*

Rule No. 7: Monitoring and control programs shall be ecologically and morphologically motivated, economically reasonable, and technically feasible.

Anders Jensen, Danish Hydraulic Institute (DHI), Water and Environment, Denmark, postulated that monitoring and control programs should not be just scientifically interesting and economically beneficial for the consultant, but should be relevant for the project. Environmental monitoring parameters should at the very least (a) be measurable, (b) be reliable, (c) be statistically significant, (d) have a predictable response, (e) have a short response time, and (f) be rational.



*Anders Jensen, DHI
Water and
Environment,
Denmark.*

Rule No. 8: The public and environmental interest groups should be given the opportunity to be involved in the process early and often.

Lindsay Cross, Environmental Associate, Tampa Bay Estuary Program, USA, stated that public and environmental agency involvement significantly influenced dredge-and-fill activities in Tampa Bay. An example she discussed was the Tampa Bay dredged hole habitat assessment project. This was a multi-agency project, involving recreational anglers and the U.S. Army Corps of Engineers. The public and environmental groups working together assessed the current ecological habitat value (fish and benthos) of 11 dredged holes in Tampa Bay. Each hole in upper Tampa Bay was studied for 2 years. Together, these groups developed management recommendations for each hole. Several highly-ranked holes were kept off the Corps' list of disposal sites. This again emphasizes the win-win results that occur when all groups are permitted to be involved in the evaluation and decision-making process early and often.



*Lindsay Cross, Tampa
Bay Estuary Program,
USA.*

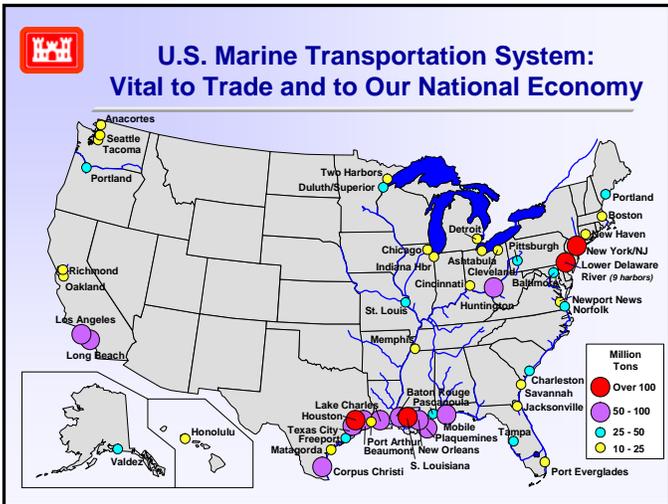
Dredging and the U.S. Army Corps of Engineers (USACE): Remarks at WODCON XVIII by James E. Walker, Headquarters, USACE, Washington, DC

U.S. Marine Transportation System

The dredging program of the U.S. Army Corps of Engineers (USACE) is absolutely necessary for unencumbered functioning of the U.S. Marine Transportation System (MTS). The MTS is a network of waterways, ports, and equipment for the movement of commercial freight, military supplies, and passengers. It is a vital public-private partnership that makes up an essential component of the nation's transportation network. MTS links water and surface transportation (rail and highway), and enables America to connect globally.

Navigation Dredging by USACE

The navigation mission of USACE entails maintenance dredging of about 25,000 miles of navigable channels and 400 ports at an annual cost of about \$900 million. Each year about 200-300 million cu yd of material are removed from Federal channels, and about 100 million cu yd are removed from private berths. This dredged material is placed annually in inland waters and confined disposal facilities (CDFs) at a rate of about 240-300 million cu yd, and at open ocean disposal sites at about 65 million cu yd. At least 90 percent of this dredging volume is performed by private contractors using all varieties of dredges, including bucket, cutterhead, and hopper dredges. The Corps also employs dustpan dredges on the Mississippi River.



U.S. Marine Transportation System (MTS) national network.

Environmental Legislation

Many of our Nation’s ports need to expand and develop new facilities. This expansion is accomplished in serious consideration of the environment, through several laws, environmental regulations, and Corps policy. The environmental legislation includes: (a) the National Environmental Policy Act (NEPA), (b) the Clean Water Act (CWA), (c) the Coastal Zone Management Act (CZMA), and (d) the Endangered Species Act (ESA).

The NEPA requires full disclosure, and that all Federal agency decisions be documented with either an Environmental Impact Statement (EIS) or an Environmental Assessment (EA). An EIS takes about 2 years to complete, can cost in excess of \$2 million, and are intended for actions that might have significant impacts on the quality of the human environment. An EA is prepared for more routine efforts such as maintenance dredging, and generally require about 6 months to prepare and coordinate.

