



## **Developing Navigation Performance Measures**

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## **Corps Navigation Mission**

**Provide safe, reliable, efficient, effective and environmentally sustainable waterborne transportation systems for movement of commerce, national security needs, and recreation.**



# Navigation Objectives and Performance Measures

<u>Program Objectives</u>	<u>Performance Measures</u>
Obj.1: Invest in navigation infrastructure when the benefits exceed the costs.	<ul style="list-style-type: none"> <li>- Remaining BCR</li> <li>- Annual net benefits</li> </ul>
Obj. 2: Support sustainable regional, basin-wide, or watershed planning and activities in partnership with others.	<ul style="list-style-type: none"> <li>- % of projects recommended in Chief's reports that apply watershed principles</li> </ul>
Obj. 3: Fund high-priority O&M.	% change in \$ amount of essential backlog at key facilities.
Obj. 4: Operate and manage the navigation infrastructure so as to maintain justified levels of service in terms of the availability to commercial traffic of high-use navigation infrastructure (waterways, harbors, channels).	<ul style="list-style-type: none"> <li>- % of time navigation infrastructure with high levels of commercial traffic sustains its functional purpose.</li> </ul>

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## Performance Metrics - PART

Annual	Efficiency	Effectiveness of cost management	Measures effectiveness of management controls for design and construction
Annual/Long-term	Outcome	Percent of time navigation infrastructure with high levels of commercial traffic is available to current commercial users, weighted by commercial tonnage	Measures expresses long-term goal and assesses availability of high-commercial use harbors, channels, and locks for current commercial usage.
Annual/Long-term	Output	Percent of Chiefs reports recommending projects for authorization that meet criteria for reflecting watershed principles in the recommended plan	Measure expresses long-term goal and assesses progress in watershed-based planning

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### Performance Metrics - PART

Annual	Outcome	Annual tonnage affected by potential projects identified in reconnaissance phase reports completed in FY	Measure assesses effectiveness of reconnaissance phase in identifying opportunities for transportation savings
Annual	Outcome	Total net benefits (PV) attributable to projects recommended in feasibility reports completed in FY	Measure assesses effectiveness of feasibility phase in identifying potential national economic development benefits
Annual	Outcome	Total net benefits (PV) attributable to PEDs completed in FY	Measure assesses effectiveness of PED in enabling transportation savings
Annual	Outcome	Total benefits (PV) realized by construction projects completed in FY	Measure assesses effectiveness of construction program in realizing transportation savings

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### Performance Metrics - PART

Annual/Long-term	Outcome	Percent of time low use navigation infrastructure is available to all current users, unweighted.	Measure expresses long-term goal and assesses availability of low-commercial use channels, harbors, and locks to all current users.
Annual	Outcome	Percent change in constant dollar balance to complete programmed work on all ongoing, budgetable construction projects	Measure assesses progress in reducing backlog of ongoing, budgetable construction projects

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## Performance Metrics

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- **BCR** - the benefit cost ratio for project
- **Commercial tonnage** - commercial tonnage impacted
- **Sys Ton-miles** - the total tons X the total distance from origin to destination



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## Performance Metrics (cont)

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- **Percent Available** - Percentage of time project is available to perform as designed without limits from deferred maintenance, etc.
- **Public Health/Safety** - critical hazardous situation, imminent failure resulting in severe consequences to public.
- **Other proj. purpose** - list other purposes (outputs) associated with this project (study)



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## Performance Metrics (cont)

- **Consequences** - budget request needed to comply with safety, settlements, etc - what is penalty if not funded this PY
- **Purpose** - what the budget amount accomplishes (initiate, continue, complete recon, feas, PED, contract) to ensure justified level of service
- **Remarks** - additional information to support budget request that is not in the other fields



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## FY 06 Budget Development

- Culture Change to Field
- Data Not Consistent
- Trends Needed
- Additional Vessel Draft Metric Needed
- O&M Benefits Lacking
- Better Increment Development

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## Low-Use Waterway Segments

- Segments with <1 million tons on waterways with < 1 billion system ton-miles
- Multipurpose benefits
- Investment benefits
- Growth trend
- Other values
- Caretaker costs

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## Low-use Shallow Harbors

- < 1 million tons
- Supports some fisheries output
- Investment Benefits
- Public transportation (Channel Islands)
- Boater safety (hazardous inlet)
- Subsistence Harbors
- Harbors of Refuge

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## GENERAL INVESTIGATIONS \$95 Million

General Investigations program includes funding for minimal # of surveys (131 vs. 250 last year)

- Three new Reconnaissance studies (St. Louis; Neches; Coyote Cr.)
- LCA funded at \$15 M and LCA (S&T) at \$5M

