

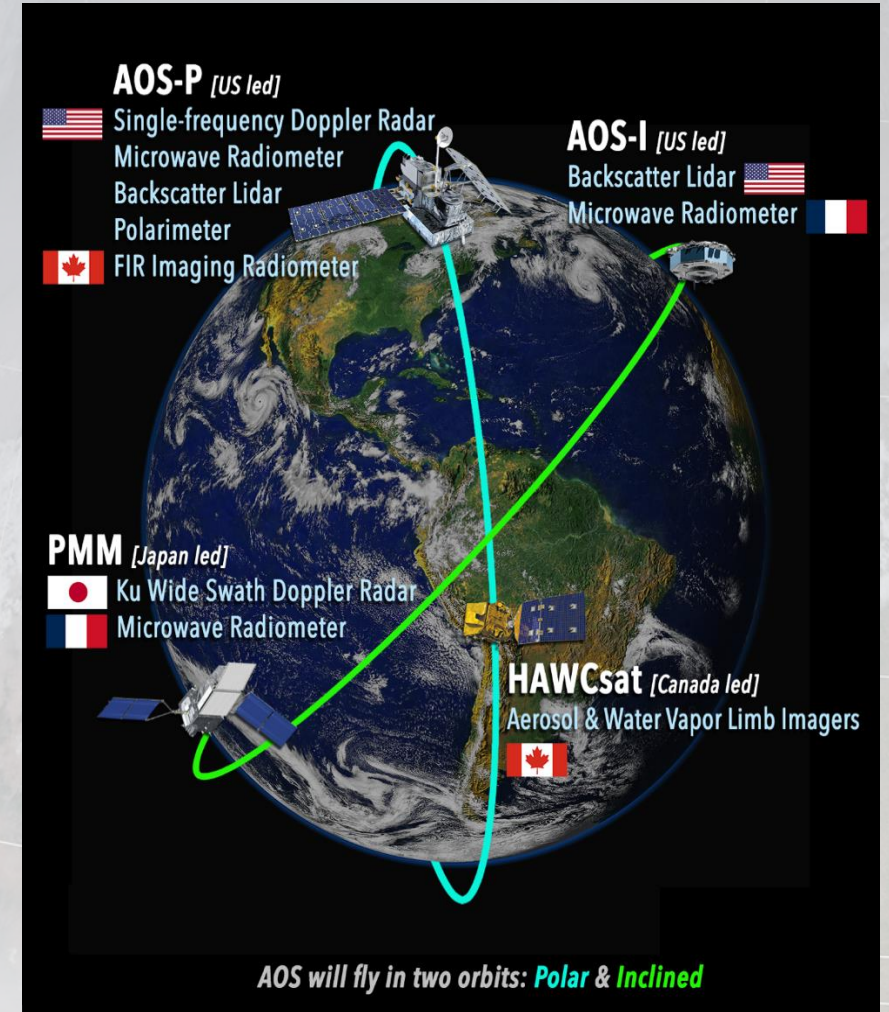
# The NASA Atmosphere Observing System (AOS)



AOS provides an observing system for measurements of 3 atmospheric phenomena; aerosols, clouds, and precipitation; that are critical to better understanding and predicting weather, air quality, and climate

AOS Includes several “First-Ever” observations:

- Vertical motions within storms and clouds
- Simultaneous climate-relevant phenomenon and their linkages to each other (clouds, precipitation, radiation, and aerosols)
- Changes in aerosols, clouds, and precipitation over time, from minutes to years



<https://aos.gsfc.nasa.gov>

# Why Should NASA Make These Measurements?

Global Risks Report 2024

## Top 10 risks

"Please estimate the likely impact (severity) of the following risks over a 2-year and 10-year period."