The CWA requires that all discharges of dredged material be specified through guidelines developed by the Corps and the Environmental Protection Agency (EPA). This Act also requires public notice, and an opportunity for public hearings. CWA requires that discharges be certified

by the State to the effect that applicable water quality standards not be violated.

The CZMA requires that Federal agency decisions be consistent to the maximum extent practicable with Federally approved state coastal zone programs. Coastal programs vary widely from state to state, and often have vague standards for compliance.

The ESA establishes a list of threatened and endangered species (animals and plants). Dredging and port development activities are reviewed as part of the environmental review process. This often results in scheduling periods of time when dredging is not allowed.

The Commerce Clause of the U.S. Constitution provides supreme power to the Federal government to protect navigation. State statutes cannot preclude the Federal government from maintaining navigation.

Contaminated Sediments

About 96 percent of the material dredged from U.S. waters each year is uncontaminated. The remaining 4 percent (about 3 to 12 million cu yd each year) is considered contaminated by one or more standards. Special handling of this contaminated material is required. Special handling can consist of placement in CDFs, capping, or treatment (e.g., separation).

Beneficial Uses of Dredged Material

Annually, about 300 to 400 million cu yd of sediment are dredged from our Nation’s waterways and harbors. While we must continue to build and maintain the waterways, the traditional disposal sites are filling to capacity. Assessment technologies and perceptions are changing, so that more of this dredged material can now be used for beneficial purposes. A four-part formula is usually required for successfully using dredged material as a beneficial resource: (1) it must be technically feasible to get the material to the beneficial use location; (2) legal and regulatory concerns must be

addressed so that the material is determined to be suitable for beneficial use; (3) there must be public support for using the material in a beneficial manner; and (4) the project must be economically feasible.

Port Development and Environmental Protection

Virtually all port development requires mitigation of adverse environmental impacts. Mitigation banks for environmental restoration have become commonplace. And increasingly, there is greater involvement by ports in air pollution abatement.

Some real success stories regarding environmental mitigation have been developed by the Port of Los Angeles. This Port created a 190-acre Cabrillo shallow water habitat, and transplanted Giant Kelp into the harbor. This habitat, located in the Outer Los Angeles Harbor, provides a replacement habitat and feeding area for fish and marine birds. Despite its industrial nature, the Outer Los Angeles Harbor area is a valuable marine resource, particularly for juvenile fish. Many of the 75 fish species found in the harbor are common along the West Coast, but they are more abundant within the harbor, which is an important nursery for several fish species.

At another down-coast location, the Port of Los Angeles restored the Battiquitos Lagoon at a cost of \$ 57 million. The Port is also managing 15 acres of port land for the California Least Tern.

The Port of Seattle replaced 70,000 creosote-treated wooden pilings, cleaned up a large area of contaminated sediments. This Port also restored and enhanced wetland and aquatic habitat, and removed barriers to migrating juvenile fish. These environmental enhancements by the Port of Seattle improved light penetration into shallow water areas.



Restored Battiquitos Lagoon, southern California wetland.

Environmental Windows

Restrictions on dredging or placement due to environmental concerns have resulted in environmental windows during which dredging activities may be conducted. Dredging and placement activities may not take place outside these windows. The environmental windows apply to all endangered species, fish spawning, sea turtles, turtle nesting areas, crabs, birds, and other species. About 85 percent of the Corps' dredging projects have seasonal restrictions. This significantly increases the cost of dredging, and research is being conducted to expand the environmental windows to allow dredging to occur over a greater time period each year.

Dredging Trends

During coming years, there will likely be some reduction in ocean disposal of dredged material. There will be an increasing greater amount of contaminated sediment cleanup. Innovative technologies will be developed, and more beneficial uses of dredged material will be created.

Long-term (25 year) Dredged Material Management Plans (DMMP) for dredging and dredged material placement from a project are being developed. There will be greater work and

cooperation with non-Federal sponsors to provide dredged material placement sites and (possibly) cost sharing. These long-term DMMPs will be developed with participation of all the environmental resource agencies and public interest groups.

Summary

The U.S. Army Corps of Engineers dredging program is accomplished with formal environmental considerations. Environmentally sustainable development is a critical component for future navigation and port development endeavors. There will be a future increase in the beneficial use of dredged material. Finally, there will be a significant need to help the public understand all the positive aspects of the U.S. Marine Transportation System and the dedicated involvement of the U.S. Army Corps of Engineers in supporting this marine system.



James E. Walker, Chief of the Navigation Branch, and Navigation Business Line Manager, U.S. Army Corps of Engineers, has been at Corps Headquarters since January 2007. Prior to this assignment he served in the Corps Mobile District as Assistant Chief of

Operations Division. Here, Mr. Walker helped manage one of the largest and most diverse Operations and Maintenance programs in the Corps.

