

Gürbüz, C., Türkelli, N., Bekler, T., Gök, R., Sandvol, E., Seber, D., and Barazangi, M., *Seismic event location using the Eastern Turkey Seismic Network: Analysis of the Agri Dam explosion*. Bulletin of the Seismological Society of America, 94(3), 2004.

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Abstract:

A 12 ton controlled source explosion took place in eastern Turkey on June 5, 2001 and was recorded by 18 stations of the Eastern Turkey Seismic Experiment (ETSE) PASSCAL broadband network. This is a unique recording obtained for the first time in this region. Due to the blasting type and extremely high Lg and Sn attenuation in eastern Turkey, the blast is only observed out to a distance of about 300 km. We have used travel time data from this explosion to obtain average crustal structure and site correction terms for the stations. The explosion was located using two new regional velocity models and the IASP91 velocity model to test the location capabilities of the ETSE network. We found that for surface focus events, the ETSE network is able to locate events to within 1 - 2 km of the true epicenter.

Figure 2. Gallery type explosion site (a) before and (b) after the blasting. These photos were taken after the large (12 ton) gallery type explosion.



(a)



(b)