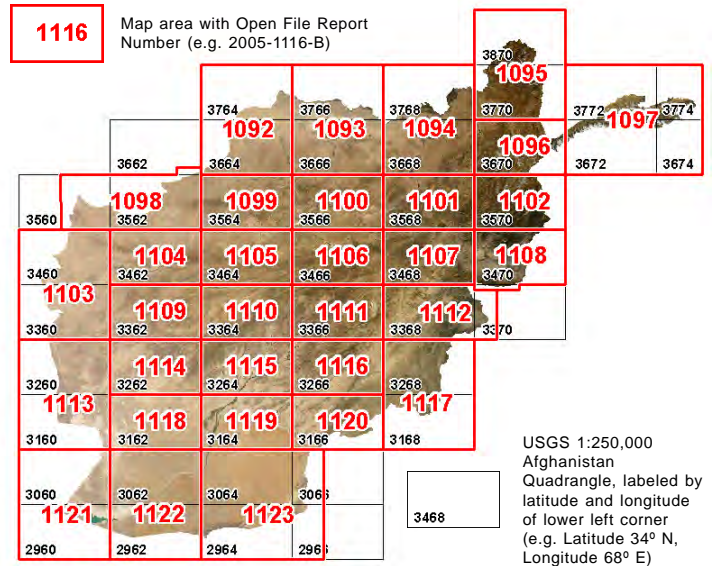


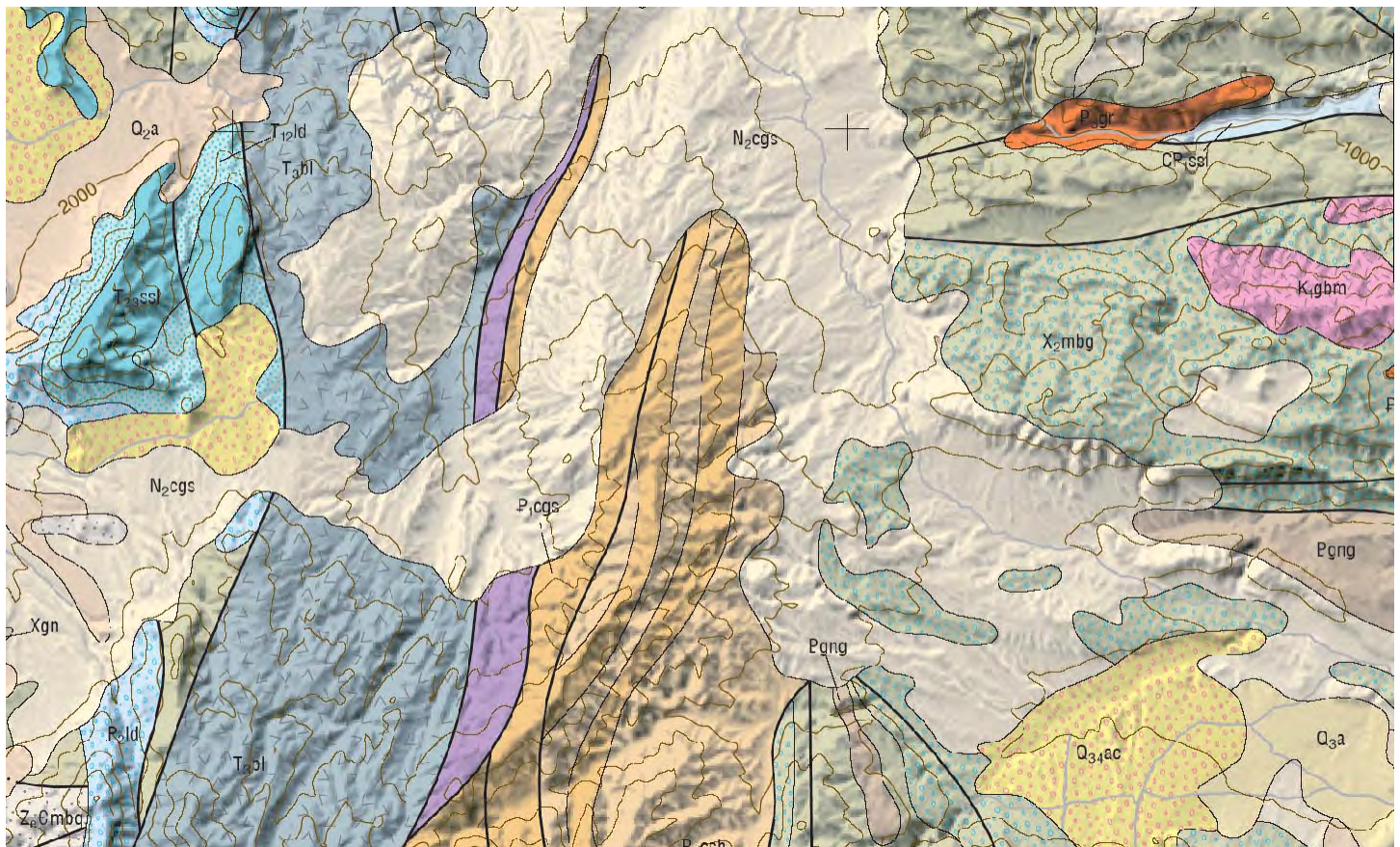
USGS Afghanistan Geologic Maps

The U.S. Geological Survey (USGS) has used TNTmips to prepare a series of 32 geologic maps of Afghanistan at a scale of 1:250,000, in cooperation with the Afghan Geological Survey and Afghanistan Geodesy and Cartography Head Office. These maps provide complete coverage of the country and are published electronically in the USGS Open File Report series as PDF map files that can be printed to scale. Each map covers a quadrangle 1° latitude by 2° longitude in size, or portions of several quadrangles along the border of the country. The complete map references are listed on the reverse side of this page along with a download link, and the index map to the right shows the map areas with report numbers. A companion series of topographic maps has also been published (see the Technical Guide entitled *USGS Afghanistan Topographic Maps*).

The map compilers at the USGS used the Surface Modeling process in TNTmips to generate topographic contours for the maps from Shuttle Radar Topography Mission (SRTM) 85-m digital elevation data. The contours and geologic boundaries are overlaid on a shaded-relief image also derived from the SRTM elevation data in the TNT Slope, Aspect, Shading process (now the Topographic Properties process). For this first series of digital geologic maps, geologic boundaries and faults



