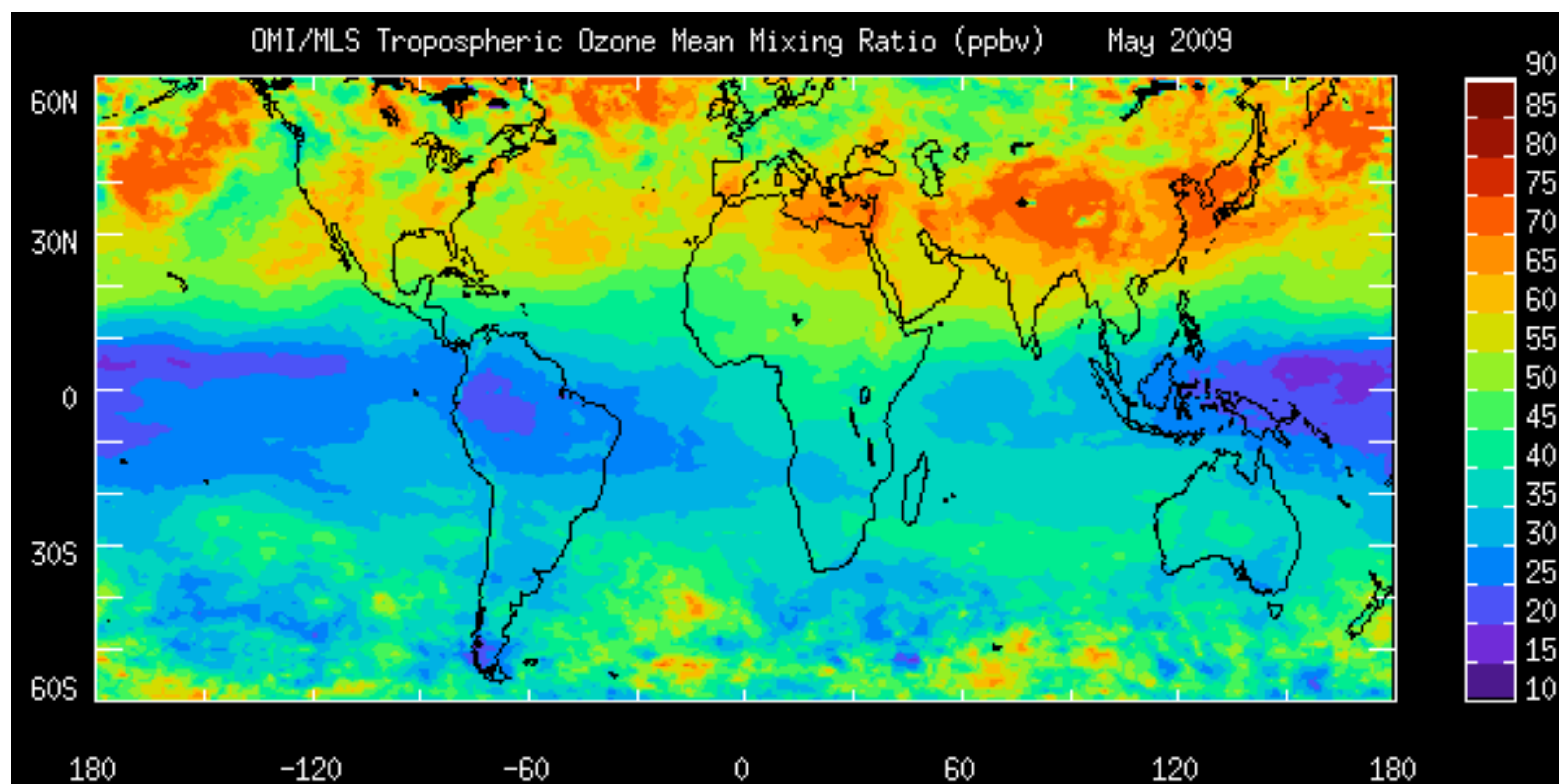
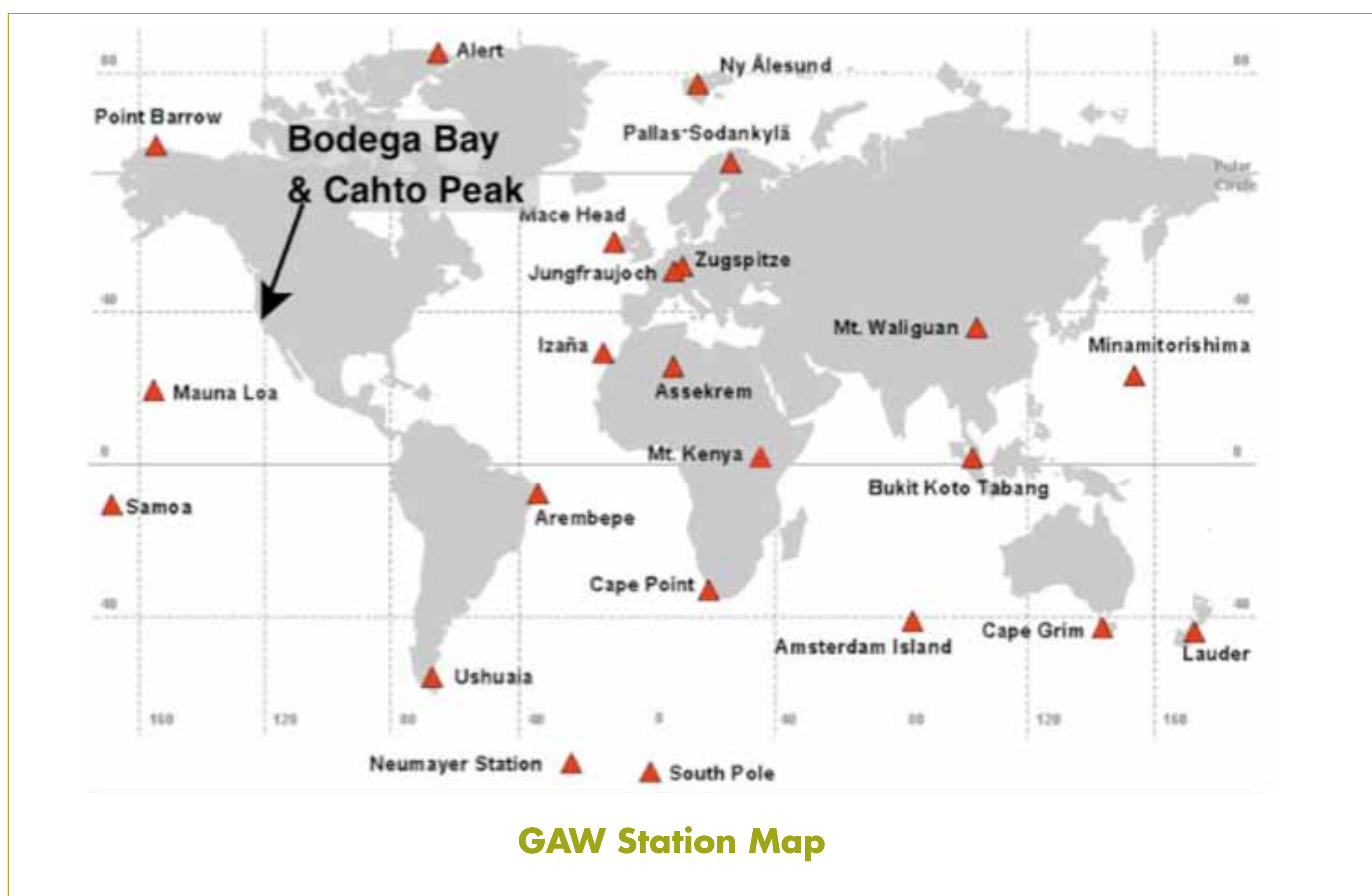