Derek Wilson Receives Best Student Paper Award at WODCON XVIII

Derek Wilson of the U.S. Army Engineer Research and Development Center (ERDC), Coastal and Hydraulics Laboratory (CHL), was awarded a \$500 prize by the Western Dredging Association (WEDA) and Texas A&M University, for the Best Student Paper at the Eighteenth World Dredging Congress (WODCON XVIII). The title of Derek's

paper was "Dredging Knowledge Base Expert System (DKBES)."



Derek Wilson proudly displays his award for Best Student Paper present by WEDA and Texas A&M University. Derek is a hydraulic engineer in the Dredging Group of the ERDC CHL Coastal Engineering Branch. He plans to pursue the DKBES as his PhD

dissertation topic at Texas A&M University, Department of Civil Engineering, Coastal and Engineering Ocean Division.

The award reads "Western Dredging Association (WEDA) and Texas A&M University, Host of WODCON XVIII, present this award to Derek Wilson, for the Best Student Paper presented during WODCON XVIII, in Lake Buena Vista, Florida, May 27 – June 1, 2007. Your exceptional efforts and dedication in assisting the World Organization of Dredging Associations in promoting the exchange of knowledge in fields related to dredging, navigation, and marine engineering is greatly appreciated. We thank you." The award was signed by Ram K. Mohan, Chairman, WEDA Technical Papers Committee, and Robert E. Randall, Professor, Texas A&M University.

The DKBES serves as a common dredging data repository and rules-based decision tool. These tools will assist Corps of Engineers dredge project leaders and managers plan and quantify their dredge projects in less time, and with reduced tedium and redundancy. The DKBES provides a direct service to support a sound decision-making process concerning their operations.

The DKBES will capture and retain hard-won corporate knowledge and experience in the face of entire communities of retiring Corps employees and contractors. Furthermore, a DKBES provides rapid,

simple, and efficient analytical results that allow Corps managers to “do more with less” when confronted with depleting resources and rising demand.

Derek’s paper discusses how the DKBES uses a knowledge base to define and structure all of the pertinent data associated with the dredging process. His paper further describes data analysis involved in developing intelligent decisions and forecasts in dredging operations. Finally, his paper provides a simplified hypothetical dredge project scenario in a Corps district based on estimated budget and dredge material placement site availability, and on how the DKBES formulates analyses and makes the final decisions.

Seaport Security: Excerpts from Testimony before the House Committee on Homeland Security; Subcommittee on Border, Maritime, and Global Counterterrorism, April 26, 2007 *by Richard A. Wainio, Port Director and CEO, Tampa Port Authority, Tampa, Florida*

Florida’s 12 active deepwater seaports handle nearly 130 million tons of cargo, 4 million containers (TEU’s), and over 14 million cruise passengers annually. The Port of Tampa is Florida’s largest seaport, accounting for approximately 50 million tons of cargo annually, or nearly 40 percent of the State’s total water-born trade.

Tampa is one of the nation’s largest and most diverse seaports. The Port’s core bulk business includes almost 20 million tons of petroleum products -- virtually all the gasoline and jet fuel consumed in West and Central Florida -- and over 15 million tons of fertilizer and related products. Tampa is rapidly diversifying its cargo base into containerized freight with the recent introduction of new direct container services from Asia; shipments of vehicles and steel are increasing; and the current annual volume of 4 to 5 million tons of cement and

aggregates is expected to double in the next few years.

Tampa is also a major cruise port, handling over 900,000 cruise passengers in 2006. Additionally, the Port has the largest ship repair facilities between Pascagoula and Norfolk, and has a thriving retail/entertainment complex along its downtown waterfront area. The Port of Tampa encompasses over 5,000 sprawling acres, and a relatively narrow main ship channel that stretches 42 miles across Tampa Bay. In short, few ports in the country face the diverse and complex security challenges that confront the Port of Tampa.

In Florida, the State Legislature passed security legislation (Florida Statute 311.12) prior to September 11, 2001, that mandated enhanced security standards throughout the Florida port system. The primary emphasis for the original Florida legislation was to address drug interdiction and cargo theft. This law was quickly revised after 9/11 to encompass additional requirements to prevent terrorism.

Tampa has relied on a very effective layered seaport security approach. This layered approach occurs on the infrastructure side (surveillance cameras, lighting, fencing, gates, etc.), and on the personnel side where Tampa contracts with the Hillsborough County Sheriff’s Office for 24/7 coverage of all port zones within our jurisdiction. In addition, the Port Authority contracts with private security as well as employing its own professional security force.

The Tampa Port Authority also works closely with another of its federal partners, U.S. Customs and Border Protection (CBP). Every single inbound container to the Port of Tampa is scanned for radiation through radiation portal monitors operated by CBP. CBP has indicated that nationwide it is now scanning over 90 percent of all inbound containers for radiation, and will increase this to nearly 100 percent by the end of 2008. Through careful planning, this has been accomplished without unduly disrupting port operations.

