Project Name: Seismic Array of the Sevilleta

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Purpose of experiment: Imaging of earthquakes and structures associated with the Socorro Magma Body

Setting: Stations were deployed primarily within the Sevilleta National Wildlife Refuge in central New Mexico (latitude range: 34.42°N-34.20°N, longitude range: 106.51°W-107.07°W), as well as several test stations at the PASSCAL Instrument Center in Socorro, NM.

Science Goals: Primary goals include better imaging of the Socorro Magma Body, a sill-like magma body in the mid crust within the larger Rio Grande Rift structure in the western US. We also combine available short period NMT seismic network stations and a temporary deployment of 3 component broadband instruments to widen the coverage and bandwidth available for the study. This data will be combined to produce improved earthquake catalogs for the short duration of the experiment.

Instrumentation: A mixed-mode array, includes 801 Z-land vertical component nodes. Complementary deployment in included 7 CMG-3T sensors and RT130 dataloggers. Nodes were placed along roads within refuge, also 4-6 nodes were placed surrounding the 7 broadband sites.

Sources: Ambient noise, local and teleseismic earthquakes, and 45 shots at 500 m spacing using the IRIS PASSCAL PEG source on February 19, 2015 along northwestern-most section of the array.

Additional information about the experiment can be found at the following links:

<https://www.youtube.com/watch?v=1pmOPIo649o&feature=youtu.be>

<https://www.youtube.com/watch?v=cu67KBQMTrA&feature=youtu.be>

http://www.passcal.nmt.edu/content/ensemble-cast-supports-socorro-magma-body-experiment