Characteristics of postseismic deformation associated with the 2016 Meinong earthquake

*Wan Tzu Liu[1], Ray Y Chuang[1]

1. Department of geography, National Taiwan University

The M_L=6.6 Meinong earthquake on February 6, 2016, which caused 117 deaths and severe damage in southern Taiwan, is the most destructive seismic event in the recent decade. The epicenter is in Meinong but major coseismic deformation occurred in Guanmiao and Longqi, about 10 km to the west of the epicenter. In addition to the seismogenic fault at ~15 depth, there may be a triggered fault at shallower depth based on an inversion of InSAR and GPS observations. Therefore, it is important to examine if the postseismic deformation continues being triggered by two faults like the coseismic deformation and if the location of postseismic deformation is around the coseismic slip area.
We use InSAR and GPS to identify the distributions of postseismic deformation of the Meinong earthquake, and then infer the location and magnitude of the afterslip, which will be helpful for us to better understand the characteristics of surface deformation and the active tectonics of the area.

Keywords: Meinong earthquake, postseismic deformation, InSAR, GPS

