## Real Time Fire Monitoring in ATTICA (Greece) on 31/7/2017, and Spetses Island (Greece) on 1/8/2017. Service delivered through the <a href="MEYOND"><u>BEYOND</u> Center of Excellence for the Monitoring of Natural Disasters / <a href="Mational Observatory of Athens">National Observatory of Athens</a>

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The fire that occurred in Kalyvia Thorikou, Attica, at 16:25 p.m. on July 31<sup>st</sup>, 2017, was detected by the **FireHub monitoring** system ( <a href="http://195.251.203.238/seviri/">http://195.251.203.238/seviri/</a>) in **real time**, within the first 10 minutes after the fire ignition time, using MSG SEVIRI satellite data. The service is delivered in real time to the Operations Control Room of the Hellenic Fire Brigade Authorities



## Selected examples of fire spread at different times

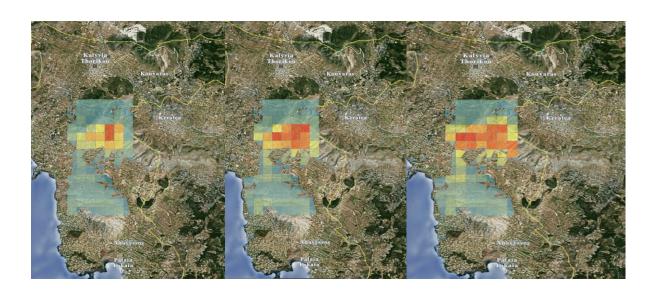
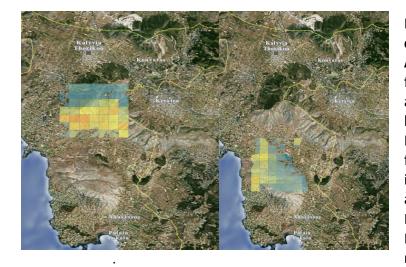


Fig 1: Fire spread at 16:40 p.m

Fig 2: At 17:15 p.m

Fig 3: At 18:00 p.m.



In addition, the change of the Burned Areas (see screens in the following) was calculated automatically and mapped by the new service of FireHub within 30 minutes from satellite passing and image ingestion from the stations acquisition BEYOND to the Data Processing Center. It uses mid to high resolution satellite data ranging from Suomi NPP and MODIS

Fig 4: At 18:40 p.m

Fig 5: At 20:10 p.m.

satellite spatial resolution (750m) to the higher resolution satellite systems such as Landsat TM and Sentinel II (up to 10 m).. To be noted that Sentinel II data are systematically ingested in the system through the <u>Greek Mirror Site</u> (Greek Collaborative Ground Segment for Sentinel data) (<a href="https://sentinels.space.noa.gr">https://sentinels.space.noa.gr</a>).

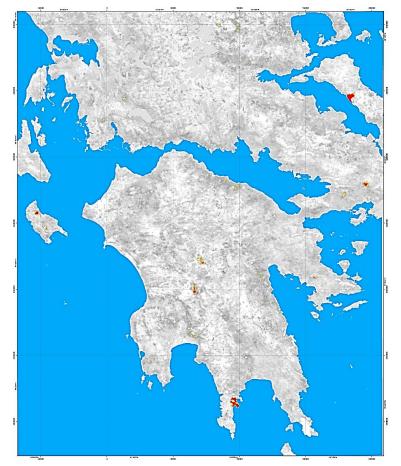


Fig 6: Daily update of Burnt Scars @Suomi NPP 2017-08-01

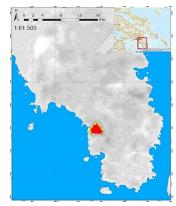


Fig 7: Real Time Burnt Scar Mapping -Kalivia, Attica Fire on 31/7/2017



Fig 8: Burnt Scar Mapping in Kalivia, Attica - Estimated burned area ~ 8730 acres

## Real Time Monitoring of the Fire in SPETSES Island on 1/8/2017

Another fire that occurred in the greater area of Spetses Island at 13:00 p.m. on August 1, 2017, was also detected in real time by the **FireHub monitoring system**, using **MSG SEVIRI**, **SUOMI NPP**, and **MODIS (AQUA, TERRA)** satellite data which were acquired by the BEYOND Ground Stations



Fig 1: Fire spread at 13:00 p.m.

Fig 2: At 13:30 p.m.

Fig 3: At 14:45 p.m.

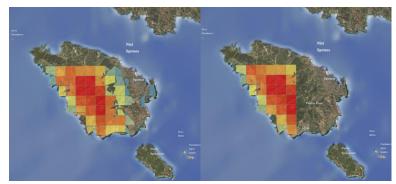


Fig 4: At 16:20 p.m.

Fig 5: At 17:25 p.m.