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

**Summary:**  
This report critically examines the weather conditions surrounding the January 7, 2025 Pacific Palisades fire to assess whether claims of unmanageable, unprecedented, or climate change driven conditions are supported by factual data. Drawing from 49 regional weather stations, historical wind records, drought trends, and official forecasts, the analysis finds that the fire occurred under conditions that were historically consistent, predictable, and well within the thresholds of manageable wildfire behavior. Climate change had no demonstrable impact on this specific event, as both the wind patterns and drought conditions align with long-established Southern California climate cycles. Contrary to public assertions, the fire did not burn under hurricane-force winds, nor did it unfold during a record-breaking drought. By analyzing environmental data, including wind speeds, historical comparisons, drought frequency, and the availability of early warnings, this report aims to provide a data-driven foundation for evaluating the emergency response and policy accountability surrounding the event.

On January 7, 2025, wind conditions near Pacific Palisades were not unprecedented and remained well within manageable limits based on historical data from 49 weather stations across the region. 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 origin), with the highest gust reaching 44 mph in the Santa Monica Mountains (11 miles away from the fire origin) **(Section 1, Section 3)**. 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.

Across the full day, the maximum sustained wind of 40.8 mph and top gust of 60 mph remained below the National Weather Service’s criteria for a “High Wind Warning,” and were not historically extreme **(Section 2, Section 4)**. In fact, even the Los Angeles weather station, which historically records weaker wind speeds than the areas of Palisades or Malibu, has documented stronger daily winds at least 87 times since 1947, including actual hurricane events with wind speeds exceeding 70 mph **(Section 4)**. Moreover, 89% of stations reported sustained maximum winds below 30 mph during the containment window, confirming that conditions were not uniformly severe or unmanageable **(Section 3)**.

These winds were also forecasted days in advance. Between January 3 and January 7, multiple agencies, including the National Weather Service, Southern California Edison, and the City of Malibu, issued early warnings about strong Santa Ana winds, extreme fire danger, and preemptive power shut-offs **(Section 6)**. This reinforces that the event was predictable and that emergency preparations had already been initiated.

The preceding drought, while ongoing, also followed well-known Southern California climate cycles. The 266-day dry spell before the fire was neither record-breaking nor anomalous, and similar patterns of heavy rainfall followed by prolonged drought have occurred repeatedly in the last decade **(Section 5)**. The false claim that vegetation growth from prior rainfall made this fire uniquely unmanageable is not supported by the well-documented behavior of Mediterranean ecosystems, especially given that, within just the past decade, the region has experienced both longer droughts and greater rainfall preceding dry periods.

Finally, data from the 34 stations located within 10 miles of the fire origin showed that, during the 6-hour containment period, the average maximum sustained wind speed was just 16.77 mph, with average maximum gusts of 24.82 mph **(Section 7)**. These stations are part of the 45 most valid sources analyzed in the report. These moderate readings further debunk false claims that weather conditions were extraordinary or that they excused failures in containment efforts.

In conclusion, the fire on January 7, 2025, occurred under weather and climate conditions that were not only historically common but also widely forecasted and manageable. Neither wind speeds nor drought conditions were extreme or record-breaking, and no evidence supports the notion that climate change played a direct role in this event. Instead, the only aspect of this fire that can be considered truly unprecedented was the failure to contain it, despite the availability of early warnings, known fire behavior patterns, and decades of historical precedent. Misrepresenting the fire as a product of uncontrollable or climate-driven forces undermines the accountability of fire management agencies and public safety planning, especially when the data makes clear that this was a foreseeable and manageable emergency.

**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 small expansion from the earlier 10-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.

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[Downloadable Data 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.*

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**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.

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**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.

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**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.

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**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.

[Downloadable Data Sources]

**7) Weather Station Data and Anomalies**  
The analysis for this report draws on data from **45 of 49 regional weather stations**, with 4 stations excluded due to anomalies that rendered their readings unreliable. All stations are provided and documented for further review with their address, zip code, and distance from the fire origin.

**Anomalies Omitted**

* **KCATOPAN8** (2.34 miles from the fire origin): Reported abnormally high sustained wind speeds of 89 mph and gusts of 98 mph, values not corroborated by any surrounding stations. These measurements are likely due to sensor error or miscalibration. The station is located at the **69 Bravo Helistop**, a mountaintop facility known for strong localized wind patterns, but the area did not burn during the fire. See: [69Bravo.com](https://69bravo.com/).
* **KCALOSAN842, KCASANTA4733, KCASANTA630**: These three stations reported zero wind and gust values throughout January 7, 2025, including during the critical fire spread period. Their inactivity suggests offline or non-functional status during data collection.

**Wind Conditions During the Manageable Window**

While data from all 45 valid stations were reviewed, **special attention should be given to the 34 stations located within 10 miles of the fire origin** to assess conditions during the most critical window, from **10:00 a.m. to 4:00 p.m.**, when Cal Fire still reported the blaze as manageable.

Across these 34 stations, the **average maximum sustained wind speed** during this timeframe was **16.77 mph**, and the **average maximum wind gust** was **24.82 mph**. The average maximum values are calculated by the mean of each station’s highest recorded wind speed and gust between 10:00 a.m. and 4:00 p.m. on January 7, 2025.

These values fall well within the range of normal seasonal variation and provide clear evidence that, during the early hours of the fire, weather conditions were moderate and did not reflect the extreme or uncontrollable forces some later claimed.

[Downloadable Data Sources]

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