NERO Fire Brief

Summary

On July 9, 2026 at around 16:40 CEST (14:40 UTC), a vegetation fire started by the N-340A highway in the Almocáizar area, in the municipality of Los Gallardos (Almería, Spain). The region is characterized by mediterranean grasslands with occasional shrub cover and mild terrain with elevation differences on the order of 500 m. After a very wet winter, the area had experienced unusually hot and dry conditions during May and June, plus two consecutive heat waves occurred within the 15 days prior to the fire, leading to a high amount of available fuel.

The fire propagated very rapidly on the afternoon of July 9 due to very dry south-westerly winds (wind speed ≈ 20 to 30 km/h, relative humidity ≈ 15%), aligned with the terrain and accompanied by unusually high temperatures (on July 9, the maximum registered temperature in the area was 41.3ºC and the minimum temperature was 24.3ºC, both of which were maxima in the previous 10-day period). On July 10, wind decelerated and shifted to an East-South-East direction, opening up the fire left flank and facilitating its progression into a mountainous area, where fire spread was driven by terrain and wind together.

Satellites detected a short period of very intense fire activity in the evening of July 9 (19:00 - 21:00 CEST, local time), followed by extended intense fire activity all day on July 10, with a re-intensification between 12:30 and 15:30 (CEST, local time). Fire activity progressively diminished on July 11 and the fire was stabilized on July 12 at 11:00.

In total, the fire is estimated to have released around 160 TJ in radiative energy and burned approximately 7,000 ha. It forced the evacuation of ca. 1,400 people and caused 13 casualties, plus 10 people missing as of July 13.

Date and Time	9 July 2026, 16:40 CEST
Wildfire Event Name	Los Gallardos
Location	Los Gallardos, Almería, Spain
Current Size (ha)	7,000 ha
Type	Surface fire
Weather Influence	Wind-driven
Fuels	Mediterranean grass with shrubs
Elevation (m asl)	200 - 800 m

Observed Fire Behavior	Rapid wind-driven fire spread on July 9, followed by combined wind and terrain driven fire spread on July 10. Fuel availability was very high due to an exceptionally rainy winter followed by very hot and dry conditions in May and June. On July 9, conditions were very hot and dry, and mildly windy.
Other Information	https://www.bbc.com/news/articles/cx2x7441762o https://www.reuters.com/business/environment/wildfires-southern-spain-kill-12-emergency-agency-says-2026-07-10/ https://cadenaser.com/nacional/2026/07/12/cronologia-de-lo-que-sabemos-y-lo-que-no-del-mortal-incendio-de-los-gallardos-cadena-ser/
Authors	Mario Miguel Valero Pérez, Universitat Politècnica de Catalunya, Barcelona, Spain Kadir Alperen Coskuner, Karadeniz Technical University, Trabzon, Turkey Theodore M. Giannaros, National Observatory of Athens, Athens, Greece
Contact	Dr. Mario Miguel Valero Pérez Associate Professor Wildfire Dynamics Lab, Department of Fluid Mechanics Universitat Politècnica de Catalunya, Barcelona, Spain +34 934 13 72 00 mm.valero@upc.edu

Additional quantitative information on fire behavior is provided below. Figure 1 shows the estimated fire progression from satellite imagery. Figure 2 summarizes the fire radiative power (FRP) as observed from the Meteosat Third Generation (MTG) satellite system. Figure 3 depicts the cumulative fire radiative energy (FRE) emitted by the fire since ignition.

Figures 4, 5, 6, and 7 show, respectively, the local wind direction, wind speed, relative humidity and temperature measured by the Spanish South-East meteorological network[1]. Mean values and standard deviations were calculated using the 4 closest stations to the fire, located in the municipalities of Los Gallardos and Bédar.

[1] https://redmeteo.ametse.es/, Accessed on 12 July 2026

Finally, Figures 8 and 9 illustrate the observed fire behavior and the aftermath of the fire, respectively.

