Arches National Park

Geologic Resources Inventory

Interim GIS Data Explanation, October 18, 2021

Interim geologic-Geographic Information Systems (GIS) data related to Arches National Park is delivered in data package Zip (.zip) files. These data are a product of the NPS Geologic Resources Inventory (GRI) program, which is funded by the Inventory and Monitoring (I&M) Division and administered by the NPS Geologic Resources Division (GRD).

Interim geologic-GIS data for Arches National Park consist of a dedicated park map providing coverage most of the park, as well as some surrounding area. The interim map consists of mapping of the following 7.5' quadrangles: Big Bend, Gold Bar Canyon, Klondike Bluffs, Merrimac Butte, Moab, Molly Hogans, and The Windows Section. It is the goal of the Geologic Resources Inventory (GRI) to provide complete coverage of the park and surrounding area once the Utah Geological Survey (UGS), a partnering agency, completes mapping in and near the park. Presently, map coverage is missing for the park in the southwestern area of the Cisco SW 7.5' quadrangle. In addition to this area, the GRI plans to provide coverage of the nearby Rill Creek quadrangle as this provides additional map coverage just outside the park.

Data files for the map are named using the park four-letter code (ARCH) as a prefix. Presently, geologic-GIS data are provided in the following GRI-supported GIS data formats 1.) ESRI file geodatabase format. Data package Zip files containing the different GRI-supported GIS data formats are identified with following file suffixes: 1.) ESRI file geodatabase for use in ArcGIS Pro have a file suffix of "gdb_pro.zip", 2.) ESRI file geodatabase for use in ArcGIS ArcMap have a file suffix of "gdb.zip".

The ArcGIS Pro data package ZIP file has an ESRI file geodatabase and a Pro map (.mapx) file, as well as Pro layer (.lyrx) files. The ArcGIS ArcMap data package ZIP file has an ESRI file geodatabase, and a 10.1 map document (.mxd) file, as well as 10.1 layer (.lyr) files. Pro map (.mapx) files, ArcMap map document (.mxd) files present GRI geologic data layers and GIS tables complete with data layer and table naming, symbology and feature labeling for viewing and data analysis. The Pro layer (.lyrx) and ArcMap layer (.lyr) files are provided so data layers can be added to a new or existing Pro map (.mapx) file or ArcMap map document (.mxd) file, respectively, with their associated layer naming, symbology and labeling. All data package ZIP files also contain a FGDC-compliant metadata file (in .txt format).

In addition to a data package ZIP file, two additional files comprise a GRI digital geologic-GIS map: 1.) this file (arch_geology_gis_readme.pdf) and 2.) a user-friendly FAQ PDF version of the metadata (e.g., arch_metadata_faq.pdf).

For a GIS dataset, the GRI recommends extracting all map files from a data package to its own folder. This is particularly of importance for file geodatabase data packages as an associated Pro map file (.mapx) and related layer (.lyrx) files, or ArcMap map document (.mxd) and related ArcMap layers (.lyr) files, all have relative file paths set to their file geodatabase.

Detailed information concerning the source data used by the GRI is listed in the Source Citation sections(s) of the included map metadata record (e.g., arch_geology_metadata.txt). This information is also available in the FAQ version of the metadata (e.g., arch_geology_metadata_faq.pdf). Users are encouraged to acquire UGS source map publications for the quadrangle maps that comprise the interim GRI digital geologic-GIS data. As mentioned, source maps are listed in the metadata, as well as in the Source Map Information GIS table (archmap).

Users of this data are cautioned about the locational accuracy of features and should not assume that features are exactly where they portrayed in ArcGIS or other software used to display the data. Refer to the positional accuracy report and use constraints within a map metadata record for additional information concerning the positional accuracy of features in a GRI dataset.

For detailed information regarding GIS parameters such as data attribute field definitions, attribute field codes, value definitions, and rules that govern relationships found in the data, refer to the NPS Geology-GIS Data Model document, gri_gdb_ggdm_v2dot3.pdf (available at: https://www.nps.gov/articles/gri-geodatabase-model.htm).

GRI digital geologic-GIS data are available at the NPS Data Store Search Application: http://irma.nps.gov/App/Reference/Search. To find GRI data for a specific park or parks select the appropriate park(s), enter "GRI" as a Search Text term, and then select the Search Button.

For a complete listing of Geologic Resources Inventory products and direct links to the download site, visit the GRI products webpage: http://go.nps.gov/gri_products.

For more information about the Geologic Resources Inventory Program visit the GRI webpage: https://www.nps.gov/subjects/geology/gri.htm. At the bottom of that webpage is a "Contact Us" link if you need additional information. You may also directly contact the program coordinator:

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To provide feedback or to inquire about the use of GRI products, contact Jason Kenworthy (contact information listed above).

For information about using and/or obtaining GRI digital geologic-GIS data, contact:

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