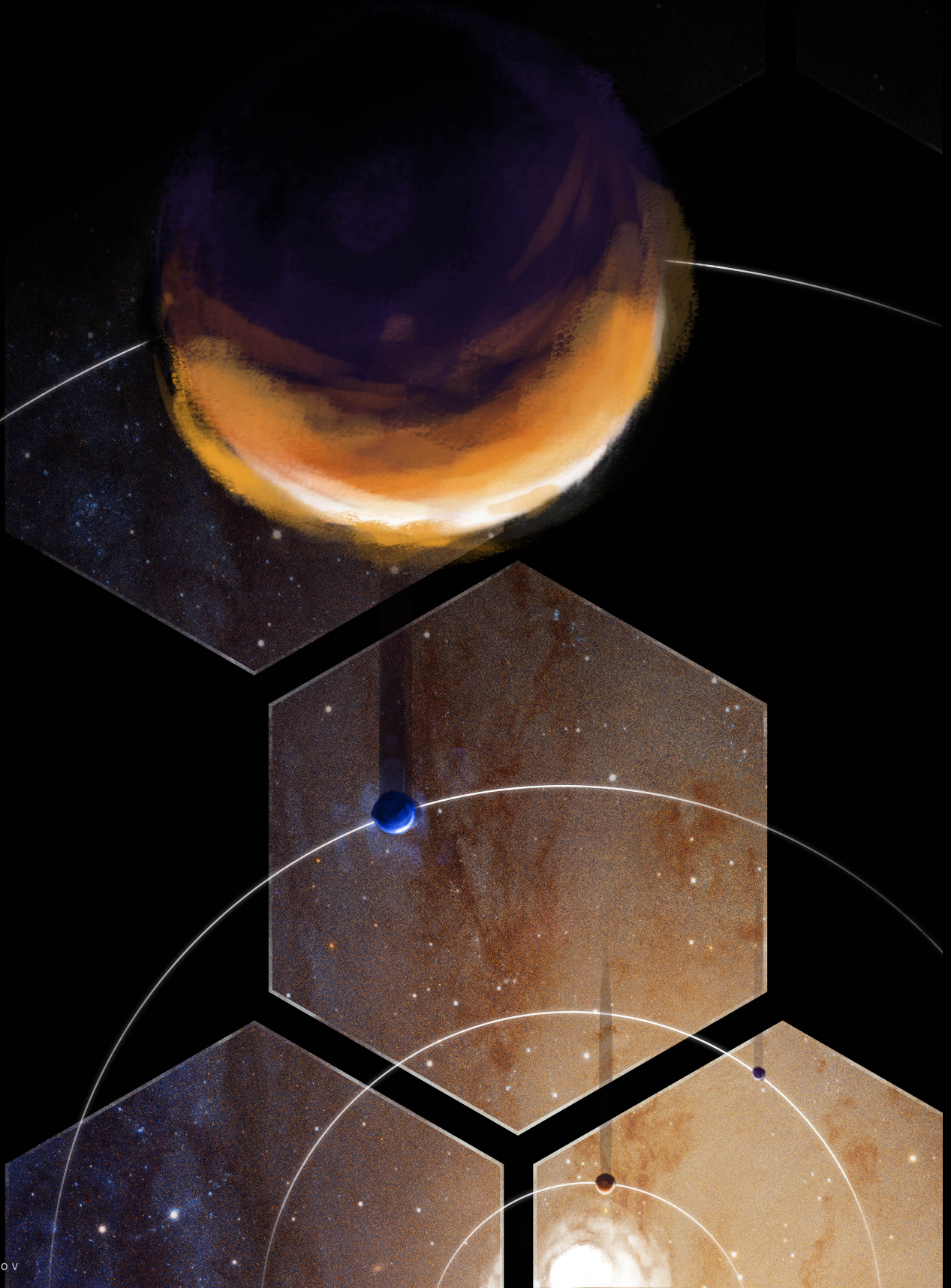




L U V O I R





L U V O I R

Large UV/Optical/Infrared Surveyor

Solar System

<http://asd.gsfc.nasa.gov/luvoir>

LUV O I R is a concept for a highly capable, guest observer-driven space observatory with tens to thousands of times the science grasp of HST. LUV O I R would enable transformative breakthroughs in Solar System science by combining a large aperture, broad wavelength coverage, and long operational lifetime with a suite of powerful instruments.

ECLIPS: Near-UV to near-IR coronagraph with imaging spectroscopy

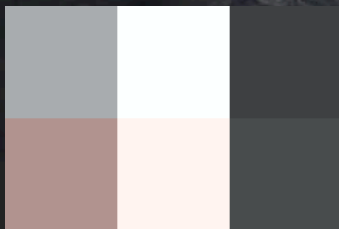
LUMOS: Far-UV to optical multi-object spectrograph and imager

HDI: Near-UV to near-IR high resolution wide-field camera

POLLUX: Far-UV to near-UV spectropolarimeter (European instrument)

Outer Bodies

15-m LUV O I R can image 3.5 km bodies at 40 AU in 75 sec.



Pluto with HST



15-m LUV O I R

NASA / New Horizons

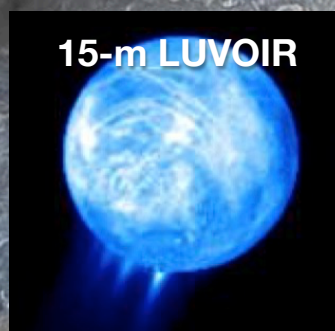
Ocean Moons

LUV O I R can provide spectral imaging of water jets from icy moons.



Europa jets with HST

Roth et al. (2014)



15-m LUV O I R

G. Ballester (LPL)

Atmospheric Dynamics

LUV O I R's optical imaging of Jupiter at opposition will have resolution comparable to this background image from the JUNO spacecraft, permitting long-term monitoring of dynamics on Solar System gas giant planets.