Jet Propulsion Laboratory
California Institute of Technology

Mars 2020 Mission Update

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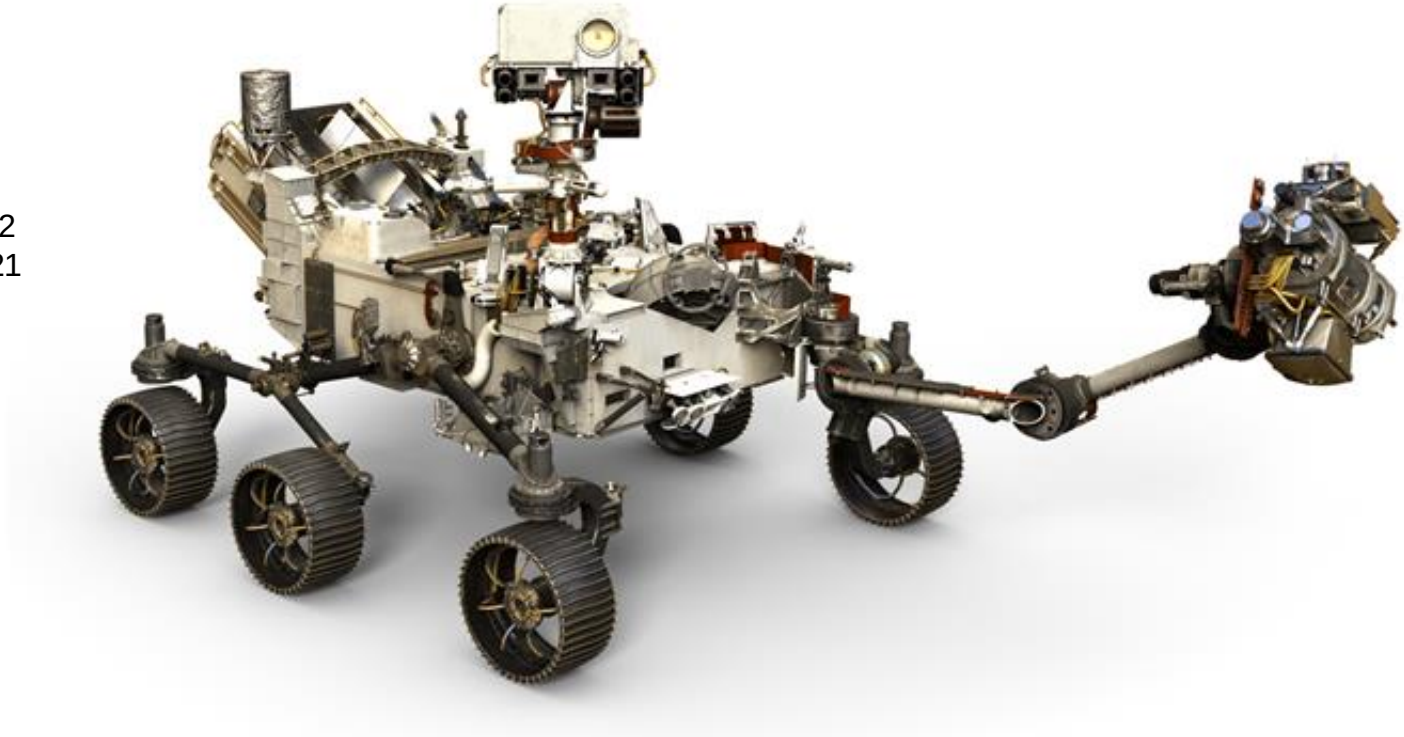
Project Scientist