### 2 years

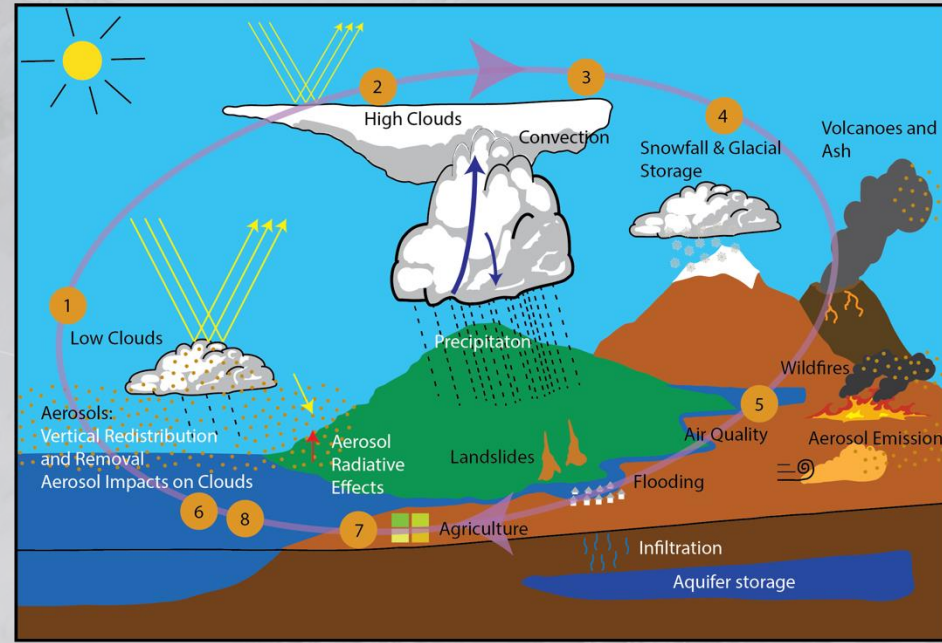


### 10 years

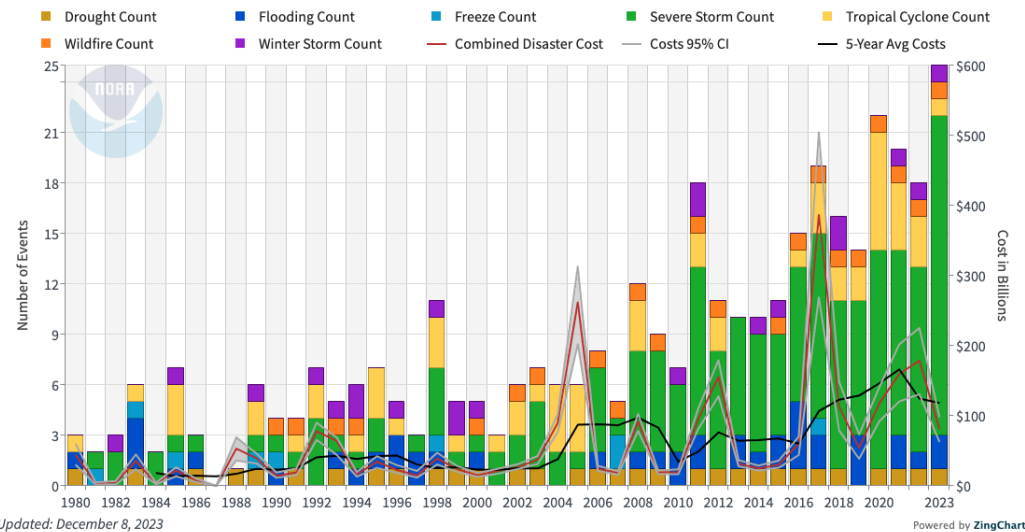


Risk categories: Economic, Environmental, Geopolitical, Societal, Technological

Source: World Economic Forum Global Risks Perception Survey 2023-2024.



United States Billion-Dollar Disaster Events 1980-2023 (CPI-Adjusted)



Billion-dollar disasters increased ~7 fold from early 1980s to early 2020s, mostly from severe storms.

<https://www.weforum.org/agenda/2024/01/global-risk-report-2024-risks-are-growing-but-theres-hope/>