

Wildfires in northwest Scotland

Fires large enough to be seen from space burned in the Highlands and Islands between 1st and 3rd April 2013. Figure 1 shows active fire hotspots detected by the MODIS sensor on the Aqua and Terra satellites. MODIS also records light which can detect burned areas after the fire (Figures 2 and 3).

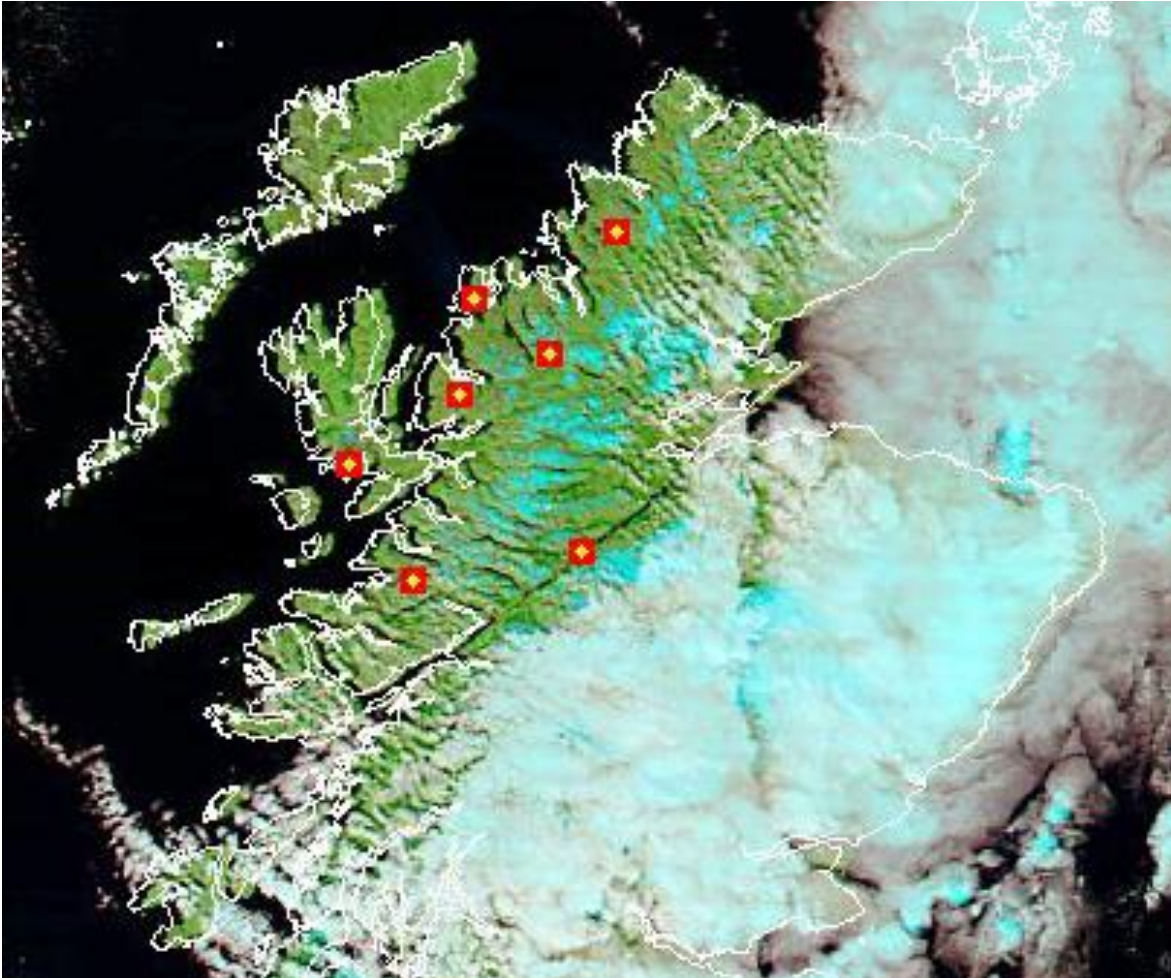


Figure 1: Hotspots (red symbols) in northwest Scotland detected through gaps in the cloud by NASA's MODIS sensor on the Terra satellite, 2nd April 2013, 11:58 hrs. The sensor is recording heat, or thermal energy emitted from active fires. False colour composite image, where green is vegetation, light blue is snow and white is cloud. Source: [DLR Center for Satellite-Based Crisis Information](#) [accessed 11 April 2013].

Not all fires will have been detected, typically because of cloud. Neither the heat nor light bands of the sensor can image through cloud, as Figure 1 shows. The fire near Fort William on 2 April was not detected as a thermal hotspot on Figure 1, but the sky was clear enough after the fire for MODIS to record the burned area (Figure 2). The charred ground of the fire scar reflects light differently from live vegetation. This is recorded by the sensor's optical bands. Burned areas data is updated as further cloud-free images are acquired, up to the point where the vegetation regenerates and the fire scar can no longer be detected ([more information](#)).



Figure 2: Fire scars in Fort William area recorded by NASA's MODIS sensor on the Terra and Aqua satellites after the 2 April 2013 wildfires. Yellow shading shows the burned areas on true colour Google Earth image. The sky was clear enough between 2 and 9 April for the sensor to record light reflected from the charred ground. Source: Burned area layer, [European Forest Fire Information System \(EFFIS\)](#) [accessed 11 April 2013].

A fire in Wester Ross, Caithness and Sutherland was detected as hotspots on 2 April and burned area between 2 and 9th April (Figure 3). Figure 3 was generated from EFFIS on 11 April. Orange shading indicates that the fire scar was detected within the last 7 days of the querying the EFFIS database (accessed on 11th April 2013). Yellow shading indicates a fire 7-30 days ago.



Figure 3: Two wildfires in Wester Ross, Caithness and Sutherland, NW Scotland, detected by NASA's MODIS sensor on the Terra and Aqua satellites. Hotspots (blue squares, with red boundaries added for emphasis) indicate approximate position of the active fire fronts at the times of the overpasses on 2 April 2013. Shading of the burned area used to indicate age relative to date of query. The 680 hectare (6.8 km²) orange shaded fire scar was imaged between 2 and 9 April, and the older 190 (1.9 km²) hectare yellow one, between 1 and 2 April. Source: Burned area layer, [European Forest Fire Information System \(EFFIS\)](#) [accessed 11 April 2013].

The BBC website has dramatic [night-time pictures](#) of the fire near Fort William. Reports can be found on [BCC](#), [Telegraph](#), [Guardian](#), and STV's websites:

- [Firefighters were battling a two-mile wide wildfire in the Highlands,](#)
 - [Firefighters tackle huge grass blaze threatening island homes,](#)
 - [Last of the wildfires in the Highlands have been extinguished](#)
 - [Highland landowners warned over hill burning as wildfires rage](#)
 - [One million square metres of land burned after 24 hours of wildfires](#)
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- [Firefighters tackle around 80 wildfires in Highlands and Islands](#)

Northern Ireland and Eire also had fires between 2nd and 8th April 2013. In England, hotspots were detected in Lancashire on 1st April, South Wales on 2nd and 6th April, and East Anglia on 2nd.

Julia McMorrow, 11 April 2013,

http://www.kfwf.org.uk/assets/documents/wildfires_in_northwest_Scotland.pdf