**Palisades Fire Weather Report and Analysis – January 7, 2025**

**Summary:**  
On January 7, 2025, wind conditions near Pacific Palisades were not unprecedented based on historical weather data from 48 nearby weather stations. During the critical period of potential containment from 10:30 a.m. to 4:00 p.m. (6 hours), when Cal Fire reported the fire expanding from 20 to 200 acres, weather conditions remained manageable. The highest sustained wind speed was 35.7 mph in Malibu (7.1 miles from the fire), with gusts reaching 44 mph in the Santa Monica Mountains (11 miles away). For context, hurricane-force winds begin at 74 mph, with Category 1 hurricanes ranging from 74 to 95 mph. The recorded winds on January 7 were well below this threshold and do not support false claims that the fire spread under hurricane-strength conditions or that it was unmanageable due to record-breaking wind speeds.

This report includes:

* Analysis of data from 48 regional weather stations.
* Charts and downloadable CSV files documenting:
  + Max wind speed and wind gust per station for the full day of January 7, 2025.
  + Max wind speed and wind gust per station between 10:30 a.m. and 4:00 p.m.
  + Historical drought period data.
  + Cal Fire acreage reports with links to archived updates.
  + Historical wind data since 1947 from station KLAX.

**1) Cal Fire Reporting Timeline and Wind Conditions**  
Cal Fire’s reporting on January 7, 2025, indicates that the fire was initially considered manageable during the hours between 10:00 a.m. and 4:00 p.m., a period characterized by moderate, historically typical wind conditions. This timeframe is central to evaluating fire management decisions and weather influences, as it encompasses the window in which the fire grew from a small, controllable incident to a significantly larger event.

* **10:30 a.m.**: Cal Fire initially reported the fire at **10 acres**.
* **11:06 a.m. to 11:26 a.m.**: Cal Fire issued **four updates** stating the fire remained at **10 acres**, suggesting minimal growth in the early stages.
* **11:31 a.m. to 2:31 p.m.**: Within this three-hour window, **14 reports** from Cal Fire consistently cited the fire at **200 acres**, indicating a tenfold expansion from the earlier 20-acre figure.
* This growth occurred while wind conditions remained moderate, with the highest sustained wind speed during this time recorded at **35.7 mph** in Malibu, well below thresholds associated with uncontrollable fire behavior.

After this period:

* **3:34 p.m. to 10:20 p.m.**: Cal Fire issued **20 reports** documenting the fire’s expansion to **1,262 acres**.
* **January 8, 12:29 a.m. to 11:11 a.m.**: Cal Fire made **eight updates** noting the fire had reached **2,921 acres**.
* **January 8, 11:45 a.m.: Cal Fire reported the fire increased to 11,802 acres.**

This weather analysis focuses on the 10:00 a.m. to 4:00 p.m. window on January 7, 2025, because this period represents the critical phase when the fire was still reported by Cal Fire as potentially manageable. During these six hours, weather conditions, though serious, remained within historically normal parameters, with no record-breaking wind speeds or gusts. Claims that the fire was immediately uncontrollable or driven by unprecedented wind conditions during this time are not supported by the available data.

By contrast, the most significant growth in fire size occurred later, with Cal Fire reporting a jump from 2,921 acres to 11,802 acres at 11:45 a.m. on January 8, 2025, more than 24 hours after the initial ignition, and at that point, containment remained at 0%. This underscores the importance of evaluating the early containment window separately from the broader timeline, as it provides critical context for understanding fire management opportunities and the actual influence of weather conditions on initial fire behavior.

*Inclusion:* Timeline of Cal Fire acreage reports with hyperlinks to official sources.

**2) Wind Conditions Throughout the Day of January 7, 2025**  
A review of data from **all 45 weather stations within roughly a 20-mile radius of the fire** shows that winds on January 7 never approached “extreme” levels.

* **Daily peak sustained wind:** 40.8 mph at 10:45 p.m. PST, recorded at Station **KCAMALIB52 (Malibu, 7 miles from the fire)**.
  + Since archived records begin in 1947, there have been **26 separate days** with sustained winds ≥ 40.8 mph at the same or neighboring stations, so the January 7 maximum is well within the historical range.
* **Peak gust:** 60 mph (same station, 10:50 p.m.).
  + For context, hurricane-force winds start at 74 mph (Category 1: 74–95 mph). The strongest gust on January 7 was **14 mph below** that threshold.
* **Typical station readings:**
  + 35 of 45 stations (≈ 78 %) never rose above **30 mph** sustained all day.
  + The Los Angeles International Airport station (**KLAX**) topped out at **29 mph** sustained at 8:00 p.m.; there have been **453 days** with equal or stronger winds at KLAX since 1947.

