U.S.
Global Positioning System
and the
Homeland Security Mission

United States Telecommunications Training Institute (USTTI)

November 7, 2013

Michael Bergman
Department of Homeland Security
Geospatial Management Office
Outline

- DHS Core Missions
- DHS Common Uses of GPS
- DHS Components Unique Uses of GPS
- Summary
Five Core Homeland Security Missions

- Prevent Terrorism and Enhancing Security
- Secure and Manage Our Borders
- Enforce and Administer Our Immigration Laws
- Safeguard and Secure Cyberspace
- Ensure Resilience to Disasters
DHS Common Uses of GPS

- Timing for Computer Networks
  - Network Time Protocol (NTP)

- Communications
  - Cell Phones, Satellite Comms, Mobile Radios

- Blue Force/Asset Tracking
  - USCG, CBP, ICE, FEMA, etc…

- Natural Disaster/Crisis Management
  - Hurricanes (Katrina, Rita, Sandy)
  - Deepwater Horizon
Aids to Navigation
  - Placement of Nav Aids
Fisheries
  - Prevent illegal fishing in prohibited areas
Search and Rescue
  - Global Maritime Distress and Safety System (GMDSS).
  - Rescue 21/SARSAT
Automatic Identification System (AIS)
  - Maritime Domain Awareness
Differential GPS
Customs & Border Protection

- **Air-Marine Safety of Flight & Navigation**
  - Enhanced Ground Proximity Warning System
  - Electro-Optical/Infra-Red (EO/IR) Sensor turret
  - Area Navigation Systems
  - electronic Automatic Identification System (eAIS)

- **UAV Control**
  - Safety of Flight
Federal Emergency Management Agency (FEMA)

- Deploy to Disaster Site
  - Hurricane, Tornado, Fire, etc...

- Conduct Damage Assessments
  - GPS with GIS tools provides timely and accurate damage assessments
Summary

- GPS is widely used to carry out DHS Missions
- Most Common applications are
  - Communications
  - Situational Awareness – Blue Force / Asset Tracking
  - Network Timing
- DHS Components also have unique uses of GPS
  - UAV Safety of Flight - CBP
  - Aids to Navigation – USCG
  - Command, Control, Coordination of Natural Disasters - FEMA
QUESTIONS?