Congress is currently debating whether to require 100 percent overseas scanning of containers within 3 to 5 years, which would include both scanning for radiation and imaging. The SAFE Port Act of 2006 calls on the Department of Homeland Security (DHS) to move to such a system, but first calls for a pilot program to more fully evaluate the effectiveness and practicality of this approach and required new technology. We agree with the American Association of Port Authorities that pilot projects are important, and that quick implementation of 100 percent integrated scanning without incorporating the lessons from the pilots could be both costly and detrimental for our maritime transportation system.

There has also been some discussion about 100 percent inspection of inbound containers once they arrive in this country. Port directors across the country oppose this concept which would unnecessarily and severely constrain our nation's highly efficient and effective maritime transportation system.

Of greatest concern to the port community at this time is the issue of security access credentials. The Transportation Worker Identification Credential (TWIC) will be another important tool to strengthen port security, but it will place an even greater financial burden on ports and port users. DHS has estimated that the card readers alone will cost \$300 million. There are additional concerns over the inability to meet the timetable in the Safe Port Act in a manner that will allow for the effective and efficient implementation of the system. Also, the biometric portion of the program must be extensively tested in the maritime environment. We respectfully urge adequate staffing and funding for Transportation Security Administration and the Coast Guard to test and provide oversight for the implementation of the TWIC program.

Florida's seaports have a special concern and dilemma regarding access credentials. Since 9/11, Florida's seaports have already successfully screened and badged over 100,000 users at Florida's ports, including 7-year criminal background checks on each individual. In Tampa alone about 39,000

port badges have been issued. The Florida credential, created under Florida Statute 311.12, is vetted by both the Federal Bureau of Investigation and the Florida Department of Law Enforcement, and is the model on which much of TWIC is based. Federal officials and Florida officials have been working to resolve differences between TWIC and the Florida credential.

I urge this Committee to review the issue of duplicative criminal history checks for port access, and require the development of a "one-card" criminal history vetting process for all U.S. seaports.

Thank you for this opportunity to comment on these selected aspects of seaport security.

Corps Demonstrates Environmental Restoration is Indeed Possible: With Dredged Material from Navigation Channels in the Hudson-Raritan

Estuary by JoAnne Castagna, EdD, U.S. Army Engineer District, New York

Eighth grade student Ebony Howard from Elizabeth, New Jersey, stands on a pier and carefully lifts a starfish from a water filled glass aquarium as her giggling classmates surround her. She shrieks as one of its arms breaks off.

Ronald Pinzon quickly assures her that it will grow back and regenerate, and that it will be okay. The starfish was ultimately placed safely in its natural habitat in the Hudson River Estuary.

The students were taking part in the fourth annual Earth Day Celebration sponsored by the Corps and other agencies, held on the Elizabeth Marina City Dock, in April 2007.



Ebony Howard and eighth grade students from Elizabeth, New Jersey, on a field trip to Hudson-Raritan Estuary, listen to Ronald Pinzon, Project Biologist with the U.S. Army Corps of Engineers, New York District (photograph by JoAnne Castagna).

Howard and several other students learned what can also be restored is the nearby Hudson-Raritan Estuary, the starfish's home – by keeping it pollution-free.

It was on a sunny, breezy day, when over 200 New Jersey high school students gathered on the dock which overlooks the estuary.

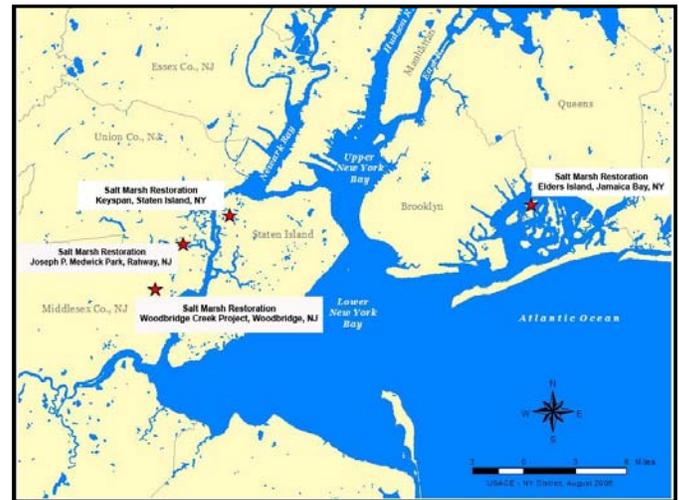
Corps experts described to the students that an estuary is a semi-enclosed coastal body of water with one or more rivers or streams flowing into it, and with a free connection to the open sea.

