National Aeronautics and Space Administration

WHyMSIE: Unlocking next-generation remote sensing technology…

11 instruments **6** weeks **Heartland & Coastal** U.S. regions

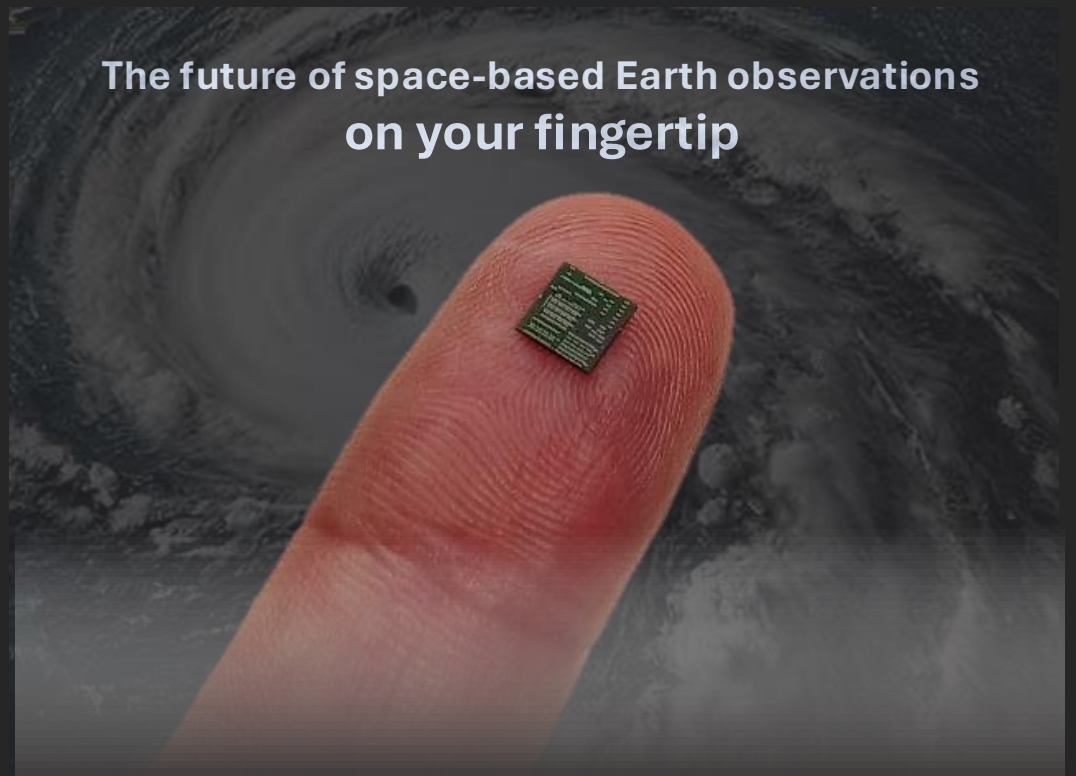
The WHyMSIE campaign tested capability to capture thousands of layers of atmospheric measurements, from space down to the lowest part of Earth's atmosphere (the Planetary Boundary Layer) with never-before-seen precision and fine scale detail

50%

Demonstrated improvement in accuracy of current measurement capabilities

1st

Paving the way for Aurora Pathfinder mission, which would see the U.S. bring the first-ever hyperspectral microwave instrument to space



New photonic integrated circuit technology paves the way for a first-of-its-kind spaceborne instrument, which would put America at the forefront of critical observations for extreme weather, air quality, and complex system interactions, as well as offering opportunities to scale up more efficient, cost-effective advancements in existing remote sensing technologies.