We have collected and processed three component broadband data from 26 CMT events in Central Asia, recorded at the WMQ station in China. Group velocities for Love and Rayleigh waves were measured at periods of 10 to 50 seconds. With these data we begin to assess and calibrate the structural response of the region around station WMQ. First, we develop an earth model for the area, based on prior receiver function work (Kosarev et al., 1993). This model consists of a crustal structure and an upper mantle half-space. The observed dispersion for most event-receiver paths around WMQ are consistent with this modified Eastern Tien Shan earth model.

After obtaining a preliminary calibration of the regional structure, we refine the source parameters and focal depths of CMT events using regional surface wave data. The resulting sources are compared with CMT parameters, and several striking and consistent differences are noted. CMT moments are systematically high relative to 'regional' moments. Focal depths show no systematic bias but scatter (one sigma +/- 13km) about the CMT estimates. Fault strikes scatter +/- 17°. The effects of structural calibration (i.e., effects of the earth model employed in a source solution) are further investigated, using surface waves on a regional scale, and body waves on a teleseismic scale.

Work in progress includes similar studies of other stations, and, finally, high resolution (regional) tomography of China and Central Asia.