



NORAD supported project in MRRD covering
Capacity Building and Institutional Cooperation in the
field of Hydrogeology for Faryab Province
Afghanistan

GIS Course 4.4 Introduction to Online Maps

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PURPOSE OF THIS COURSE

The main purpose of this course is to:

- a) Introduce course participants to online GIS maps using the ArcGIS Online utility.
- b) Demonstrate the use of ArcGIS Online in making hydrogeological maps of Faryab province.



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KEY REFERENCES

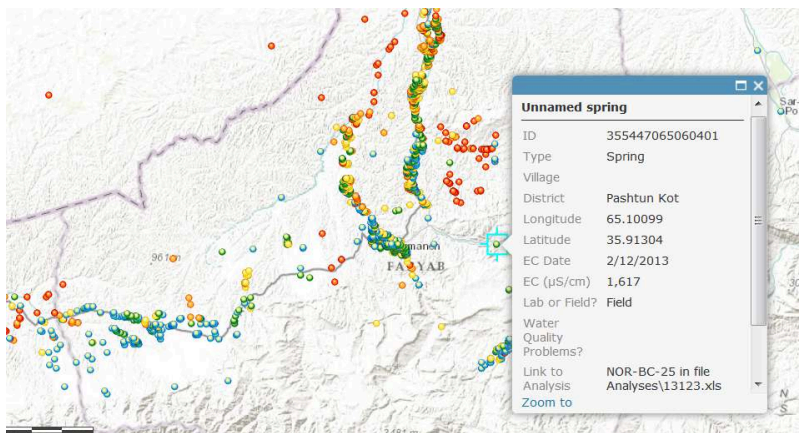
ESRI ArcGIS Online: <https://www.arcgis.com/features/>

ESRI Get Started with ArcGIS Online tutorial:
<http://learn.arcgis.com/en/projects/get-started-with-arcgis-online/>



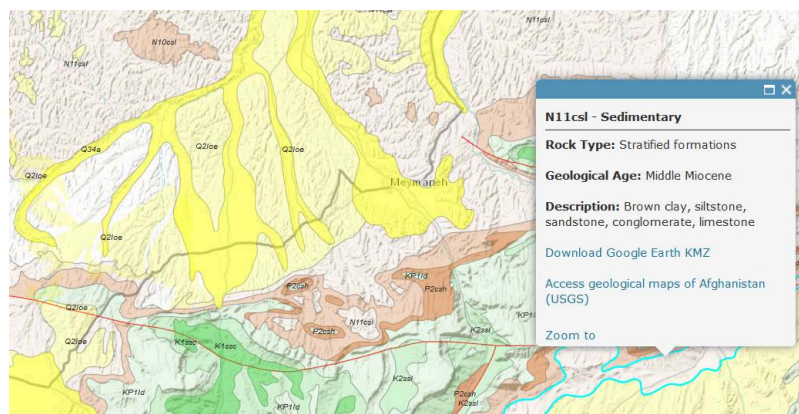
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EXAMPLE OUTPUT BY END OF COURSE



EC map of Faryab

EXAMPLE OUTPUT BY END OF COURSE



Geology map of Faryab

What you will need for this course



Tentative Course Schedule

Day	Date	Activity
1	Tuesday 16/09/2014	Opening & Introduction
		Presentation: Introduction to Online GIS Maps
		Practical 1: Get Started with ArcGIS Online
2	Wednesday 17/09/2014	Practical 2: Make your own online map of hydrogeological features in Faryab Province.
		Workshop: Discussion on the impact and use of online GIS maps in Afghanistan.
		Presentation of certificates



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GIS Course 4.4 – Introduction to Online Maps

- 1. What is ArcGIS Online?
- 2. ArcGIS Online features
- 3. ArcGIS Online Tutorial



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PART 1 – What is ArcGIS Online?