*\*See Anomalies section below. Four of the 49 stations were excluded due to anomalies: one station consistently reported wind speeds approximately twice as high as neighboring stations and was classified as an outlier, while three others reported wind speeds of zero throughout the day, indicating likely sensor malfunction or data loss.*

*Inclusion:* Max wind speed and gust charts and downloadable CSV file for all stations.

**3) Wind Conditions During Period of Potential Containment (10:30 a.m. – 4:00 p.m.)**  
Cal Fire reported the fire’s growth from 20 acres to 200 acres during this six-hour interval, yet winds remained moderate and stable:

* **Highest sustained wind:** **35.7 mph at 12:15 p.m.** from Station KCAMALIB52 (Malibu, 7 miles from fire).
  + Historical check: there have been **87 days** since 1947 with sustained winds ≥ 35.7 mph, underscoring that such speeds are routine for the area.
* **Highest gust:** **44 mph** at 11:55 a.m. from a station in the Santa Monica Mountains (11 miles from fire).
* **Regional consistency:**
  + 40 of 45 stations (≈ 89 %) recorded sustained winds **≤ 30 mph** throughout the window, with little directional variability.
  + No station registered gusts that met or exceeded the National Weather Service “High Wind Warning” threshold (sustained ≥ 40 mph and gusts ≥ 58 mph).

Taken together, these observations confirm that fire-line conditions were **well below hurricane force and comfortably within the historical norms for Southern California winter wind events**. Claims that the Palisades Fire was driven by unprecedented or unmanageable winds are not supported by the meteorological record.

*Inclusion:* Max wind speed and gust charts and downloadable CSV file for this period.

**4) Historical Context – Wind**   
Wind conditions on January 7, 2025, during the Palisades Fire, were within historical norms and do not support claims of extreme or unprecedented weather. Analysis from 45 nearby weather stations shows that, during the critical containment window between 10:30 a.m. and 4:00 p.m., the highest recorded wind speed came from Station KCAMALIB52 in Malibu. At 12:15 p.m., this station recorded sustained winds of 35.7 mph. Based on historical data dating back to 1947, there have been 87 days with wind speeds equal to or exceeding this value, demonstrating that such conditions are not rare.

Over the course of the entire day, the highest wind speed again came from the same Malibu station, peaking at 40.8 mph at 10:45 p.m. Even this daily maximum is not historically significant; there have been 26 days since 1947 with equal or higher wind speeds.

Additionally, Station KLAX, located at Los Angeles International Airport, recorded a maximum sustained wind speed of 29 mph at 8:00 p.m. on the same day. Since 1947, there have been 453 days with equal or greater wind speeds than this KLAX measurement.

For context, hurricane-force winds begin at 74 mph, with Category 1 hurricanes ranging from 74 to 95 mph. The wind speeds recorded on January 7, 2025, fell far below these thresholds and were consistent with typical seasonal wind events in the region. There is no meteorological basis for the assertion that the fire’s growth occurred under hurricane-strength or historically extreme wind conditions.

*Inclusion:* Chart of historical wind data since 1947 from KLAX and historical drought data CSV.

**5) Historical Context –Droughts**  
Drought conditions leading up to the Palisades Fire were neither exceptional nor record-breaking when compared to recent regional patterns. Based on 11 years of available precipitation data beginning March 26, 2014, multi-month droughts are common in the Los Angeles region, and the patterns of substantial rainfall followed by extended dry periods are well-documented.

The drought most cited in media reports began on April 16, 2024, and ended after the fire on January 26, 2025, lasting 285 days with only 0.16 inches of rain. However, the 180 days prior to the drought saw 19.44 inches of rainfall. While some attribute increased fire risk to vegetation growth from this rain, similar patterns have occurred frequently. For example, from March 31 to August 20, 2023, only 0.65 inches of rain fell over 142 days, following a 180-day period with 23.18 inches of precipitation. These sequences of high rainfall followed by drought are typical in Southern California’s Mediterranean climate and not inherently exceptional.

