Indepth III Route and Seismometer locations

on TM and MSS image mosaic

The INDEPTH project aims to advance understanding of the creation of the Himalaya and Tibetan Plateau, and especially the processes and timing of the thickening and shortening of the continental crust resulting from the continuing collision of India and Asia. Crustal thicknesses across the Tibetan Plateau are approximately double that of normal undisturbed continents, and this is reflected in the exceptional elevation of the Plateau, averaging near 5000 meters [16,500 feet] above sea level. This project is a multidisciplinary, and multi-institutional international earth sciences project, funded by the US National Science Foundation, the Chinese Academy of Geological Sciences, and the German national research funding organization.

False colour image mosaic composed of Landsat TM images [resolution 30 meters], with sensor bands 5, 4 and 2 mapped to red, green and blue respectively; and Landsat MSS images [resolution 60 meters] with sensor bands 7, 6 and 4 mapped to red green and blue respectively. Sensor bands correspond to parts of the near infrared and red part of the spectrum. Images are registered to geographic coordinates and projected to UTM zone 46 [Universal Transverse Mercator]. Differences in the colours correspond to some surficial and bedrock geological features, and [most obviously] to lakes and streams [dark blue to black when not frozen; paler blue when frozen], and ice or snow [pale blue and white]. Vegetation is so sparse in most of this area that it does not affect the image colours, except locally, where small areas, mostly swampy, are bright green on the TM images but red on the MSS images.

TM bands: um [microns]
Band 2 0.56 +/-0.08
Band 4 0.83+/- 0.14
Band 5 1.65+/- 0.2

MSS Bands:
Band 4 0.55+/- 0.1
Band 6 0.75+/- 0.1
Band 7 0.95+/- 0.3

city, town, village
camp
seismometer location

0 25 50 75 100
Kilometers

90E
35N
34N
33N
32N
31N
30N
Dogrgai Coring Tso
Lexergai Coring Qan Tso
Zilling Tso
Nam Tso
Damxung