- 1. ArcGIS Online is a simple, cloud-based utility for producing, editing, and sharing geospatial data.
- 2. ArcGIS Online is a Web-based mapping solution for everyone from GIS professionals to those with no formal GIS training.



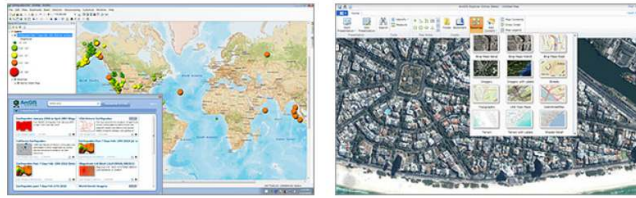
Source: <http://www.esri.com/software/arcgis/arcgisweb>



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With ArcGIS Online you can:

1. Upload and manipulate data
2. Map points, lines, and polygons
3. Create point and other thematic maps
4. Embed maps in web sites
5. Share maps and map layers in many ways
6. View maps on mobile devices



Source: <http://www.esri.com/software/arcgis/arcgiswebbase>

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What is ArcGIS Online?



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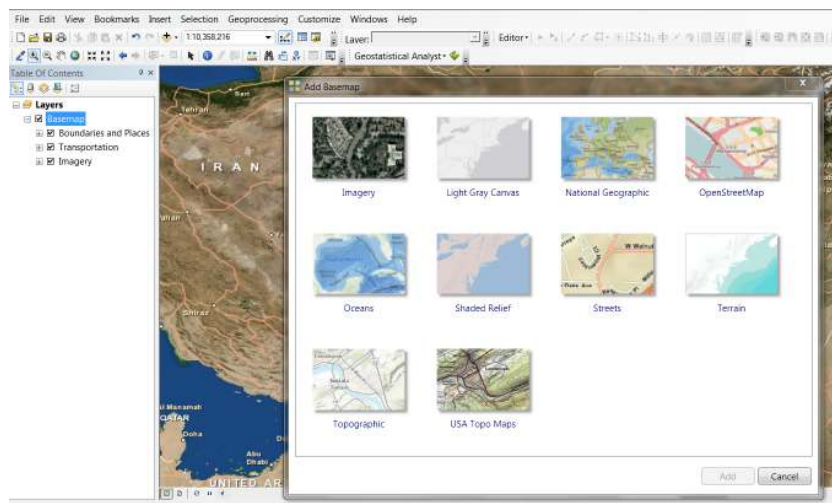
Access ArcGIS Online in ArcMap



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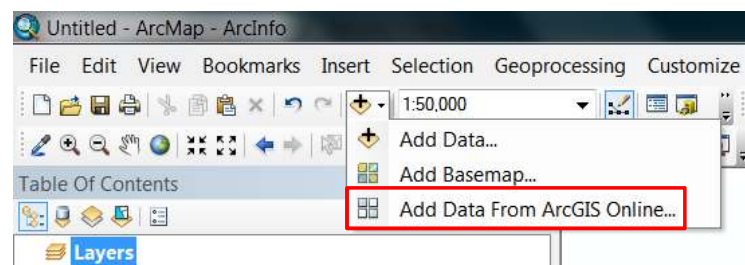
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Access ArcGIS Online in ArcMap



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Access ArcGIS Online in ArcMap



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Access ArcGIS Online in ArcMap

