

Accepted Manuscript

Full length Article

Morphology, Tectonic Significance, and Relationship to the Wenchuan Earthquake of the Xiaoyudong Fault in Western China Based on Gravity and Magnetic Data

TianTian, Jingfa Zhang, Tianyou Liu, Wenliang Jiang, Yabo Zhao

PII: S1367-9120(16)30309-1

DOI: <http://dx.doi.org/10.1016/j.jseaes.2016.10.008>

Reference: JAES 2830

To appear in: *Journal of Asian Earth Sciences*

Received Date: 14 January 2016

Revised Date: 8 October 2016

Accepted Date: 13 October 2016



Please cite this article as: TianTian, Zhang, J., Liu, T., Jiang, W., Zhao, Y., Morphology, Tectonic Significance, and Relationship to the Wenchuan Earthquake of the Xiaoyudong Fault in Western China Based on Gravity and Magnetic Data, *Journal of Asian Earth Sciences* (2016), doi: <http://dx.doi.org/10.1016/j.jseaes.2016.10.008>

This is a PDF file of an unedited manuscript that has been accepted for publication. As a service to our customers we are providing this early version of the manuscript. The manuscript will undergo copyediting, typesetting, and review of the resulting proof before it is published in its final form. Please note that during the production process errors may be discovered which could affect the content, and all legal disclaimers that apply to the journal pertain.

**Morphology, Tectonic Significance, and Relationship to the Wenchuan
Earthquake of the Xiaoyudong Fault in Western China Based on Gravity and
Magnetic Data**

Tian Tian^{a,*}, Jingfa Zhang^a, Tianyou Liu^b, Wenliang Jiang^a, Yabo Zhao^c

^a Key Laboratory of Crustal Dynamics, Institute of Crustal Dynamics, China
Earthquake Administration, Beijing, 100085, PR China

^b Institute of Geophysics and Geomatics, China University of Geosciences, Wuhan,
Hubei, 430074, PR China

^c Faculty of Information Engineering, China University of Geosciences, Wuhan,
Hubei, 430074, PR China

Abstract The appearance of the surface rupture of the NW-striking Xiaoyudong Fault during the Wenchuan earthquake has attracted attentions of scholars and subsequently aroused debates about it. The size and tectonic significance of this fault is the key of the debates. Based on maps of gravity and magnetic in the scale of 1:500,000, the wavelet multi-scale method and the power spectrum method were used to obtain the wavelet fault analysis maps at different scales with average field source depths. Furthermore, the Euler deconvolution solutions of magnetic were determined and a simple model of the crust was built through the joint inversion of gravity and

Download English Version:

<https://daneshyari.com/en/article/5786080>

Download Persian Version:

<https://daneshyari.com/article/5786080>

[Daneshyari.com](https://daneshyari.com)