

The Plankton, Aerosol, Cloud, ocean Ecosystem (PACE) mission: Status, science, advances
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The NASA Plankton, Aerosol, Cloud, ocean Ecosystem (PACE) mission is a strategic climate continuity activity that will not only extend key heritage ocean color, cloud, and aerosol data records, but also enable new insight into oceanographic and atmospheric responses to Earth's changing climate. The primary PACE instrument will be a spectroradiometer that spans the ultraviolet to shortwave infrared region at 5 nm resolution with a ground sample distance of 1 km at nadir. This payload will be complemented by two cubesat-sized multi-angle polarimeters with spectral ranges that span the visible to near infrared spectral region. Scheduled for launch in 2022, this PACE instrument suite will revolutionize studies of global biogeochemistry, carbon cycles, and hydrosols / aerosols in the ocean-atmosphere system. Here, I present a PACE mission overview, with focus on instrument characteristics, core and advanced data products, and overarching science objectives.