

Department of Homeland Security

GPS Interference

Detection and Mitigation

Michael Bergman

PNT Programs, Department of Homeland Security



Homeland
Security

Topics of Discussion

- **DHS IDM Governance**
- **Patriot Watch Concept**
- **Timing Backup**
- **Summary**



Homeland
Security

DHS IDM Governance

- **Coordinate domestic capabilities to identify, analyze, locate, attribute, & mitigate sources of interference to the GPS & its augmentations.**
- **Develop & maintain capabilities, procedures & techniques, & routinely exercise civil contingency responses to ensure continuity of operations in the event that access to GPS signal is disrupted or denied.**
- **Collect, analyze, store, & disseminate interference reports from all sources to enable appropriate notification, investigation, & enforcement action.**

Patriot Watch System

- **System-of-Systems, open architecture, multi-phased approach for situational awareness**
 - **Designed with government & commercial HW/SW**
 - **Persistent monitoring for situational awareness**
 - **Timely response to anomalies**



Domestic Timing Backup

- **Distributing the Master Clock on Fiber**
 - Independent of GPS
 - Utilize existing fiber infrastructure
 - Long-haul test under development
- **Investigating over the air transmission alternatives.**



Summary

- **Patriot Watch Concept**
 - **Systematic layered approach with Open architecture**
 - **Standardized data protocol for seamless integration of sensors**
- **PNT Incident Portal – Central data repository complete**
- **Conduct long-haul fiber test**
- **Investigating over the air transmission of time**



Questions?

DHS PNT Program Management Office

John Merrill

John.Merrill@dhs.gov

202-447-3731

Michael Bergman

Michael.Bergman@dhs.gov

202-447-3730



Homeland
Security