

INLAND NAVIGATION DESIGN CENTER- STATUS BRIEF

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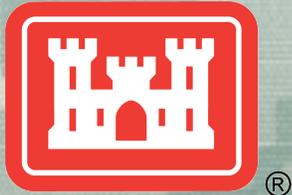
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US Army Corps of Engineers
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Agenda

- Background
- Engineer Regulation Summary
- FY13 Program
- FY14 Potential Work
- Next Steps



Background

- 18 Jan 13, LTG Bostick approved PDT recommendation of 1 center-2 locations(MVR and LRP). Additional guidance:
 - ▶ C2 will be through MVD(MVR)
 - ▶ INDC will be an MCX
 - ▶ Develop navigation policy and guidance
 - ▶ Input to USACE Infrastructure Strategy and Asset Management efforts
 - ▶ Support to the PCX-IN
 - ▶ Review of currently completed design.



INDC MISSION

The mission of the Center is to provide engineering, design, and review services for studies, new locks, navigation dams, major rehabilitation of inland navigation locks and dams, and select inland navigation lock and dam O&M projects to maintain quality and technical competency.



Goal 1. Develop, Maintain, and Strengthen Technical Competency.

Objectives:

- Lead a coordinated effort to develop, maintain, and strengthen technical competency within the engineering and design community for inland navigation – build an Inland Navigation Engineering Community of Practice.
- Collaborate and coordinate with national and international interests, such as PIANC, in the development of engineering standards and transfer of knowledge for inland navigation projects.
- Support research and update relevant USACE guidance.



Goal 2. Deliver Quality Products and Services.

Objectives:

- Collaborate with inland navigation design customers to ensure delivery of products and services that meet expectations.
- Conduct rigorous, independent and quality reviews in accordance with USACE regulations, policy and guidance.
- Maximize the use of standardized designs.
- Implement risk-informed approaches for design and decision making frameworks.
- Provide dedicated engineering and design (E&D) services to customers and stakeholders through the Center's leadership, subject matter experts (SMEs), standardized processes, etc.
- Provide engineering support to USACE infrastructure strategy, management, and maintenance efforts.



Roles and Responsibilities

- Design and Design Oversight
 - ▶ Category 1-New locks, navigation dams, and major rehab
 - ▶ Category 2-Review or design of select O&M Projects
 - ▶ Category 3-Situational awareness of routine maintenance
- Execution
- Inland Navigation Policy
- Knowledge Management
- Lead Engineer
- Eng. Support to Infrastructure Management Strategy
- Design Guidance
- Reviews
- Technical Skill Development
- International Support
- Research and Development



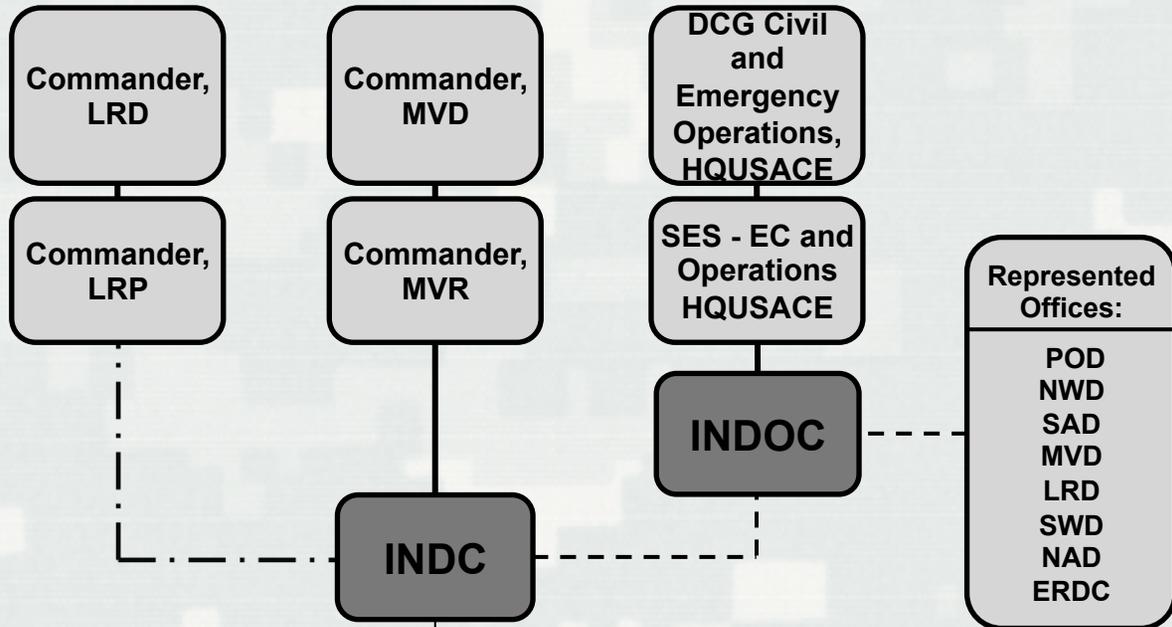
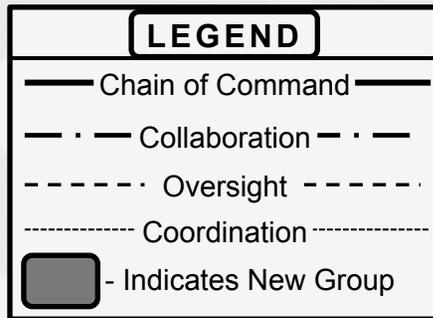
Category 2-Review or design of select O&M Projects

