

Nationwide DGPS (NDGPS)

Project Status

August 14, 2012



Homeland
Security

U.S. Department of
Homeland Security
**United States
Coast Guard**



Outline

- NAVCEN Overview
- NDGPS Site Layout
- NDGPS Coverage
- NDGPS Site Upgrades

U.S. Department of Homeland Security
**United States
Coast Guard**
Navigation Center, Alexandria, Virginia



Aug
ust



**Homeland
Security**

U.S. Department of
Homeland Security
**United States
Coast Guard**



NAVCEN Mission Statement

NAVCEN provides maritime navigation and information services that enhance the safety, security, and efficiency of U.S. waterways.

These services include:

- **providing nationwide GPS augmentation signals,**
- **tracking vessel movements for enhanced situational awareness,**
- **publishing maritime advisories and related navigation information,**
- **managing the Coast Guard's electronic chart portfolio,**
- **receiving and coordinating investigation of GPS outage reports.**



**Homeland
Security**

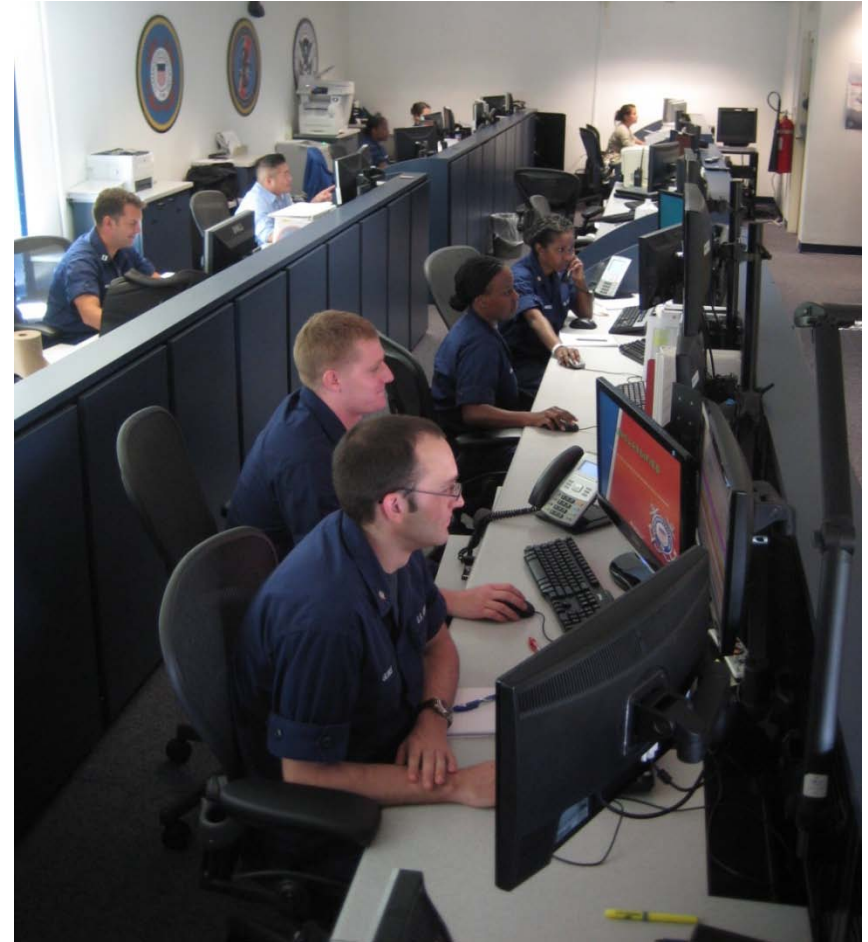
*U.S. Department of
Homeland Security*
**United States
Coast Guard**



Maritime Information Operations Center

24/7 Operation of the following:

- Web based Information Services
- Navigation Information Service
- GPS Civil Interface
- DGPS Monitor & Control
- Nationwide Automatic Information System
- Long Range Identification & Tracking (LRIT) Business Help Desk.