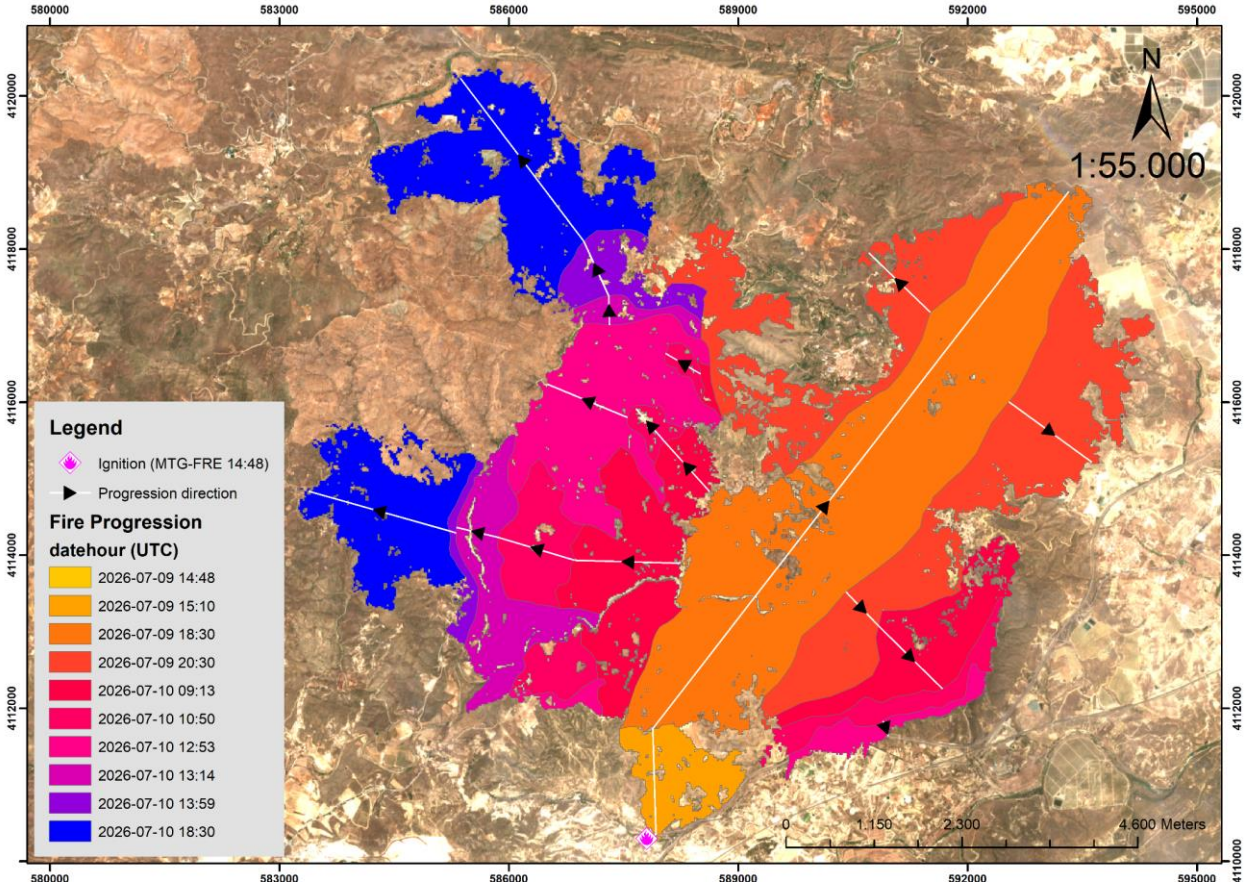

Figure 1. Fire progression estimated from satellite imagery (MTG, Suomi NPP, NOAA-20, NOAA-21, Sentinel-2). Times are UTC.

The EUMETSAT MTG Fire Radiative Power (FRP) time series (Fig. 2) reveals two distinct periods of active burning. Following ignition on 9 July, FRP increased rapidly, reaching an intense peak of approximately 9,000 MW during the early evening, reflecting rapid fire spread (Fig. 1) and elevated fire-line intensity. Peak wind speeds were also recorded during this period (Fig. 5). Fire activity subsequently declined through the night, with FRP values decreasing to near-background levels. A second, longer and less-intense period of enhanced activity was observed during the morning and afternoon of 10 July, when FRP reached approximately 5,000 MW. Thereafter, FRP gradually decreased, although moderate energy release persisted throughout much of 10 July. By the evening of 10 July and into 11 July, only low residual FRP values were detected, indicating a progressive reduction in fire activity.

