

# **A Study of the Surface Ruptures along the Milun Fault Occurred during the 20180206 Hualien Earthquake, Eastern Taiwan**

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## **Abstract**

The 0206 Hualien Earthquake occurred on February 6, 2018 around Hualien area, eastern Taiwan. That's a magnitude 6.0 earthquake and its epicenter was located in the offshore area of Hualien County. Numerous surface ruptures and construction damages during this earthquake were observed in the downtown and the area near Milun Fault. Most of the surface ruptures were located within the Milun Fault geologically sensitive areas (F0011). We have observed and measured the slip distances and its directions at more than 200 sites in fields. Based on our survey, the deformation of the ruptures is gradually getting smaller toward the south along the Milun Fault. The displacements of the ruptures are more than 70 centimeters near Qixingtan, but which decreases to about 20 centimeters in Hualien Martyrs' Shrine and the distribution area becomes greater and random. The characteristics of surface ruptures illustrated that the translation energy of faulting from the Hualien Earthquake becomes smaller to the south.

**Keywords:** 0206 Hualien Earthquake, Surface Ruptures, Milun Fault, Eastern Taiwan