

Gondola for High Altitude Planetary Science (GHAPS)

Overview

- Scientific Balloons fly >110,000 ft. above 99.5% of the atmosphere, enabling unique planetary science observations
- GHAPS is a re-usable balloon-borne observation platform, designed for multiple missions, each up to 100 days
- Science on GHAPS will be competed and available to the planetary science community
- GHAPS first flight is planned for fall of 2020 from Fort Sumner, New Mexico



Key Advantages of Scientific Balloons

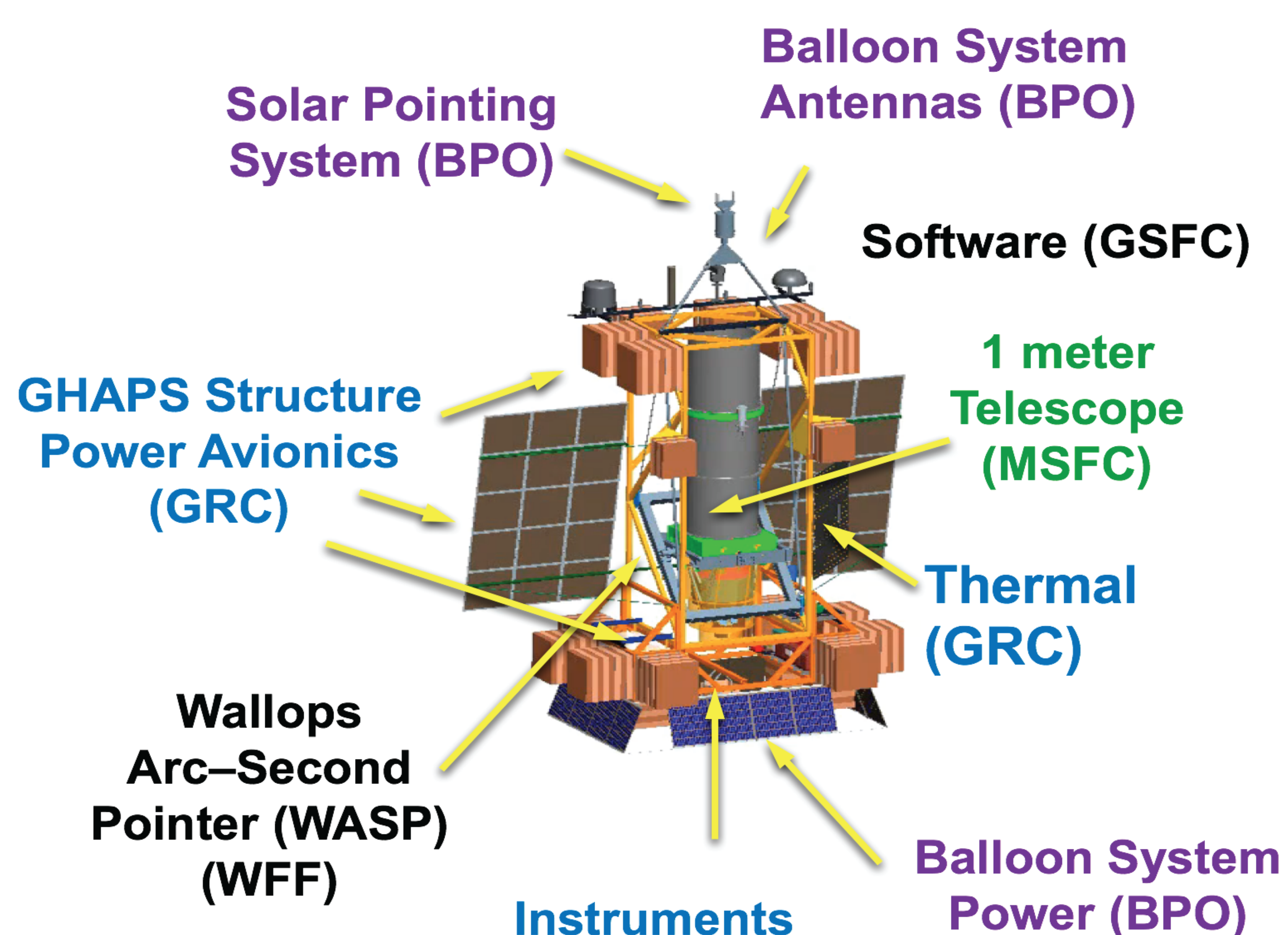
Long duration flights enable temporal science

- Jupiter storms
- Venus clouds & super rotation
- Methane or Water cycles on Mars or Moon, etc.