Students were taught by various Earth Day volunteers about the effects of pollution on their environment. The students were educated through a variety of interactive educational stations manned by scientific and educational experts. Featured were glass water-filled touch tanks containing estuary marine life, interactive pollution and water quality testing demonstrations were also conducted. The students also boarded a U.S. Coast Guard vessel for a tour, and boarded the Corps' vessel *Hocking* as it traveled near the estuary.

Aboard the *Hocking*, Corps experts discussed the Estuary's rich history, current condition, and the Corps' on-going Port activities and environmental restoration projects in the Estuary, four of which were recently completed with much success.

The Estuary is 16,212 square miles in area, and is one of the nation's most populated with 20 million people residing in the region. It surrounds the Port of New York and New Jersey. For more than 200 years, the Corps' New York District has managed the Port's navigation, development, and maintenance. This is one of the Corps' largest civil works missions.

Over the decades, the salt marshes along the shores of navigation channels have experienced some degrading and habitat loss due to a number of factors including years of commercial construction and development along the shore, and increased boat traffic.



Salt marsh restoration projects, Hudson-Raritan Estuary (map by U.S. Army Corps of Engineers, New York District).

To restore these areas, the Corps' has an environmental restoration program in place.

Maintaining the health of this Estuary is important because salt marshes clean the water environment, reduce flood risks, and provide essential fish and wildlife habitats. (Salt marshes

are areas of land that are either covered by shallow water or containing waterlogged soil.)

In 2006, the New York District in cooperation with the Port Authority of New York and New Jersey, and state and local agencies, successfully completed four salt marsh restoration projects in the Estuary that are preserving and restoring more than 143 acres of salt marsh.

Salt Marsh Successes

Elders Island, Jamaica Bay, New York:

Located in the boroughs of Brooklyn and Queens (the eastern-most areas of New York City), is the Jamaica Bay Gateway.

National Recreation Area, a popular park visited by millions each year and home to a variety of wildlife species including migratory birds and fish nurseries.

Since colonial times, 90 percent of the Jamaica Bay marsh islands have degraded and the remaining acres of islands are disappearing at a rate of 44 acres per year, faster in the last decade. If the islands are not restored they will be completely lost within the next three decades.

The Corps is successfully restoring these islands – one of them being Elders Point Island. The island is composed of two separate islands that are connected by mudflats– Elders East and Elders West – that totaled approximately 21 vegetated acres prior to the Corps' restoration.

The restoration plan for Elders Point Island includes recontouring the land by using dredged sand from various harbor channels, and restoring the existing vegetation.

In the summer of 2006, 250,000 cu yd of sand was pumped onto Elders East, and 700,000 plants were hand planted including salt marsh cord-grass, salt hay, and spike grass.

Today, marsh grass is flourishing on Elders East, promoting the return of wildlife.



Sunset on Elders Island – East , Jamaica Bay, New York, Hudson-Raritan Estuary (photograph by U.S. Army Corps of Engineers, New York District).

The tentative schedule for Elders West is to place sand on the island next year and plant vegetation in 2009.

Joseph P. Medwick Park, Rahway, New Jersey: The Corps restored approximately 14 acres of salt marsh, located in the northern portion of Joseph P. Medwick Park along the southern shore of the Rahway River.

Many years ago a berm was built on the banks of the Raritan River, cutting off the site from the daily tide. As a result, the area was overrun by an invasive species of common reed called *Phragmites australis* that prefers the dryer conditions. The reed prevented a normal tide of water from flowing into the site which has degraded the site and adversely affected its fish nurseries, and the bird and wildlife habitats.

The Corps removed the reed and approximately 30,000 cu yd of soil, recontoured the land, and planted 270,000 plugs of native wetland plants including salt marsh cord-grass, salt hay, and marine shrubs.



Workers planting native wetland plants on the Joseph P. Medwick restoration site, Rahway, New Jersey (photograph by U.S. Army Corps of Engineers, New York District).

The plants are providing a food source for fish and other marine life in the Estuary, and vegetation for nesting birds. Water flow to the area has been reestablished improving the water and soil quality, and promoting the return of native fish and wildlife.

“This was a great opportunity to energize the students, our future environmental leaders, about the health of their own Estuary in the New York and New Jersey Harbor, and allow them to understand the connection between land and water,” said Colonel Aniello Tortora, Commander of the New York District.



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

For additional information about the New York District’s Hudson-Raritan Estuary Program, please visit

<http://www.nan.usace.army.mil/harbor/index.htm>



Dr. JoAnne Castagna is a technical writer-editor with the New York District, U.S. Army Corps of Engineers. She can be reached at:

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Engineering Firm Wins Award for Montgomery Point Lock and Dam Design by Tammy L. Reed, U.S. Army Corps of Engineers, Little Rock District

A Chicago engineering firm under contract to the U. S. Army Corps of Engineers on the design of the Montgomery Point Lock and Dam in southeast Arkansas, recently earned a national design award from the American Council of Engineering Companies (ACEC).

