



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...

HOME - Dar'a Damage Assessment

Details Add Edit Basemap

About Content Legend

Contents

- Damage Assessment
- Damage Assessment Analysis Zone
- Dara Urban Infrastructure
- Damaged Building Analysis
- WV2 Syria 2014 PSO
- WV2 Syria 2013 PSO
- Imagery

Save Share Print Directions

Image Observables

ArcGIS Online

LayerList

- Operational Layers
- Damage Assessment
- Dara Urban Infrastructure
- Damaged Building Analysis
- WV2_Syria_2014_PSO
- WV2_Syria_2013_PSO

Maps

Dar'a Damage Assessment - Ops Dashboard

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29 (2%) Damaged building

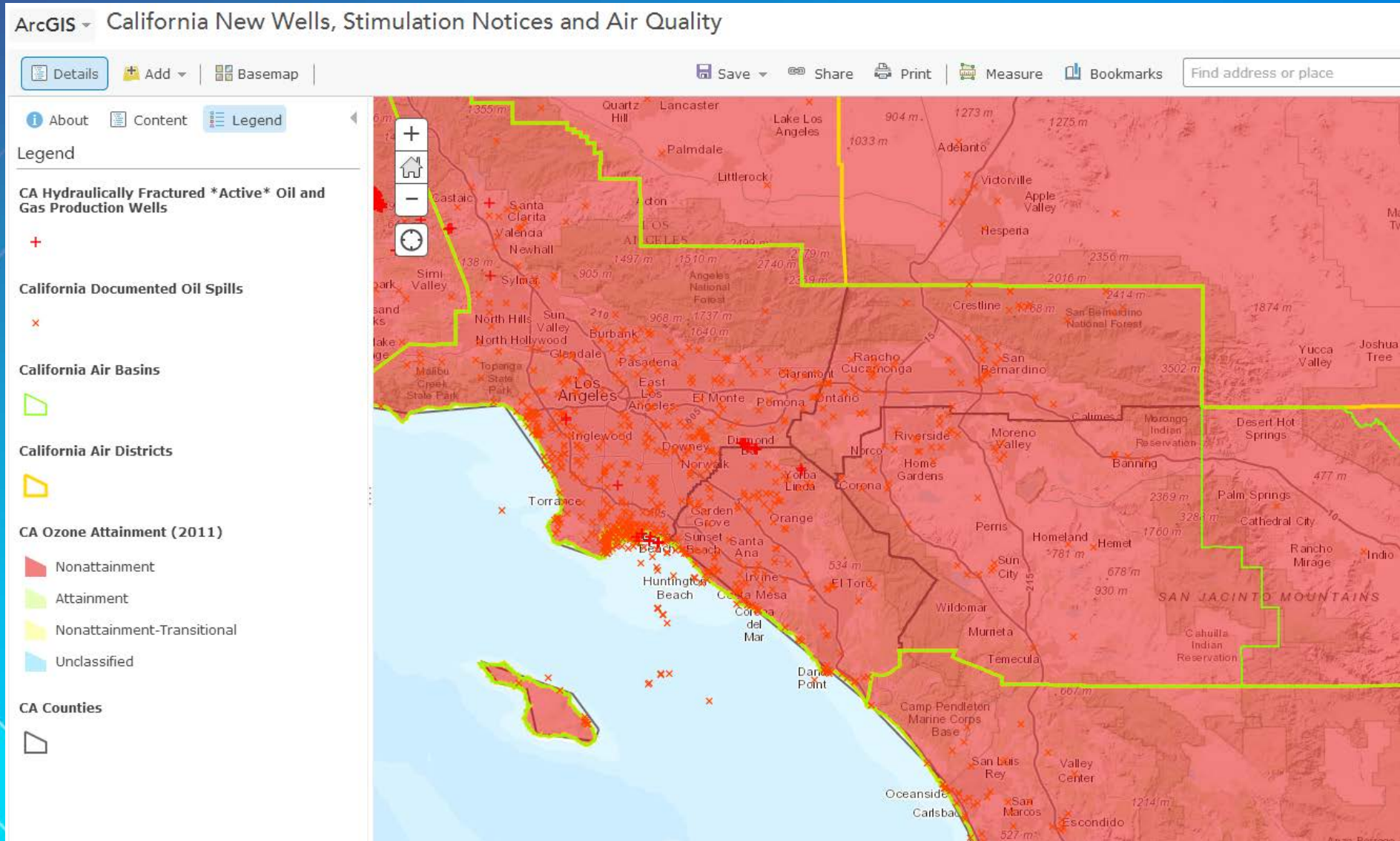
209 (62%) Possibly damaged building

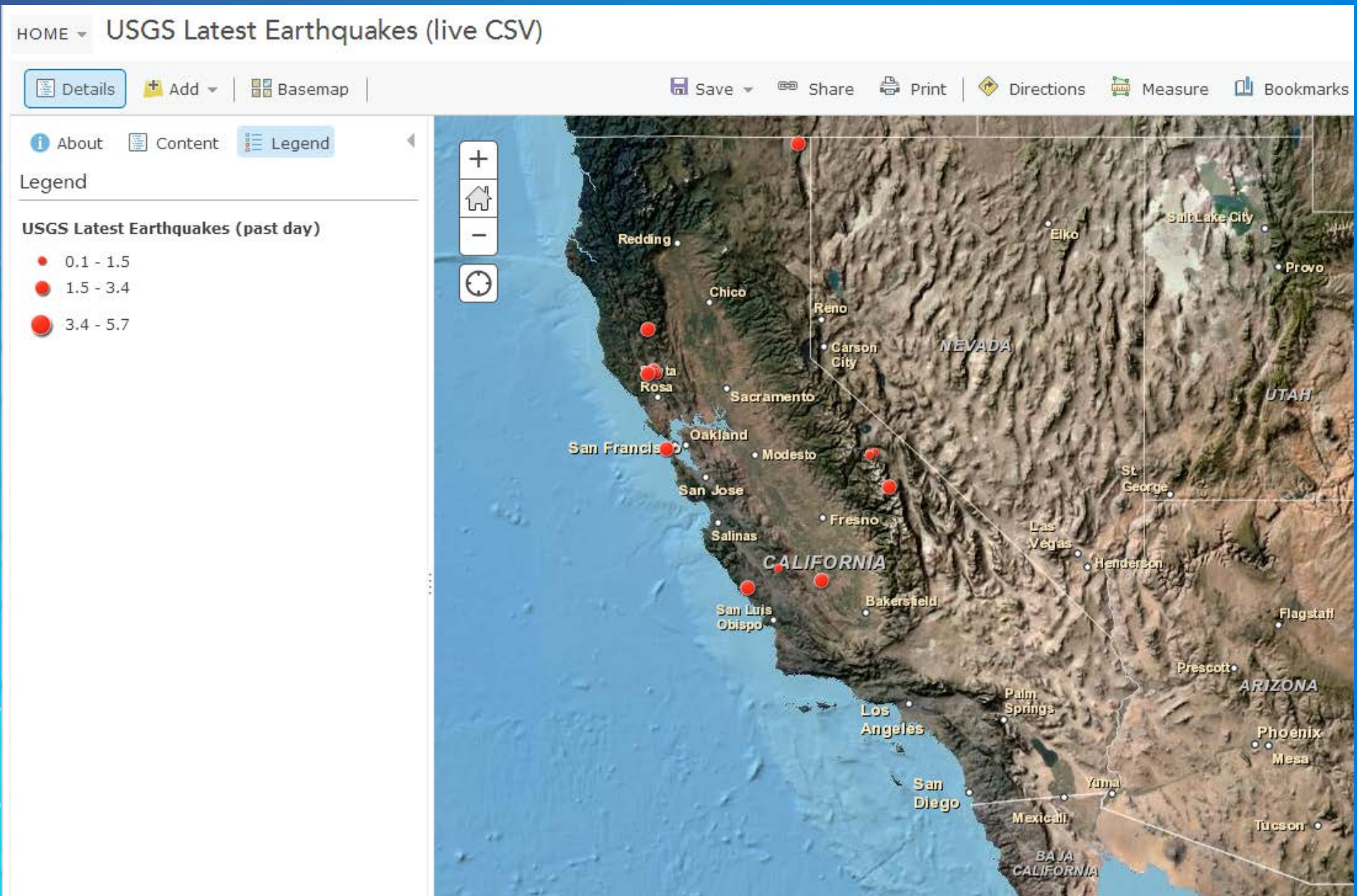
28 (82%) Impact crater / shelling