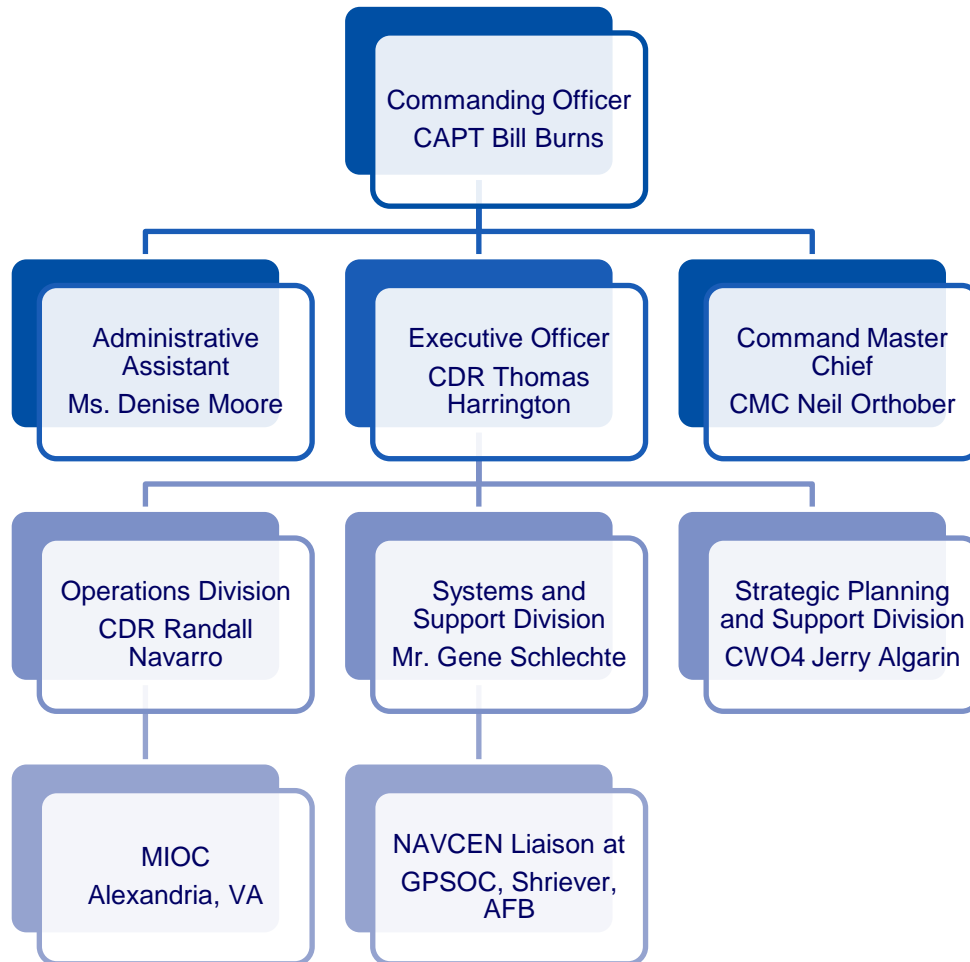


**Homeland
Security**

U.S. Department of
Homeland Security
**United States
Coast Guard**



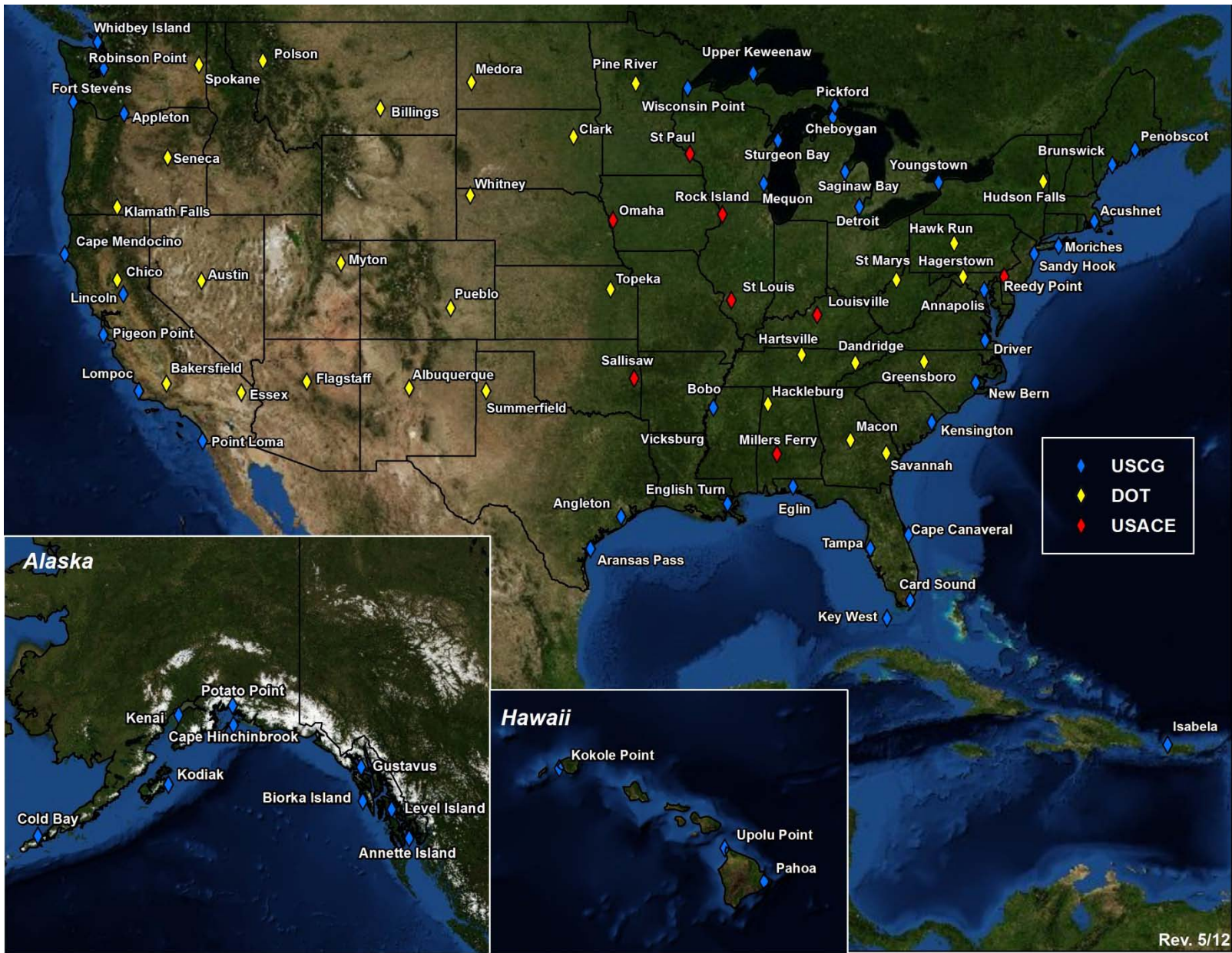
