

## Accepted Manuscript

Stress triggering and aftershock properties induced by the Dalparri blind thrust fault at NW Zagros: The 18 August 2014 Mormori earthquake

Shoja Ansari



PII: S0921-8181(17)30674-4  
DOI: doi:[10.1016/j.gloplacha.2018.05.010](https://doi.org/10.1016/j.gloplacha.2018.05.010)  
Reference: GLOBAL 2778  
To appear in: *Global and Planetary Change*  
Received date: 31 December 2017  
Revised date: 22 May 2018  
Accepted date: 22 May 2018

Please cite this article as: Shoja Ansari , Stress triggering and aftershock properties induced by the Dalparri blind thrust fault at NW Zagros: The 18 August 2014 Mormori earthquake. *Global and Planetary Change*(2017), doi:[10.1016/j.gloplacha.2018.05.010](https://doi.org/10.1016/j.gloplacha.2018.05.010)

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.

Stress triggering and aftershock properties induced by the Dalparri blind thrust fault at NW Zagros: The 18 August 2014 Mormori earthquake

Shoja Ansari\* shojaansari@yahoo.com

Fouman Faculty of Engineering, University of Tehran, Fouman, Iran.

\*Corresponding author.

## Abstract

The Coulomb stress changes induced by the Mormori earthquake and their influences on the neighboring regions have been investigated. The central section of the Siah Kuh anticline and the southern section of the Kaseh Mast anticline have been encouraged to failure while, the Kabir Kuh anticline, the eastern and western sections of the Siah Kuh anticline and the northern section of the Kaseh Mast anticline have been inhibited from failure. A limited area of the positive Coulomb stress change zone on the top right of the Dalparri blind thrust has been detected in the cross-sectional view of the Coulomb stress changes that can be considered as the location of a back thrust. The Mormori aftershocks have been plotted on the stress change map and it is found that a little less than half of the events occurred in the increased Coulomb stress zones along the strike of the Dalparri anticline axis. Six out of nine large aftershocks with  $M \geq 5$  occurred in the positive Coulomb stress lobe. The estimated  $b$ -value map of the Mormori region has been compared with the Coulomb stress change zones and it is observed that the low and high  $b$ -value regions have some consistency with the positive and negative Coulomb stress zones near the north and northwest of the main shock, west of the Kaseh Mast anticline and the south and

Download English Version:

<https://daneshyari.com/en/article/8867483>

Download Persian Version:

<https://daneshyari.com/article/8867483>

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