were digitized from scanned paper geologic maps in the Spatial Editor without any update or revision, then the geologic unit polygons were attributed and styled. A second series of geologic maps is planned in which the geology will be reinterpreted on the basis of satellite imagery and limited field work. (over)



Portion of *Geologic Map of Quadrangle 3468, Chak Wardak-Syahgerd (509) and Kabul (510) Quadrangles, Afghanistan*, U.S. Geological Survey Open File Report 2005-1107-A, compiled by Robert G. Bohannon and Kenzie J. Turner. Extract shown at native scale of 1:250,000.

All of the 32 Afghanistan geologic maps listed below are available for free download as PDF files from: <http://pubs.usgs.gov/of/2005>. See the index map on the reverse side of this page for locations.

Geologic Map of Quadrangles 3764 and 3664, Jalajin (117), Kham-Ab (118), Char Shangho (123), and Sheberghan (124) Quadrangles, Afghanistan. U.S. Geological Survey Open File Report 2005-1092-A, compiled by Ronald R. Wahl.

Geologic Map of Quadrangles 3666 and 3766, Balkh (219), Mazar-I-Sharif (220), Qarqin (213), and Hazara Toghay (214) Quadrangles, Afghanistan. U.S. Geological Survey Open File Report 2005-1093-A, compiled by Ronald R. Wahl.

Geologic Map of Quadrangles 3768 and 3668, Imam-Saheb (215), Rustaq (216), Baghlan (221), and Taloqan (222) Quadrangles, Afghanistan. U.S. Geological Survey Open File Report 2005-1094-A, compiled by Chris J. Fridrich, Charles R. Lindsay, and Lawrence W. Snee.