NAVCEN Command



**Homeland
Security**

U.S. Department of
Homeland Security
**United States
Coast Guard**





Rev. 5/12



Homeland Security

U.S. Department of
Homeland Security
**United States
Coast Guard**



NDGPS Site Layout

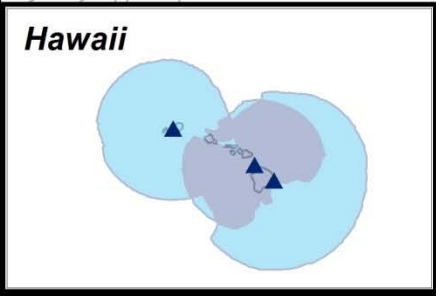
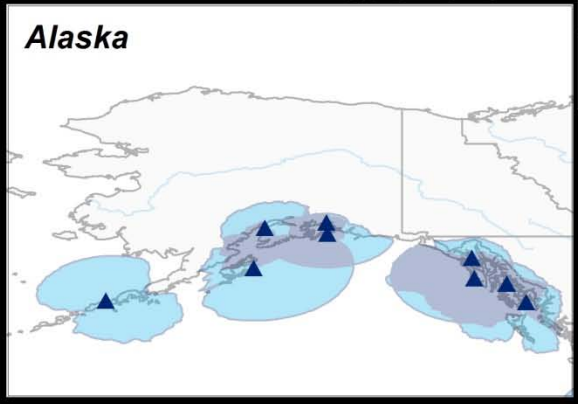
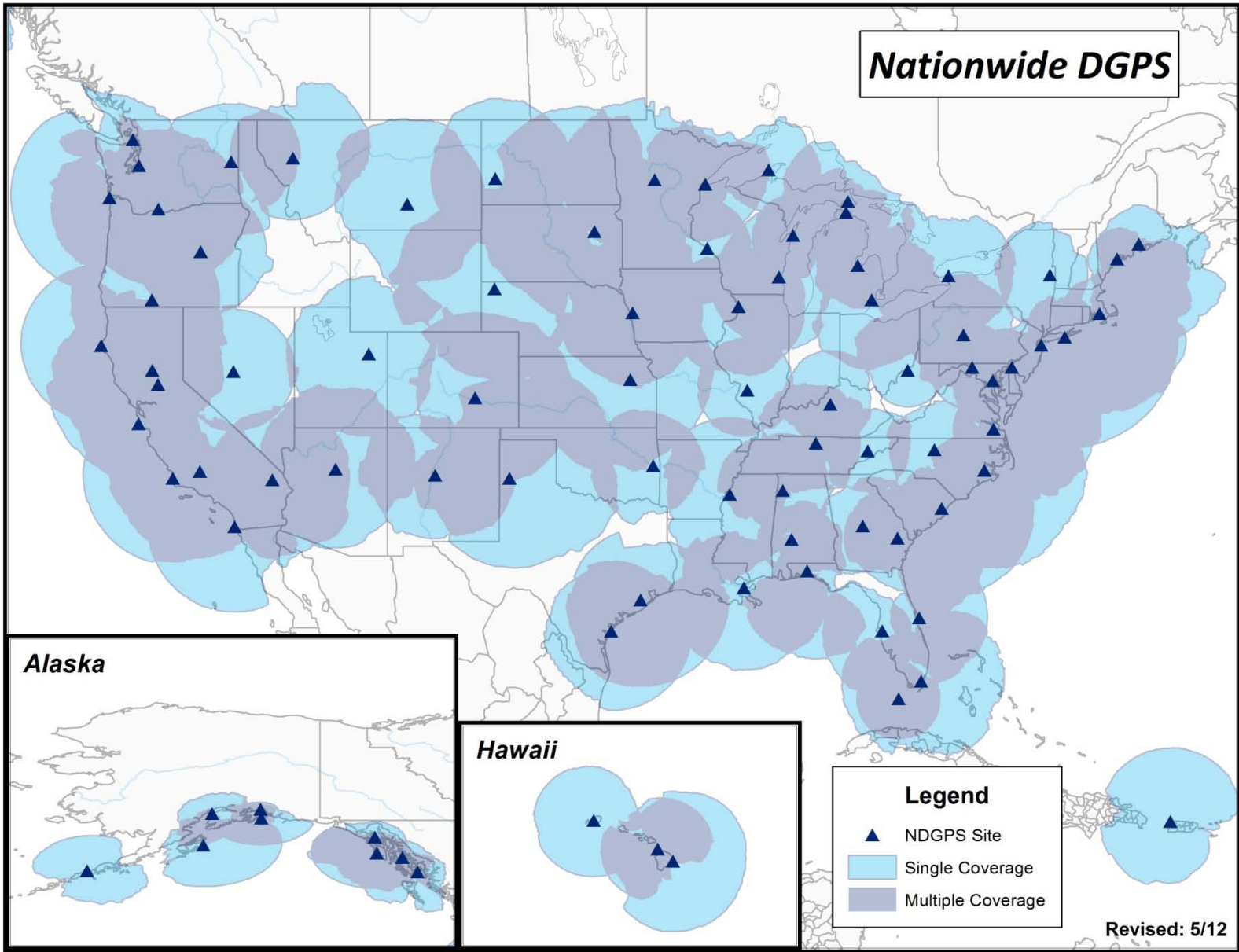


