Using ArcGIS for Military Planning and Operations

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Goals of the workshop

- Enterprise system for military planning and operations
- Basemap and operational layers to communicate plans
- ArcGIS supports situation awareness
- Share maps with web and mobile clients
- ArcGIS.com resources
- Recommendations and best practices
The ArcGIS System

Easier
More Powerful
and Everywhere

- Discover
- Create
- Manage
- Visualize
- Analyze
- Collaborate

Cloud
Enterprise
Local
Key Aspects of a GIS

- Layer based model for describing the world
  - Feature Classes
  - Raster Datasets
  - Attributes and descriptive information

- A GIS uses maps to visualize and work with geographic information

- A GIS has a comprehensive set of analytic tools to perform spatial analysis and data processing
Maps in a GIS

- Maps are how you
  - Compile information
  - Find patterns
  - Derive new information using analysis
  - Communicate plans and ideas
  - Get status reports
Map layers

- Basemaps
  - Terrain
  - Imagery

- Operational Layers
  - Targets
  - Facilities
  - Units/equipment positions
  - Reporting
To communicate plans and new ideas

- Maps are used to create and share plans
  - Friendly or Enemy Course of Action Sketches
  - Target Packages
  - Daily Briefs

- GIS maps are used to communicate plans
  - Features for sketching plans/ideas
  - Presentation layouts/slides for explaining concepts
  - Useful animation for showing timelines
To get status reports

- Maps are used to receive and display status reports
  - Current location of units/equipment
  - Current status of sensors
  - Reports/observations by deployed personnel

- GIS maps for status reports include
  - Tools to input reports
  - Layers for showing current reports

- Status reports are frequently viewed using custom applications or devices
Sharing Maps

• GIS analysts share information with each other
  - Packages encapsulate all aspects of a GIS
    - Symbology
    - Tools
    - Data

• GIS analysts share GIS with everyone
  - Services shared across the web and mobile devices through web maps and apps
  - Web maps define the layers/popups for the services
  - Apps bring the map to life in browsers and devices
Resource Center

- Defense and Intelligence User Community
- Blogs
- Help
- Forum
- Videos
- Ideas
- Template Galleries
The Operations Process

- PREPARE
- EXECUTE
- PLAN
- ASSESS
Situation Awareness

- Location & status of friendly forces
- Location & status of threat forces
- Location & status of significant civil considerations
- Operational areas
Planning

• Create plans
  - Enemy course of action sketch
  - Friendly course of action sketch
  - Decision support template

• Share plans

• Communicate plans
Planning Templates

• Military Overlay editing
  - Friendly Operations
  - Hostile Operations
  - Neutral Operations
  - Unknown Operations
  - Stability Operations
  - Emergency Management
  - METOC
Planning
Execution

- Assess progress
- Movement and maneuver
- Reports
  - Chem lights
  - SALUTE
  - SIGACT
  - MEDEVAC
  - 9-line
Operations Templates

- Situation Awareness Template
  - Web application template
  - Operational area
  - View track reports
  - Create reports
Operations Templates

- **Patrol Data Capture Template**
  - Desktop application template
  - Operational area
  - View track reports
  - Create reports
Operations – Mounted/Dismounted

• Situation awareness in the field
• Provide flexibility and reliability
• Provide information to and from troops
• Reports
  - Track Reports/Track Logs
  - Chem lights
  - SALUTE
 Mounted/Dismounted Applications

• Runtime
  - Vehicle Commander Application
  - Company Commander Application

• Android
  - Squad Leader Application
Operations

DISMOUNTED APPLICATION
MOUNTED APPLICATIONS
QUESTIONS
After this workshop...

- **Session evaluation**
  - [www.esri.com/sessionevals](http://www.esri.com/sessionevals)

- **Defense and Intelligence Showcase**
  - Exhibit Hall D: Wed 0900-1800 and Thu 0900-1330
    - ArcGIS for the Warfighter area
    - Demo Theater
      - Wednesday 1700-1800
      - Thursday 1200-1300

- **Using Imagery for Intelligence Analysis TW**
  - 1515-1630 Room 26A
After this conference…

- Defense and Intelligence Resource Center
  - [http://resources.arcgis.com](http://resources.arcgis.com)
  - Blog
  - Forum

- Defense and Intelligence guide book

- ArcGIS.com [http://www.arcgis.com](http://www.arcgis.com)

- Support [http://support.esri.com](http://support.esri.com)