Geologic Map of Quadrangles 3870 and 3770, Maymayk (211), Jamarj-I-Bala (212), Faydz-Abad (217), and Parkhaw (218) Quadrangles, Afghanistan. U.S. Geological Survey Open File Report 2005-1095-A, compiled by Robert G. Bohannon and Douglas B. Stoesser.

Geologic Map of Quadrangle 3670, Jarm-Keshem (223) and Zebak (224) Quadrangles, Afghanistan. U.S. Geological Survey Open File Report 2005-1096-A, compiled by Douglas B. Stoesser.

Geologic Map of Quadrangles 3772, 3774, 3672, and 3674, Gaz-Khan (313), Sarhad (314), Kol-I-Chaqmaqin (315), Khandud (319), Deh-Ghulaman (320), and Ertfah (321) Quadrangles, Afghanistan. U.S. Geological Survey Open File Report 2005-1097-A, compiled by Charles R. Lindsay.

Geologic Map of Quadrangles 3560, 3562, and 3662, Sir Band (402), Khawja-Jir (403), Bala-Murghab (404), and Darah-I-Shor-I-Karamandi (122) Quadrangles, Afghanistan. U.S. Geological Survey Open File Report 2005-1098-A, compiled by Kevin C. McKinney and David J. Lidke.

Geologic Map of Quadrangle 3564, Chahriaq (Joand) (405) and Gurziwan (406) Quadrangles, Afghanistan. U.S. Geological Survey Open File Report 2005-1099-A, compiled by Kevin C. McKinney and David A. Sawyer.

Geologic Map of Quadrangle 3566, Sang-Charak (501) and Sayghan-O-Kamard (502) Quadrangles, Afghanistan. U.S. Geological Survey Open File Report 2005-1100-A, compiled by Kenzie J. Turner.

Geologic Map of Quadrangle 3568, Polekhomri (503) and Charikar (504) Quadrangles, Afghanistan. U.S. Geological Survey Open File Report 2005-1101-A, compiled by Charles R. Lindsay, Lawrence W. Snee, Robert G. Bohannon, Ronald R. Wahl, and David A. Sawyer.

Geologic Map of Quadrangle 3570, Tagab-E-Munjan (505) and Asmar-Kamdes (506) Quadrangles, Afghanistan. U.S. Geological Survey Open File Report 2005-1102-A, compiled by Charles R. Lindsay, Lawrence W. Snee, Robert G. Bohannon, Ronald R. Wahl, and David A. Sawyer.

Geologic Map of Quadrangles 3460 and 3360, Kol-I-Namaksar (407), Ghuryan (408), Kawir-I-Naizar (413), and Kohe-Mahmudo-Esmailjan (414) Quadrangles, Afghanistan. U.S. Geological Survey Open File Report 2005-1103-A, compiled by Van S. Williams.

Geologic Map of Quadrangle 3462, Herat (409) and Chesht-Sharif (410) Quadrangles, Afghanistan. U.S. Geological Survey Open File Report 2005-1104-A, compiled by Robert G. Bohannon and Charles R. Lindsay.

Geologic Map of Quadrangle 3464, Shahrak (411) and Kasi (412) Quadrangles, Afghanistan. U.S. Geological Survey Open File Report 2005-1105-A, compiled by Robert G. Bohannon and James Yount.

Geologic Map of Quadrangle 3466, Lal-Sarjantal (507) and Bamyán (508) Quadrangles, Afghanistan. U.S. Geological Survey Open File Report 2005-1106-A, compiled by James C. Yount.

Geologic Map of Quadrangle 3468, Chak Wardak-Syahgerd (509) and Kabul (510) Quadrangles, Afghanistan. U.S. Geological Survey Open File Report 2005-1107-A, compiled by Robert G. Bohannon and Kenzie J. Turner.

Geologic Map of Quadrangle 3470 and the Northern Edge of Quadrangle 3370, Jalal-Abad (511), Chaghasaray (512), and Northernmost Jaji-Maydan (517) Quadrangles, Afghanistan. U.S. Geological Survey Open File Report 2005-1108-A, compiled by Robert G. Bohannon and Kenzie J. Turner.

