Intelligence Analysis: How to Create Meaningful Map Products

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Workshop Goals

• Understand why maps are an important way to communicate intelligence information

• Examine examples of the good, the bad and the ugly

• Learn some guiding principles for making a good web map

• Demonstrate the tools for making web maps

• Provide a check-sheet

Most intelligence reports need a map
Maps are important...

- Add context to the intelligence
- Support analytic thinking
- Uncover hidden relationships
- Stimulate thinking about an issue

*Most intelligence reports need a map*
Web Maps are Building Blocks...
Over the past two months, the southern Syrian city of Daraa has suffered hundreds of attacks. Numerous parts of the city have sustained extensive damage. The destruction is largely considered to be retaliation against residents for support to the rebel opposition to the Syrian government.

*Place names are widely used in intelligence reports*
Visualizing your narrative

Natalie Feuerstein
What makes a map meaningful

- Supports the report
- Places mentioned in the report are shown on the map
- Shows enough content to provide context to the report
- Simple and not overly complex
- Helps the reader quickly grasp the story

*Key Principles for Evaluating a Map included with an Intelligence Report*
Making the Web Map

Natalie Feuerstein
HOME > USGS Latest Earthquakes (live CSV)

Legend

USGS Latest Earthquakes (past day)
- 0.1 - 1.5
- 1.5 - 3.4
- 3.4 - 5.7
Text or map—some things to consider

Complex Task

Highly Creative Mental Activity

Use Concepts of Communication

Think in Visual Terms

Useful Map
The text of your report or findings are the starting point

**Why?**
- Highlight spatial relationships
- Illustrate analysis results
- Convey Information
- Assist the reader’s comprehension of issue

**How?**
- Assign meaningful symbology
- Fulfill map objectives
- Ensure truthful depiction of reality
- Fulfill communication objectives
Just a bit about color
Be aware when using color

- Avoid pure green / red
- Vary shapes, textures
- Use brightness contrast (not more colors)
Sharing your map

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Maps for Intelligence Reporting—Summary Check Sheet

Maps are an essential part of intelligence reporting. They must be designed to convey the key analytic judgments presented in a report. The map helps the reader understand the geospatial context of a report and the significance of observed or reported activity. Annotations on intelligence report maps need to be relevant and consistent with the text and other graphics in the report. The map is well designed and aimed at busy readers who need to understand key points immediately. Be efficient in using the map to support the report—more maps may not be better.

Guidelines for better maps
Effective Cartographic Communication: Content

- The map supports the key analytical judgments. The map tells the story exceptionally well and could stand alone to convey the issue. The map could be used to brief high-level officials.

- GIS analysis methodology is appropriate for the data and issue; analysis is portrayed clearly. The GIS results must not be overly complicated and represented without a legend if possible.

- The area covered by the map provides adequate context for the issue. The map lends to the complete understanding of the geospatial context of the analysis being reported.
Effective Cartographic Communication: Content (2)

- Key named places identified in the report are shown on the map.
- Annotations (text boxes) are relevant and consistent with the report.
- The depicted features provide useful context without clutter. The features depicted are well chosen so that the map could stand alone to convey the issue. The reader can quickly grasp the implications of the issue.
- The map title is descriptive, concise and relevant to the report. Acronyms and excessive technical terms are avoided.
- Boundaries and country names are correct.
Effective Cartographic Communication: Presentation and Style

- **The text font style, color and placement is correct, legible and uncluttered.** The text portrayal helps the reader quickly grasp information and the geospatial context. **If terrain elevation (shaded relief) is relevant to the issue, it needs to be correctly represented.**

- **Effective use of color, contrast and balance.** The use of color enhances the information so that the reader can quickly grasp the issue. The color palette should be pleasing.

- **Figure-ground relationship is effective.** The figure-ground relationship enhances the map so that the reader can quickly grasp the issue. The most important information is visually highlighted.

- **Effective use of symbology and/or icons; legend is necessary and useful.** Icons should be intuitive and symbology easily understood by the reader. If a legend is needed, it should be clear.
Thank you...

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