IMTS Progress Update

Introduction/Background

- NavLocks Study 2007-8
  - Business Process Review
  - 115 Improvement ideas from workforce and industry

John Branson (left) talks to Al Wise about Lock 25
Clay Williams, industry pilot, (center, holding sheet) discusses ideas with the study team
**IMTS Structure and Process**

- **IMTS Board of Directors:**
  - Chaired by Deputy CG for Civil Works and Emergency Ops
  - Members are Division Commanders and HQ USACE Chief of Ops
  - Working Group: cross section of skills from across IMTS

- **Action Teams**
  - Composed of experts with hands-on experience (lockmasters, Ops Managers, etc.)
  - Develop draft outputs for review by workforce and industry, review and approval by Board
  - Implementation of new standards/policies IMTS-wide by Board of Directors

**Key:** an open process with participation by workforce and industry users

---

**Overview of Status of Products**

**A. Products Completed**
1. NavLocks Condition Assessment process
2. Human Resource (HR) Center of Standardization
3. Crew Change Policy
4. PRIP User Guide
5. IMTS Booklet for Equipment Acquisition

**B. Products Under Review or in the Pipeline**
1. Sharing Knowledge on Lock Operations & Daily Operational Maintenance

**C. Planned Products**
1. Training and Certification of lock operators
2. Strengthening Communication Process
4. Channel Maintenance Improvement Plan
5. Assistance with Implementation of LOMA (AIS-based system)
NavLocks Condition Assessment Process

Products Completed (1 of 5 Products)

- NavLocks Condition Assessment.
  - Key step toward long-term goal: Risk-informed Budget Development Process
  - Process to be used for baseline condition assessments in FY10
  - Results to be used for FY13 Budget Development (begins Mar 2011)

\[
\text{Risk} = \text{Condition Assessment (probability of Failure)} \times \text{Consequences of Failure}
\]

IMTS Process to be used for FY10 baseline condition assessments

---

Human Resource (HR) Center of Standardization

Products Completed (2 of 5 Products)

- #1 IMTS Asset = Human Capital
- Focus of many improvements from NavLocks improvement study
- Center to provide capability to implement the improvements
- Center approved and recruitment actions underway
- Action team formed and working

Example: sharing best practices on training
IMTS-wide Crew Change Policy
Products Completed (3 of 5 Products)

New IMTS Standard
- Currently, Crew Change Policy varies by district. Huge challenge to change.
- Goal: IMTS-wide policy
- Draft policy reviewed by industry and workforce
- Draft policy reviewed by offices at HQ: legal, safety, security

Typical customer journey is through several districts

PRIP User Guide
Products Completed (4 of 5 Products)

Plant Replacement and Improvement Program (PRIP)
- Major Program for long-term investments in shared assets
- Big challenge: loss of institutional knowledge and expertise
- User Guide completed for Plant Replacement and Improvement Program (PRIP)
IMTS Booklet for Equipment Acquisition
Products Completed (5 of 5 Products)

- “Living Document” for Tips and New Cost Saving ideas
  - How to purchase standard designs for land and floating plant equipment
  - Bonus added: tips on purchase of used equipment
  - Overcome myths

Sharing Knowledge on Lock Operations and Daily Operational Maintenance
Products Under Review (1 of 3 Products)

- Goal: develop systematic approach to share vital knowledge IMTS-wide
  - Started Dec 2008
  - Reviewed past experiences of all divisions and examined alternatives
  - Draft report on findings and recommendations reviewed by Working Group
  - To be sent for review by workforce
Navigation Business Trends
Products Under Review (2 of 3 Products)

- **Product:** Projections of Navigation Business Trends over the next 20 to 30 years
  - Briefed at Aug BOD meeting
  - To provide support for future IMTS decision-making

- **Status Update**
  - Literature Search: complete
  - Interviews with Functional Experts: complete
  - Draft being reviewed by IMTS Working Group

IMTS Standard Decision-making Process for Remote Operations of IMTS Infrastructure
Products under Review (3 of 3 Products)

- **Overall goal:** establish IMTS standard decision-making process that incorporates
  - Past experience
  - Safety considerations
  - Cost analysis

- **Update of progress**
  - Recruited action team members
  - Collected information on past experiences

- **Draft process to be reviewed by all stakeholders in open process**
Training and Certification of Lock & Dam Operators
Planned Products (1 of 5 Products)

- Lock operation personnel
  - Face situations that require prompt action
  - Must have sound judgment and in-depth understanding of principles
  - Liability for safety of people & damage to equipment

- Goal: IMTS-wide
  - Operator Training manual
  - Curriculum and training methods
  - Certification process

Strengthening Communications Process
Planned Products (2 of 5 Products)

- Improving IMTS Communications is top priority (BPR Topic #8)
- Immediate focus: enhance distribution to workforce
  - Use electronic e-mail list (ListServ) capability on Navigation Gateway site
  - Powerful capability to use for workforce communications
  - Special: add link to process to share knowledge on accidents/incidents

Lifting of Markland Gate
**Maintenance Standard for Locks and Dams**

Planned Products (3 of 5 Products)

- **Short-term:** share a “best practice” for division maintenance standard:
  - Single communication document for key info
  - Annual updating process with command emphasis

- **Long-term:** IMTS Maintenance Standard
  - Use single document format to identify consensus minimum IMTS standards
  - Foundation for “World-class” Maintenance Management System for NavLocks

---

**Channel Maintenance Improvement plan**

Planned Products (4 of 5 Products)

- **Voted as the #1 priority for remaining improvement topics**
- **Action Team being formed**

- **Key focus for action team:** develop scope for this overall topic and the baseline
- **Special emphasis on “Channel Availability Performance” metric**

**Note:** Coastal Dredging is not included in IMTS
Assist with Implementation of LOMA

Planned Products (5 of 5 Products)

- Lock Operation Management Application (LOMA)
  - Web-based software being developed by ERDC with help from IWR
  - Uses signals from Automatic Identification System (AIS) hardware, based on international standard
  - AIS systems in wide use across Europe and along U.S. Coasts
  - Shored-based AIS units to be installed along inland waterways at USACE locks
  - Overall target: 31 Dec 2010

- Role of IMTS Working Group: assist
  - Communications
  - Beta testing
  - Training of lock operators

Vision of IMTS in 5 Years

- Goal: present a vision of where we expect IMTS to be in 5 years
- Three major elements
  - “World Class” Maintenance Management System
  - Lock Operations with strong customer focus
  - Enhanced Processes for IMTS Workforce
“World Class” IMTS Maintenance Management System

- IMTS-wide Maintenance Standard
- Coordinated Scheduling of Major Maintenance
- IMTS Policy on Spares
- 3-Phase Inspection System
- Corporate Sharing of Major Maintenance Knowledge

Lock Operations with Stronger Customer Focus

- IMTS Crew Change Policy
- Standard Locking Procedures
- Standard Water Control Procedures
- Advanced Waterway Information System –
  - IMTS-wide standard format
  - Single-point access, geographical-based
- Overall shift to “Systems-based” operation
Enhanced Processes for IMTS Workforce

- Trained and Certified Lock Operators
- Standard Job Descriptions
- Enhanced Hiring Process
- Extended Workforce Planning
- More uniform and consistent approach to Drug Testing and other policies
- Family-friendly lock shifts

Questions?? Comments???

Reminder - Send questions or comments on the IMTS by e-mail to E-mail address: IMTS@usace.army.mil