

INLAND MARINE TRANSPORTATION SYSTEM (IMTS) WORKING GROUP (WG) UPDATE

LOCK MAINTENANCE WORKSHOP

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US Army Corps
of Engineers®





Agenda

- Background
- Accomplishments
- Standardization
- Maintenance Synchronization
- River Information Services



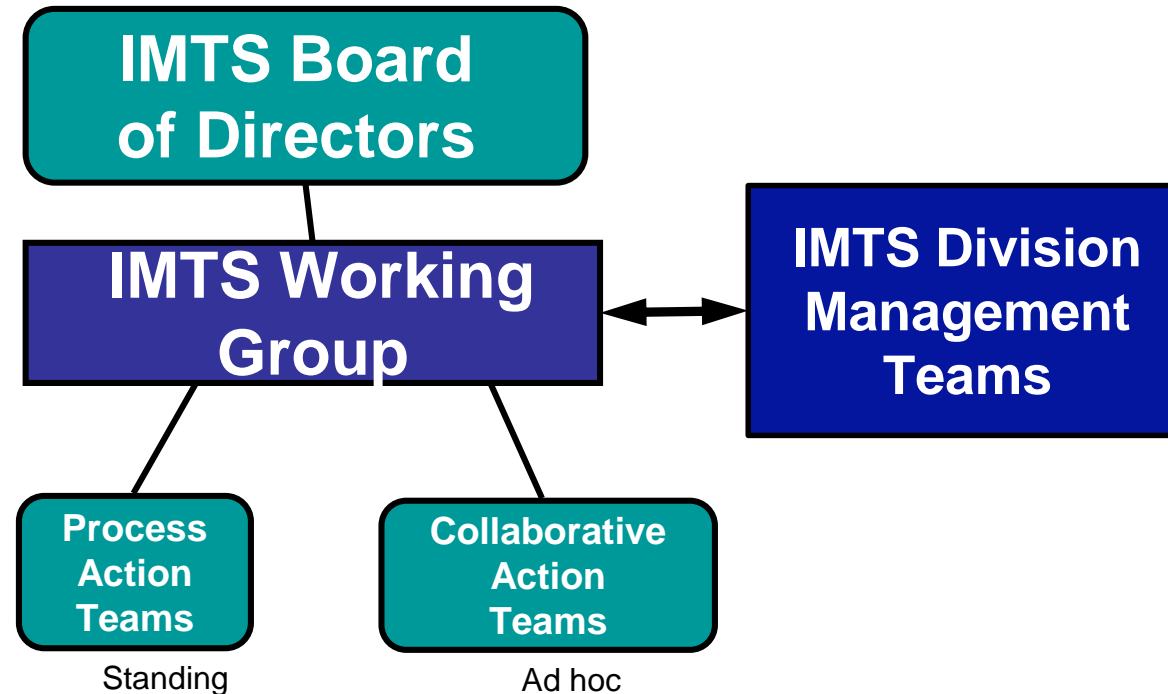
Background

- IMTS Report published Sept 2008.
 - 2 year in-house study of Navigation Lock and Dam operation
 - Initiated per OMB A-76 Circular, converted to High Performing Organization (HPO), finalized as Business Process Review (BPR)
 - Focus – Improve System Availability, Operations Efficiency and Workforce
- 115 ideas for potential improvements, grouped into 25 BPR categories
- Implementation began 1st Qtr FY09 with creation of Board of Directors (BoD) and Working Group (WG).



IMTS WG Vision and Structure

Strengthen, improve and sustain the IMTS in support of the USACE Navigation Mission



- **Board of Directors (BOD)**

- Chaired by Deputy CG for Civil Works & Emergency Operations
- Members are Division Commanders and HQ Operations Chief

- **Working Group (WG)**

- Cross-section of skills from field, districts and divisions
- Process Action Teams (PATs)
- Collaborative Action Teams (CATs)



IMTS WG Accomplishments



- Standard Staffing Models
- Standardized Position Descriptions (PDs)
 - 332 to 36 for Lock Operators
- Lock Operator's Training & Certification
- National Maintenance Workshops - Annual
- National Maintenance Standard
- Lock Levels of Service
- Lock Operational Condition Assessments
- Lock Operations Management Application
- Crew Change Policy for Industry at Locks
- Lock Shift Scheduling
- Plant Management



Standardization Observations

LTG Semonite identified Standardization as a USACE priority

People see value and opportunity; others are skeptical

- there is some internal resistance to standardize (change)
- some successful efforts are seen and some are ongoing
- no efforts have yet to be implemented with a full national view

Funding, management and control need to be identified (standardized)

Development of a National Standardization Framework will address most issues, gain a more consistent approach and achieve greater acceptance and buy-in.