MEPAG Meeting VM12
Monday, June 21, 2021



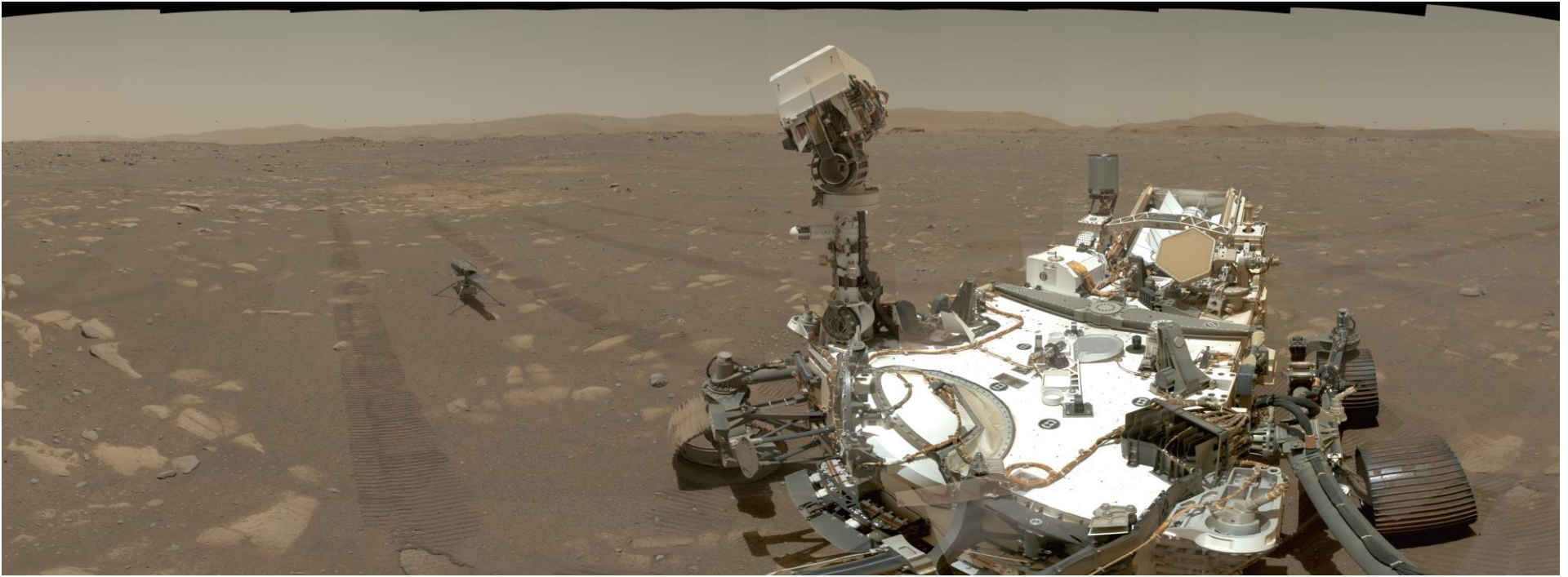
MARS 2020

Today is *Perseverance* Sol 121

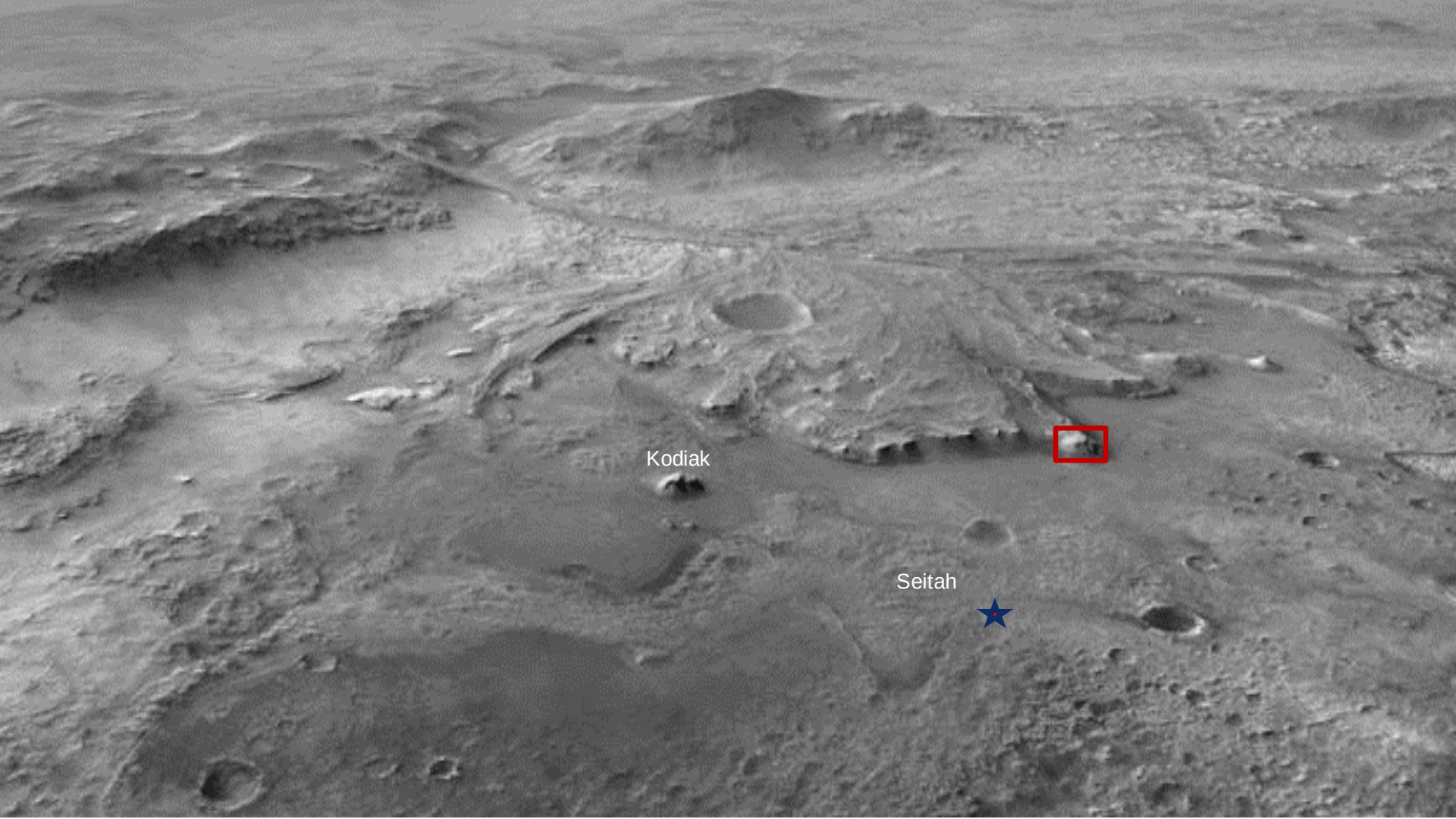
Kodiak - a delta remnant

Mission Accomplishments

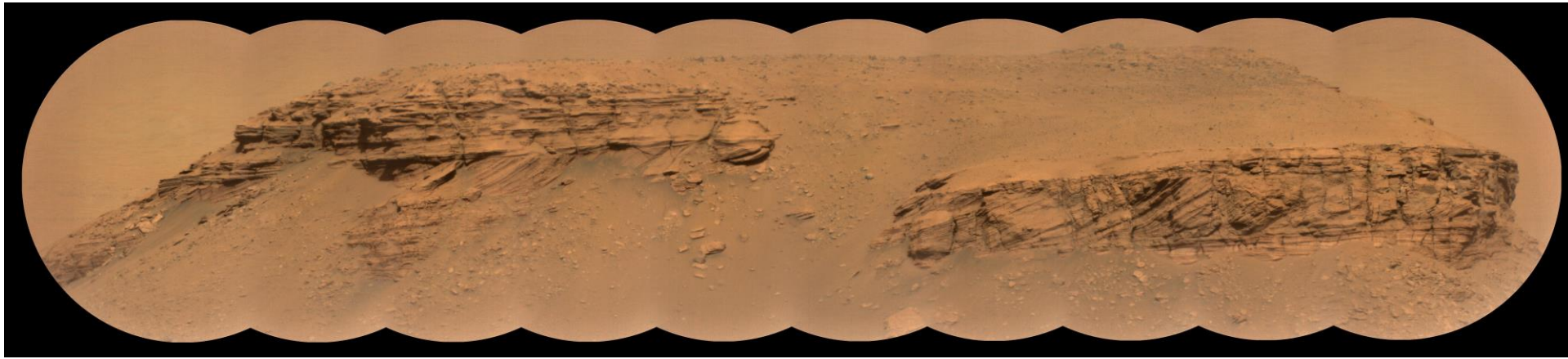
- Rover commissioning activities completed successfully and on schedule
- Five-flight *Ingenuity* helicopter technology demonstration successfully completed
- All science instruments are functioning with no significant issues
- All instruments have successfully obtained data
  - a wealth of Supercam, RIMFAX, MEDA, SHERLOC (WATSON), and Mastcam-Z data obtained
    - literally thousands of images have been posted to M2020 raw image website
  - PIXL and SHERLOC (Spectroscopy) require precision surface placement with < few cm standoff
    - first time activities to permit such placement will be completed soon
    - expect routine PIXL and SHERLOC measurements in early summer, including on abraded surfaces
  - MOXIE has made multiple oxygen production runs with expected yield and purity

