

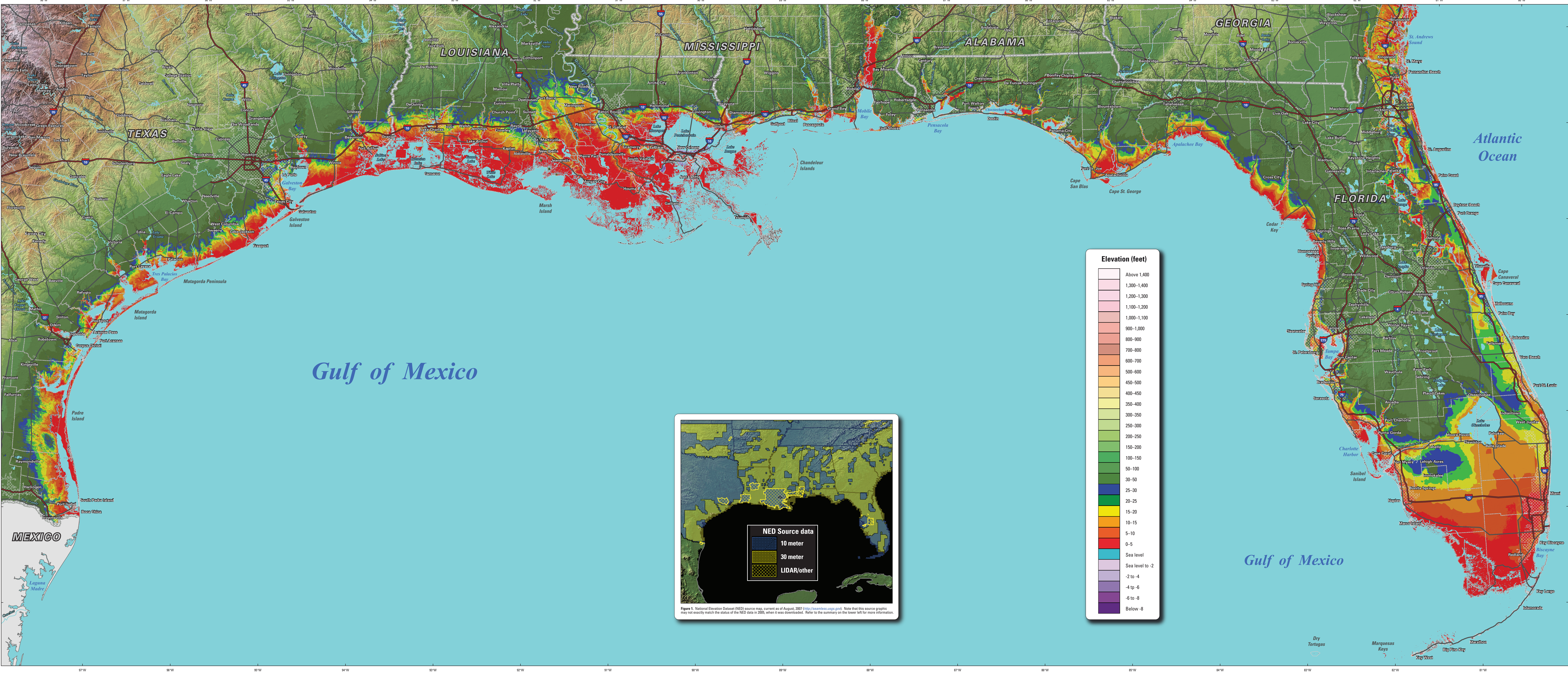
Gulf of Mexico Region—Highlighting Low-Lying Areas Derived from USGS Digital Elevation Data

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2008

Scientific Investigations Map 3048

Version 1.0



Gulf of Mexico

Gulf of Mexico

Scale: 1:1,500,000. Map compiled by J.J. Kosovich in May 2008.

U.S. Department of the Interior
U.S. Geological Survey

Summary

In support of U.S. Geological Survey (USGS) disaster preparedness efforts, this map depicts a color shaded relief representation of the area surrounding the Gulf of Mexico. The first 30 feet of relief above mean sea level are displayed as brightly colored 5-foot elevation bands, which highlight low-elevation areas at a coarse spatial resolution. Standard USGS National Elevation Dataset (NED) 1 arc-second (nominally 30-meter) digital elevation model (DEM) data are the basis for the map, which is designed to be used *at a broad scale and for informational purposes only*.

The NED data were derived from the original 1:24,000-scale USGS topographic map bare-earth contours, which were converted into gridded quadrangle-based DEM tiles at a constant post spacing (grid cell size) of either 30 meters (data before the mid-1990s) or 10 meters (mid-1990s and later data). These individual-quadrangle DEMs were then converted to spherical coordinates (latitude/longitude decimal degrees) and edge-matched to ensure seamlessness. Approximately one-half of the area shown on this map has DEM source data at a 30-meter resolution, with the remaining half consisting of 10-meter contour-derived DEM data or higher-resolution Light Detection and Ranging (LIDAR) data (see figure 1).

Areas below sea level typically are surrounded by levees or some other type of flood-control structures. State and county boundary, hydrography, city, and road layers were modified from USGS National Atlas data downloaded in 2003. The NED data were downloaded in 2005.

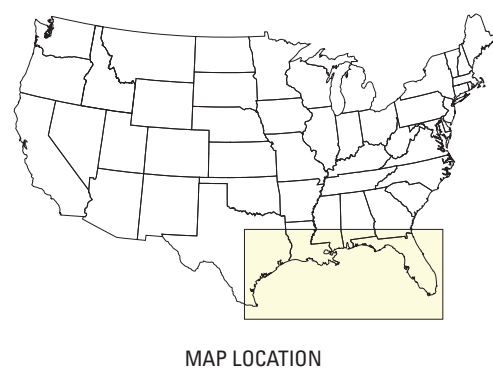
Data Sources

National Elevation Dataset (NED), 2005, USGS National Elevation Dataset: U.S. Geological Survey, <http://seamless.usgs.gov/>. (Last accessed Sept. 4, 2008).

The USGS National Atlas of the United States of America, 2003, National Atlas of the United States of America: U.S. Department of the Interior, <http://nationalatlas.gov/>. (Last accessed Sept. 5, 2008).

Explanation

- Limited access highway
- Other highway
- State boundary
- County or parish boundary
- City or urban area
- River
- Water body



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