- MVD Maintenance Standard requires INDC review of major (> \$500K) component replacements
 - ▶ Will ensure regional consistency and minimize “district unique” designs.
 - ▶ Help provide experience for INDC staff.
 - ▶ Ensures component replacements are “engineered” and not simply “replaced” (I.E. better designs where possible).
- INDC is also being incorporated into POM Team. I.E. participate in discussion and be given a vote.
- Intent is to seek INDC involvement in all MSC Maintenance Standards for navigation components.
- Programmatic Review Plan for Routine O&M Products-Working with USACE to revise to require EC Chief and OD Chief signature to determine requirements of EC 1165-2-214



Inland Navigation Design Center

Command and Control,
Collaboration, and Coordination



USACE Organizations

- IMTS
- ERDC
- PCXIN
- COST MCX
- Welding and Metallurgy TCX
- CoP Leaders
- RMC

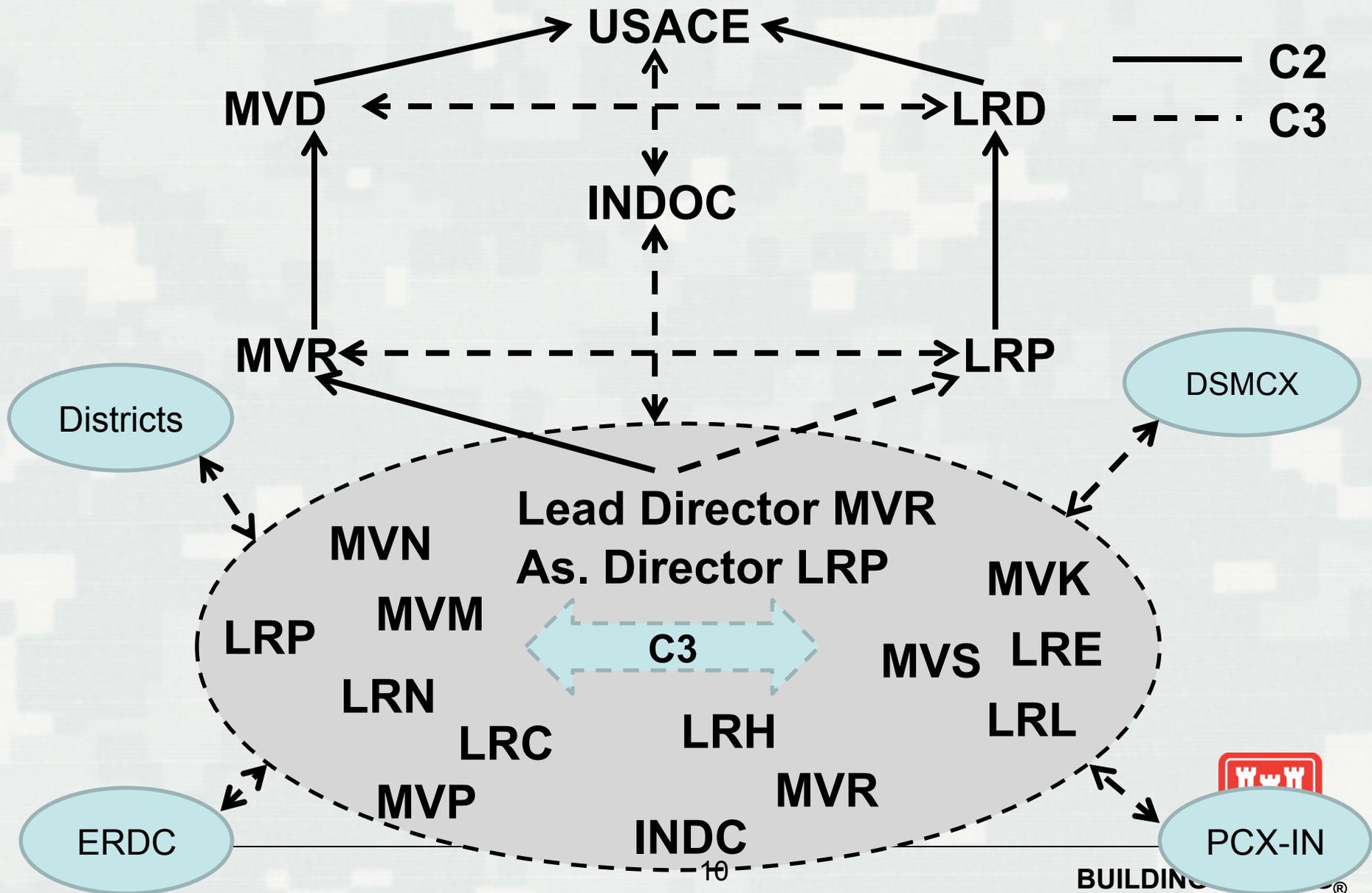
External Organizations

- PIANC
- IWUB
- Universities
- Non-Government Organizations

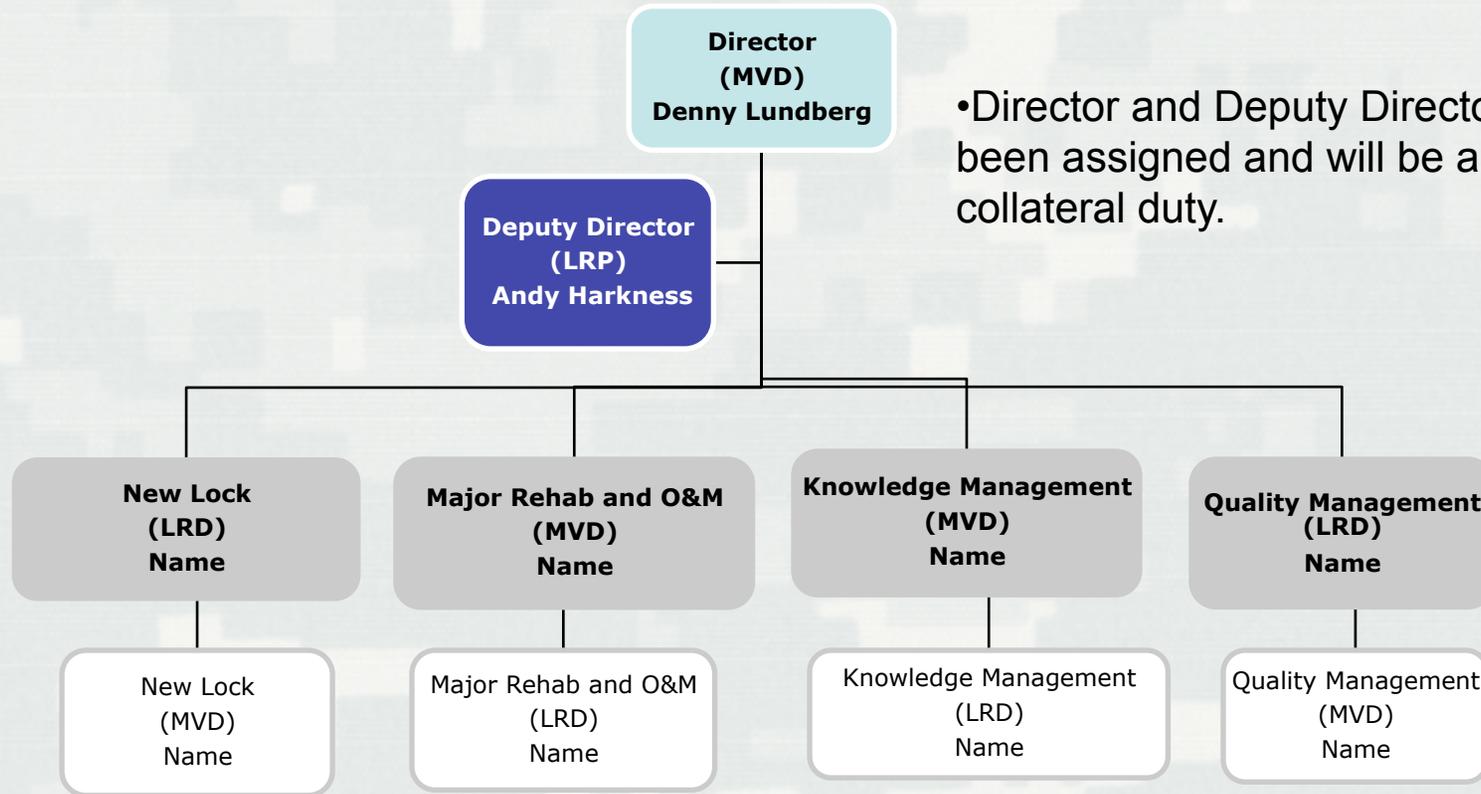


