

REFLECTION SEISMIC DATA, AND THE RELATIONSHIP OF BRITTLE FAULTING IN THE OORMIAH LAKE AND THE KHOY - SALMAS REGION (AZERBAIJAN - IRAN)

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ABSTRACT: The tectonic history of the Alpe – Himalayan orogen belt is complex and is essentially based on several independent collisions between the Eurasia and parts of Gondwana during the Mesozoic and Cenozoic time. Generally the larger the earthquake cause the greater displacements across a fault and greater length of fault that breaks. The great earthquakes of 6 may 1930 at 22h 34m.24s GMT with $M=7.3$ (Salmas earthquake) and Tabriz earthquake in 4 January 1780 with $M=7.7$ respectively caused large displacements across the Northern and central parts of Tabriz to SALMAS fault and relieved the accumulated strain in these areas. Earthquakes are closely related to active faults and active faults are well developed in the epicentral area of the Salmas and Tabriz large earthquake. They represent regions of the nation characterized by low, moderate, and high seismicity and strike-slip, normal and thrust faulting. The most critical parameters of each source zone are: Seismic cycle, Recurrence relations, Fault segmentation and maximum Magnitude. The seismic data that is presented demonstrate clearly that geological structures are commonly repeated at all scales from outcrop to regional.