Nationwide Differential GPS (NDGPS) Program Update

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Timothy A. Klein
Senior Policy Advisor/RITA NDGPS Coordinator
NDGPS@dot.gov
NDGPS Operating Partners

- United States Coast Guard
  - DGPS systems engineering, operations and maintenance
  - Aids to Navigation (maritime)
  - No USCG carriage requirement

- Army Corps of Engineers
  - Dredging and underkeel clearance
  - Underwater survey

- U.S. Department of Transportation
  - Surface transportation applications
    - Safety systems
    - Survey and construction (AMC)
    - Asset and fleet management
    - Structures monitoring
    - Roadside/ROW management
    - Transit bus and rail location and separation
  - St. Lawrence Seaway (with Canada)
The Perfect Day
February 12, 2012
Operational Assessments (OA)
ION/GNSS Papers

- USCG NDGPS Accuracy and Spatial Decorrelation Assessment
  - Session D6b, Maritime Navigation & Applications (Alternate)
    - G.W. Johnson, Alion Science & Technology
    - P.F. Swaszek, University of Rhode Island
    - A.B. Cleveland, USCG C3CEN

- Ranging/Timing Using the NDGPS Signal
  - Session F6b, Alternatives to GNSS: Wide Area (Alternate)
    - P.F. Swaszek, University of Rhode Island
    - G.W. Johnson, Alion Science & Technology
    - R.J. Hartnett, U.S. Coast Guard Academy
    - A.B. Cleveland, USCG C3CEN
Planned Site Closure/Reduction of Caretaker Sites

• ACOE Has Declared Omaha NDGPS Site Excess
  – Intend to decommission Omaha site by end of CY12
  – Omaha site users should redirect to:
    – Clark, SD (DOT)
    – Topeka, KS (DOT)
    – Rock Island, IL (ACOE)

• 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
  - Funding received; engineering/planning underway

- Relative Budget Consistency
  - Strong support for an O&M “floor”
  - USCG Billets (FY2016 commitment current)
  - Aided by several cost control measures

- NDGPS Program Manager/Spectrum Manager Hire
  - One FTE in DOT budget
  - Hiring action hoped for before end of CY12
  - Support DOT engineering needs for NDGPS program management and DOT spectrum management