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Inland Navigation Production Center C2 & C3



INLAND NAVIGATION DESIGN CENTER-MCX DRAFT ORGANIZATIONAL STRUCTURE



•Director and Deputy Director have been assigned and will be a collateral duty.

•Tech Managers will be assigned for each of the 4 areas outlined above. They may also be assigned as a collateral duty depending on income.



Upward Reporting

- Monthly report out at the MVR and LRP Project Review Boards.
- Establish customer service and performance metrics to be overseen by INDOC.
- Quarterly report of all significant program activities will be forwarded to MVD, LRD, INDOC and the HQUSACE proponent.



FY13 Program

- Draft Engineer Regulation
- Middle Miss Lock Study
- MVR Miter Gates ATR
- LRP Upper Ohio Navigation Study (Emsworth, Dashshields, and Montgomery)VE Study
- LRN Kentucky Lock
- LRP Charleroi Lock
- MVR Bulkhead Slots
- MVN Calcasieu Lock
- MVR Marseilles Dam



FY13 Program

- Guidance Update and Maintenance Program (GUMP)
- Developing Partnering Agreements
 - ▶ ERDC
 - ▶ IWR-RMC
 - ▶ PCX-IN
 - ▶ IMTS-Asset and Maintenance Management
 - ▶ DSMMCX
