



# Nationwide Differential GPS (NDGPS) Program Update

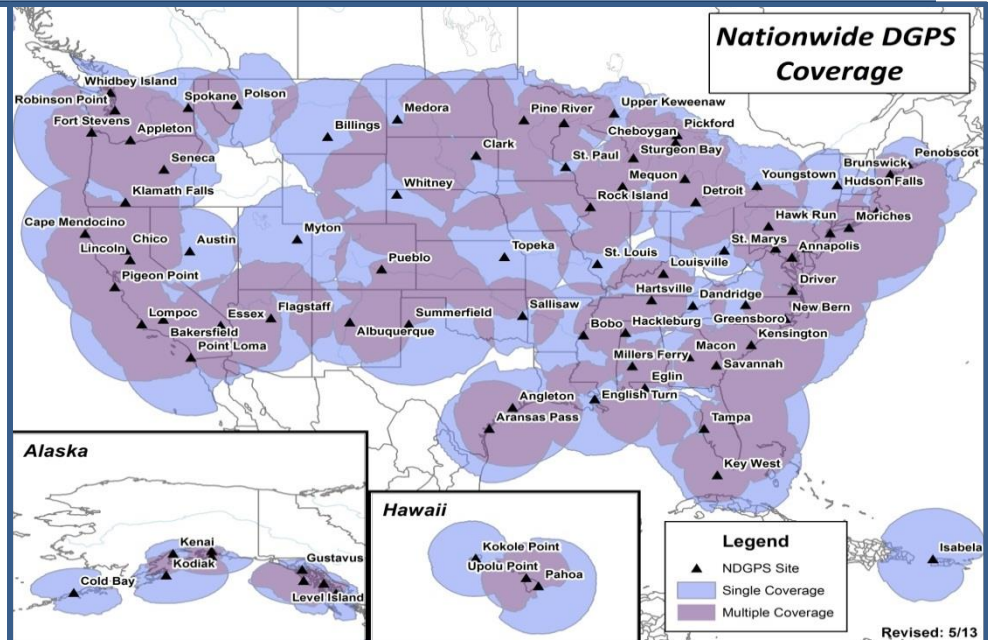
**54th Civil GPS Service Interface Committee  
Tampa, FL  
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# Nationwide Differential GPS (NDGPS)

## 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



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# Planned Site Closure/ Reduction of Caretaker Sites

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- 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

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- 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

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- 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

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- 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

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- 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



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# Questions?

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