



## **The Temporal and Spatial Distribution of Aftershocks of The North Aegean Sea Earthquake on 24 May 2014**

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An earthquake occurred in the North Aegean Sea on 24 May 2014 12:25 local time (UTC+3) with  $M_I=6.5$ . It was a shallow earthquake with 21 km focal depth and felt in Aegean and Marmara regions of Turkey. 321 people were temporarily hospitalised as reported by Disaster and Emergency Management Presidency (AFAD). And also the earthquake caused damage to about 300 buildings. In this study, the spatial and temporal changes of the seismicity parameters of North Aegean Sea Earthquake were analyzed by using the aftershock data. Calculations are based on Gutenberg-Richter and Omori laws. It has been determined that the  $b$  value which is one of the seismicity parameters is changing in between  $0.85 \leq b \leq 0.92$  and increases by time. Based on the increasing value of  $b$  by time, it is reasonable to assume that the effective tension in the area is decreasing by time. It has been calculated that the  $p$  value which defines the declination of aftershocks by time changes in between  $1.18 \geq p \geq 1.07$  and decreases by time. The distributions of the main shock and the aftershocks locations and the focal mechanisms show that the region is the continuation of the North Anatolian Fault Zone (NAFZ).