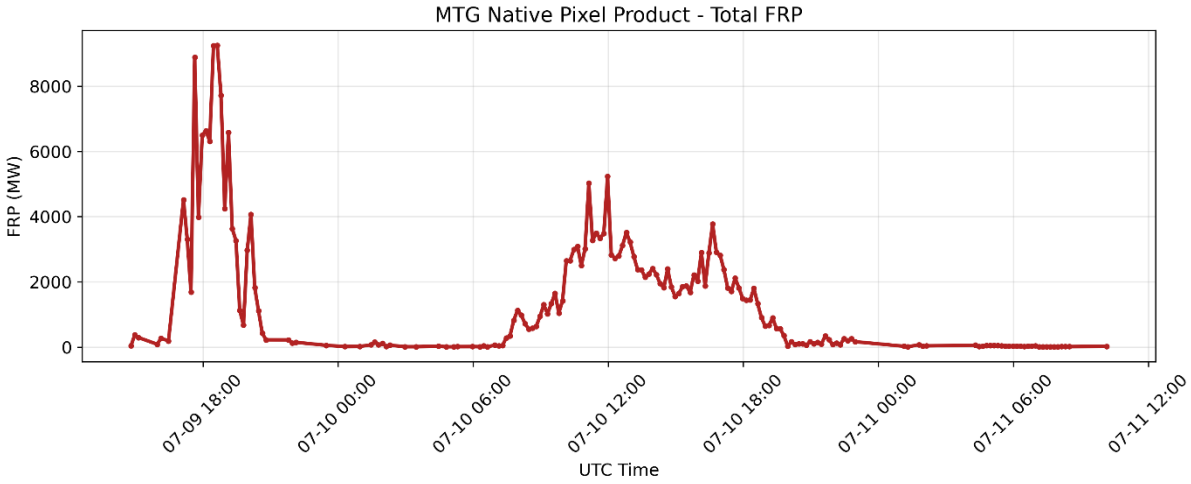

Figure 2. Time series of EUMETSAT MTG-derived Fire Radiative Power (FRP) during the Los Gallardos wildfire. Local time (CEST) is UTC + 2h.

The cumulative FRE profile (Fig. 3) shows a rapid increase following fire ignition on 9 July, with cumulative energy reaching approximately 65 TJ by late evening. After a relatively stable period overnight, cumulative FRE increased sharply again during the morning and afternoon of 10 July. The cumulative FRE exceeded 100 TJ by midday on 10 July and continued to rise, reaching approximately 155–160 TJ by the evening. Thereafter, the curve gradually leveled off, with only minor increases observed through 11 July. The final cumulative FRE approached approximately 160 TJ, indicating that the vast majority of the fire's radiative energy was released during the first two days following ignition (Fig. 3).