Accomplishments



- New Poe Class lock chamber design: The INDC restructured the design for the proposed lock to be a sister project to the existing Poe lock;
- Standardized lock chamber and components on the Upper Ohio River 110x600 new lock;
- Standardized engineering methodology for the inspection and assessment of miter gate;
- anchorages for the Mississippi River is nearing completion. A standardized embedded miter gate anchorage is being developed for installation across the system;
- Published three ECB reports to unify selection of lubricants, lock lighting, and sustainable power for navigation locks;
- Standardized miter gate replacement on Upper Mississippi River and Illinois Waterway;
- Hydraulic Systems for Navigation Locks on the Ohio River: A standard four corner pump configuration developed for the New Cumberland Lock is a standard for future upgrades on other lock projects;
- Miter Gate Sill Repair: Design and installation procedures developed for Montgomery Lock will be exported across the Ohio River for repair of other locks;
- Bulkhead Renewal: A standard repair/replacement for center-post bulkhead systems used on the Arkansas River waterway has been initiated;
- IMTS Maintenance Standard established – updated 27 November 2017
- IMTS Staffing Models developed in 2014 – updates ongoing



Implementation Path

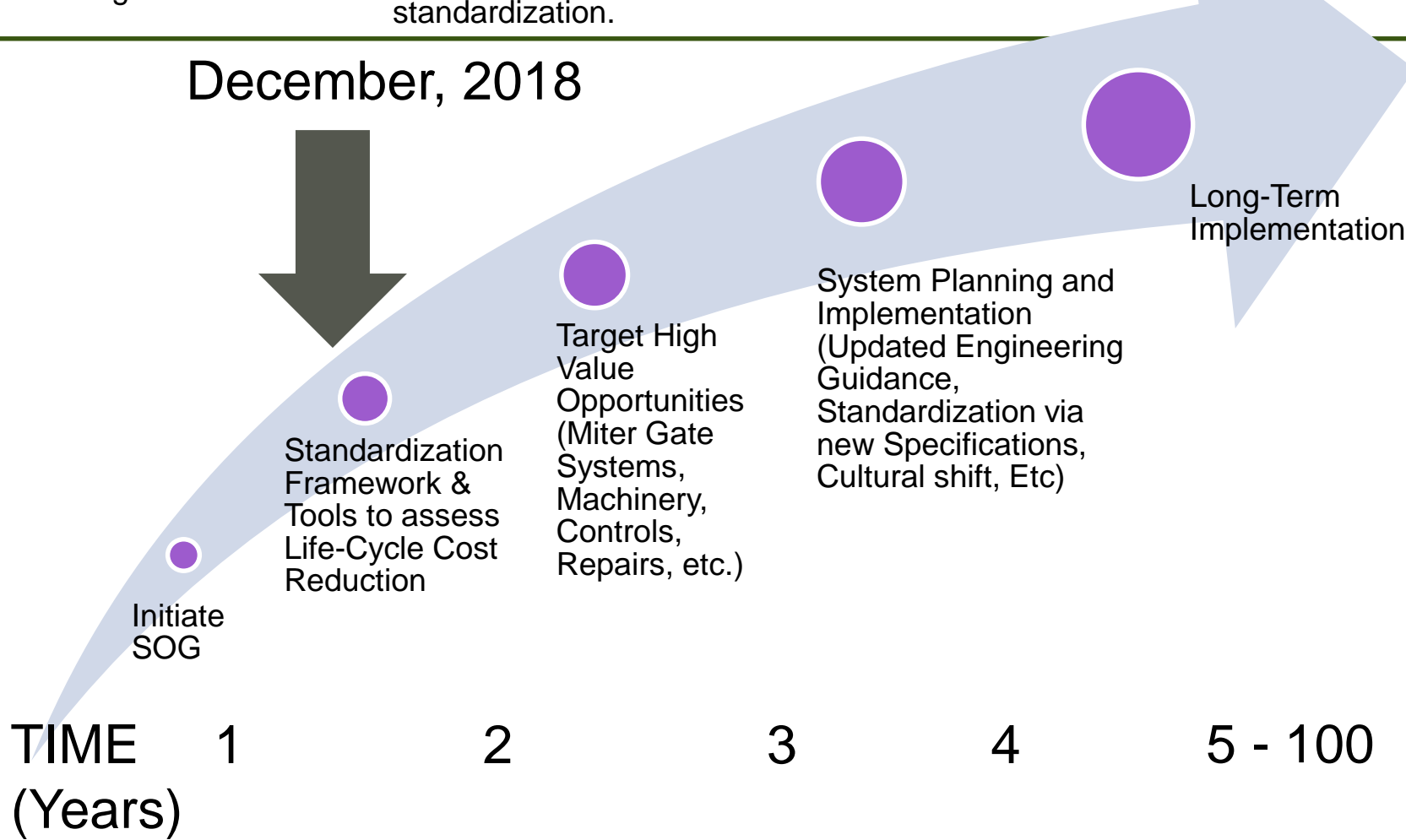
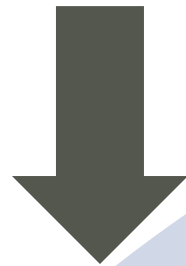
Priority Action 2a.1 – Delivery Quality Water Resources Solutions and Services