MWH Americas, Inc. earned the Grand Conceptor Award for its work on the lock and dam, which improved navigation conditions on the McClellan-Kerr Arkansas River Navigation System. The presentation took place May 8, in Washington, D.C., at the ACEC’s 2007 Engineering Excellence Awards Gala Evening.

The Grand Conceptor Award, ACEC’s highest national award, recognizes engineering achievements that demonstrate high degrees of merit and ingenuity, contribute to private engineering’s advancement, and enhance the general public’s economic and social welfare.

“MWH joined our design team in October 1993 when their name was Harza,” Tom Clement, the Corps’ technical manager for the project, said. “They were full members, and the cooperation and communication between them and our in-house designers was exceptional.



Tom Clement, Corps of Engineers Little Rock District technical manager for the Montgomery Point Lock and Dam project, receives the 2007 Grand Conceptor Award from the American Council of Engineering Companies, on behalf of MWH Americas, Inc.

“Harza took our torque-tube gate design concept and made it a reality,” Clement said. “The project had numerous challenges and required first-of-its-kind designs in several areas. The result is a truly remarkable project.”

The project’s features have earned other awards as well. Earlier this year, MWH earned the Eminent Conceptor Award at the Illinois ACEC’s 36th Annual Engineering Excellence Awards Program. The Corps’ project delivery team also received the Corps’ 2004 Project Delivery Team Merit Award. In 1995, the design team earned the Project of the Year Award from the Arkansas Section of the American Society of Civil Engineers for the Montgomery Point Feature Design Memorandum.

Montgomery Point Lock and Dam, located in the White River Entrance Channel, is the McClellan-Kerr system’s gateway to and from the Mississippi River. The dam solves a recurring low-water problem that, at times, forced restrictions or even halted commercial navigation in the entrance channel for varying periods of time, thus hampering the navigation system’s reliability.

The structure features a dam with a unique gated navigable pass, an un-gated overflow spillway, and a navigation lock. The navigable pass includes 10 hydraulically-operated hinged gates, placed side by side. The gates set Montgomery Point apart from other locks and dams.



Montgomery Point Lock and Dam, White River, Arkansas.

When Mississippi River stages are above elevation 115, the gates lie flat in the riverbed, and vessels pass over them as if there was not a lock and dam there. As stages fall below elevation 115, the 13-ft-high gates are raised at the push of a button to maintain navigable depths behind the dam. With the gates raised, vessels use the lock chamber.



Montgomery Point Lock and Dam control tower.

The entire lock and dam, except the control tower, is below the top of the riverbanks. This enables the structure to maintain a smaller footprint in this environmentally pristine and sensitive area. The structure also eliminated more than 90 percent of dredging needs in the entrance channel, another environmental plus. During high water, the entire dam is under water except the control tower.

More information about Montgomery Point Lock and Dam is available on the Internet at <http://www.swl.usace.army.mil/projmgmt/montpoint.html>.

Tammy Reed has been in the public affairs career field for 13 years in a number of positions for several federal and city agencies, with the latest being the U.S. Army Corps of Engineers, Little Rock District. Prior to this assignment, she worked in such places as Berlin, Germany; Washington, D.C.; and Guantanamo Bay, Cuba.



Corps Convenes 2007 Infrastructure Systems Conference, 25-29 June, Detroit, Michigan

The U.S. Army Corps of Engineers (USACE), with logistic support from the Society of American Military Engineers (SAME), convened the 2007 Infrastructure Systems Conference (ISC), June 25-29, at the Marriott Renaissance Center, Detroit, Michigan. The theme of the conference was “Engineering in an Increasingly Complex World: What Does the Future Hold?” 2007 ISC was attended by approximately 800 Corps employees from around the nation, and about 400 technical presentations were made on all topics of concern to the Corps’ Civil Works (CW) and Military programs.

The 2007 ISC consisted of plenary sessions and technical breakout workshops on: (a) construction;

(b) civil engineering and transportation; (c) geotechnical engineering; (d) materials engineering; (e) mechanical engineering; (f) electrical engineering, (g) dam safety; (h) structural engineering; and (i) hydrology, hydraulics, and coastal engineering. Additional workshops were held on research and development, security engineering, standards and criteria, specifications, cost engineering, engineering software systems, surveying/mapping, GIS, CAD/BIM, and other inter-disciplinary topics, along with individual Community of Practice (CoP) meetings.

