



ANALYSING WEATHER MAPS, SATELLITE and RADAR PRODUCTS to DETECT FLASH FLOOD OCCURRED on 23 FEBRUARY 2015 in ÇEŞME USING FFGS

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Introduction:

Flash floods are among the world's deadliest natural disasters and require coordination between the National Meteorological and Hydrological Services and Disaster Management Agencies. Turkish State Meteorological Service gave early warning for the flash flood event before it occurred. Investigation and analysis of these events before, during and after the flash flood event play an important role in enhancing the experience of such natural disasters. In this study, this event was examined in terms of weather condition for flash flood occurred on February 23rd 2015 including local information, satellite, radar, numerical weather prediction mesoscale model, atmospheric instability indices and FFGS (Flash Flood Guidance System) products. Results show that FFGS products are very useful tools to detect flash flood and then to issue early warning before it happened.

Key Words: Flash Flood, FFGS

The purpose of this study is:

- to examine meteorological conditions in terms of rainfall intensity, synoptic analysis, radar and sounding that cause the FF event on 23 February 2015 in Çeşme.
- to take into consideration of the effect of precipitation either increasing or decreasing in the next 24 hours
- to examine this information and knowledge with the support of FFGS products particularly soil moisture saturation (ASM), FFG and FFT products to ensure the success of making decision on FF occurrence.

Material and Method:



Region of Study, Location of FFGS subbasins over Çeşme (WMO Synoptic Station No:17221 ICAO Name: CESH Elevation:5 m lat:38.3036 lon:26.3724)

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In this study, **data** from local information available at TSMS, Automated Weather Observation System, Satellite, Radar, Numerical Weather Prediction (ALARO) products, instability products (vertical sounding of Çeşme) and FFGS products were used and evaluated.