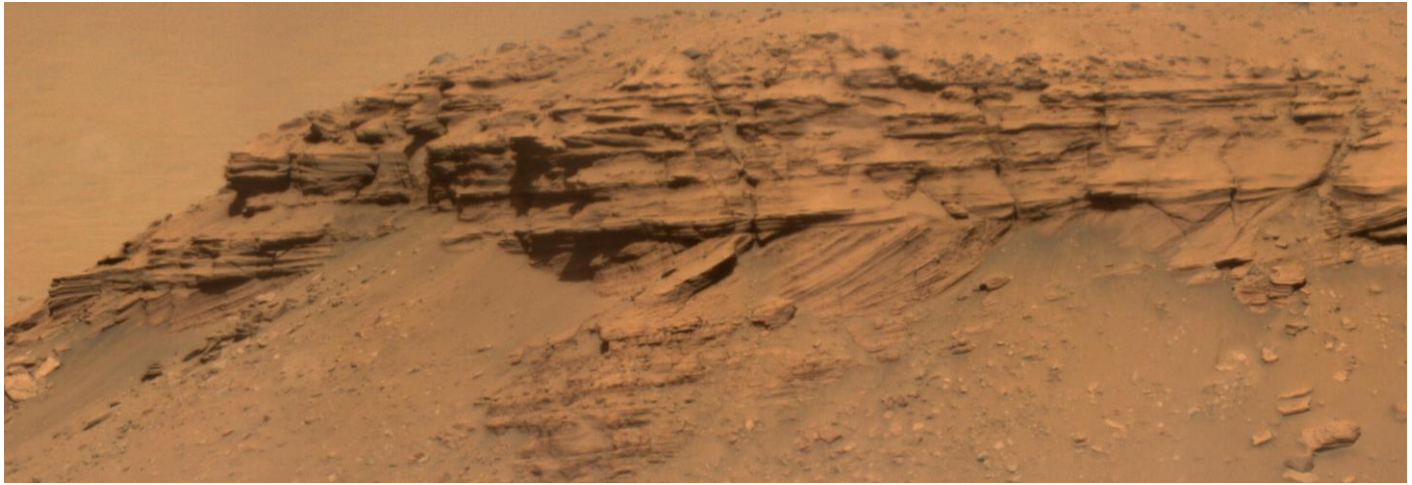


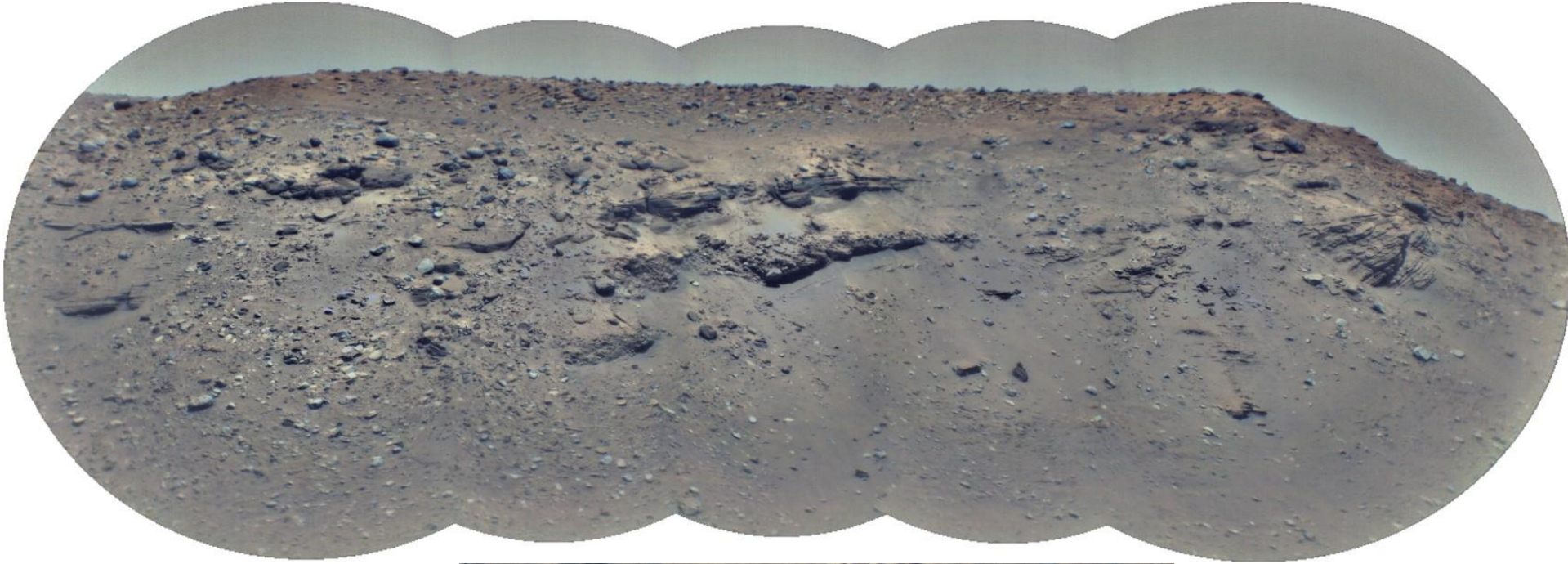
Ingenuity continues to fly as an *operational demonstration*