**Homeland
Security**

*U.S. Department of
Homeland Security*
**United States
Coast Guard**



Nationwide DGPS



Legend

- ▲ NDGPS Site
- Single Coverage
- Multiple Coverage

Revised: 5/12



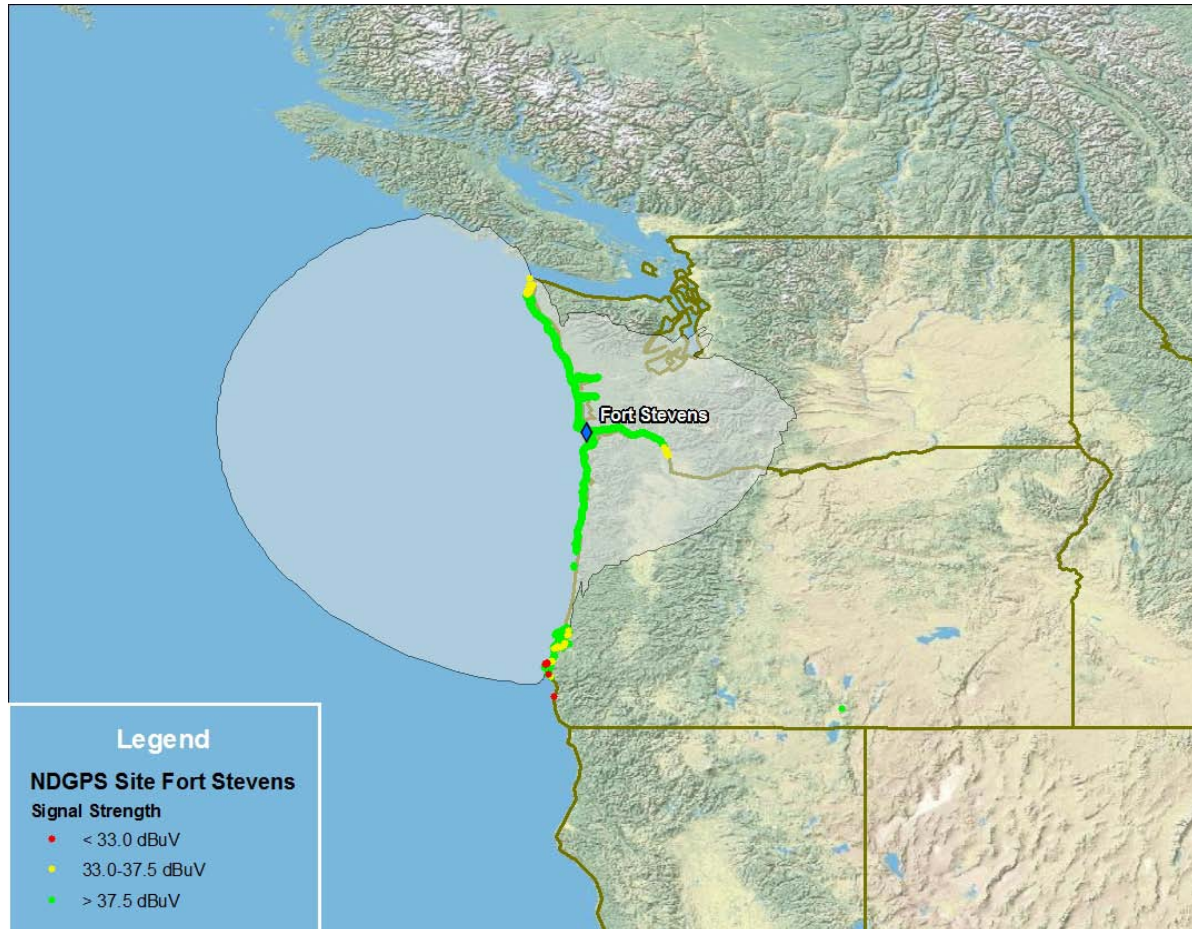
Homeland Security

U.S. Department of
Homeland Security
**United States
Coast Guard**



NDGPS Site Fort Stevens

Coverage Planning & Verification



**Homeland
Security**

U.S. Department of
Homeland Security
**United States
Coast Guard**



Maritime DGPS Recap/Upgrades



- **TCTO-TE2000**
 - NAUTEL Transmitter Installation.
 - Includes all Coastal and Inland River sites.
 - Replaces SAC Transmitter



- **EC-03**
 - Commercial Off-The-Shelf (COTS) equipment.
 - Ethernet based with remote troubleshooting capability.
 - Replaced Trimble CEPY-4000IM Integrity Monitor and Ashtech CFDP-Z-12-R with Trimble NETRS receivers.
 - Completed at all Coastal and Inland River sites.



