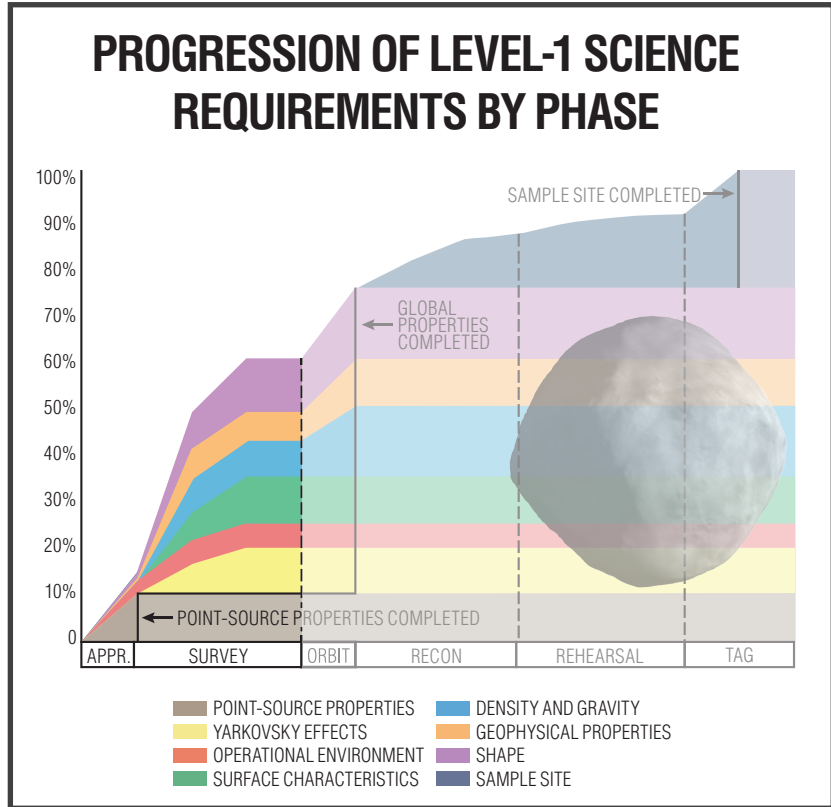
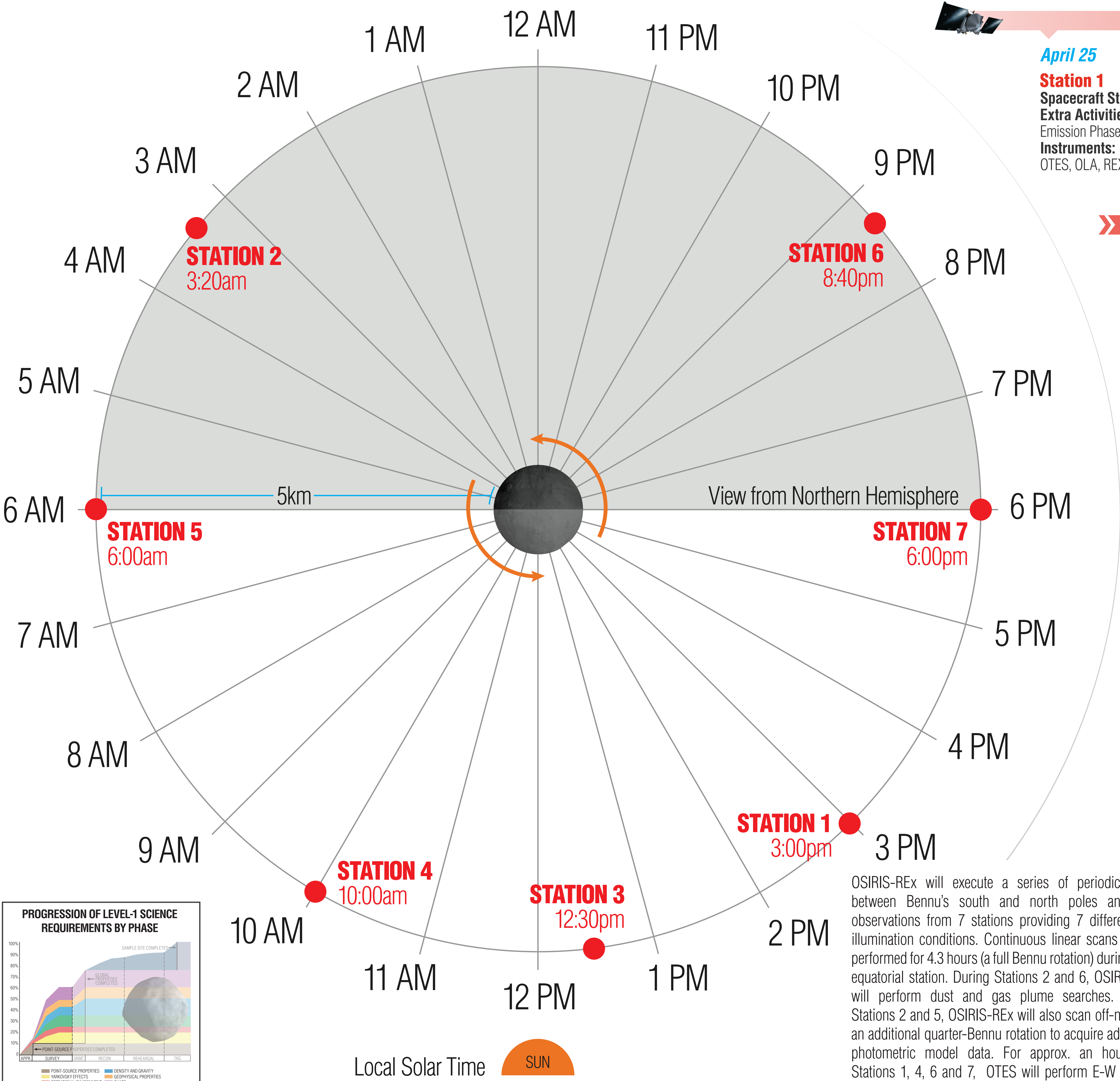




