Nationwide Differential GPS (NDGPS) Program Update

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Jim Arnold
U.S. Department of Transportation
OST-Research and Technology
Nationwide Differential GPS (NDGPS)

System Description
- 85 Nationwide Remote Broadcast Sites throughout the United States and territories
  - 92% nationwide signal coverage
  - Better than 10 meter accuracy
  - 10 second integrity alarm to the user
  - Satisfies Harbor/Harbor Approach requirements
  - 99.7% availability requirement
  - 99.9% availability requirement for VTS
  - Sites equipped with out-of-tolerance user alerting

Operations
- Redundant equipment at sites
- Redundant controls stations at NAVCEN

Stakeholders
- U.S. Army Corps of Engineers (USACE)
- Department of Transportation (DOT)
- National Oceanic & Atmospheric Administration:
  - GPS Surface Observing System (GSOS)
  - Continuously Operating Reference Stations (CORS) network
Planned Site Closure/Reduction of Caretaker Sites

• DOT “Caretaker” Sites (GWEN) being removed from Property Rolls
  – No new NDGPS construction planned; no budget support
  – Presidential memorandum – Disposing of Unneeded Federal Real Estate
  – Reducing maintenance and lease costs
  – 19 locations
    • 4 without infrastructure already released
    • 15 with infrastructure under environmental review
DOT NDGPS Program Status

• Inland (DOT) Tower Recapitalization
  – Upgrade reference stations/integrity monitors/antenna
  – Install IP-based operations system
  – Upgrade transmitters
  – Set long-term O&M baseline, 15 year service life
  – Set a single “plug and play” configuration across all NDGPS sites
  – Full funding received; Scheduled for completion - 9/17/2014

• Relative Budget Consistency
  – Strong support for an O&M “floor”
  – USCG Billets (FY2016 commitment current)
  – Aided by several cost control measures
Analysis - Future NDGPS Investment Decisions

• Identify and assess alternatives
  – Technical assessments of impacts of alternatives
  – Cost assessments of alternatives/use cases
    • Requires site-by-site assessment as well as systemic
    • Need to include costs for various scenarios:
      – Continuation/partial continuation/phased continuation
      – Partial/staged decommissioning – by site/use cases
      – Transfer to other parties
      – Hybrid alternatives
    • Ongoing O&M; environmental assessment and remediation; deconstruction; cost/benefit assessments
Decision Timeline

• Decision Not Earlier Than (NET) Fall/Winter 2014
  – Support FY17 budget request (implement NET FY17)
    • Existing O&M budgets (USCG and DOT) cannot support deconstruction and site remediation, especially if continuing service
  – Support planning/decision processes within USCG and USDOT
Continuing Responsibilities

• Uninterrupted NDGPS service to users as currently provided
  – Routine operations and maintenance of 86 NDGPS sites (49 USCG/Maritime, 29 DOT/Inland sites, 7 ACOE).
  – Watchstanding, troubleshooting, systems support engineering, systems analysis and reporting

• Public/user community information/involvement in decision processes and Next Steps

• Continuation of DOT site recapitalization
  – Full funding received and work in progress
  – Sets long-term low-cost O&M baseline, 15 year service life
  – Sets a single “plug and play” configuration across USCG and DOT sites for reduced outyear O&M costs
  – Enables all possible alternatives/use cases for decision
  – Expected Completion - 9/17/2014
Questions?

Jim Arnold
U.S. Department of Transportation
OST-R
james.a.arnold@dot.gov
(202)366-8422