



56th Meeting of the CGSIC



U.S. Nationwide Differential GPS
(NDGPS)



Discussion Topics



- System Overview
- Review of 2016 System Changes
- Coverage Graphics
- Future of U.S. DGPS
- Questions??



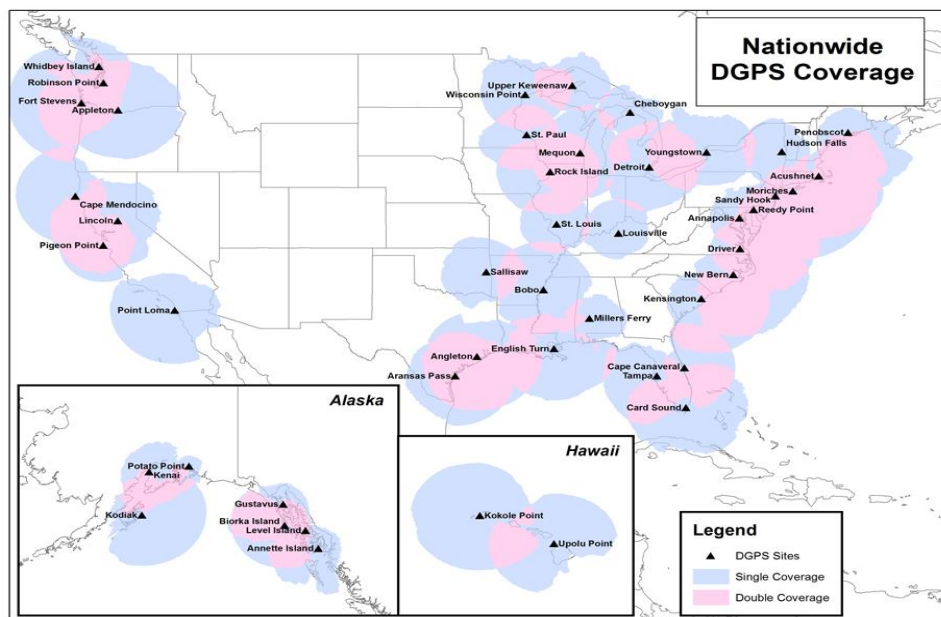


System Overview



System Description

- 46 Nationwide Remote Broadcast Sites throughout the United States and territories (39 USCG and 7 USACE)
 - System in operation since 1996
 - Better than 10 meter accuracy
 - Sites equipped with out-of-tolerance user alerting
 - 10 second integrity alarm to the user
 - Satisfies Harbor/Harbor Approach requirements
 - 99.7% availability requirement
 - 99.9% availability requirement for Vessel Traffic Service (VTS)



Operations

- Redundant equipment at sites
- Redundant control stations at NAVCEN

Stakeholders

- U.S. Army Corps of Engineers (USACE)
- Department of Transportation (DOT)
- National Oceanic & Atmospheric Administration (NOAA):
 - Continuously Operating Reference Stations (CORS) network



2016 NDGPS Changes



- Adjudicated comments from 2 Federal Register Notices
- Transitioned from 83 to 46 sites on Aug 4, 2016
 - Eliminated inland coverage
 - Maintained majority of maritime coverage; most of the sites maintained by USCG & USACE
- Shifted to single maritime coverage in most areas
- Will continue evaluating future DGPS need as other GPS augmentation systems mature