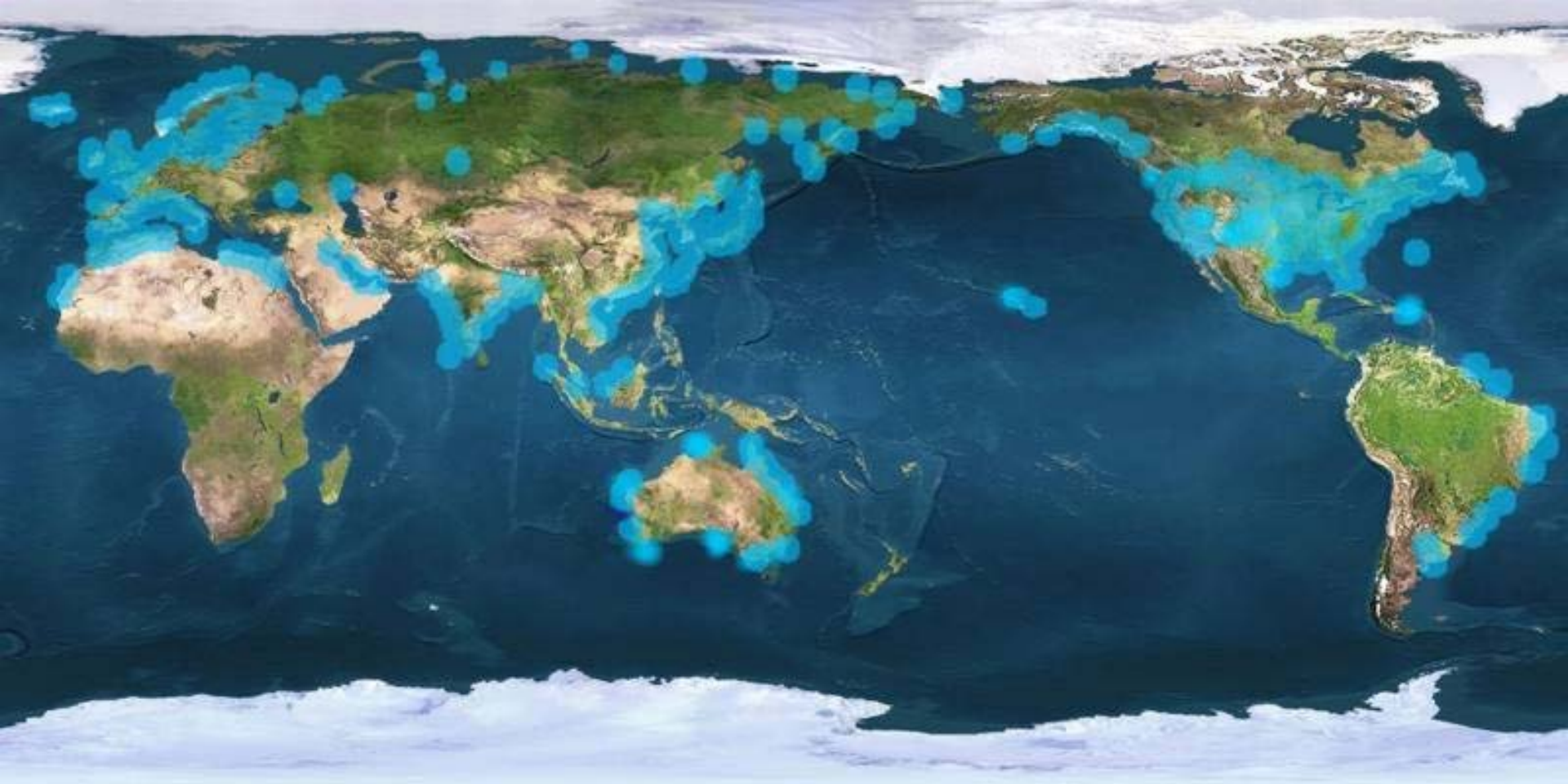
**Homeland
Security**

Slide 10

U.S. Department of
Homeland Security
**United States
Coast Guard**



World DGPS Coverage



Homeland
Security

U.S. Department of
Homeland Security
**United States
Coast Guard**



NAVCEN Website

www.navcen.uscg.gov



NAVIGATION CENTER
The Navigation Center of Excellence



U.S. Department of Homeland Security
UNITED STATES COAST GUARD

Home | DGPS Advisories | GPS Constellation Status | GPS Testing Notices | LNMs | Almanacs | Nav Rules | AIS | International Ice Patrol | Contact Us | Search

About NAVCEN

- Mission Statement
- Contact Us
- Search Our Site
- Site Map
- Website Privacy Policy

Primary Mission Areas:

- Global Positioning System
- Nationwide DGPS
- Long Range Identification and Tracking
- International Ice Patrol
- Civil GPS Service Interface Committee
- Automatic Identification System
- Nationwide AIS (NAIS)
- Electronic Navigation & Charting
- Maritime Telecommunications
- LORAN C (archive)

Services & Reporting:

- Receive Free LNM Updates
- Receive Free GPS Status Messages
- Receive NANU Updates
- Join CGSIC (free)
- Report an ATON Discrepancy or Outage
- Report a GPS Problem
- Report an NDGPS Problem
- Report an LRT Problem
- Report an NAIS Problem
- Contact Us

Maritime Information:

- USCG "Homeport" Website
- CG Nat'l Distress System
- Digital Selective Calling
- Global Maritime Distress and Safety System
- Marine Safety Information Broadcasts
- MF & HF Channels

U.S. COAST GUARD NAVIGATION CENTER

April 25, 2012

NAVIGATION CENTER POINTS OF INTEREST



Current Operational / Safety Information

- Consolidated Nav Info
- DGPS Site Status
- GPS Ops Advisories & NANUs
- GPS Almanacs
- GPS Interference Notices
- FCC GPS Jammer Enforcement
- Current Ice Chart
- Public Notices for Bridges
- Local Notice to Mariners
- Light List and Corrections
- Navigation Rules
- Navigation Regulations



Maritime Information

- USCG "Homeport" Website
- Long Range Identification and Tracking
- Global Maritime Distress and Safety System
- CG Nat'l Distress System
- Digital Selective Calling
- Vessel Traffic Services
- VHF Channels & Freqs
- MF & HF Channels
- Nav Pubs and Documents
