Drilling through USGS Library Materials for GIS Nuggets

Emily C. Wild, Librarian (Physical Scientist)
ESRI Federal GIS, February 24-25, 2016, Washington, D.C.
USGS Geospatial Materials

- How long has the USGS been involved in GIS? Since about 1970
- Examples: Digital Line Graph (DLG) and Digital Elevation Model (DEM)
- Early datasets/reports: Pre-USGS, Spirit Leveling, DDS-01 (1991) NURE

Instruction/outreach: how to use USGS products & find bibliographic materials
1. GIS is used: To make report figures, for analysis, create maps, & datasets
2. Pre-USGS and USGS = 1867-present
3. National & International = 1500’s-present
4. Public Access to USGS Scientific Research

USGS Core Science Systems:
http://www.usgs.gov/core_science_systems/

National Programs
- Core Science Analytics, Synthesis, & Libraries
- Libraries
- Geological & Geophysical Data Preservation
- Geospatial
- Geologic Mapping
**USGS Geospatial Materials**

**Landsat 8, December 7, 2015 and January 24, 2016**

**Winter Storm of 2016, Washington, D.C.**

**Landsat 8, December 8, 2015 and January 1, 2016**

**New Year’s Flooding in the Midwest**

**USGS data/maps usable in Google Earth**

**D.C. Geologic Folios, MRDS, GQ-1748**

**Folios of the Geologic Atlas (1892-1945)**

**National Geologic Map Database**

**Mines & Minerals Database**

**USGS EarthNow!**
How is USGS Geospatial Data Used?

Paper Maps, ArcGIS, Google Earth, Geopdfs

• **Library Inquiries within the USGS**
  - Research of Science on Earth (Land, Ocean) and other Planets: Subjects = Biology, Geology, Geography, & Water

• **Library Inquiries from Federal Government**
  - Disasters: Explosions, Chemical Spills, Floods, Health
  - Scientific Research: Local, State, National, International
  - Legal: Disasters, Names, Land, Water, Oil, Gas, Minerals
  - USGS Data Referenced in Legislation & Legislative Hearings

• **Library Inquiries from Industry & Communities**
  - Land-Use Change: Hazards, Permitting, Zoning, Preservation
  - Legal: Names, Land, Water, Oil, Gas, Minerals, Disasters
  - To Understand the Science: Local, Regional, National, World
    Ex: *Induced Earthquakes*, *Toxic Substances*, *Produced Waters*
**USGS Library: Finding & Using Materials**

- **USGS Library Classification**: (1) Subjects, and (2) Geographic Area
- **Print Publications Indexes**: USGS, USBM, USAEC, States, Countries
  
  Ex: USGS B-222, USBM 1910-1960, Bibliography & Index of Colorado Geology, 1875 to 1975, USGS reports for Kingdom of Saudi Arabia

- **Online Library Catalogs**: Worldcat, USGS, Library of Congress
  
  [USGS Libraries on OCLC codes for ILL = GIS, GID, GIM, GIG, FZU]

- **USGS Library’s Public Access to Online Content**: Citation Indexes & Full Text: Ex. AAPG Datapages, GeoScienceWorld, Lyell

- **Library of Congress**: Classification, Subject Headings

- **Materials**: Journals, Field Guides, Guidebooks, CDs, Historical Photos (10% online) & Field Records, Restricted/Classified/OUO, Declassified

- **USGS staff publish in USGS series & Non-USGS series (Journals & Books)**

  Percentages of USGS authored publications that were published as USGS series:

  - 2014 = 38%
  - 2005 = 36%
  - 1995 = 63%
  - 1985 = 62%
  - 1975 = 77%
  - 1965 = 88%
  - 1955 = 86%
  - 1945 = 80%
  - 1935 = 55%
  - 1925 = 96%
  - 1915 = 98%
  - 1905 = 90%
  - 1895 = 79%
  - and, 1885 = 100%
USGS Geospatial Sources

- ScienceBase Catalog
- The National Map & Long-Term Archive
- The National Atlas, 1997-2014, 260 Datasets
- Emergency Operations Portal
- USGS-ESRI Historical Topographic Map Explorer
- National Geologic Map Database
- Publications Warehouse
- Geographic Names (GNIS) (History, Legislation)
- Mineral Resources (Ex. Mines & Minerals)
- National Oil & Gas; Worldwide Petroleum
- Wildlife Mortality (WHISPers)
- Active and Historical Wildfires (GeoMAC)

Site Specific Geospatial Sources for Disaster Events:

- * 2010 Deepwater Horizon
- * 2011 Japan = Earthquake; Fukushima Dai-ichi
- * 2011 M5.8 Virginia Earthquake
- * 2013 M2.1 Explosion – 1km NNE of West, Texas
- * 2015 Gold King Mine Release
- * 2015 Nepal Earthquake Posters: April & May
Thank You!
For more information: ASK USGS!
1-888-ASK-USGS or http://answers.usgs.gov/


Emily C. Wild, Librarian (Physical Scientist)
U.S. Geological Survey Library, Denver, Colorado
303-236-1003 or ecwild@usgs.gov
https://profile.usgs.gov/ecwild

Oblique aerial view of the eruption of May 18, 1980, which sent volcanic ash, steam, water, and debris to a height of 60,000 feet.

Geology of National Parks, 3D and Photographic Tours

USGS Online Lectures