Geologic Map of Quadrangle 3362, Shin-Dand (415) and Tulak (416) Quadrangles, Afghanistan. U.S. Geological Survey Open File Report 2005-1109-A, compiled by Robert G. Bohannon and Charles R. Lindsay.

Geologic Map of Quadrangle 3364, Pasa-Band (417) and Kejran (418) Quadrangles, Afghanistan. U.S. Geological Survey Open File Report 2005-1110-A, compiled by Kevin C. McKinney, David A. Sawyer, and Kenzie J. Turner.

Geologic Map of Quadrangle 3366, Gizab (513) and Nawer (514) Quadrangles, Afghanistan. U.S. Geological Survey Open File Report 2005-1111-A, compiled by Robert G. Bohannon.

Geologic Map of Quadrangle 3368 and Part of Quadrangle 3370, Ghazni (515), Gardez (516), and Part of Jaji-Maydan (517) Quadrangles, Afghanistan. U.S. Geological Survey Open File Report 2005-1112-A, compiled by Florian Maldonado and Kenzie J. Turner.

Geologic Map of Quadrangles 3260 and 3160, Dasht-E-Chahe-Mazar (419), Anardara (420), Asparan (601), and Kang (602) Quadrangles, Afghanistan. U.S. Geological Survey Open File Report 2005-1113-A, compiled by Van S. Williams.

Geologic Map of Quadrangle 3262, Farah (421) and Hokumat-E-Pur-Chaman (422) Quadrangles, Afghanistan. U.S. Geological Survey Open File Report 2005-1114-A, compiled by David J. Lidke.

Geologic Map of Quadrangle 3264, Nawzad-Musa-Qala (423) and Dehrawat (424) Quadrangles, Afghanistan. U.S. Geological Survey Open File Report 2005-1115-A, compiled by Robert G. Bohannon and Charles R. Lindsay.

Geologic Map of Quadrangle 3266, Ourzgan (519) and Moqur (520) Quadrangles, Afghanistan. U.S. Geological Survey Open File Report 2005-1116-A, compiled by David A. Sawyer and Douglas B. Stoesser.

Geologic Map of Quadrangles 3168 and 3268, Yahya-Wona (703), Wersak (704), Khayr-Kot (521), and Urgon (522) Quadrangles, Afghanistan. U.S. Geological Survey Open File Report 2005-1117-A, compiled by Robert G. Bohannon.

Geologic Map of Quadrangle 3162, Chakhansur (603) and Kotalak (604) Quadrangles, Afghanistan. U.S. Geological Survey Open File Report 2005-1118-A, compiled by Florian Maldonado.

Geologic Map of Quadrangle 3164, Lashkargah (605) and Kandahar (606) Quadrangles, Afghanistan. U.S. Geological Survey Open File Report 2005-1119-A, compiled by Dennis W. O'Leary and John W. Whitney.

Geologic Map of Quadrangle 3166, Jaldak (701) and Maruf-Nawa (702) Quadrangles, Afghanistan. U.S. Geological Survey Open File Report 2005-1120-A, compiled by Robert G. Bohannon.

Geologic Map of Quadrangles 3060 and 2960, Qala-I-Fath (608), Malek-Sayh-Koh (613), and Gozar-E-Sah (614) Quadrangles, Afghanistan. U.S. Geological Survey Open File Report 2005-1121-A, compiled by Dennis W. O'Leary, John W. Whitney, and Robert G. Bohannon.

Geologic Map of Quadrangles 3062 and 2962, Charburjak (609), Khanneshin (610), Gawdezereh (615), and Galachah (616) Quadrangles, Afghanistan. U.S. Geological Survey Open File Report 2005-1122-A, compiled by Dennis W. O'Leary and John W. Whitney.

Geologic Map of Quadrangles 3064, 3066, 2964, and 2966, Laki-Bander (611), Jahangir-Naweran (612), Sreh-Chena (707), Shah-Esmail (617), Reg-Alaqadari (618), and Samandkhan-Karez (713) Quadrangles, Afghanistan. U.S. Geological Survey Open File Report 2005-1123-A, compiled by Dennis W. O'Leary, John W. Whitney, and Robert G. Bohannon.