Izmit Array - Read me

The three creepmeters here have been plagued by flooding or vandalism problems.



Figure 1 Data from the three creepmeters across the 1999 Izmit rupture with creep events (Enlarged in figs 2-4) shown by dotted lines.

West Izmit has operated since 2014. It has been vandalized four times, finally with the theft of solar panels and transmitter and instrument sensor. Prior to the final vandalism it recorded >6.5 mm of slip in three creep events with no loss of datum.

In July 2017 East Izmit was installed near an underground spring which in March 2018 flooded the electronics. A waterproof submersible sensor and independent electronics were installed in October 2018. In Nov/Dec2018 it recorded two small creep events coincident with creep events at Tepetarla (Figure 2).

Tepetarla was installed across a graben pull apart also in July 2017. It records 2 mm contraction in the winter months and extension in the form of apparent creep events. The origin of the excessive noise is thought to arise from the Instrument being installed in a straight line, but with a sag in the middle which ponds water. It is the only one of the three currently telemetered.



Figure 2 Nov/Dec 2017\_Double Creep event Tepetarla. (Unknown source of noise in data before and after second event)



Figure 3 Creep event 11 March 2018 at Tepetarla



Figure 4 Apparent synchronous creep events at Tepetarla and East Izmit (West Izmit no data).