Paper ID: 76070
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IAF EARTH OBSERVATION SYMPOSIUM (B1)
International Cooperation in Earth Observations (1)

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GLOBAL EFFORT ON TURKEY KAHRAMANMARAS EARTHQUAKE AND EVALUATION OF SATELLITE IMAGING

Abstract

Turkey is trying to heal the wounds of two major earthquake disasters. It was a magnitude 7.8 earthquake followed by another magnitude 6.6 aftershock in just 11 minutes later. After all these damaging shocks, another big blow came with magnitude 7.5 earthquake, and struck 60 miles north in about 7 hours later from the first one. The earthquake hit area covers more than 10 cities, affecting thousands of people. The Disaster and Emergency Management Presidency (AFAD) announced on the 11th day of the earthquake (that I submit this abstract) that the total loss of life rose to 36,187 and the number of injured to 108,68. AFAD reported that 216 thousand 347 disaster victims from the provinces affected by the earthquake were evacuated to other provinces. The number of search and rescue personnel from other countries was recorded as 11 thousand 488. In addition thousands of people sent food, clothes, heaters and any other needs to the region. More than 10 billion dollars are donated for the region. The United Nations launches an appeal for 1 billion dollars in aid to help victims in Turkey of last week's earthquake. The World Health Organization says the "zone of greatest concern" is northwestern Syria, where anger is growing over the slow delivery of humanitarian assistance. There are serious records of world observation satellites in the region where heavy destruction occurred. In this study, the analyzes of Sentinel, AROS-1, SkySat (from Planet images) satellites are presented. NOAA's Suomi NPP satellite also captured the earthquake moment. According to the optical images from Sentinel-2, there is significant effect on both the Mw 7.8 and Mw 7.5 surface ruptures. Fault offset along the more Mw 7.5 (to the north) is 8 m, much larger than the Mw 7.8 and over a shorter distance. Therefore, this study aims to analyze all possible images obtained from the active satellites. In addition, global collaboration between UN, WHO and Turkey is also presented.