

Department of Environmental Conservation's Air Monitoring Program Community-Based Air Monitoring Project

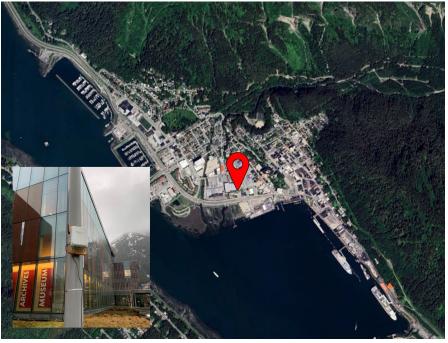
2024-25 Winter Season Air Quality Report for Alaska State Museum, Juneau, Alaska

The QuantAQ MODULAIR[™] sensor at the Alaska State Museum in Juneau (395 Whittier St, Juneau, AK 99801) was installed on 01/29/2024.

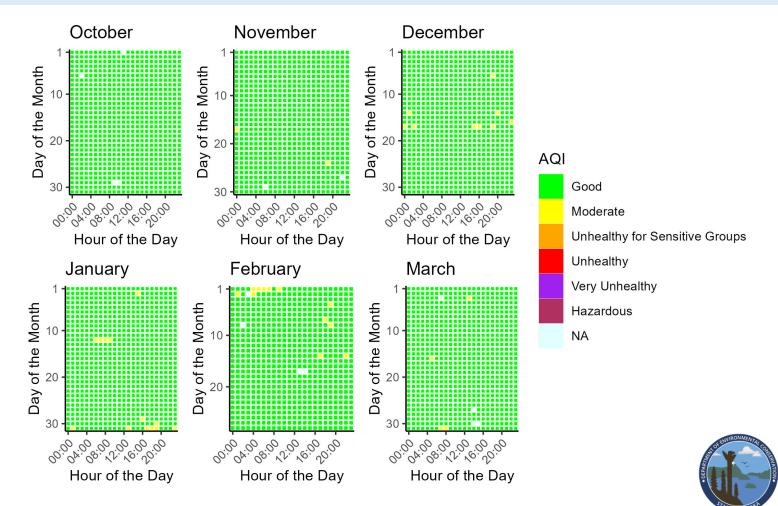
The sensor measures for carbon monoxide (CO), ozone (O_3), nitrogen oxide (NO), nitrogen dioxide (NO_2), particulate matter ($PM_{2.5}$ and PM_{10}), temperature (°C), and relative humidity (RH). Data is collected every minute and is then processed into hourly averages.

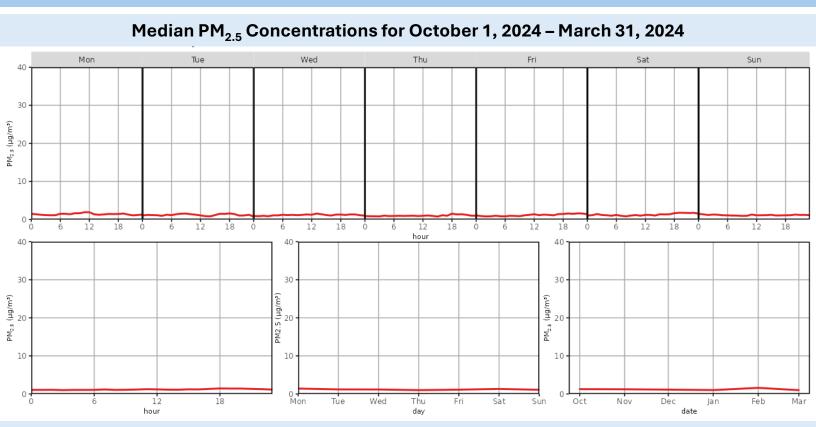
The sensor in Juneau has run well since its installation in January of 2024; there have been no physical issues with the sensor.

This data report covers the date range of October 1, 2024, to March 31, 2025.



Daily PM_{2.5} Air Quality Index (AQI) for October 1, 2024 – March 31, 2024





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Descriptive Statistics of Air Pollutants*

Parameter	1-hr PM _{2.5} (µg/m³)	24-hr PM _{2.5} (µg/m³)	1-hr PM ₁₀ (µg/m³)**	24-hr PM ₁₀ (µg/m³)**	1-hr O ₃ (ppb)	1-hr NO ₂ (ppb)	1-hr NO (ppb)	1-hr CO (ppb)
Min								
	0.03	0.14	0.00	0.50	0.00	0.82	1.44	0.30
Mean								
	1.68	1.65	14.63	10.80	22.89	14.48	6.46	0.38
1 st Max								
	34.56	5.71	1359.00	189.50	47.73	29.78	53.29	1.10
2 nd Max								
	23.70	5.32	965.00	171.46	47.54	29.63	51.41	0.70

Data Discussion

Juneau's $PM_{2.5}$ ambient air quality for the winter 2024-25 season fell mostly in the "good" range of the Air Quality Index (AQI; more information about AQI is provided on page 3), with several hours each month reporting in the "moderate" AQI range. Diurnal patterns show little variability of $PM_{2.5}$ concentrations across different days of the week. From October to March, February showed slightly elevated $PM_{2.5}$ levels compared to the rest of the winter season.

* These statistics are based on preliminary data readings and are intended to provide a brief overview of sensor activity. Finalized data may be obtained upon request and through our annual statistical reports. Data from the community sensor network is non-regulatory and not comparable to the EPA's National Ambient Air Quality Standards (NAAQS; more information about the EPA NAAQS is provided on page 3).

** PM₁₀ particle sensors are influenced by weather events such as fog and snow due to hygroscopic effects, creating false maximum values that do not pose health risks.



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Data Access

To access historical data for your community's sensor, please email a request to: <u>AMQA-Data-Request@alaska.gov</u>. Data will be provided in Excel or .csv format.

Questions or Comments?

Please contact us!

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