

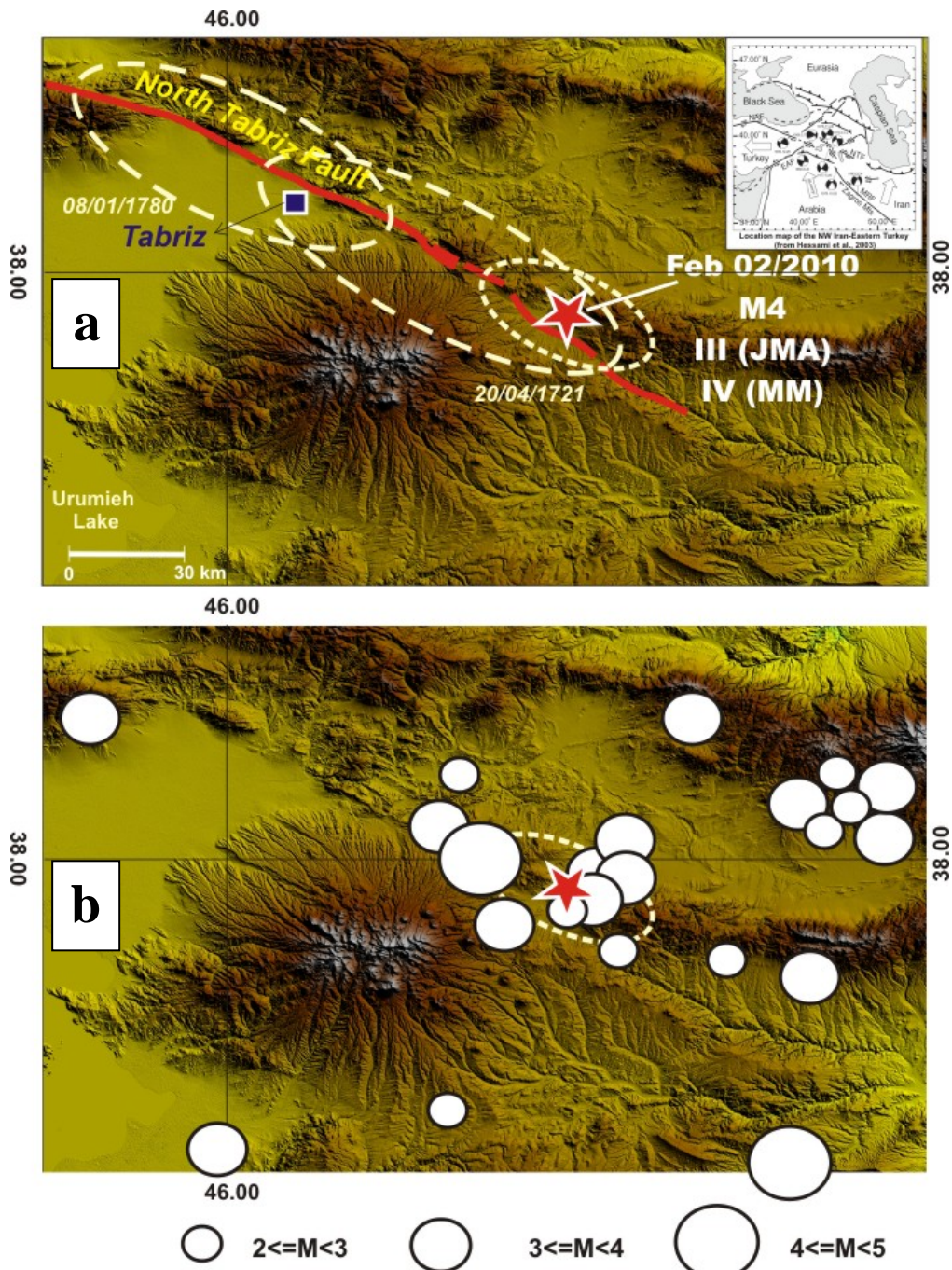
***Preliminary Earthquake Report of the  
Bostan-Abad Earthquake***

**Magnitude 4.6  
East Azarbaijan Province  
Tuesday, February 02, 2010 at 10:16:28 UTC**

		Ref.
Magnitude	4.6	IRSC
Intensity	III (JMA) - IV (MM)	GSI
Location	37.84 N 46.86 E	IRSC
Depth	5	IRSC
Region	Bosta-Abad East Azarbaijan Province	IRSC
Date UTC	Tuesday Feb, 02/2010 10:16:28 UTC	IRSC
Date Local	40211.5739351852	IRSC
Distance	~2km of Bostan-Abad ~47km of Tehran	IRSC

### **Fast View**

The Feb 02-2010 event [M4, III (JMA), IV (MM)] occurred about ~60 km southeast of Tabriz town along the North Tabriz Fault, close to Bostan-Abad town. The North Tabriz Fault is a major seismogenic fault in Iran. This active fault has a clear rupture along its strike. Strike of the North Tabriz Fault is ~NW-SE with vertical to near vertical dip. North Tabriz Fault has been studied by several geologists (e.g. Berberian & Arshadi, 1976; Karakhanian et al., 2001; Hessami et al., 2003). Berberian and Arshadi (1976) mentioned to the some traces of dextral movement mechanism along the North Tabriz Fault. Minimum slip rate ~2 mm/yr is estimated for this fault (Karakhanian *et al.*; 2001). Hessami et al. (2003) estimated at least four surface faulting events for the North Tabriz Fault which has been recognized during the past 3.6 ka.



a) NW-SE strike of the North Tabriz dextral active Fault; red star shows location of Feb. 02/2010 Bostan-Abad earthquake event. b) A general view of the seismic pattern in the Tabriz area; seismic data from 2003 to 2007

#### REFERENCES

BERBERIAN, M. and S. ARSHADI (1976): On the evidence of the youngest activity of the North Tabriz Fault and the seismicity of Tabriz city, *Geol. Surv. Iran Rep.*, **39**, 397-418.

KARAKHANIAN, A.S., V.G. TRIFONOV, H. PHILIP, A. AVAGYAN, K. HESSAMI, F. JAMALI, M.S. BAYRAKTUTAN, H. BAGDASSARIAN, S. ARAKELIAN and V. DAVTIAN (2001): Active faulting and natural hazards in Armenia, Eastern Turkey and North-Western Iran, *Tectonophysics*

HESSAMI et al., (2003), Paleoearthquakes and slip rates of the North Tabriz Fault, NW Iran: preliminary results; *ANNALS OF GEOPHYSICS*, VOL. 46, N. 5, October 2003