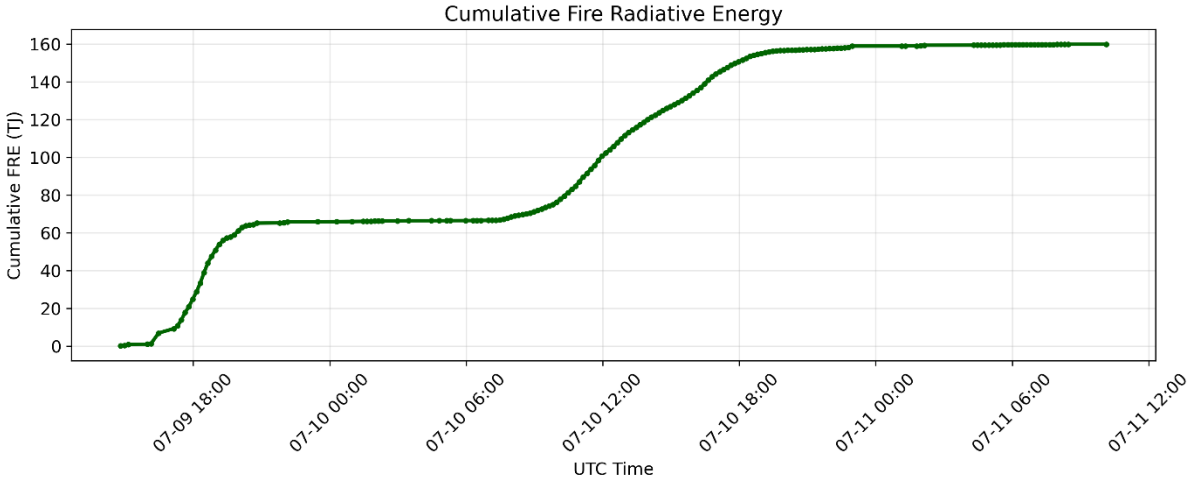

Figure 3. Cumulative EUMETSAT MTG-derived Fire Radiative Energy (FRE) during the Los Gallardos wildfire. Local time (CEST) is UTC + 2h.

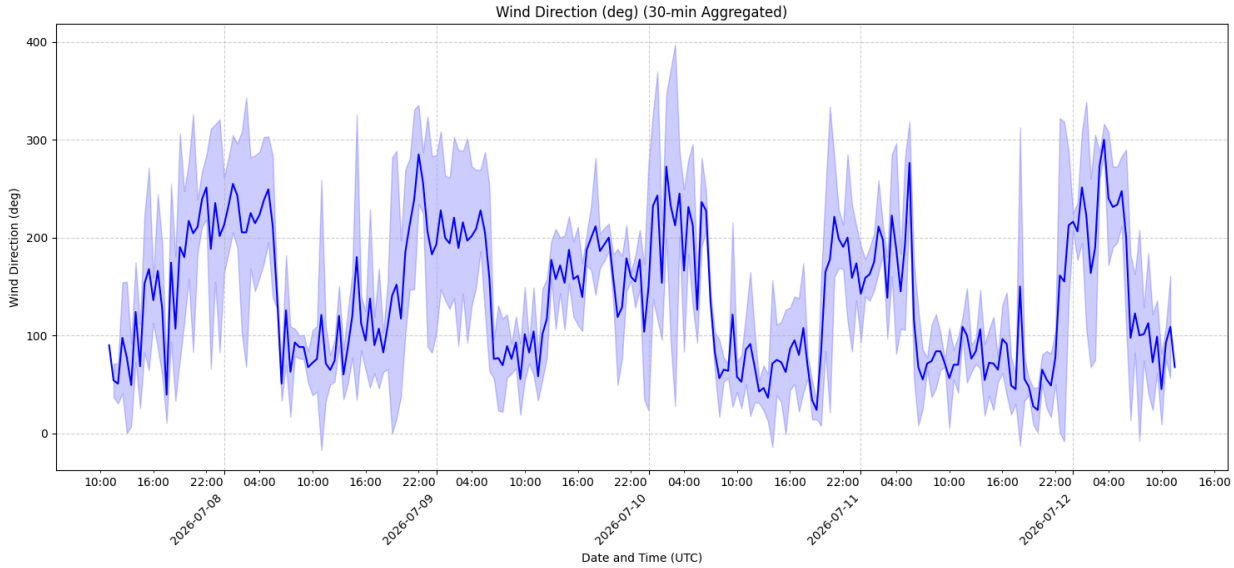

Figure 4. Wind direction evolution aggregated in 30-minute intervals. The plot shows the average (solid line) and standard deviation (shaded area) of the measurements made by 4 weather stations located in the vicinity of Los Gallardos and Bédar. Local time (CEST) is UTC + 2h. Data source: https://redmeteo.ametse.es/ [Accessed on 12 July 2026].

