Cite abstracts as **Author(s) (2005), Title, *Eos Trans. AGU, 86*(52), Fall Meet. Suppl., Abstract xxxxx-xx**

HR: 11:25h
AN: **T52A-05**
TI: Identification of a large-scale, N-S extensional feature in southeastern Tibet, using NASA SRTM data
AU: * **Ault, A L**
EM: *amanda.ault@lehigh.edu*
AF: *Lehigh University, Department of Earth and Environmental Sciences 31 Williams, Bethlehem, PA 18015 United States*
AU: **Meltzer, A S**
EM: *ameltzer@Lehigh.edu*
AF: *Lehigh University, Department of Earth and Environmental Sciences 31 Williams, Bethlehem, PA 18015 United States*
AU: **Kidd, W S**
EM: *wkidd@atmos.albany.edu*
AF: *University at Albany, Dept of Earth and Atmospheric Sciences ES 351, Albany, NY 12222 United States*
AB: Topographic analysis of a NASA SRTM DEM in southern Tibet highlights regional, N-S oriented lineaments that include known rifts. The easternmost lineament at approximately 92° longitude in the eastern Tibetan Plateau is >350 km long and 15-20 km wide. This robust feature is characterized by very low slope and local relief compared to adjacent terrain. It demarcates a geomorphic boundary separating regions with dramatically different topographic characteristics. West of the lineament mean elevation is high and local relief and slope around stream channels are low. East of the lineament mean elevation is about 200 m lower than to the west. Local relief is several hundred meters and slope around stream channels is two times higher than to the west, indicating a higher degree of fluvial incision. Long profiles of streams draining away from the lineament are graded on either side. However, the Tsangpo River crosses the lineament, where a large knickpoint is evident in this otherwise graded portion of the river. To the west, the long profile is flat, and the below-flood level Tsangpo channel is wide (~500 m); to the east the long profile is steep and the river channel narrows to ~100 m wide. The lineament connects previously mapped, smaller, discontinuous rift basins located to the south and north. With a few exceptions, Quaternary sediments are not mapped within this feature suggesting it has developed recently and/or is controlled by low-angle detachments. The depth to which it extends is unknown, but depth-to-Moho measurements (Zurek et al., this session) show that crustal thickness decreases in this region from west to east and patterns in shear-wave splitting (Sol et al., this session) and GPS vectors also show a distinct change from west to east. Due to the low slopes and low local relief characteristic of this feature and because it appears to connect known, active rift basins, it is most likely extensional.
DE: 1824 Geomorphology: general (1625)
DE: 8107 Continental neotectonics (8002)
DE: 8110 Continental tectonics: general (0905)
DE: 8175 Tectonics and landscape evolution
DE: 9320 Asia
SC: Tectonophysics [T]
MN: Fall Meeting 2005

Session Information

Tectonophysics

2005 Fall Meeting

Friday Morning 2			
Time	**Session**	**Location**	**Title**
1020	**T52A**	**MCC 3024**	**Lithospheric Structure of East Asia IV** ***Presiding: C Rowe, Los Alamos National Laboratory; H Zhang, University of Wisconsin-Madison*** *Print-friendly session details*
1025	T52A-01	MCC 3024	HIMEX-A Broad Band Seismic Experiment Across Kumaon Himalaya *S S Rai, A Singh Abstract
1040	T52A-02	MCC 3024	Project Hi-CLIMB: A Synoptic View of the Himalayan Collision Zone and Southern Tibet *J L N\'{a}b\v{e}lek, J Vergne, G Hetenyi, a Hi-CLIMB Team Abstract
1055	T52A-03	MCC 3024	Geometry and Characteristics of the Main Himalayan Thrust in Nepal/Tibet Revealed by the Hi-CLIMB Seismological Experiment *j vergne, J L N\'{a}b\v{e}lek, . Hi-CLIMB Team Abstract
1110	T52A-04	MCC 3024	Seismic Anisotropy in Eastern Tibet From Shear-Wave Splitting - Evidence for Crust-Mantle De-coupling *E Lev, M D Long, R D van der Hilst Abstract
1125	T52A-05	MCC 3024	Identification of a large-scale, N-S extensional feature in southeastern Tibet, using NASA SRTM data *A L Ault, A S Meltzer, W S Kidd Abstract
1140	T52A-06	MCC 3024	Boundary Conditions for the Geodynamic Evolution of Southeastern Tibet *P K Zeitler, A S Meltzer, P O Koons, S T Sol, B D Zurek, A L Ault Abstract
1155	T52A-07	MCC 3024	Seismicity and 3-D Velocity Structure of the Himalayan Collision Zone: Lateral Variations in Lithospheric Structure *G Monsalve, A Sheehan, C Rowe Abstract
1210	T52A-08	MCC 3024	P-wave velocity variation in the upper mantle beneath Tibetan Plateau *C Li, R van der Hilst, Z Chen, M Anne Abstract

2005 AGU Fall Meeting
5–9 December 2005, Monday–Friday
Moscone Center West, 800 Howard Street
San Francisco, CA, USA

- **Record-breaking attendance at 2005 Fall Meeting!**
- **View videos of featured lectures**

WELCOME!

The 2005 AGU Fall Meeting drew crowds of over 11,000 geophysicists from around the world. The Fall Meeting provided an opportunity for researchers, teachers, students, and consultants to present and review the latest issues affecting the Earth, the planets, and their environments in space. This meeting will cover topics in all areas of Earth and space sciences.

AGU Honors Ceremony — A Tribute to the 2005 Medalists

The Honors evening highlighted the accomplishments of scientists in all fields of geophysics.

Contact

AGU Meetings Department
2000 Florida Avenue, NW
Washington, DC 20009 USA
Phone: 1–800–966–2481 or +1–202–777–7330
Fax: +1–202–328–0566
E–mail: fm-help@agu.org (subject: 2005 Fall Meeting)