The conference also presented USACE’s “12 Actions for Change,” which are a set of actions that USACE will focus on to transform its priorities, processes, and planning. The “12 Actions for Change” fall within three overarching themes:

- Effective comprehensive systems approach.
- Effective and transparent communication.
- Reliable public service professionalism.

The ISC was opened with welcoming remarks from James C. Dalton, Chief, Engineering and Construction Division, Headquarters (HQ), USACE. Mr. Dalton discussed both the Civil Works (CW) and Military programs of the Corps. He pointed out that the CW budget is about \$10.3 billion and supports a work force of about 24,000 personnel. Additionally, the Engineer Research and Development Center (ERDC) consist of seven diverse research laboratories with an annual budget of about \$700 million from the Corps’ total budget.



James C. Dalton, Corps HQ Chief, Engineering and Construction Division, discusses the ISC theme as he opened the 2007 ISC.



Marriott Renaissance Center, Detroit, Michigan, site of Corps/SAME 2007 Infrastructure Systems Conference.

In addition to a host of sophisticated technical skills, tomorrow’s engineers must also have the skills needed to appreciate, comprehend, communicate, relate, lead, inspire, and ultimately to build ownership in a solution between competing interests of diverse stakeholders. This conference provided an excellent opportunity to exchange ideas and to share technical knowledge within the engineering and construction community.

Opening and welcoming remarks were also presented by LTC William J. Leady, Commander and District Engineer, USACE, Detroit District; BG Bruce A. Berwick, Commander and Division Engineer, Great Lakes and Ohio River Division; and MG Don T. Wiley, Director of Civil Works, HQ USACE.



LTC William J. Leady, USACE Detroit District Commander, welcomes ISC to Detroit, and briefly discusses the Corps’ Detroit District.



BG Bruce A. Berwick, USACE Great Lakes and Ohio River Division Commander, discusses civil works activities in the Division.



MG Don T. Riley, Corps Director of Civil Works, conveyed greetings to ISC from the newly appointed USACE Chief of Engineer, LTG Robert L. Van Antwerp, Jr.

The topic of MG Riley’s address was “New Directions in the Corps”. First he described the six “Corps Priorities”, as promulgated by LTG Van Antwerp. The six priorities are, in no particular order except for the first one:

- Support the global war on terrorism and expeditionary forces
- Improve support to soldiers, civilians, families, and the public (including contractors)
- Complete transformation of Theater Engineer Commands
- Effectively plan for, and execute, disaster relief
- Enable coastal recovery
- Deliver in civil works, military, research and development, and regulatory programs



LTG Robert L. Van Antwerp, Jr., recently appointed Chief of Engineers and Commander, U.S. Army Corps of Engineers.

MG Riley discussed the Corps' intent to deliver with excellence. It is imperative to deliver quality and sustainable well-designed projects and programs on budget and on time. It is essential to build trust and credibility. The Corps CW vision is to be the Nation's engineering leader in providing comprehensive, collaborative, and sustainable solutions to public water resource needs.

Risk-informed planning must be applied to the Louisiana Coastal Protection and Restoration Program, and the Mississippi Coastal Improvements Program. Such planning captures risk information through risk, decision, and scenario analyses. This promotes transparency in decision-making, and facilitates adaptive planning and engineering.

MG Riley then discussed the importance of effective risk communication. Effective risk communication conveys to the public that risk still exists, no matter what protective measures are in place. It is important to state risk in precise terms, and to fully understand the meaning of statements, such as "Today, you have a 1 percent chance (1 in 100) every year at a particular location of experiencing flooding to a specific depth from hurricanes."

Such an informed public is then empowered to take responsibility for their own safety.

Corps Civil Works Directorate Strategic Direction

Corps of Engineers Deputy Director of Civil Works (CW), Steve Stockton, discussed the strategic direction of the Corps CW Directorate at

the 2007 Infrastructure Systems Conference. Mr. Stockton pointed out that the situation concerning water resources is that the Nation faces large and growing water resource challenges due to (a) population pressures, and (b) changes in national priorities and values. Water will be a significant factor in U.S. economic prosperity and quality of life.



Steve Stockton, Deputy Director of Civil Works, Headquarters, U.S. Army Corps of Engineers.

To emphasize how significantly critical our water resource infrastructure is to our national well-being, Mr. Stockton quoted from "The Edge of Disaster" by Steven Flynn:

- "Americans are in denial when it comes to facing how vulnerable our Nation is to disaster, be it terrorist attack or Act of God."
- "Our growing exposure to man made and natural perils is largely rooted in our own negligence as we take for granted the infrastructure handed down to us by earlier generations. Once the envy of the world, our infrastructure is now crumbling."
- "Resiliency... must now become our national motto."

Three major strategic efforts are presently underway: (a) implementing the USACE Campaign Plan (2005), (b) implementing the current CW Strategic Plan (2005-2009), and (c) developing the next CW Strategic Plan (2010-2014).