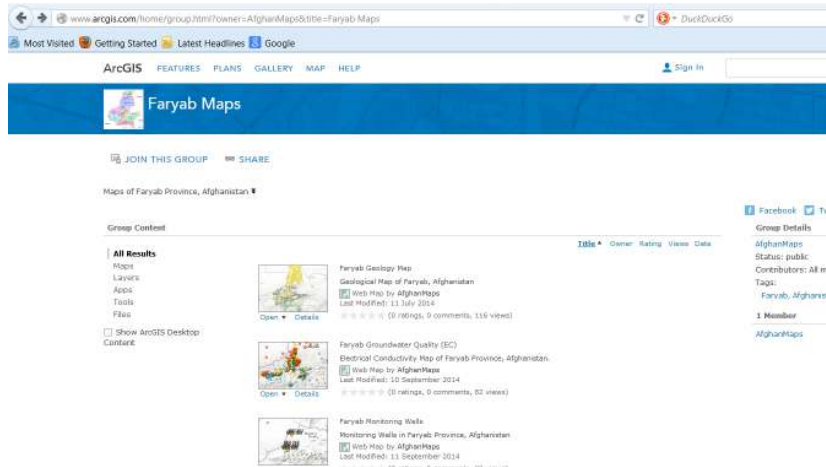


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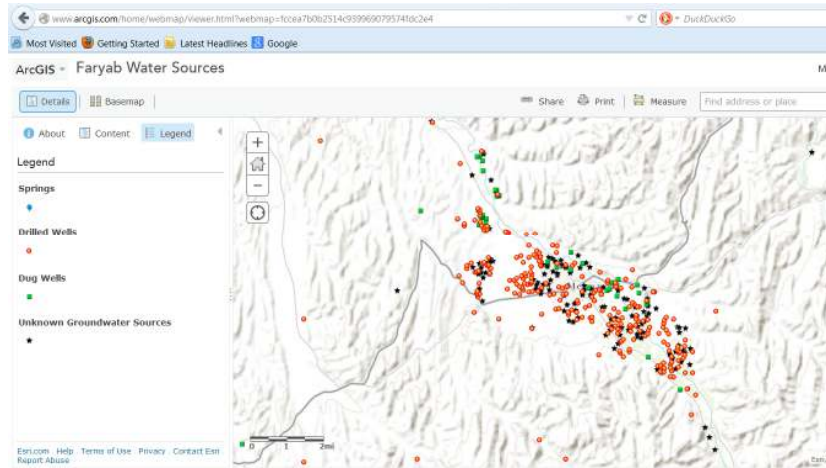
What is ArcGIS Online?



