ONBOARD SCIENCE INSTRUMENT AUTONOMY (OSIA)

LUKAS MANDRAKE – JPL/CALTECH

Onboard Capabilities to Analyze Observations:

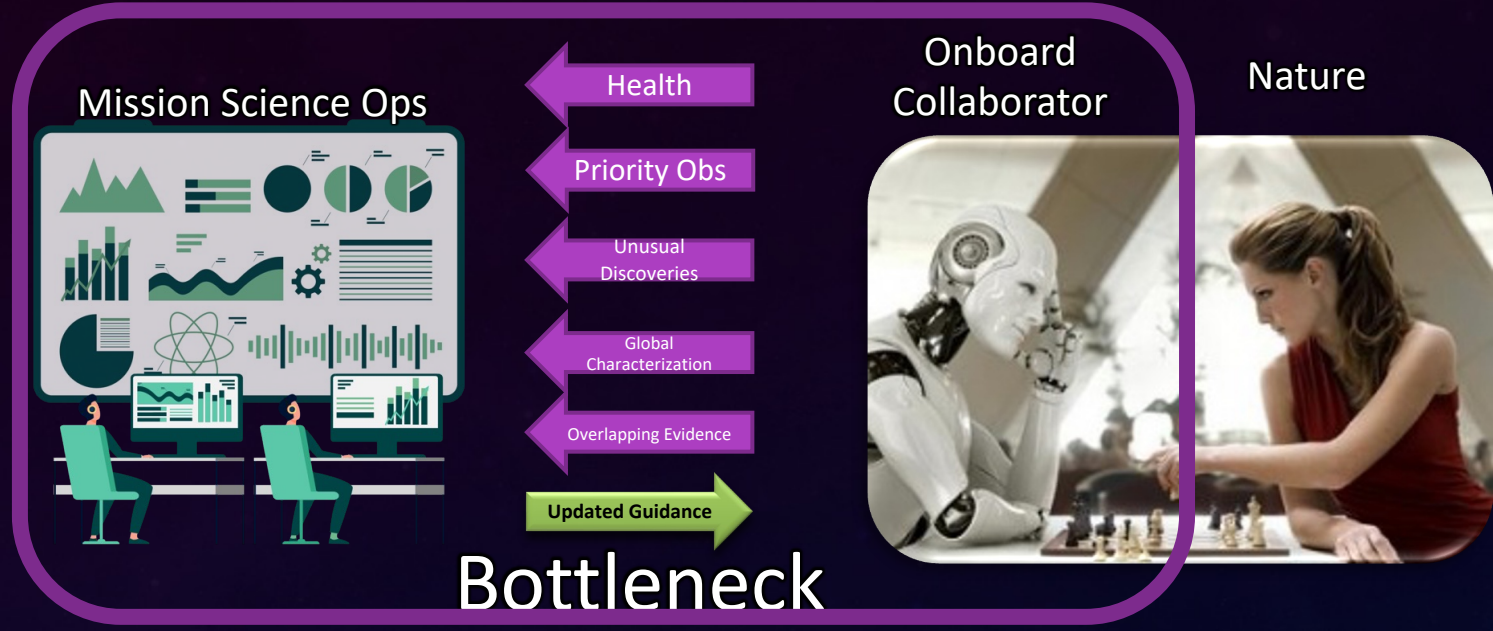
- Recognize Science Targets
- Discover Anomalies / Sample Diversity
- Create Summarizations
- Estimate Scientific Utility

In Order To:

- Optimize Bandwidth Utilization
- Enable High Data Volume Instruments
- React Onboard
- Provide New Trade: Compute vs. Bandwidth

In the Service Of:

- Maximizing Mission Science Yield
- Rapidly Informing Science Team
- Enabling New Science Capture



FIRST MISSION ENABLED BY SCIENCE INSTRUMENT AUTONOMY