The USACE Vision is that the Corps of Engineers will be one team that is relevant, ready, responsive, and reliable. The Corps will proudly serve the Armed Forces and the Nation, now and in

the future. The Corps will be a full-spectrum Engineer Force of high quality civilians and soldiers, working with it's partners to deliver innovative and effective solutions to the Nation's engineering challenges: (a) an Army values-based organization; (b) focused on the mission and those we serve; (c) dedicated to public service; and (d) a vital part of the Army.

The USACE Campaign Plan is to: (a) support stability, reconstruction, and Homeland Security operations, (b) develop sound water resource solutions, and (c) enhance life-cycle infrastructure management. This means the Corps must focus talents and energy on comprehensive, sustainable, and integrated solutions to the nation's water resources and related challenges through collaboration with stakeholders (regions, states, local entities, other Federal entities, etc.) while playing a leadership or support role as appropriate.

Goals of the CW strategic plan include:

- Provide sustainable development and integrated management of the Nation's water resources.
- Repair past environmental degradation and prevent future environmental losses.
- Ensure that projects perform to meet authorized purposes and evolving conditions.
- Reduce vulnerabilities and losses to the Nation and the Army from natural and man-made disasters, including terrorism.
- Be a world-class public engineering organization.

For the CW strategic planning process to really shape the future, the Corps must develop realistic scenarios with core competencies and strategic segments. Then, key success factors must be developed to ensure mission area strategic direction.

Mr. Stockton concluded by discussing key success factors to allow the Nation to get to where it needs to be. These factors include institutional

knowledge, standards, and technical expertise. For the infrastructure to meet contemporary needs, there must be risk-informed project, program, and policy decisions. Maintenance and rehabilitation operations must be expanded and contracted rapidly and with agility.

Nominate a Colleague for an ASCE / COPRI Award

The American Society of Civil Engineers (ASCE), and the Coasts, Oceans, Ports, and Rivers Institute (COPRI), are now accepting nominations for two awards for professional achievement. These awards are a great opportunity to honor your colleagues who have contributed to the civil, ports and harbor, and waterways engineering profession in significant ways. Please consider nominating a deserving colleague for one of these awards!

For award criteria, and to download a nomination form, please visit <http://www.asce.org/pressroom/honors>. The deadline for nominations for both awards is November 1, 2007.

Hans Albert Einstein Award

This award was established to honor Hans Albert Einstein for his outstanding contributions to the engineering profession, and for his advancements in the areas of erosion control, sedimentation, and alluvial waterways. The funds were contributed by the honoree's friends and former students in appreciation of his positive influence on their professional development. The Einstein Award is made annually to a member of ASCE who has made a significant contribution to the engineering profession in the areas of erosion control, sedimentation, and/or waterway development either in teaching, research, planning, design, or management. Contributions can be made either in the form of papers or through notable performances which have served to advance engineering in these areas.

John G. Moffatt-Frank E. Nichol Harbor and Coastal Engineering Award

This award was endowed by the firm of Moffatt and Nichol in 1977. It recognizes new ideas and concepts that can be efficiently implemented to expand the engineering or construction techniques available for harbor and coastal projects. The Moffatt and Nichol Award is made annually to a member of ASCE who has made a definite contribution in the field of harbor and coastal engineering. The nominee's contribution to the field may have been made either in the form of written presentations or notable performance.



Upcoming Related Conferences

2007

- **[Port Development and Coastal Environment \(PDCE' 2000\), Fourth International Conference.](#)** September 25-28, Varna, Bulgaria.
- **[Smart Rivers 2007.](#)** September 16-19, Louisville, Kentucky.
- **[AAPA Annual Convention.](#)** September 30 - October 4, 2007, Norfolk, Virginia.
- **[Waterways Council Annual Meeting and Symposium.](#)** October 1-3, Houston, Texas.
- **[National Waterways Conference Annual Meeting.](#)** November 7-9, Mobile, Alabama.
- **[CEDA Dredging Days.](#)** November 7-9, Rotterdam, The Netherlands.
- **[Dredging in South America.](#)** December 9-12, Rio de Janeiro, Brazil.

2008

- **[37th Dredging Engineering Short Course.](#)** January 7-11, Texas A&M University, College Station, Texas.
- **[31st International Conference on Coastal Engineering.](#)** August 31 - September 5, Hamburg, Germany.

Welcome New PIANC Members!

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.

Juan Tenorio, JC Tenorio Engineers & Associates

Michael Adams, Port of Tacoma

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 for a membership application.

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 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.
- 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, PIANC USA Annual Meeting, Ports Conference, SMART RIVERS, PIANC USA-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.

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 PIANC USA 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 PIANC USA. PIANC USA 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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