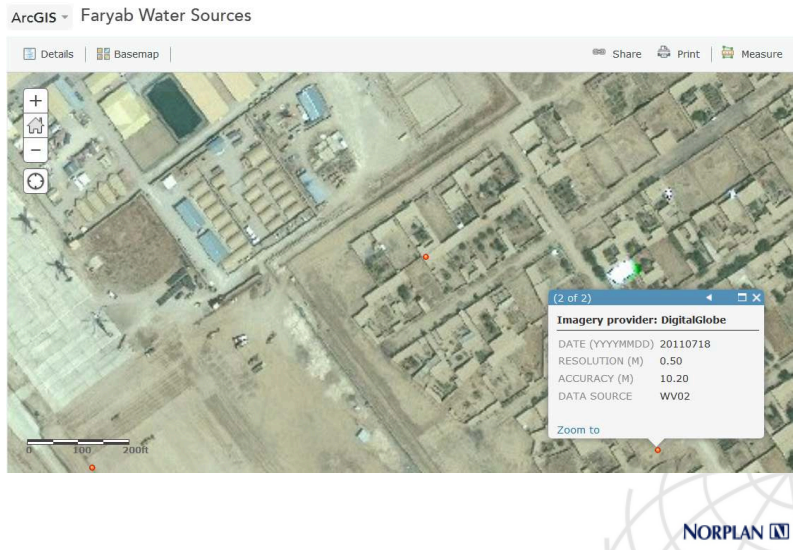
Access ArcGIS Online in your browser



Access ArcGIS Online in your browser



Access ArcGIS Online in your browser



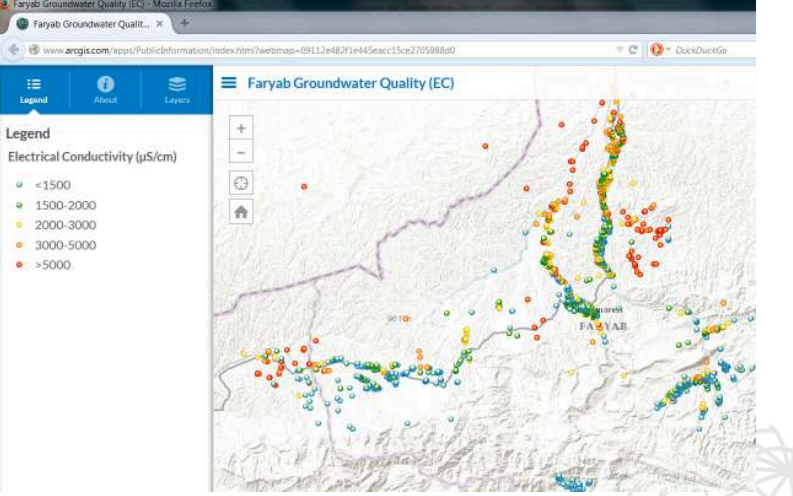
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Access ArcGIS Online via a web site



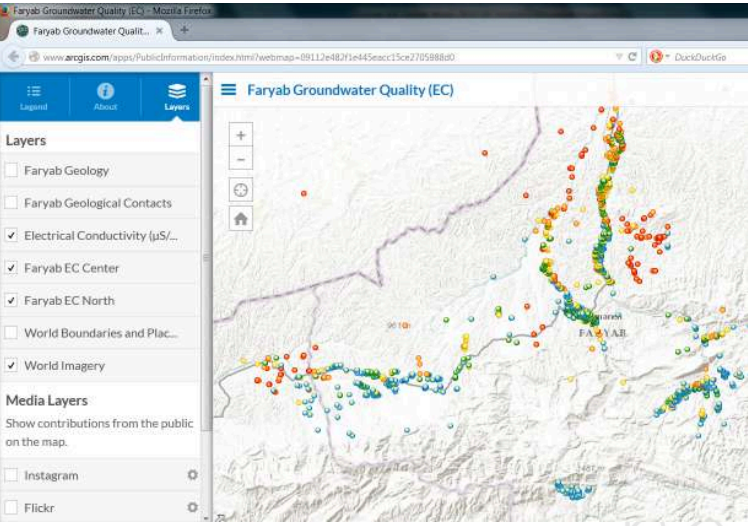
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Access ArcGIS Online via a web site



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Access ArcGIS Online via a web site



What is ArcGIS Online?



Access ArcGIS Online on your phone



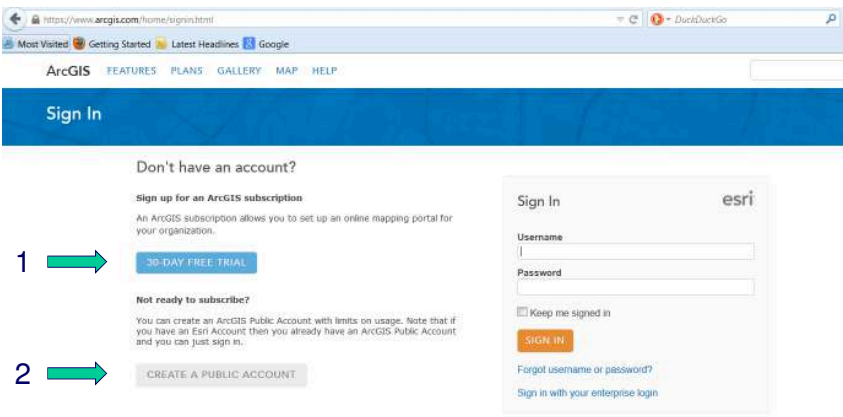
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ArcGIS Online Accounts



