

# Noctis Landing

# Take Home

1<sup>st</sup> EZ Workshop for Human Missions to Mars



## EXCEPTIONAL SAFETY, SCIENCE, & SUSTAINABILITY

### 1 SAFETY

Access: Open AND Smooth Landing and Habitat Site  
Trafficable: Safe AND Fast Access to Highlands Top, Lowlands Bottom, AND In Between

### 2 SCIENCE

Strategic Access to '**ALL**' Mars History & **MAX** Astrobiology Potential  
Valles Marineris: EXPOSED Pre-Noachian + Noachian + Hesperian + Amazonian  
PRACTICAL Horizontal Access, not just Unreachable Vertical Exposures  
East Tharsis: YOUNGEST Volcanism on Mars.  
Subsurface: SHALLOWEST Liquid H<sub>2</sub>O. Likely Highest Regional Geothermal Gradient.

### 3 SUSTAINABILITY

Strategic H<sub>2</sub>O: Massive Polyhydrated Sulfates, Ground Ice, Rock Glaciers, (Fog)  
Rest of Mars.: Easy Access from High Alt Site (Hopper)

## DATE NEEDED

Existing Assets: HiRISE, CRISM, HRSC  
New Assets: Hi-Res Neutron + Hi-Res Radar. Drone.  
Analog: HMP\*\*\*: Topo, Terrain, Hydrated Sulfates, Ground Ice, Rock Glaciers, (Fog)