DETAILED SURVEY: EQUATORIAL STATIONS

SCIENCE PHASE PLAN • APRIL-JUNE 2019

Detailed Survey: Equatorial Stations Phase is one of the major science campaigns to create the global high-level products and top maps (Safety, Sampleability and Science Value) that will inform the down-select of a primary and back-up sample site.



OSIRIS-REx will execute a series of periodic slews between Benu's south and north poles and take observations from 7 stations providing 7 different sun illumination conditions. Continuous linear scans will be performed for 4.3 hours (a full Benu rotation) during each equatorial station. During Stations 2 and 6, OSIRIS-REx will perform dust and gas plume searches. During Stations 2 and 5, OSIRIS-REx will also scan off-nadir for an additional quarter-Benu rotation to acquire additional photometric model data. For approx. an hour after Stations 1, 4, 6 and 7, OTES will perform E-W zig-zag scans for the Thermal Emission Phase Function.

April 25

Station 1
Spacecraft Station: 3:00pm LST
Extra Activities: Thermal Emission Phase Function
Instruments: MapCam, OVIRS, OTES, OLA, REXIS

May 2

Station 2
Spacecraft Station: 3:20am LST
Extra Activities: Off-Nadir Observations & Dust Plume Search
Instruments: MapCam, OVIRS, OTES, REXIS

May 9

Station 3
Spacecraft Station: 12:30pm LST
Instruments: MapCam, OVIRS, OTES, OLA, REXIS

May 16

Station 4
Spacecraft Station: 10:00am LST
Extra Activities: Thermal Emission Phase Function
Instruments: MapCam, OVIRS, OTES, OLA, REXIS

May 23

Station 5
Spacecraft Station: 6:00am LST
Extra Activities: Off-Nadir Observations
Instruments: MapCam, OVIRS, OTES, OLA, REXIS

May 30

Station 6
Spacecraft Station: 8:40pm LST
Extra Activities: Dust Plume Search, Thermal Emission Phase Function
Instruments: MapCam, OVIRS, OTES, REXIS

June 6

Station 7
Spacecraft Station: 6:00pm LST
Extra Activities: Thermal Emission Phase Function
Instruments: MapCam, OVIRS, OTES, OLA, REXIS