Making a Web Map

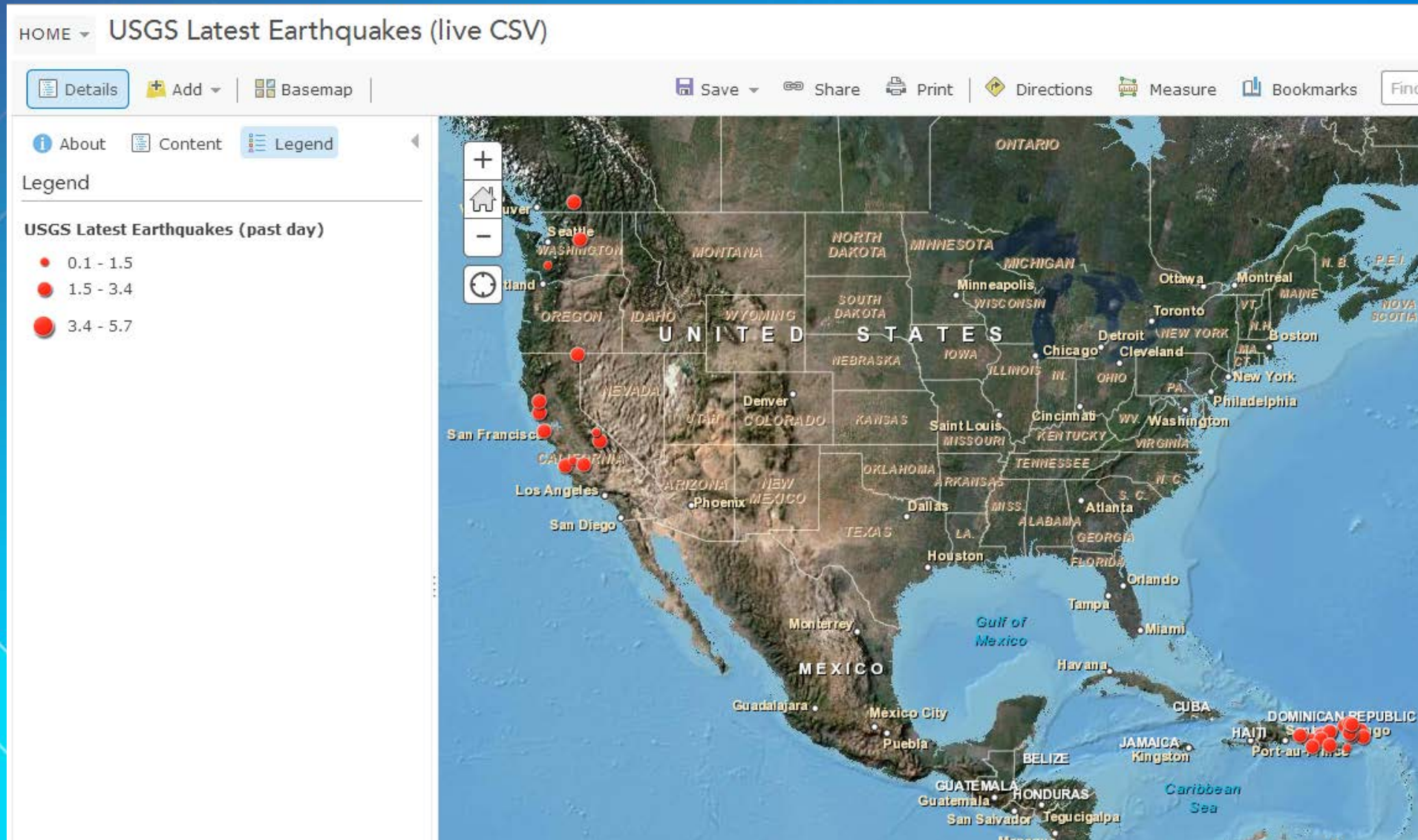
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<http://esrifederal.maps.arcgis.com/home/webmap/viewer.html?webmap=41cebase498f429d9a6bbb53f4dba469>



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 Map Meaningful

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The text of your report or findings are the starting point

