U.S. DEPARTMENT OF THE INTERIOR
U.S. GEOLOGICAL SURVEY

Prepared in cooperation with the
AFGHANISTAN GEOLOGICAL SURVEY and the
AFGHAN GEODESY AND CARTOGRAPHY HEAD OFFICE
under the auspices of the
U.S. AGENCY FOR INTERNATIONAL DEVELOPMENT

Topography, shaded relief, and earthtones derived from Shuttle Radar Topography Mission (SRTM) 90-meter digital elevation data, 2007.

For earthtone, darker-brown areas indicate higher relief, and green indicates areas of lower relief, respectively

Projection and 10,000-meter grid: Universal Transverse Mercator (UTM), zone 42 north
World Geodetic System 1984 (WGS 84)

Cultural data from digital files from Afghanistan Information Management Service (AIMS)

International boundary is approximately located. Other political boundaries may exist on this map but have not been added due to uncertainty of position at time of publication

Not all names of features have been placed on this map due to uncertainty of application and position at time of publication. Variant spellings of features may have been used.
Locations of features are approximate

Locations of mineral deposits and mining areas are approximate

Vegetation has not been mapped

KILOMETERS 1 0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20
MILES 1 0 1 2 3 4 5 6 7 8 9 10 11 12 13

SCALE 1:100 000

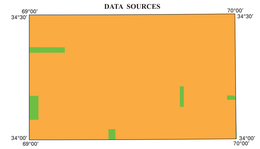
1 CENTIMETER ON THE MAP REPRESENTS 1 KILOMETER ON THE GROUND
CONTOUR INTERVAL 50 METERS

1 000 0 5 000 10 000 15 000 20 000 METERS
5 000 0 10 000 20 000 30 000 40 000 50 000 60 000 70 000 FEET

Limited field work done by R.G. Bohannon in the spring of 2004 and the fall of 2005.
Digital cartography by P.G. Braun and R.G. Bohannon, 2007
Additional GIS support by D. Paco VanSistine

Topography derived from Shuttle Radar Topography Mission (SRTM) 90-m digital elevation data (available at http://srtm.csi.cgiar.org/selection/inputcoord.asp). Gaps in the original dataset were filled by the National Aeronautics and Space Administration (NASA) Landsat imagery. Cultural features and hydrography were digitized from DigitalGlobe images pan-sharpened to better than 1-m resolution, and from 1-m natural-color orthorectified aerial photography. Contours were generated by cubic convolution averaged over four pixels using TNTmips surface-modeling capabilities (MicroImages, 2007). Minor artifacts from the auto-contouring technique might be present. Peak elevations were averaged over an area measuring 30 m by 30 m (represented by one pixel), and are slightly lower than the highest corresponding point on the ground. False-color DigitalGlobe images (QuickBird) with an average resolution of 2.5-m pixels, and overlapping orthorectified aerial photographs in natural color with an average resolution of 1 m, covered most of the quadrangle (see Data Sources, below). Stream paths, roads, and trails were digitized from those images. DigitalGlobe images were orthorectified to the SRTM Digital Elevation Model (DEM) using rational polynomial coefficients provided with each image and geoid elevations acquired from the University NavStar Consortium (UNAVCO) in 2007 at http://jules.unavco.org.
Stream paths are shown with a solid line where water was apparent on the image and are shown with a dashed and dotted line if no water was visible. Not all visible roads and trails were digitized and no attempt was made to extrapolate roads and trails that were visible in the high-resolution images into areas covered only by low-resolution images if they were not apparent there. Names of small settlements are from data downloaded from the Afghanistan Information Management Service (AIMS, 2008) web site at *http://www.aims.org.af*. The AIMS files were derived from maps originally produced by the Afghan Geodesy and Cartography Head Office (AGCHO). Most settlements required slight relocation from the original AIMS file to correspond with the imagery.

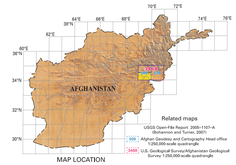
DATA SOURCES



Data sources: DigitalGlobe 2.5-m coverage, orange fill; Landsat 14.28-m coverage, green fill.

TOPOGRAPHIC MAP SYMBOLS

- Primary highway, hard surface
- Secondary highway, hard surface
- Primary highway, dirt or gravel surface
- City street, mostly paved
- Light duty road, unimproved
- Minor road, track, or trail, unimproved
- Bridge
- UTM gridlines
- Contours: index, intermediate
- Stream: perennial, intermittent
- Lakes and reservoirs: perennial, intermittent
- Settlements, small — Sahak
- Spot elevation — 2718
- Built-up area
- Mineral deposits — Copper
- Mining areas



MAP LOCATION

Related maps

USGS Open-File Report 2008–1303–A
(Bohannon and Turner, 2007)
500 Afghan Geodesy and Cartography Head office 1:250,000-scale quadrangle
5400 U.S. Geological Survey/Afghanistan Geological Survey 1:250,000-scale quadrangle

CONVERSION TABLE

Meters	Feet
1	3.208
2	6.5617
3	9.8425
4	13.1234
5	16.4042
6	19.6850
7	22.9659
8	26.2467
9	29.5276
10	32.8084

To convert meters to feet multiply by 3.2808

To convert feet to meters multiply by 0.3048

DECLINATION DIAGRAM

MN
GN
2°30'
44.02 MILS

UTM grid convergence is -0.2° (0.3 MILS)
2010 magnetic declination
(MN) at center of map
Changing by 0°2' east per year
Diagram is approximate

ADJOINING MAPS

1	2	3
4		5
6	7	8

1 Chaleo-Ab-ye-dak North
2 Kabul North
3 Zalak-Abad North
4 Chaleo-Ab-ye-dak South
5 Zalak-Abad South
6 Ghazni North
7 Gardez North
8 Jaji-maydan North

Publishing support provided by:
Denver Publishing Service Center
Manuscript approved for publication Sept. 29, 2010

For more information concerning this publication, contact:
Center Director, USGS Geology and Environmental Change Science Center
Box 25046, Mail Stop 980
Denver, CO 80225
(303)236-5344

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Suggested citation:
Bohannon, R.G., 2010, Geologic and topographic maps of the Kabul South 30′ × 60′ quadrangle, Afghanistan: U.S. Geological Survey Scientific Investigations Map 3137, 34 p. pamphlet, 2 map sheets, scale 1 : 100,000.

TOPOGRAPHIC MAP OF THE KABUL SOUTH 30′ × 60′ QUADRANGLE, AFGHANISTAN

By
Robert G. Bohannon
2010