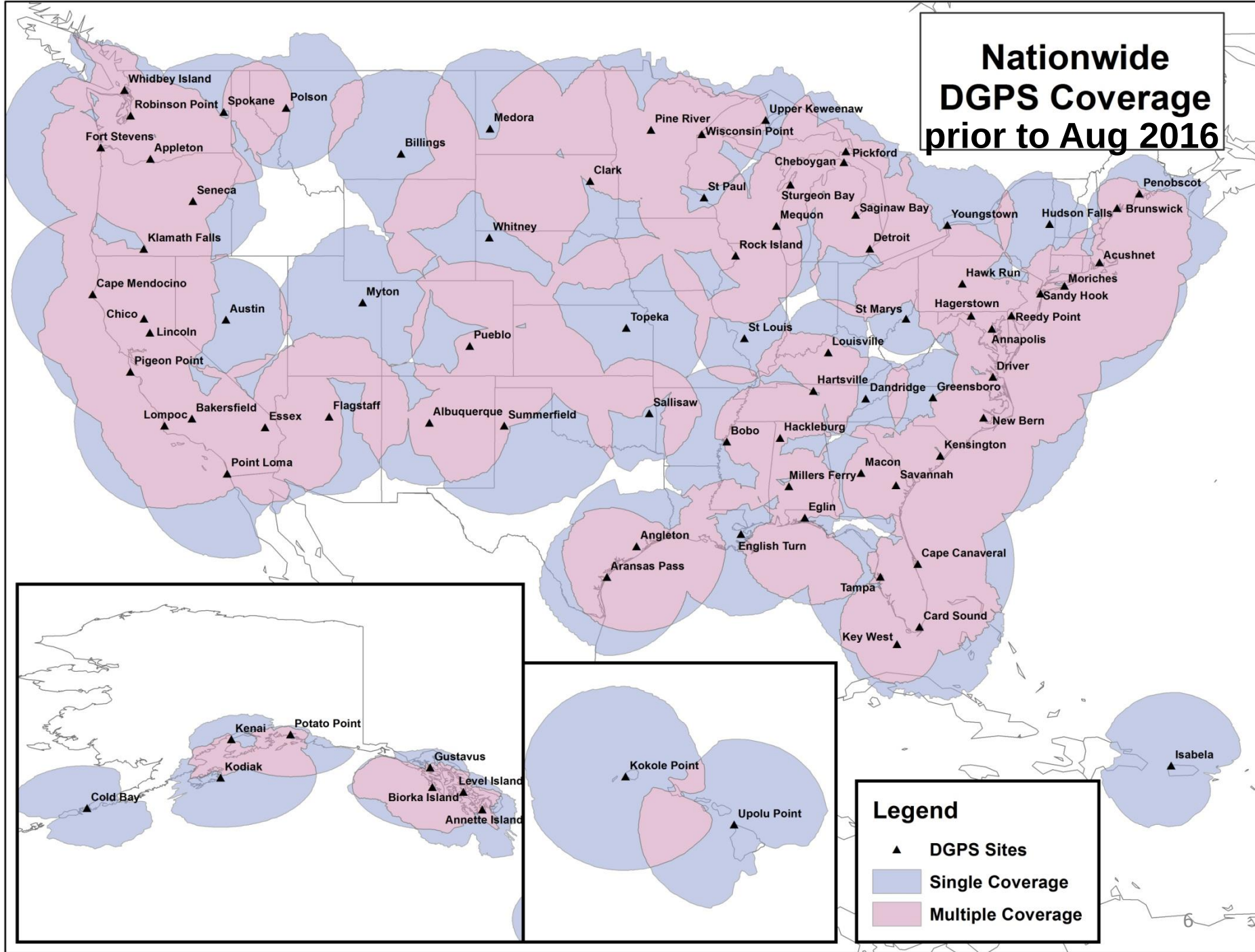


Rationale of Reduction

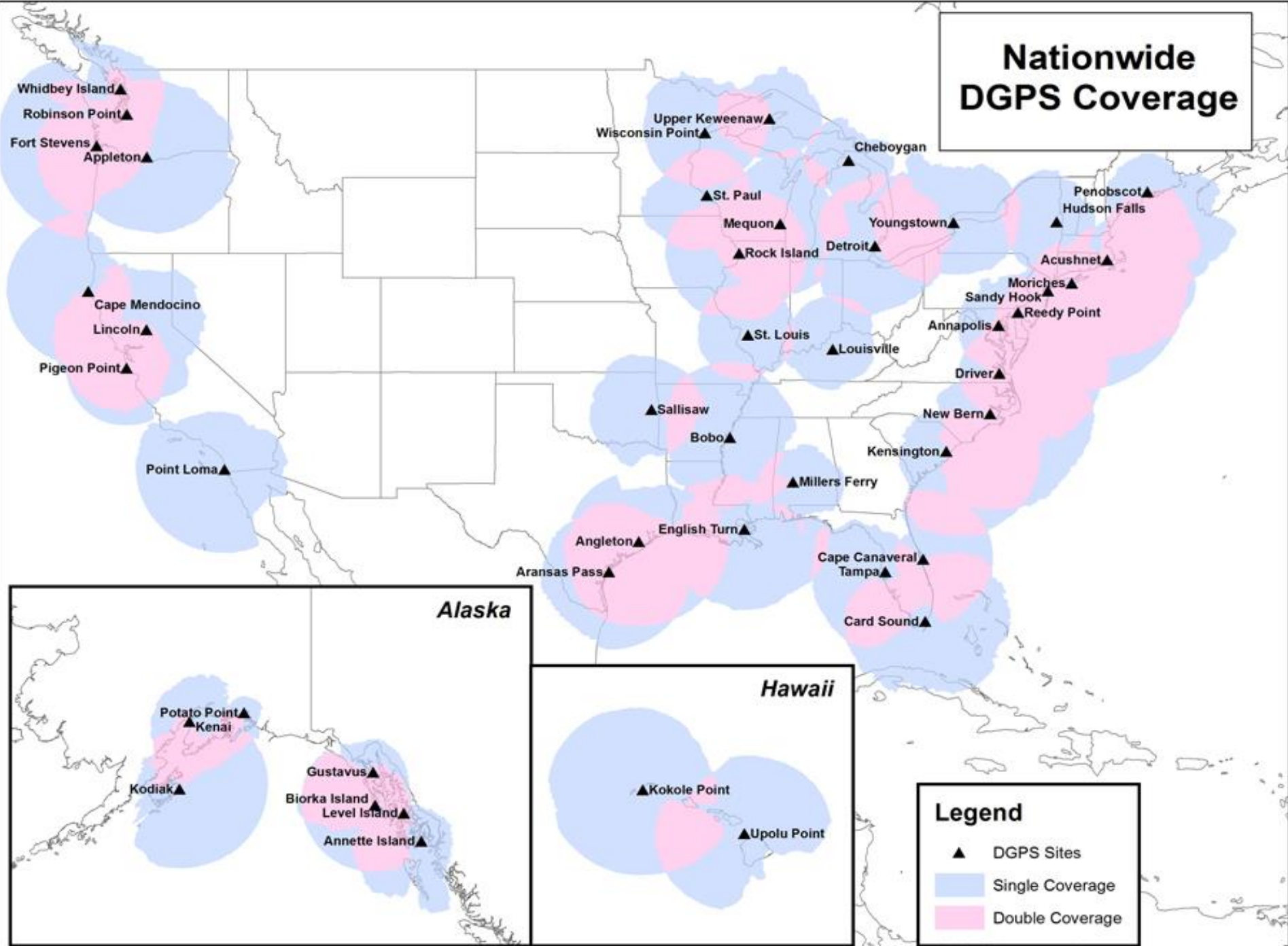


- Division of sites (DOT, USCG, USACE)
- Statutory Service Requirement
- Accuracy of Un-augmented GPS
- Trends in DGPS use – How do you use it?
- Adjudication of FRN Comments
 - Geographic area (Maritime Pilots)
 - Precision Positioning (Dredging Ops)
 - Redundant coverage

Nationwide DGPS Coverage prior to Aug 2016



Nationwide DGPS Coverage





Next Steps



-
- Assess CPNT application of DGPS infrastructure
 - Decommission/divest 28 DOT sites
 - Decommission/divest 9 maritime sites
 - Evaluate future reductions and alternatives



Questions??

<http://www.navcen.uscg.gov/>