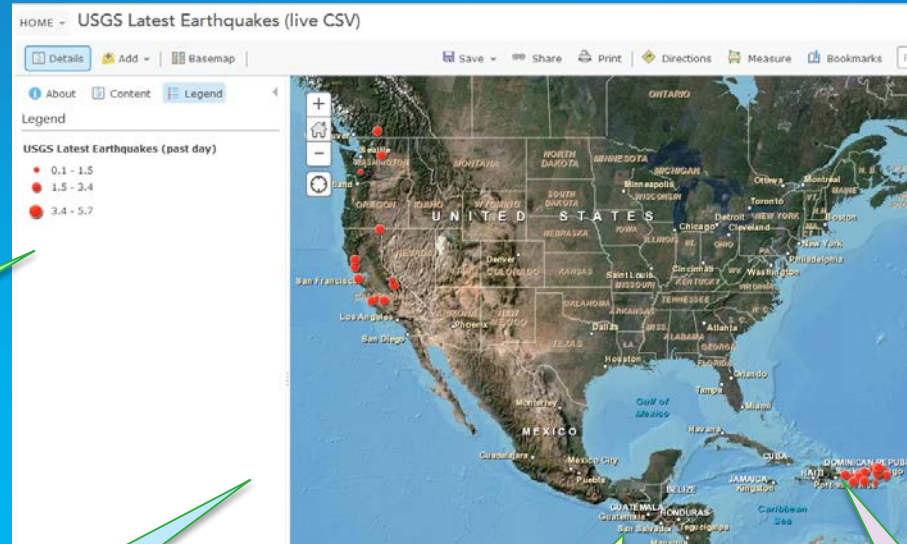
Why?

- 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

Text or map—some things to consider



Useful Map

Complex Task

**Highly Creative
Mental Activity**

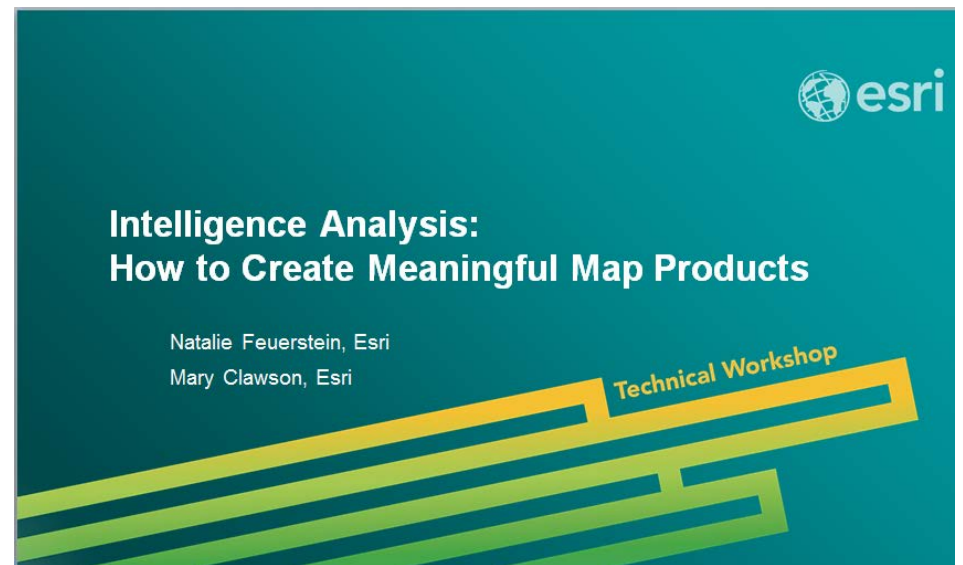
**Use Concepts of
Communication**

Think in Visual Terms

Share your map

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	A	B	C	D	E	F	G	H	I	J
1	Latitude	Longitude	Number	Title	Short_Des	Desc1	Source			
2	36.16715	50.43327	1	Behjataba Uranium E	In Septeml	Open Nuclear Iran				
3	34.88631	50.9989	2	Fordow Fu Uranium E	The Fordo	Open Nuclear Iran, ISIS nuclear Iran				
4	27.08379	55.93995	3	Gchine Uri Uranium N	Mining act	Open Nuclear Iran, ISIS nuclear Iran				
5	32.57969	51.82929	4	Isfahan Ur Uranium C	Uranium C	Open Nuclear Iran, Telegraph.co.uk				
6	35.93913	50.66074	5	Lashkar Al Laser Urar	Iran first a	Open Nuclear Iran, Operation World				
7	33.72453	51.72599	6	Natanz Fu Uranium E	In August 2	Open Nuclear Iran, Global Post				
8	32.51823	55.58017	7	Saghand U Uranium N	In Februar	Open Nuclear Iran				
9	32.82855	50.9586	8	Velayat 1 Uranium E	On Octobe	Open Nuclear Iran, Operation World				



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.

Effective Cartographic Communication: Presentation and Style (2)

- ✓ **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.

Questions?



Understanding our world.