Budget limits continuing PED to very few projects - \$7.8 M

- Excludes PED's with BCR less than 3.0
- Includes 10 continuing PED projects that meet high priority outputs
  - \$3.7 M for Navigation (4)
  - \$1.8 M for Flood Damage Reduction (2)
  - \$2.3 M for Environmental (4)

Research & Development - \$22 M

- R&D is increased by \$1.2 from FY05; decreased \$3 from FY05 Appropriation
- NETS remains at optimum level

GI Remaining Items remain at reduced funding level of FY 2005

Austere budget

- Slows down number of projects reaching construction
- No funding for new phases in Feasibility or PED's,

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## CONSTRUCTION , GENERAL PROGRAM - \$1,637.0 Million

- **FY06 Request is \$200 million more than FY05**
- **Highlights:**
  - One new starts: Washington DC and Vicinity
  - Sixteen completions
  - Capability funding for Dam Safety Assurance projects
  - Near capability funding for High Priority Projects
  - Efficient funding for Priority projects
  - Includes funding for ongoing FY05 contracts with FY06 follow-on requirements
  - Some New contract awards included
  - Not all projects in FY05 Budget were included in FY06 Budget
  - No funding for E&D projects

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**OPERATION AND MAINTENANCE, GENERAL**  
**FY 2006 Budget: \$1.979 Billion**

- A increase of \$45 million over last year's budget
- Operations v. Maintenance = 40 v. 60 percent of Total -- Same as FY05
  - Holding operations percentage steady to address maintenance backlog.
- De-emphasize low use waterways and shallow draft harbors not serving commercial or subsistence fishing or Federal users
  - **Deep Draft** **\$607 M**
  - **Shallow Draft** **\$32 M**
  - **IWW avg. 5 billion ton miles (btm) per year or more** **\$280 M**
  - **IWW avg. less than 5 btm, but 1 btm or more** **\$72 M**
  - **IWW avg. Less than 1 billion ton-miles per year** **\$42 M**
- \$20 million reserve fund for emergency needs with ASA(CW) approval.
- Facility Security continues to be a High Priority -- \$72 Million
  - \$60 Million Project Specific
  - \$12 Million Administration Buildings and MR&T (Remaining Items)

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**FY 07 Budget Development**

## Where We Are

- FY 06 is a basis
  - CG and GI similar in FY 07
  - O&M will change
- Continue to have low use subgroups

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**O&M Initial increment (less than full ceiling amount)  
(This will be the 1<sup>st</sup> increment in the ceiling program)**

**What is included**

1. Bare Bones Operations costs (locks)
2. Bare Bones maintenance (locks) needs
3. Dredging high use commercial deep draft and inland projects dredging  
or high use segments of projects
4. Dredging subsistence harbors
5. Dredging Critical harbors of refuge
6. On-going major maintenance of high use maintenance
7. Critical maintenance of disposal areas for 3 above maintenance of CDFs
8. Critical studies for high risk coastal structures structures
9. Bare bones debris removal/obstruction removal at high use ports removal needs
10. Critical studies to complete DMMP for CDF construction critical DMMPs
11. On-going (studies and work) major rehabs of high-use projects
12. Critical Removal of Aquatic growth (RAG) aquatic growth

**What is not**

- May not be full 24-hour operation  
would not be all maintenance
- no advanced maintenance
- does not include all harbors of
- does not include new major
- does not include routine
- does not include studies of all
- does not include all projected
- does not include routine, non time
- does not include new rehabs  
does not include all removal of

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### **Increment 1.1**

**(this would be the second increment within the ceiling program)**

- Surveillance of Northern Boundary waters
- RAG for high use projects
- PCS (include low use)
- new start gate replacement /rehab study on high risk, system impacts
- Critical advanced maintenance dredging on hi use projects
- Caretaker funding for projects or segments not expected to be funded
- critical on-going non-routine maintenance
- dredging and operations of low-use subgroup that have commerce, commercial fishery, multi agency requirements, and/or public transportation

All other increments will be performance based increments up to your capability level

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## **Other Metrics**

- \$2/ton for delineating high use and low use subgroups
- Segments of inland waterways
- Draft of vessel impacts
- Value of cargo
- Ton-miles/system ton-miles
- Economic development impacts to low use harbor communities
- Risk and reliability

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## Issues

- Need quantifiable metrics
- Need data to support
- Need to monitor trends, 5-year average vs latest years data

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## Take Aways

- Environmental Program Ceiling 25%
- Budget Development Process
- Regional “Alliance”
  - SYSTEMS APPROACH
  - 5 year Management Plans
- Communication is the Keystone for Success!
- Regional Meeting in Fall
  - Focus on Metrics and systems
- IWR.USACE.ARMY.MIL

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