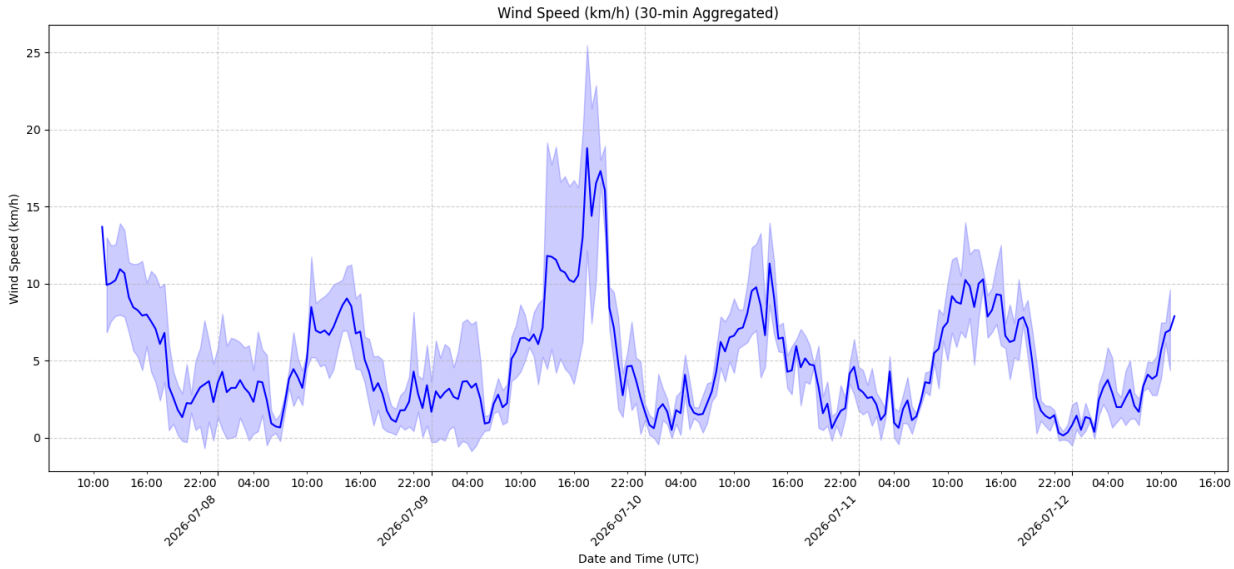

Figure 5. Wind speed evolution aggregated in 30-minute intervals. The plot shows the average (solid line) and standard deviation (shaded area) of the measurements made by 4 weather stations located in the vicinity of Los Gallardos and Bédar. Local time (CEST) is UTC + 2h. Data source: https://redmeteo.ametse.es/ [Accessed on 12 July 2026].