- Radio Watch Requirements
- Marine Safety Information Broadcasts
- Ports and Waterways Safety System



More About NAVCEN

- Mission Statement
- Contact Us
- Directions to NAVCEN
- Search Our Site
- Site Map
- Website Privacy Policy

News and Notices:

- RSS Feeds (LNMs, LL Corrections)**
- The **Titanic Centennial Commemoration Events schedule** has been published and you can view it in PDF. Also visit our comprehensive **International Ice Patrol section** for much more information on the Coast Guard's Ice Patrol mission.
- A meeting of the Civil GPS Service Interface Committee States and Local Government Subcommittee will be held in Austin, TX on the 13th of June. An initial agenda is being developed and will be posted here in the near future. CGSIC meetings are free and open to the public. You are encouraged to attend this interesting day of presentations providing current information related to the U.S. GPS Program.
- A **SPECIAL NOTICE** has been published advising that calls to the Coast Guard on the international radiotelephone distress frequency 2182 kHz may not be reliably received by the Coast Guard...read the notice here.
- On March 14, 2012, the International Hydrographic Organization published a **safety notice** about the reliable operations of the Electronic Chart Display and Information System (ECDIS). This notice is available for downloading and viewing (PDF).
- CONSUMER ALERT:** Using or importing cell jammers, GPS jammers, or other jamming devices is illegal. Please read **Public Notice Doc. 39135/1**, which is a consumer alert advising consumers of the law and penalties regarding jamming.
- The U.S. Coast Guard advises that effective 2359 UTC 31 March 2012 it will terminate On Call Ship/Shore HF Radiotelex (SITOR) services currently being provided by its Guam Mariana Islands Communications Station (NRV)...see the **entire notice**.
- In response to the situation at the Fukushima Nuclear Power Plant in Japan, the U.S. Coast Guard recommends, as a precaution, that vessels avoid transiting within 20 kilometers/10.8 nautical miles of the Fukushima Nuclear Power Plant (37°



America's Waterway Watch



See Something Say Something!