 - ▶ Cost Engineering MCX
 - ▶ Welding and Metallurgy TCX



FY14 Program

- Engineer Regulation Published
- MVS Roller Gate Bulkheads ATR
- MVR Marseilles VE Study and Risk analysis
- MVR Lock 19 Lift Gate Design/ATR
- LRP Dashields Bulkhead Slots/Sill Design
- MVN Empire Lock Gate Design
- MVR Dresden Island Tainter Gate Design
- LRP Charleroi Stilling Basin Design and ATR
- MVS Mel Price Cable Replacement ATR
- MVS L/D 25 Dam Safety Modification Report
- LRP Upper Ohio River Prioritization Study ATR
- MVS Lock 27 Guidecell ATR
- MVS Locks 24 & 25 Tainter/Roller Gate and Service Bridge Repair ATR



FY14 Program

Other Potential Work

- LRL Olmsted
- LRL Locks 52 and 53
- Great Lakes and Mississippi River Inter-basin (Transfer) Study(GLMRIS)
- USACE Infrastructure Strategy
- Guidance Update and Maintenance Program (GUMP)



Next Steps

- Seeking centralized funding-Select Technical Managers
- Publish ECB/Engineer Regulation
- Engage INDOC
- Develop Quality Management Plan
- Initiate Knowledge Management Communication
 - ▶ Webinar and Newsletter
- Determine INDC support to Infrastructure Strategy