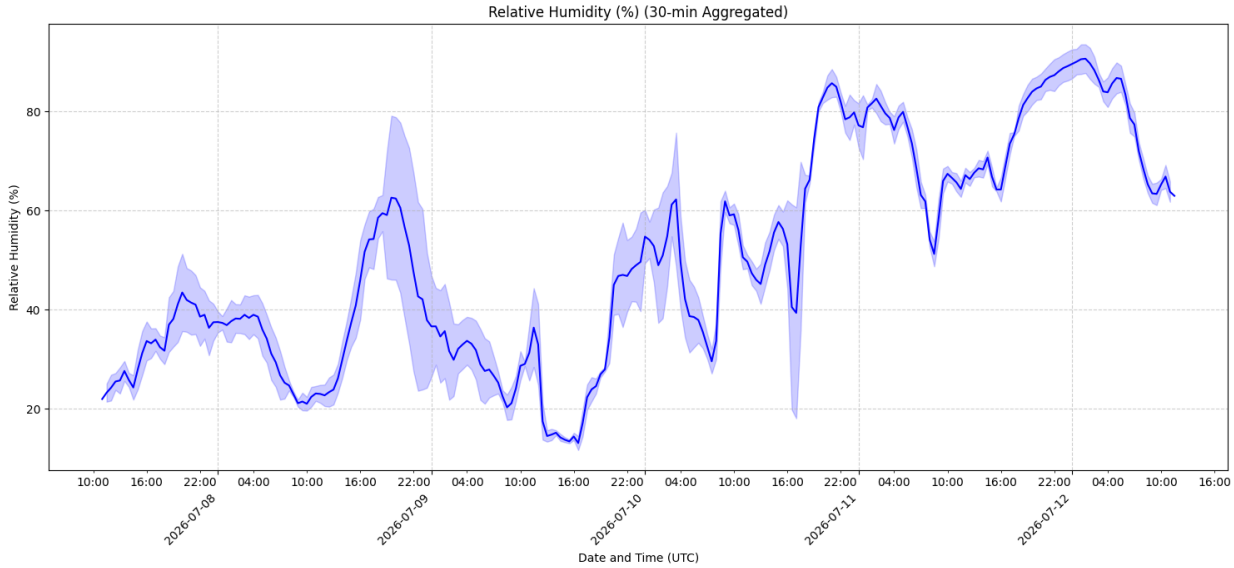

Figure 6. Relative humidity evolution aggregated in 30-minute intervals. The plot shows the average (solid line) and standard deviation (shaded area) of the measurements made by 4 weather stations located in the vicinity of Los Gallardos and Bédar. Local time (CEST) is UTC + 2h. Data source: https://redmeteo.ametse.es/ [Accessed on 12 July 2026].

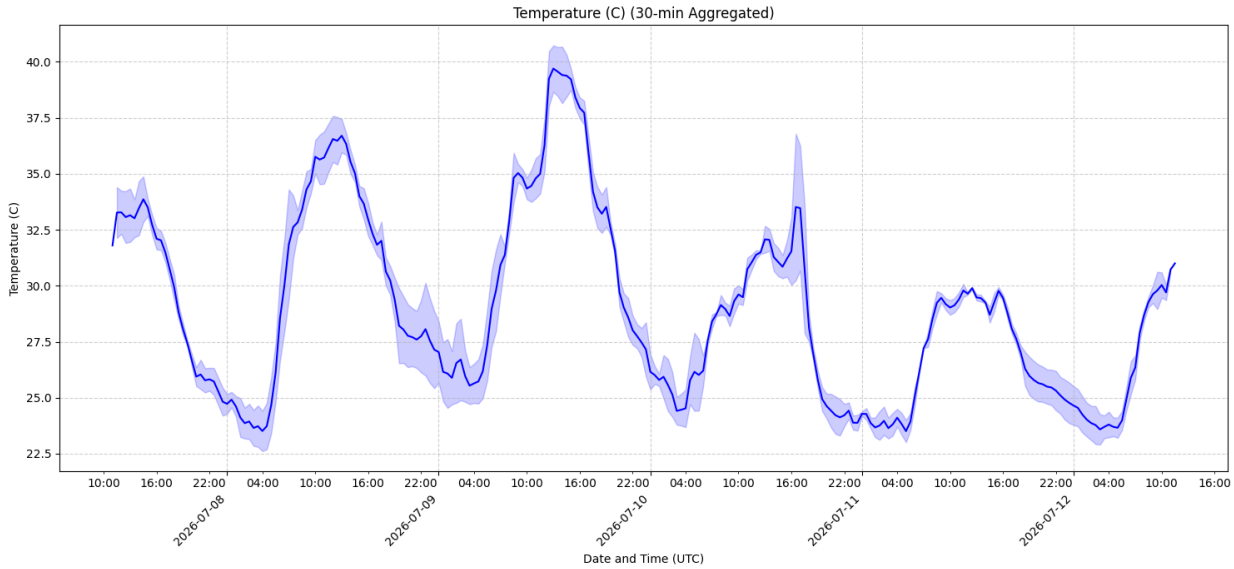

Figure 7. Temperature evolution aggregated in 30-minute intervals. The plot shows the average (solid line) and standard deviation (shaded area) of the measurements made by 4 weather stations located in the vicinity of Los Gallardos and Bédar. Local time (CEST) is UTC + 2h. Data source: https://redmeteo.ametse.es/ [Accessed on 12 July 2026].

Figure 8. Fire behavior observed in grassland and shrubby vegetation during the Los Gallardos fire (Credit: (a) https://www.bbc.com/news, (b) Violeta Santos Moura/Reuters).

Figure 9. Photographs of the burned area in Bédar. (Credit: (a) David Roth, El Correo; (b) Abel F. Ros, Áraba Press).