Practice Your NAVRULES!




Homeland Security

U.S. Department of Homeland Security
United States Coast Guard




DGPS Outage



NAVIGATION CENTER

The Navigation Center of Excellence



U.S. Department of Homeland Security
UNITED STATES COAST GUARD

Home | DGPS Advisories | GPS Constellation Status | GPS Testing Notices | LNM's | Almanacs | Nav Rules | AIS | International Ice Patrol | Contact Us | Search

Nationwide Differential GPS (NDGPS)

- Nationwide DGPS
- NDGPS Site Information and Operating Specifications
- NDGPS Coverage Plots
- Current NDGPS Site Outages
- Report an NDGPS Problem**
- Canadian DGPS Status Info
- Frequently Asked Questions
- Reference Information
- NDGPS Partnerships

Primary Mission Areas:

- Global Positioning System
- Nationwide DGPS
- Long Range Identification and Tracking
- International Ice Patrol
- Civil GPS Service Interface Committee
- Automatic Identification System
- Nationwide AIS (NAIS)
- Electronic Navigation & Charting
- Maritime Telecommunications
- LORAN C (archive)

Services & Reporting:

- Receive Free LNM Updates
- Receive Free GPS Status Messages
- Receive NANU Updates
- Join CGSIC (free)
- Report an ATON Discrepancy or Outage
- Report a GPS Problem
- Report an NDGPS Problem
- Report an LRIT Problem
- Report an NAIS Problem
- Contact Us

Maritime Information:

- USCG 'Homeport' Website

DGPS PROBLEM REPORTING

DGPS REPORT-A-PROBLEM WORKSHEET

The Navigation Center appreciates your reports regarding service **degradations, outages, or other incidents or anomalies**. Please answer the questions below. Some fields are required for submission, but all personal data will be kept private and will only be used to contact you in the event that we need more information or if clarification is required. Please be as complete as possible when reporting an incident. Thank you!

Privacy Information: The privacy of our customers has always been of the most importance to the Navigation Center. The NAVCEN has a long history of protecting your privacy and our concern for your privacy is no different in the electronic age. Our Internet privacy policy is:

- You do not have to give us personal information to visit our site.
- We will collect personally identifiable information (name, email address, telephone number) only if specifically and knowingly provided by you.
- Any information provided will solely be used to resolve the problem that you are reporting. Resolution of the reported problem may entail the sharing of the information provided with other U.S. Government Agencies. These agencies may contact you directly in order to expedite resolution of the reported problem.
- All personally identifiable information provided will be kept internal to the U.S. Government.

If you are experiencing DGPS issues relating to positioning, navigation, timing or signals please proceed to fill out a DGPS outage report using the form below.

* Denotes a required field

1) * Your Name:

2) * Email Address:

3) * Telephone number: [ie. - (703) 313-5900]

4) Preferred method and time to be contacted if additional information is necessary:
Click Here For Choices
Click Here For Choices

5) *What was the start time and date of the DGPS outage? Date: Time: Select Time Zone

6) * Is the DGPS outage ongoing?

7) * Where did the outage occur? (LAT/LONG; Nearest City or landmark)
Lat Long City/Landmarks

8) DGPS user equipment make and model (receiver manufacturer and model, antenna type, etc...)?



Homeland Security

U.S. Department of Homeland Security
United States Coast Guard



Contact Information

LT Christian Hernaez

Christian.J.Hernaez@uscg.mil

Office: (703) 313-5850



**Homeland
Security**

*U.S. Department of
Homeland Security*
**United States
Coast Guard**





Homeland Security