As of the day of the fire on January 7, 2025, the drought had lasted only 266 days, shorter than the 275-day drought ending January 9, 2018. Other comparable events include a 260-day drought ending December 27, 2020, and a 257-day drought ending November 20, 2019. The rainfall prior to the 2025 Palisades Fire drought also does not represent a record high, with higher totals documented in prior years.

Given the relatively short 11-year dataset, more extreme droughts likely occurred before records were made available for the region. Within this limited timeframe, however, neither the length nor the conditions of the drought preceding the Palisades Fire stand out as unusual. Assertions that the fire was driven by unprecedented drought or vegetation growth are not supported by the available data.

*Inclusion:* Chart of historical wind data since 1947 from KLAX and historical drought data CSV.

**6) Forecast and Fire Risk Warnings**  
Media outlets have falsely claimed that the winds driving the Palisades Fire were “unforeseen.” In fact, between January 3 and January 7, 2025, the National Weather Service, Southern California Edison, and the City of Malibu issued at least five public alerts warning of an imminent Santa Ana wind event and “extreme” fire-weather conditions. Although the strongest sustained winds and gusts ultimately fell short of the 60- to 90-mph values mentioned in those forecasts, the advance warnings, covering power shut-offs, road closures, and Red Flag conditions, made it clear that elevated fire danger was anticipated well before the first flames appeared.

**Timeline of Advance Warnings**

| **Date & Time (PST)** | **Issuing Agency** | **Key Message** |
| --- | --- | --- |
| Fri Jan 3 – 6:55 a.m. | NWS – Area Forecast Discussion | Noted scenarios “ranging from a widespread damaging windstorm and extreme fire-weather risk to weaker offshore flow” for Tue–Thu (Jan 7–9). |
| Sat Jan 4 – 8:00 p.m. | SCE – PSPS Watch | Announced 363,196 customers (including all of Malibu) were at risk of planned shut-offs starting as early as Tue Jan 7 because of forecast winds. |
| Sun Jan 5 – 4:55 a.m. | City of Malibu – Alert | Cited NWS projections of 60–80 mph coastal gusts and 90 mph mountain gusts; repeated SCE blackout warning for Tue–Wed. |
| Mon Jan 6 – 12:00 p.m. | City of Malibu – Red Flag Warning | Declared “widespread, extremely dangerous fire conditions” from 4 a.m. Tue Jan 7 to 6 p.m. Thu Jan 9; urged residents to prepare for fires, evacuations, road closures (Topanga Cyn), and PSPS. |
| Tue Jan 7 – 9:00 a.m. | SCE – Power Shut-Off Initiated | 712,769 customers notified; 363,196 de-energized. PSPS activated ahead of peak winds. |

**Key take-aways**

* Each alert explicitly linked strong Santa Ana winds (forecast up to 80–90 mph in exposed areas) with extreme fire danger.
* Residents, utilities, and fire agencies had 72–96 hours of notice that critical fire-weather conditions would begin the morning of January 7.
* The power shut-off program, road closures, and activation plans for Malibu’s Emergency Operations Center were in place before the first smoke column was reported.

Consequently, claims that the wind event, and by extension the fire behavior, was “unforeseen” are contradicted by the documented sequence of official warnings issued days in advance.

*Inclusion:* Chart and CSV file of historical drought conditions.

**7) Weather Station Data and Anomalies**  
This analysis draws on data from 48 regional weather stations. A detailed table of stations, addresses, zip codes, and distance from the fire is included.

**Anomalies Omitted:**

* **KCATOPAN8** (2.34 miles from fire origin): Reported excessive values with sustained winds of 89 mph and gusts of 98 mph, not corroborated by nearby stations.  
  Note that this area does not show any signs of burning and is known as 69 Bravo Helistop  
  https://69bravo.com/
* **KCALOSAN842**, **KCASANTA4733**, **KCASANTA630**: Reported zero wind and gust values throughout the day and during the fire growth window.

*Inclusion:* Station data table and downloadable CSV file.

**Appendices and Downloads:**

* [CSV] Max Wind and Gust Jan 7 Full Day
* [CSV] Max Wind and Gust Jan 7 (10:30 a.m. – 4:00 p.m.)
* [CSV] Historical Drought Data
* [CSV] Weather Station Details
* [CSV] Historical Wind Speeds (KLAX)
* [Links] Cal Fire Acreage Reports and Updates