ArcGIS for the Military: Sustainment and Logistics

Joe Bayles
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Goals of the Workshop

• Briefly review ArcGIS for the Military system

• Explain how ArcGIS is configured to support sustainment and logistics
  - Operational Environment
  - Planning and Analysis
  - Monitoring Operations

• Recommendations and best practices
ArcGIS for the Military: Business Framework

- Mission Command
- Movement & Maneuver
- Intelligence
- Fires
- Sustainment & Logistics
- Protection

Operational Environment

Portal
ArcGIS for the Military: Solution Design

- Operations
- Planning
- Operations Server
- Environment
- Intelligence
- Mounted
- Dismounted

Sensors
ArcGIS for the Military – Sustainment and Logistics

Logistics Reporting

Convoy Tracking

Medical Evacuation Reporting

Movement Reporting
Data Schemas

**SITREP: 2-1-C-1**

- **DTG Submitted:** 12/29/1899, 4:00 PM
- **Callsign:** 2-1-C-1
- **Activity:** Securing LOC
- **Effective:** Substantially Operational
- **Own Situation Disposition/Status:** Platoon and attached elements of 2/4/3 located at COP
- **Situation Overview:** LOC secure
- **Operations:** Regular patrolling improving relations with local pop; difficulties in covering full AO due to terrain
- **Intelligence/Reconnaissance:** Request additional UAV or reocce elements to address gaps in coverage
- **Communications/Connectivity:** Additional rebro required to extend comms coverage into NE area

**EOD 9 Line Reports: Dropped**

- **Callsign:** AFG POL
- **Location:** Cache
- **Detailed Location:** Buried under abandoned shed
- **Location:** AFG POL Liaison Cell
- **Method:** None
- **Protection:** None
- **Impact on Mission:** Indirect
- **Protective Measures:** Police securing site until EOD arrive
- **DTG Submitted:** 7/2/2014, 7:41 AM
- **Zoom to**
- **Edit**

**SPOTREPS: Hostile Ground Vehicle**

- **Unique Designation:** Shadow 3
- **Size:** 2 vehicles / 2+ pax
- **Activity:** Moving S along main route
- **Location:** On road
- **Unit / Uniform:** Displaying militia flags
- **Equipment:** Toyota land cruiser - No visible weapons
- **Relative Location (Distance):**
- **Relative Location (Bearing):**
- **DTG Submitted:** 7/2/2014, 7:01 AM
- **Activity Type:** Moving
- **Unit Type:** Irregular
- **Equipment Type:** Hostile Ground Vehicle
- **Size / Echelon:** Squad
- **Symbol ID:** shgpev-------
Data Capture

- Collector - Offline data collection and Sync
- Geoform
- GeoEvent Processor
Data Presentation

- Operations Dashboard
- Briefing Book
- Executive Dashboard
- Story Map
Operations Dashboard

Joe Bayles
UXO Reports

<table>
<thead>
<tr>
<th>Callsign</th>
<th>Location</th>
<th>Detailed Location</th>
</tr>
</thead>
<tbody>
<tr>
<td>2/1</td>
<td>Cache</td>
<td>Inside farm buildings</td>
</tr>
<tr>
<td>Watchkeeper</td>
<td>Sham Bagh Fuel</td>
<td>Charge under storage tank</td>
</tr>
<tr>
<td></td>
<td>station</td>
<td></td>
</tr>
<tr>
<td>FOB PALACE</td>
<td>100m E of FOB</td>
<td>Open ground to E of FOB</td>
</tr>
<tr>
<td>AFG POL</td>
<td>Cache</td>
<td>Buried under abandoned shed</td>
</tr>
<tr>
<td>Wolfpack 2</td>
<td>Buried on N side</td>
<td>Under rocks and mixed debris; trigger</td>
</tr>
<tr>
<td></td>
<td>of road</td>
<td>line to NNW, unmanned when found</td>
</tr>
</tbody>
</table>

Significant activity to report
Operations
Dashboard &
Analysis

Joe Bayles
Planning the Sustainment of the Operations

Military Features Template

- Based on MIL-STD-2525D
- Symbol Set and Layers
- Layers based on geometry and then by symbol set
  - Areas: Control Measures, METOC
  - Lines: Control Measures, METOC
  - Points: Activities, Control Measures, Land Units, etc.
Military Features Template

Jim Weakland
Executing the Sustainment of an Operation

- Collector App
- Vehicle Commander
Collector App

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Vehicle Commander

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Sharing the Information
Portal for ArcGIS

Analysis Workflows
Mission Focused Maps and Apps
Field Operations

Portal Configuration
Portal for ArcGIS

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System Integration / Data Interoperability

Enterprise Data

Social Media

Web Maps

Services

Imagery

Maps

Big Data

Full Motion Video

Sensor Networks
Resources

• Solutions Website
  - http://solutions.arcgis.com/military/

• Videos

• Forum
  - http://forums.arcgis.com/forums/82-Defense-amp-Intelligence

• Blogs
Resources

- GitHub
  - https://github.com/Esri

- Facebook

- Twitter
  - https://twitter.com/EsriDefense
Thank you...

• Please fill out the session survey-
  - Offering ID: 1508
  - Online – www.esri.com/ucsessionsurveys
  - Paper – Put in drop box

• Questions-
  - Now’s the time to ask, or you could…
    - Please come ask me directly
    - Email us
      - jbayles@esri.com
      - jweakland@esri.com
      - amcmillan@esri.com