- 1. Subscription account (\$\$\$)
- 2. Public account



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ArcGIS Online accounts

	Subscription Account (Commercial and Non-Commercial Use)	Public Account (Non-Commercial Use Only)
Free Trial	Free Trial	Sign Up Free
More info	More info	More info
Access, share, and manage content	✓	✓
Add your own data to maps	✓	✓
Add Geometry Service to maps & apps	✓	✓
Store maps, apps, and data in Esri's cloud	✓	2 GB Limit
Create private groups	✓	
Make maps in Excel with Esri Maps for Office	✓	
Perform spatial analysis	✓	
Add World Geocoding to maps & apps	✓	
Add World Network Analysis to maps & apps	✓	
Access ArcGIS Portal and Web Mapping APIs	✓	
Publish hosted services in Esri's cloud	✓	
Manage user roles, access, and security	✓	
Monitor usage information	✓	
Add your organization's logo and banner to your ArcGIS Online homepage	✓	
Display your organization's maps on your ArcGIS Online homepage	✓	
Create a custom URL for your ArcGIS Online homepage	✓	
Includes Technical Support	✓	
Free Trial	Free Trial	Sign Up Free
More info	More info	More info

http://www.esri.com/products/arcgis-online/features/comparison-table



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ArcGIS Online accounts – annual costs

Subscription Plan	Users Included (up to)	Service Credits Included	Price
Level 1	5	2,500	\$2,500
Level 2	50	10,000	\$10,000
Level 3	100	17,500	\$17,500

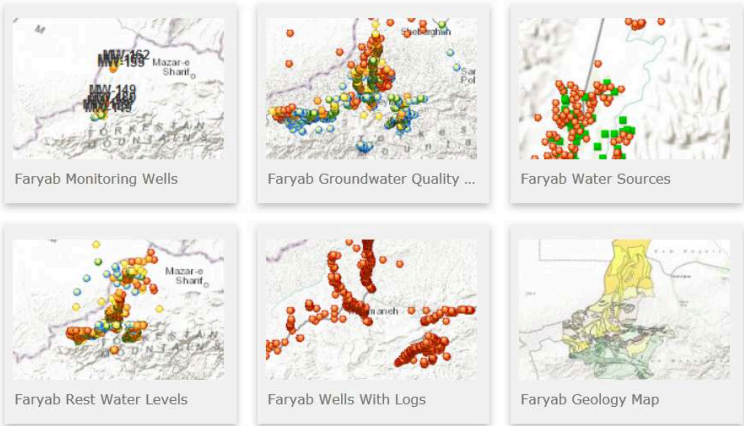
Service	
Map Tile Generation	1 credit per 1,000 tiles generated
Feature Services Storage	2.4 credits per 10 MB stored per month
Tile and Data Storage	1.2 credits per 1 GB stored per month
Geocoding	40 credits per 1,000 geocodes
Simple Routes	0.04 credits per simple route
Optimized Routes	0.5 credits per optimized route
Drive-Times (Service Areas)	0.5 credits per drive-time
Closest Facilities	0.5 credits per closest facilities route
Multi-Vehicle Routes (VRP)	1 credit per multi-vehicle route
Demographic and Lifestyle Maps	10 credits per 1,000 map requests
Data Enrichment	10 credits per 1,000 data variables (attributes)
Infographics	10 credits per 1,000 views
Reports	10 credits per report
Spatial Analysis	1 credit per 1,000 features

Source: <http://www.esri.com/software/arcgis/arcgisonline/credits>

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All online Faryab maps use a free Public Account