Kodiak
Seitah

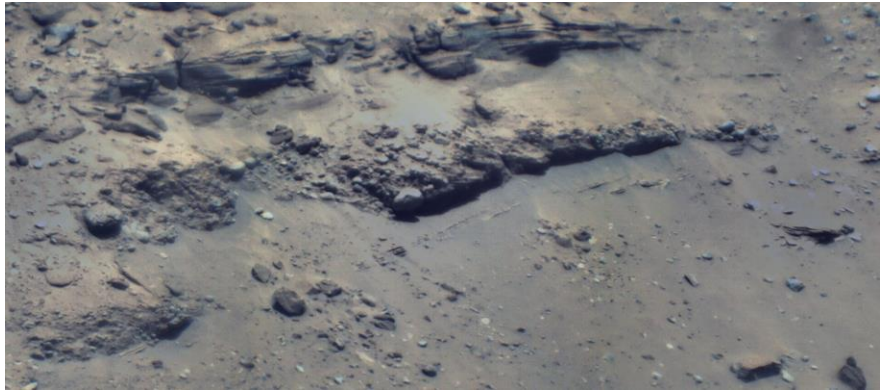
Supercam RMI images of Kodiak



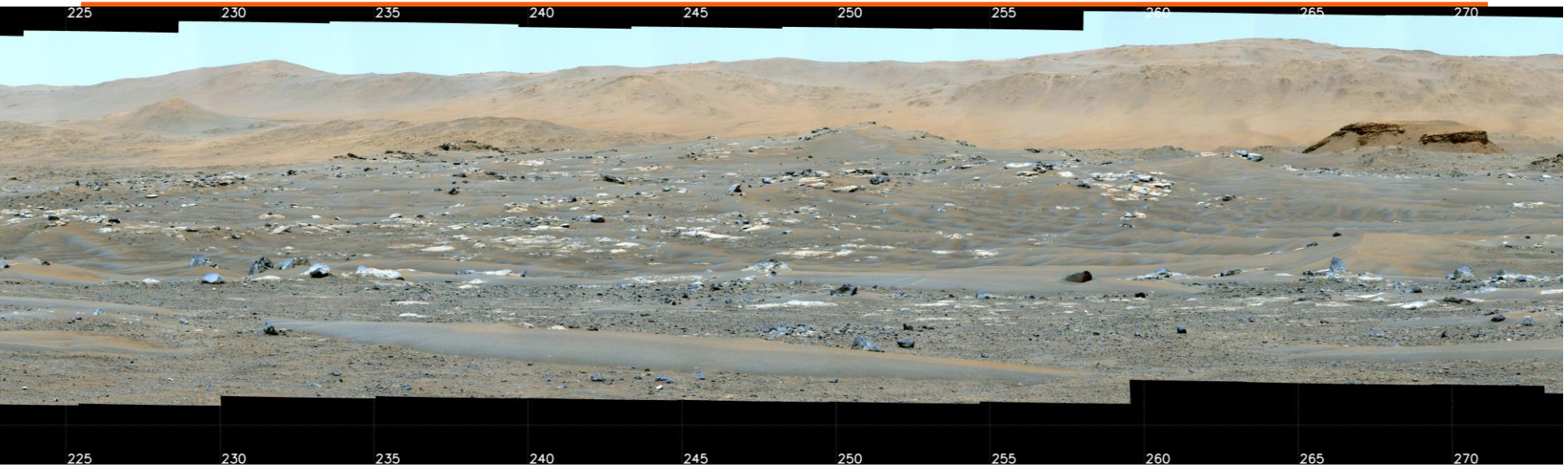




Delta Front



Sietah


225
230
235
240
245
250
255
260
265
270
225
230
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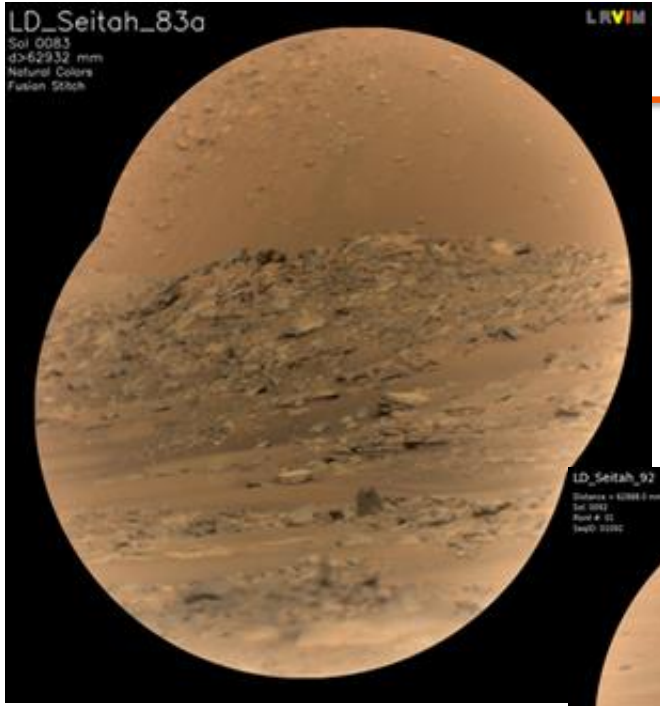
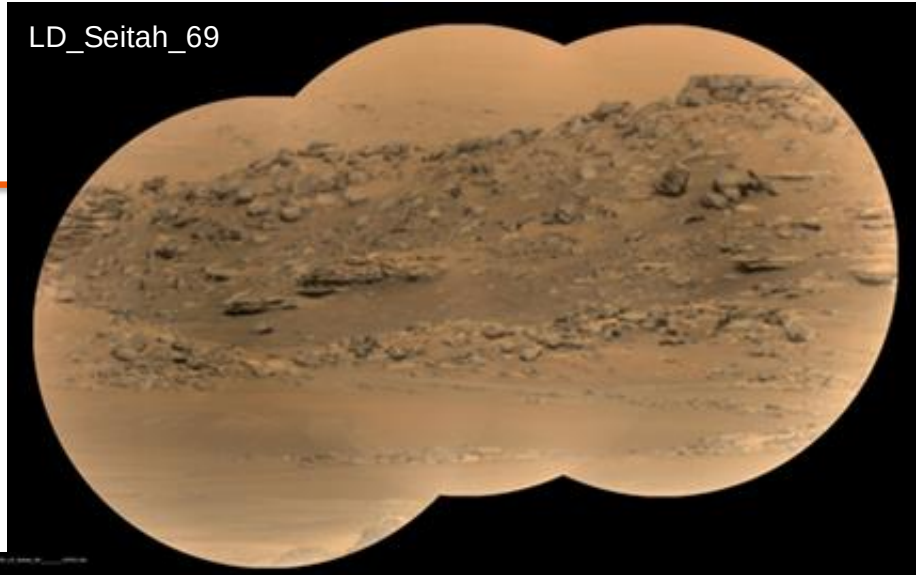
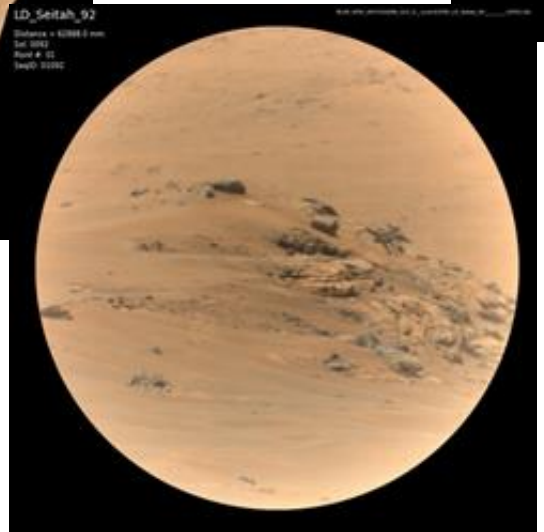
260
265
270