1Q17: Begin standardizing lock and dam designs

4Q18: Implementation plan for standardization of engineering features that would benefit from standardization.

4Q19: Achieve target 50% standardization of lock and dam design.

December, 2018



Initiate SOG

Standardization Framework & Tools to assess Life-Cycle Cost Reduction

Target High Value Opportunities (Miter Gate Systems, Machinery, Controls, Repairs, etc.)

System Planning and Implementation (Updated Engineering Guidance, Standardization via new Specifications, Cultural shift, Etc)

Long-Term Implementation

TIME (Years)

1

2

3

4

5 - 100



Standardization Next Deliverables

INDC and Senior Oversight Group

- Developing National Standardization Framework
- (framework includes design, operations and human capital)
- Defines Standardization for USACE
- 2nd quarter FY19

IMTS WG Maintenance Committee finalize Maintenance Standards

- 3rd quarter FY 19



Maintenance Scheduling and Synchronization

Issues

Inadequate communication within USACE at all levels

Inadequate communication between USACE and the Nav Industry



Maintenance Synchronization



ISSUE 1 – Need to improve Enterprise communication of navigation project closures (including scheduled and unscheduled)

- SHORT TERM – Develop better internal method to quickly inform USACE of closures and restrictions impacting Navigation Industry
- LONG TERM – Develop solution to keep both internal and external interests informed of changes to existing closures and restrictions

ISSUE 2 – Inadequate cross-regional knowledge sharing for scheduled outages

- SHORT TERM – Continue LRD/MVD/Navigation Industry pilot on cross-collaboration of scheduled outages and identify best practices
- LONG TERM – Apply across IMTS
 - Understand commerce routes
 - Integrate into budget cycle
 - Advance Navigation Industry Input



RIVER INFORMATION SERVICES



River Information Services (RIS):

RIS makes navigation data more accessible and usable in support of navigation operations and maintenance



Operational Services

- Navigation channel information
- Vessel traffic information
- Traffic/lock management
- Incident response support
- Law enforcement support
- Transport logistics support
- Statistics support
- Taxes/fees support

Technical Services

- Inland Navigation Charts (IENC)
- Vessel tracking and tracing
- Notices to Mariners
- Electronic Reporting
- Reference Data



Focus and Perspective

RD James – new ASA(CW) (farmer, businessman, MRC 36 years)

During an August 2018 interview with WWJ (see 24 Sept issue) he stated:

“When I took this job, I said I wanted to move dirt,” James said. “Let’s get the Corps to get out of the processes and get to construction, to finish projects faster and cheaper... We need our locks and dams.”

IMTS WG expedites processes, helps to improve efficiencies and achieve greater operational consistency where practical. With your help we keep navigation moving forward.

GET INVOLVED! If you are working within the IMTS and are interested in sustaining or improving the system but are not involved in any improvement efforts, you should be!



Final thoughts and comments



For more Information:

<https://operations.erdc.dren.mil/navigation.cfm>

Send Questions or Comments to:

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IMTS WG Vision:

Strengthen, improve and sustain the IMTS in support of the USACE Navigation Mission; “To provide safe, reliable, efficient, effective and environmentally sustainable waterborne transportation systems for movement of commerce, national security needs and recreation.”