Find them in the **Faryab Maps** group



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ArcGIS Online data types



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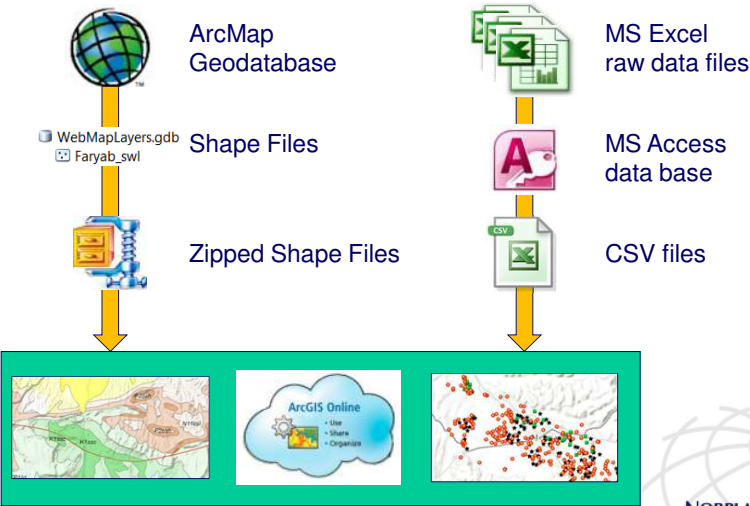
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Data limitations for free Public Accounts

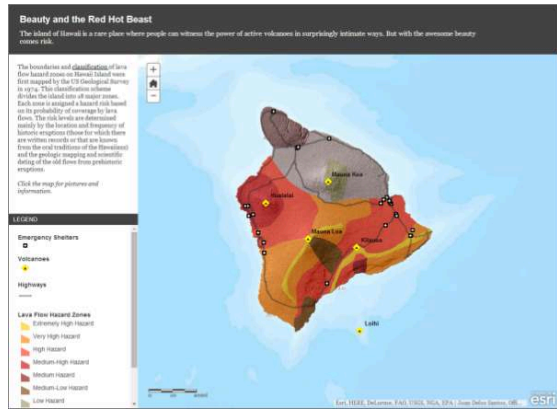
- 1. You can upload a maximum number of 1,000 data points using latitude and longitude coordinates. These must be in decimal degrees.
- 2. You cannot upload rasters. Connect to WMS instead.
- 3. Be careful with date fields. They should be in the yyyy-mm-dd format.
- 4. Shapefiles should be in a zipped archive and have an uncompressed size of <10MB, and contain <1000 features.
- 5. An online map should have <10,000 features in total.



Faryab Maps - Data Flow Paths



PART 3 – ArcGIS Online tutorial



<http://learn.arcgis.com/en/projects/get-started-with-arcgis-online/>

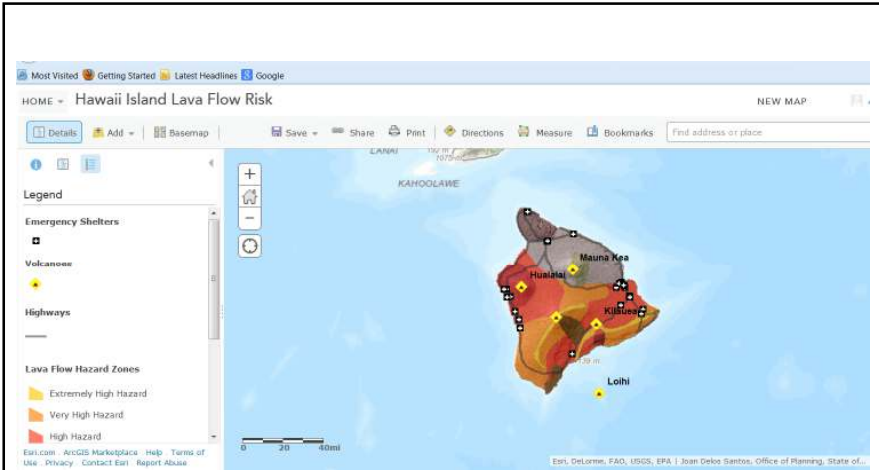
Tutorial overview

- 1. Explore a map (15 minutes)
- 2. Create a map (30 minutes)
- 3. Add a layer from a CSV file (30 minutes)
- 4. Configure pop-ups (45 minutes)
- 5. Make an app (30 minutes)

Total time required ~ 2 ½ hours

You will need to open an account at:
<http://learngis.maps.arcgis.com/home/index.html>





Good luck with the tutorial!



**Thank you
for your attention!**