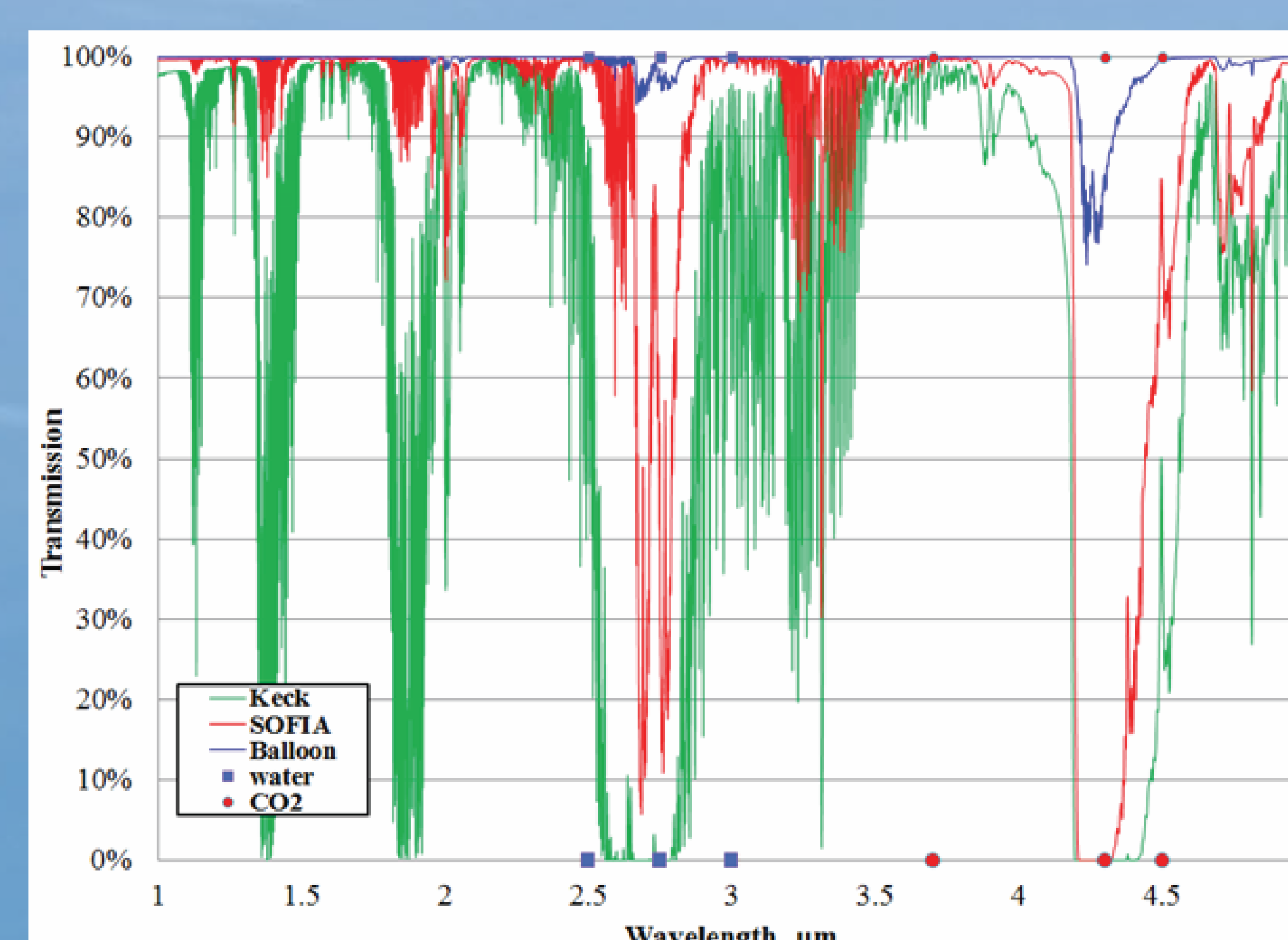


Balloon Observation Platform for Planetary Science (BOPPS), 2014

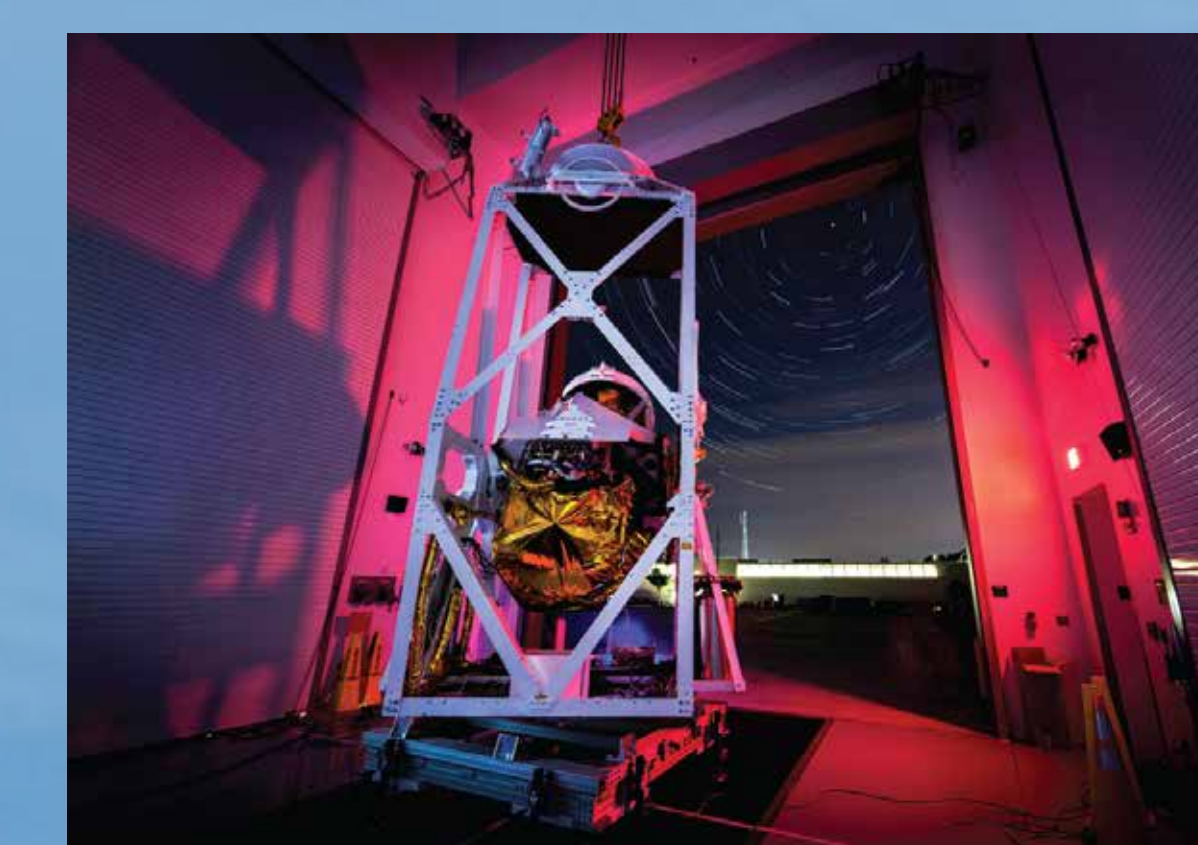
GHAPS offers a cost effective, re-usable platform, producing decadal class planetary science



GHAPS will access wavelengths inaccessible from ground-based and airborne facilities



- H₂O, CO₂, CH₄ measurements are possible



Balloon Observation Platform for Planetary Science (BOPPS), 2014

GHAPS is expected to provide:

- High spatial resolution at short wavelengths
- High spectral resolution from UV to IR