

# **ON THE REPORTED MAGNETIC PRECURSOR OF THE 1993 GUAM EARTHQUAKE**

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Using 1-second magnetometer data recorded 65 km from the epicenter, Hayakawa et al. [1996] and Miyahara et al. [1999] identify changes in ultra-low frequency, magnetic polarization (the ratio of vertical to horizontal field components) occurring prior to and possibly related to the 1993  $M_w$  7.7 Guam earthquake. We compare these same 1-second Guam data with similar 1-second data from the Kakioka observatory (KAK) in Japan, and the global, magnetic activity index  $Kp$ . In analyzing many months of magnetic-polarization data before and after the earthquake, we find 1) analysis problems with both the Hayakawa et al. and the Miyahara et al. results, 2) significant correlation between the Guam and KAK data, and (3) an absence of precursory signals after removing common disturbances using KAK as a reference. We conclude that the observed changes in polarization are part of normal global magnetic activity and are unrelated to the earthquake.

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