AEROMAGNETIC ANOMALY MAP OF BANGLADESH

Digitally compiled by F.M.Persits, C.J.Wandrey, (USGS), and Abdullah Manwar, (Director General, Geological Survey of Bangladesh) 2001

Scale 1:1,000,000

U.S. DEPARTMENT OF THE INTERIOR

U.S. GEOLOGICAL SURVEY

Aeromagnetic Anomaly Map by M.A. Rahman, (Geological Survey of Bangladesh), H. R. Blank, M.D. Kleinkopf, and R. P.Kucks, (United States Geological Survey) OPEN FILE REPORT 97- 470H

This map is preliminary and has not been reviewed for conformity with U.S. Geological Survey editorial standards or with the International Stratigraphic Code.

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Original aeromagnetic anomaly map by M. A. Rahman (Geological Survey of Bangladesh), H, R. Blank, M. D. Kleinkopf, and R. P. Kucks, (United States Geological Survey) 1990

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Projection Lambert Conformal Conic Spheroid Everest 1969 Central Meridian 87 E First standard parallel 22 N Second standard parallel 25 N

ABOUT THIS MAP

This map was compiled as part of the Bangladesh gas resources assessment conducted under the Participating Agency Service Agreement (PASA) signed between U.S. Agency of International Development (USAID) and the U.S. Department of Energy (DOE) - PASA No: 388-P-00-99-00026.

The PASA provides for assistance to the natural gas sector pursuant to which the resources assessment was jointly carried out. PASA also encourages transfer of new technology, modeling practices and geoscience theory from existing and established programs in the United States to the Government of Bangladesh, Petrobangla, and Bangladesh academia.

This map has been compiled from the Aeromagnetic Anomaly Map of Bangladesh, by M.A. Rahman, (Geological Survey of Bangladesh), H. R. Blank, M.D. Kleinkopf, and R. P.Kucks, (United States Geological Survey), scale 1:1,000,000, published by Geological Survey of Bangladesh in 1990.

- 1. Original map was scanned on large format Ideal scanner in color mode with resolution 200 dpi.
- 2. The scanned image was transformed to Lambert Conformal projection by ArcInfo REGISTER and RECTIFY utilities.

- 3. Reference points for transformation were latitude-longitude crosses taken from paper map compared with the same crosses projected to Lambert in ArcInfo PROJECT utility. Overall RMS error of transformation was 250 m (0.25 mm on original paper map).
- 4. On-screen digitization was performed using color rectified image as a backdrop in ArcInfo ARCEDIT.
- 5. Magnetic values in nT were assigned to Ntesla item of Arc Attribute Table (AAT) of ArcInfo coverage.
- 6. Base map data layers rivers, lakes, cities were digitized as separated coverages.
- 7. All the ArcInfo coverages were converted into .E00 files, then imported to ArcView by IMPORT 71 utility and saved as shape files.

Country boundary coverage used on the map is the property of Environmental System Research Institute, Inc. (ESRI) and is used with permission.

Map explanation

Contours showing total-intensity anomaly.

Primary interval 10 nanotesla (nT).

International Geomagnetic Reverence Field (IGRF) removed.

450 to 600

600 to 750

750 to 850

850 to 1000

1000 to 1150

1150 to 1300

1300 to 1400

Country boundary (E S R I Arc World 1 to 3 million)

Rivers

Ocean and wide river

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