Climate Sentinel Stations

Monitoring Earth's atmosphere is crucial for early detection and better understanding of climate change.



▲ Above: the patterns of ozone in the lower atmosphere observed by a NASA satellite evince transport of this important air pollutant from Asia to North America. Real-time and long-term observations of climate and pollution transport are necessary to help us plan and respond.



▲ No key global monitoring stations exist in the continental U.S.—new sentinel stations at Bodega Bay in Sonoma County and Cahto Peak in Mendocino County fill this gap. The World Meteorological Organization (WMO) oversees a global network of Global Atmosphere Watch (GAW) stations to monitor key chemical and physical properties of the atmosphere. Meanwhile Asia's rapid and largely uncontrolled industrialization is substantially changing the composition of air arriving at our Pacific shores, compromising air quality and impacting regional climates. Moreover, global warming is altering storm tracks and coastal ecosystems in ways that are likely to impact the availability of fresh water and the productivity of fisheries in the west.

THE EARTH'S CLIMATE IS WARMING, and the impact on California is expected to be significant

- Globally, 11 of the past 13 years have ranked as the warmest on record since 1850.

For California, scientists predict:

- Average temperatures are expected to rise 1-2°C by mid-century,
- Fatal heat waves will increase by about 50%,
- Approximately 10% less precipitation across the state
- Snow pack will be diminished by ~30%,
- Sea level will rise by ~10 cm.,
- Global pollution transport continues to degrade California's air quality.

Doctors tell us that routine check-ups are the best strategy in preventing many common ailments, and the same holds true for the planet. Continuous monitoring of our Earth's atmosphere is crucial for early detection and explication of climate change, and provides the best opportunity to curtail adverse effects.

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