Seitah

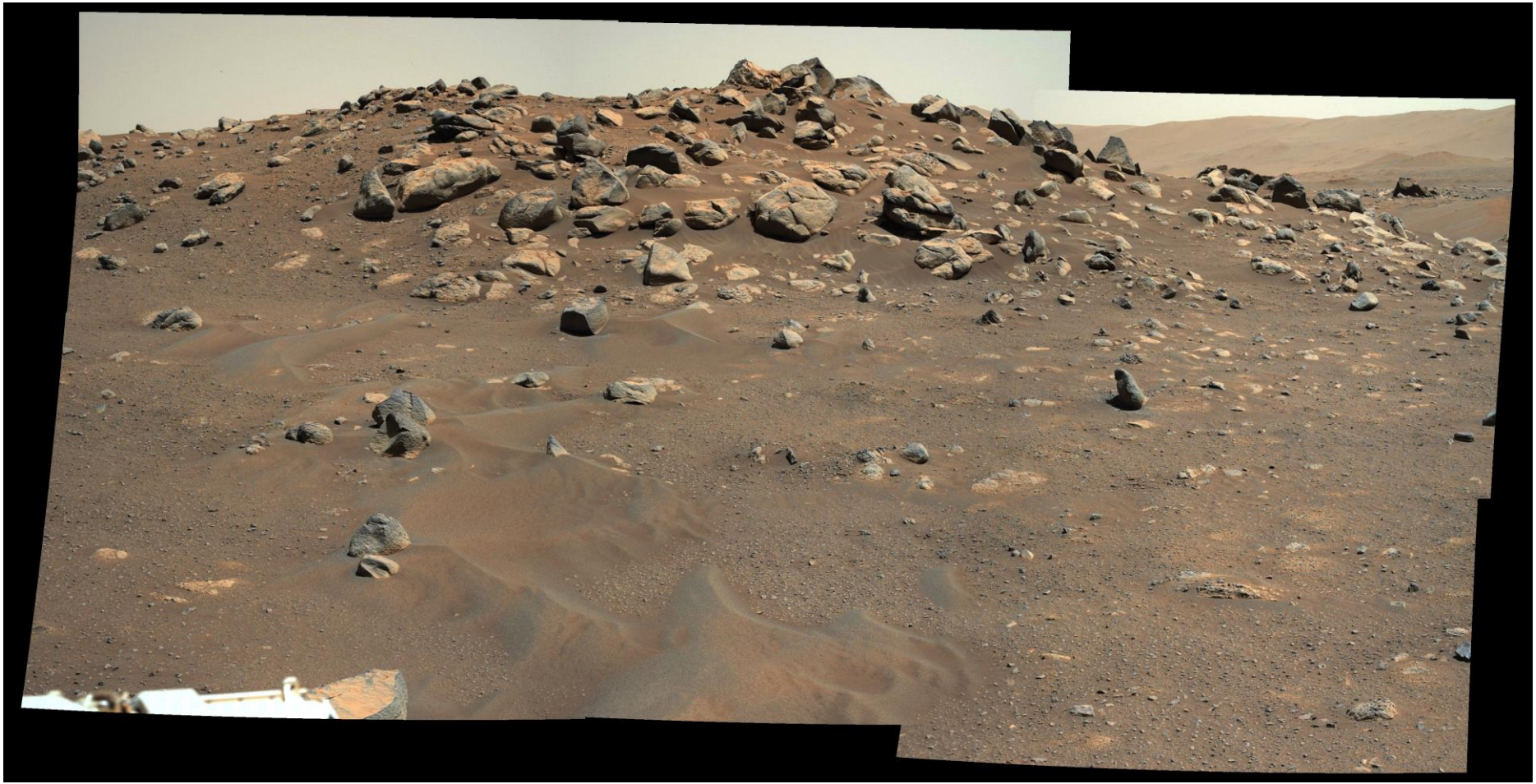




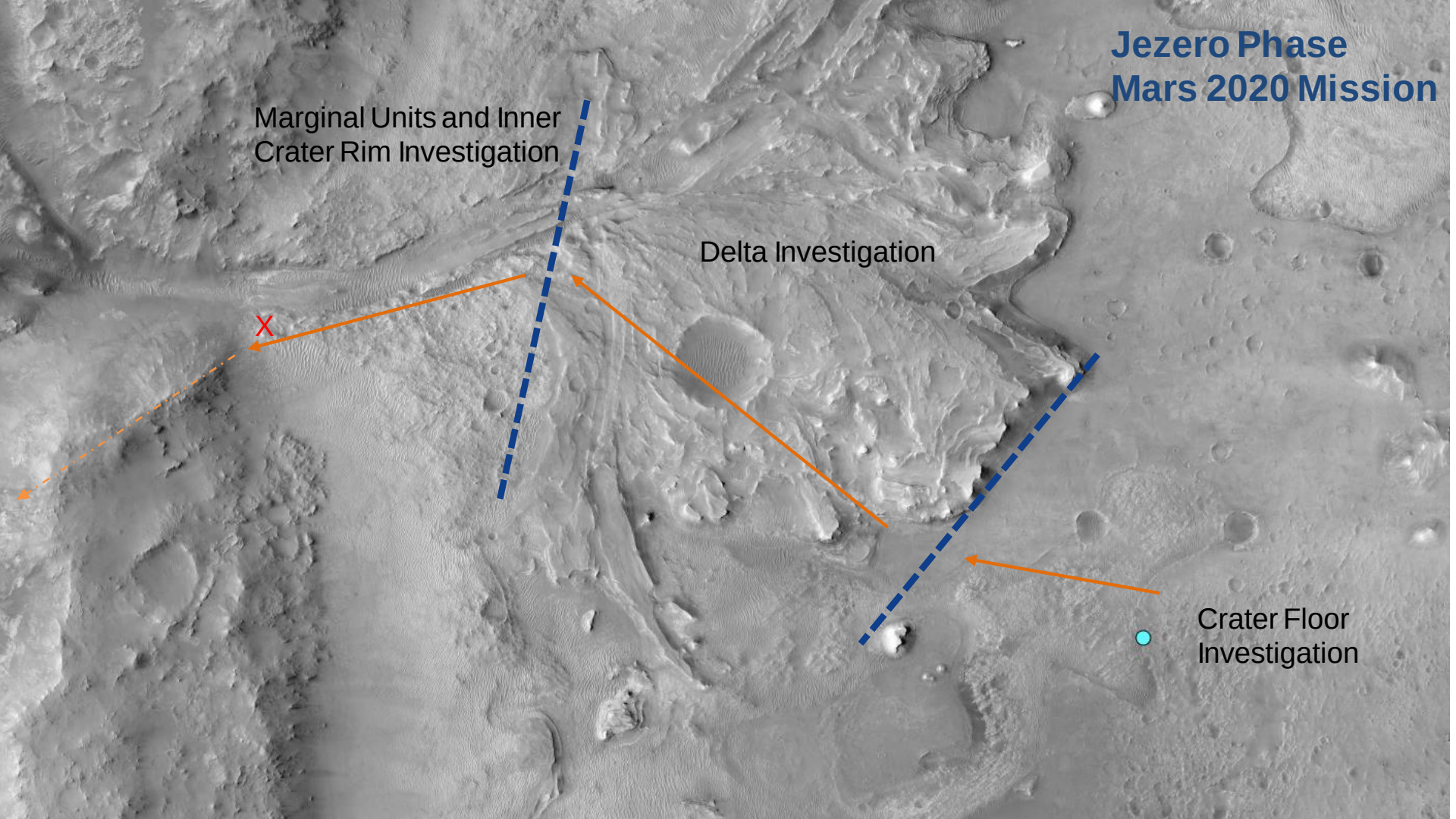


MARS 2020

15 cm
25 cm

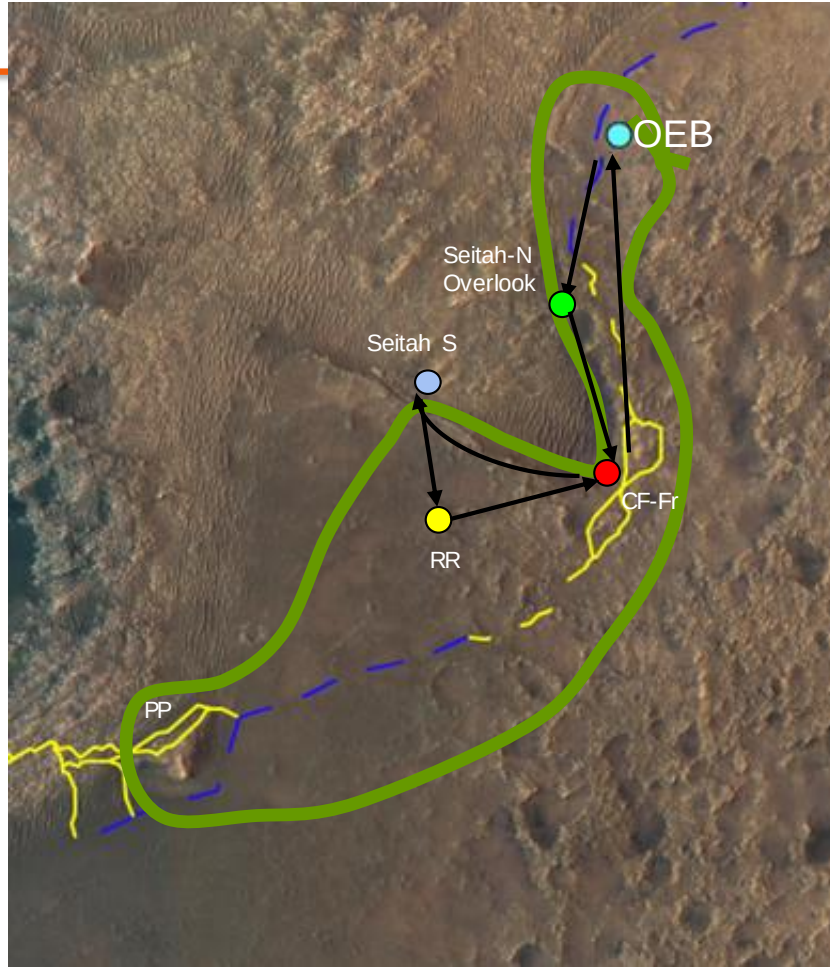


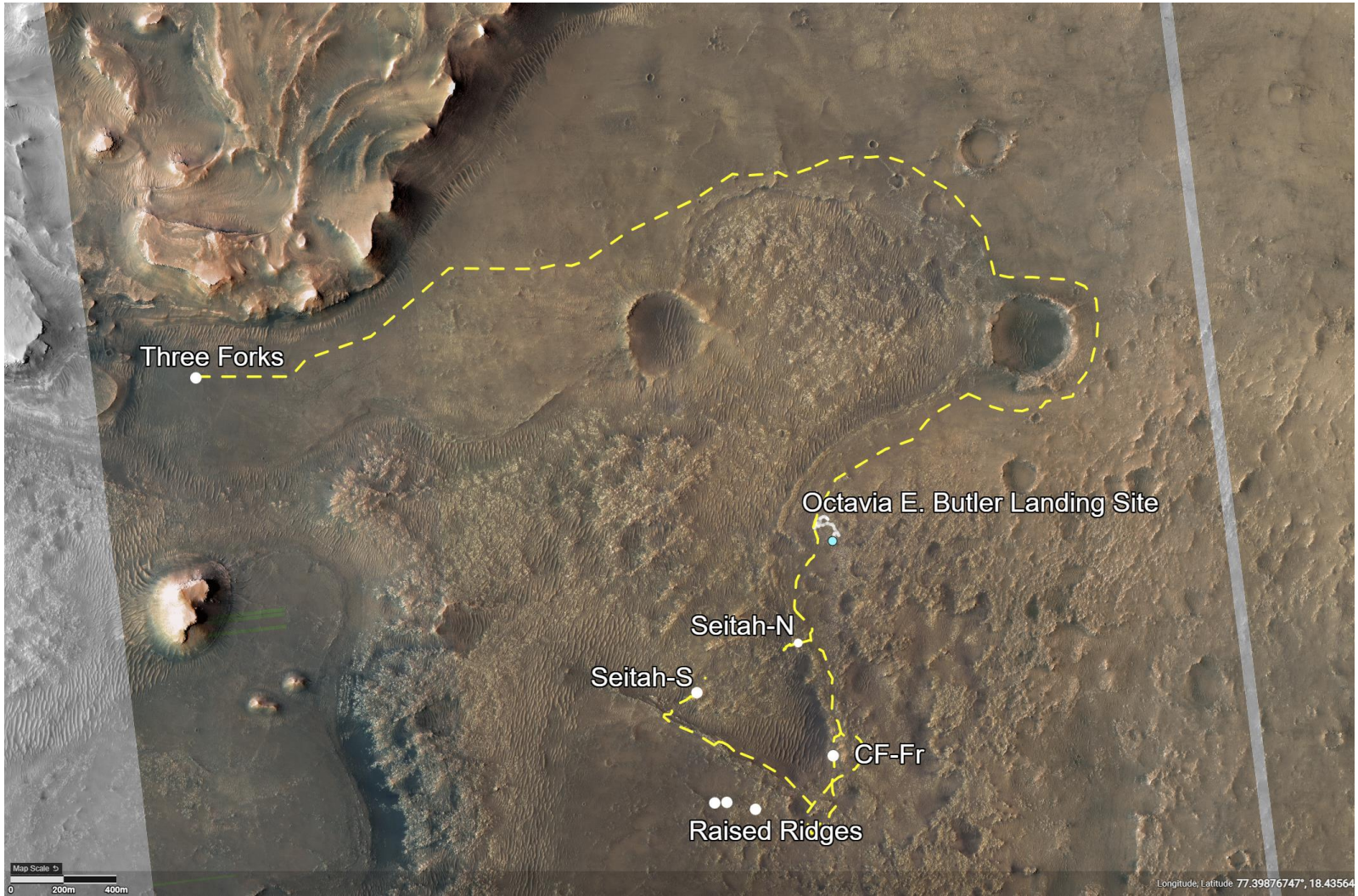
MARS 2020


Jezero Phase
Mars 2020 Mission
Marginal Units and Inner
Crater Rim Investigation
Delta Investigation
X
Crater Floor
Investigation

Crater Floor Investigation: Green Zone Campaign

- Study and and likely collect samples from Seitah, Crater Floor, and Raised Ridges
- Likely 4 unique samples (plus duplicates) will be collected. Also at least 1 witness tube.
- Traversability consideratons strongly suggest an out-and-back approach, heading for the delta
- Time allocated to campaign in proportion to number of samples collected
- complete Crater Floor investigation Spring 2022




Three Forks
Octavia E. Butler Landing Site
Seitah-N
Seitah-S
CF-Fr
Raised Ridges
Map Scale
0
200m
400m
Longitude, Latitude 77.39876747°, 18.43564

MARS 2020