

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

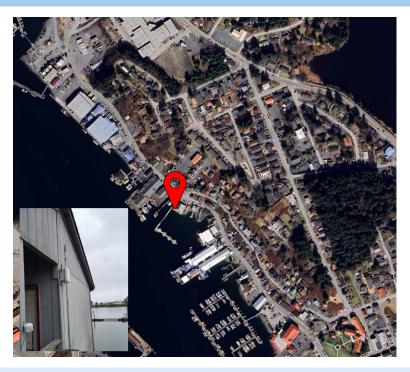
> 2024-25 Winter Season Air Quality Report for Sitka Tribe of Alaska, Sitka, Alaska

The QuantAQ MODULAIR[™] sensor in Sitka (456 Katlian St, Sitka, AK 99835) was installed on 03/21/2024.

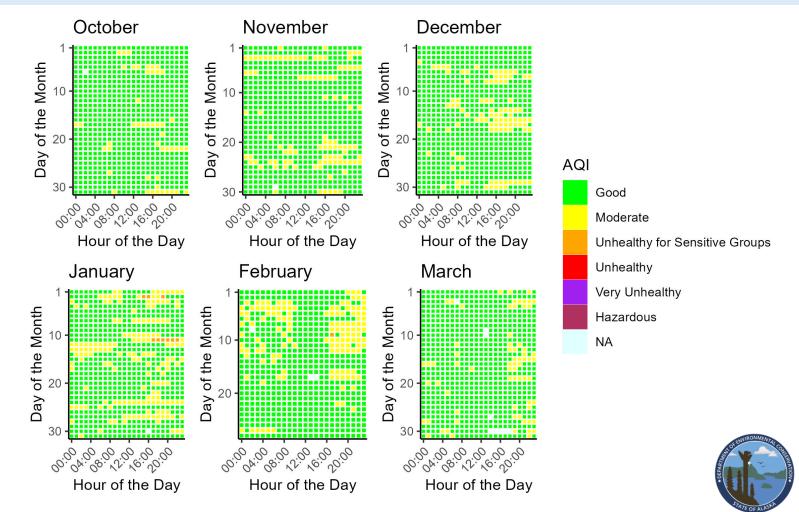
The sensor measures for carbon monoxide (CO), ozone (O_3), nitrogen oxide (NO), nitrogen dioxide (NO₂), particulate matter (PM_{2.5} and PM₁₀), temperature (°C), and relative humidity (RH). Data is collected every minute and is then processed into hourly averages.

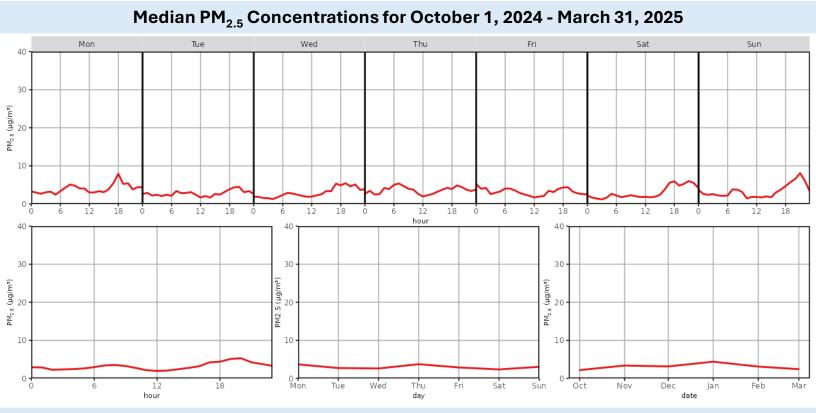
The sensor in Sitka has run well since its installation in March of 2024; there have been no physical issues with the sensor.

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, 2025





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Descriptive Statistics of Air Pollutants*

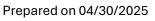
Parameter	1-hr PM _{2.5} (µg/m³)	24-hr PM _{2.5} (µg/m³)	1-hr PM ₁₀ (µg/m³)**	24-hr PM ₁₀ (μg/m³)**	1-hr O ₃ (ppb)	1-hr NO ₂ (ppb)	1-hr NO (ppb)	1-hr CO (ppb)
Min								
	0.04	0.41	0.00	3.42	2.98	2.23	1.50	0.20
Mean								
	4.83	4.81	23.29	23.31	34.02	10.95	21.49	0.37
1 st Max								
	51.40	16.28	670.00	120.42	54.12	31.09	62.19	1.10
2 nd Max								
	43.34	13.79	576.00	116.62	52.96	30.35	60.70	1.00

Data Discussion

Sitka's PM_{2.5} ambient air quality for the winter 2024-25 season fell mostly in the "good" and "moderate" range of the Air Quality Index (AQI; more information about AQI is provided on page 3). January and February both experienced several hours in the "hazardous for sensitive groups" AQI range. Daily AQI trends show small peaks around 6:00pm each day. Diurnal patterns show little variability of PM_{2.5} concentrations across different days of the week. From October to March, January showed the highest concentrations of PM_{2.5} likely due to temperature inversions trapping pollutants at ground level.

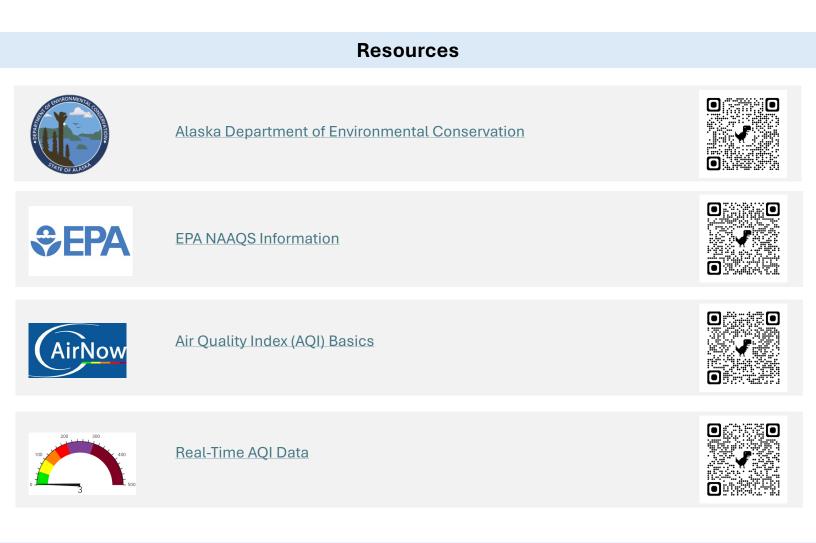
* These statistics are based on preliminary data readings and are intended to provide a brief overview of sensor activity. Finalized data may be obtained upon request and through our annual statistical reports. Data from the community sensor network is non-regulatory and not comparable to the EPA's National 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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