



Cape Hatteras National Seashore

Geologic Resources Inventory

GIS Data Explanation, May 26, 2015

Geologic-Geographic Information Systems (GIS) data related to Cape Hatteras National Seashore is delivered in WinZip (zip) archive files. These data are a product of the Geologic Resources Inventory (GRI), a component of the National Park Service (NPS) Inventory and Monitoring (I&M) program, administered by the NPS Geologic Resources Division (GRD).

Geologic-GIS data for Cape Hatteras National Seashore consist of a dedicated geomorphic map providing complete coverage of the park and surrounding area, as well as individual component maps. Data files for the dedicated geomorphic park map are named using the park four letter code (CAHA) as a prefix. Component geomorphic maps are identified by the following prefixes: AVON - Avon area, BDIE - Bodie Island Area, BXTN - Buxton Area, OCCK - Ocracoke Area, PEAI - Pea Island and RDTH - Rodanthe Area. In addition to the maps previously listed detailed (1:10,000 scale) geomorphic maps of certain areas of the park, as well as a compiled version of these areas, also exist for the park. The compiled detailed site geomorphic map uses CAHG as a prefix, whereas the detailed geomorphic component maps have the following prefixes: BXTI - Buxton Inlet Area, GSQH - Great Swash to Quork Hammock Area, HVFR Hatteras Village to Frisco Area, KHWH - Kitty Hawk to Whalebone Junction Area, LIKK - Little Kinnakeet Area, NWIR - New Inlet to Rodanthe Area, OCIS - Ocracoke Village to The Plains Area, SNAI - South Salvo to No Ache Island Area and SNOI - South Nags Head to Oregon Inlet Area.

Geologic-GIS data are provided in ESRI 9.1 personal geodatabase (.mdb) and 9.1 shapefile (.shp) formats. WinZip files containing a geodatabase are identified with a "GDB.zip" suffix, whereas those containing shapefile data have a "SHP.zip" suffix. In addition to the GIS data, each WinZip file also contains the following files: 9.1 layer (.lyr) files complete with data layer symbology, FGDC-compliant metadata (.txt), a GRI ancillary map information (.pdf) document that contains geologic unit descriptions, as well as the associated source map geomorphology reports, and this file. The two compiled park Geodatabase WinZip files (CAHA and CAHG GRI maps) also include an ESRI 9.1 ArcGIS map document (.mxd) file that presents all of the GIS components of a GRI digital map in a user-friendly format for viewing and data analysis. The shapefile WinZip files contain individual shapefile metadata (.shp.xml and .dbf.xml) files for quick reference in ESRI ArcCatalog.

The GRI recommends extracting all map files for a particular GRI map to a single directory folder. The provided ArcGIS map document (.mxd) file and layer (.lyr) files use relative paths to access GIS data files that are located in the same folder. When adding GRI GIS data to a new or existing ArcGIS map document (.mxd) file, users should add layer (.lyr) files (e.g., cahaglg_gdb.lyr) in order to ensure that the GIS data will be displayed with the appropriate title, symbology and labels ("_gdb" appended to a layer file name denotes a layer file to geodatabase GIS data, whereas "_shp" denotes a layer file to shapefile GIS data).

Both ArcGIS map documents (.mxd) have an added button, *Launch GRI Map Help*, which will open the map's related GRI help map document (.pdf) file directly from ArcMap. The button is found adjacent to the "Add Data button" on the Main Menu toolbar. To ensure the file opens correctly it must also be located in the same directory folder as the ArcGIS map document (.mxd) files.

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., caha_gremap.txt). Information concerning source data is also in the Source Map Information GIS table (cahamap), and repeated in the GRI help map document (.pdf) file.

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,

gre_gdb_ggdm_v1dot4.pdf (available at:
<http://science.nature.nps.gov/im/inventory/geology/GeologyGISDataModel.cfm>).

Digital geologic-GIS data in these WinZip files, as well as other GRI digital geologic-GIS datasets prepared as products of the GRI program are available to download from 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 publications webpage: http://go.nps.gov/gri_products.

For more information about the Geologic Resources Inventory Program, visit the GRI webpage:
<http://www.nature.nps.gov/geology/inventory>, or contact:

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