Improving Port Security by Providing GIS Benefits to All Stakeholders

Jennifer Radcliff – Port of Tacoma
Eric Patrick – NorthSouth GIS
Jen Radcliff – Background

- 18 years of GIS experience
- GISP since 2007
- Port of Tacoma GIS Coordinator for 3 years

www.portoftacoma.com
Eric Patrick – Background

• 20 years of GIS experience
• NorthSouth GIS for 5 years
  - GIS Solutions Architect
  - Managed GIS projects for Ports of Tacoma and Stockton
  - Key participant in GIS projects for Ports of Los Angeles and Oakland

• ports.northsouthgis.com
Before the Project

- PortView – difficult to use, not much data
- No standards
- Limited connectivity
- Data silos
- Security mostly consumed data via static, printed materials
Project Introduction

• Port applied for Security Grant
• RFP: Enterprise GIS Development for Port Security
  - Common Operating Picture with data to improve Maritime Domain Awareness
  - Help prevent threats to safety and security
• Serve Port Business needs, function and decision making
Other Goals

- Significantly improve the Port’s GIS Web Viewer to make it:
  - Easier to use
  - Contain powerful tools and reports
- Maintainable over time with minimal effort and cost
Other Goals

- Implement practical standards to ensure data can be maintained as appropriate by:
  - GIS users
  - AutoCAD Users
  - Internal Port Staff
  - External users such as Engineering Contractors
Project Approach

- Educate stakeholders on what is
  - Possible
  - Practical
- Assess needs across broad range of stakeholders
- Work within IT parameters
Project Results

• Added 75 layers to PortView
• Leases and Land Use tools:
  - Port Cadastral Model
  - Available Property and Expiring Lease Reports
  - Research past tenants and land uses
• Real-time vessel locations
• Real-time weather conditions
Project Results

• Document and Drawing Indexing
• Redlining (Map Data Correction)
• Special / Security Event Planning
• Departmental Specific Viewers
Benefits to Security – Leases
Benefits to Security – Environmental
Benefits to Security – Maintenance
Benefits to Security – Misc
Benefits to Security – Incident Planning

• VIDEO
Benefits to Security – Special Event Planning

• Tools to publish:
  - Detours
  - Public Events
  - Construction projects

• Security can see, search for and plan for these events

• Security can use same tools to report:
  - Unsafe or secure areas
  - Assembly points and evacuation routes
• CAD/GIS Workflow
• Train Consultants
• Start small
## Success and Future Plans

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**Totals:**

- **2014:** $150,000
- **2015:** $180,000
- **2016:** $210,000
- **2017:** $240,000
- **2018:** $270,000

**High Costs:**

- **2014:** $180,000
- **2015:** $210,000
- **2016:** $240,000
- **2017:** $270,000
- **2018:** $300,000
Lessons Learned

- Benefits for all
- Get buy-in from whole organization – will empower Security
- Simple, practical tools – make it sustainable