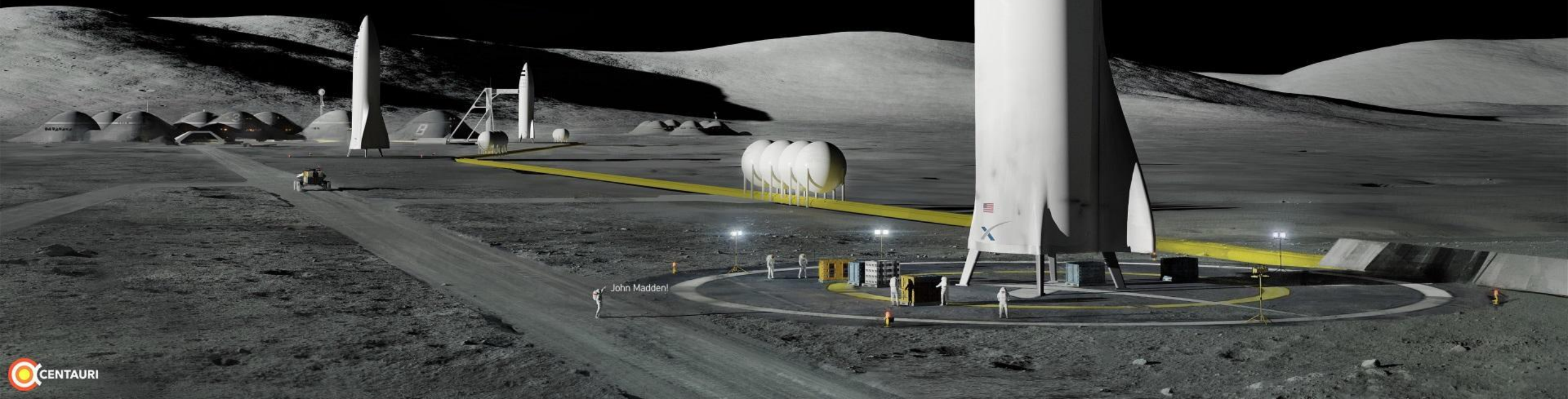


MOON BASE ALPHA

Космонавтика от 2017 до недалёкого будущего



John Madden

Cassini

NASA, ESA

Cassini-Huygens: Mission to Saturn BY THE NUMBERS

2.5 MILLION
COMMANDS
executed

4.9 BILLION
MILES TRAVELED
since launch
(7.9 BILLION KILOMETERS)

635 
SCIENCE DATA
collected

3,948
SCIENCE PAPERS
published

6 NAMED MOONS
discovered

294 ORBITS
completed

162 TARGETED
FLYBYS
of Saturn's moons

453,048
images taken

27 NATIONS
participated

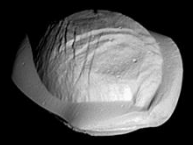
360 ENGINE
burns



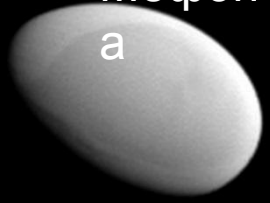
 Jet Propulsion Laboratory
California Institute of Technology

@CassiniSaturn
saturn.jpl.nasa.gov

Па
н



Мефон
а



Дион
а

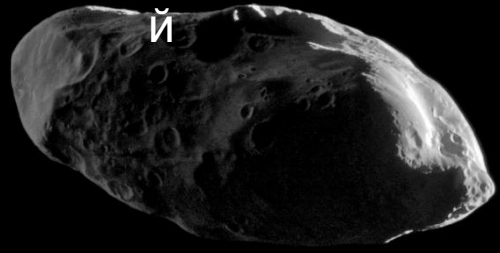


Гейзеры
Энцелада

Япе
т

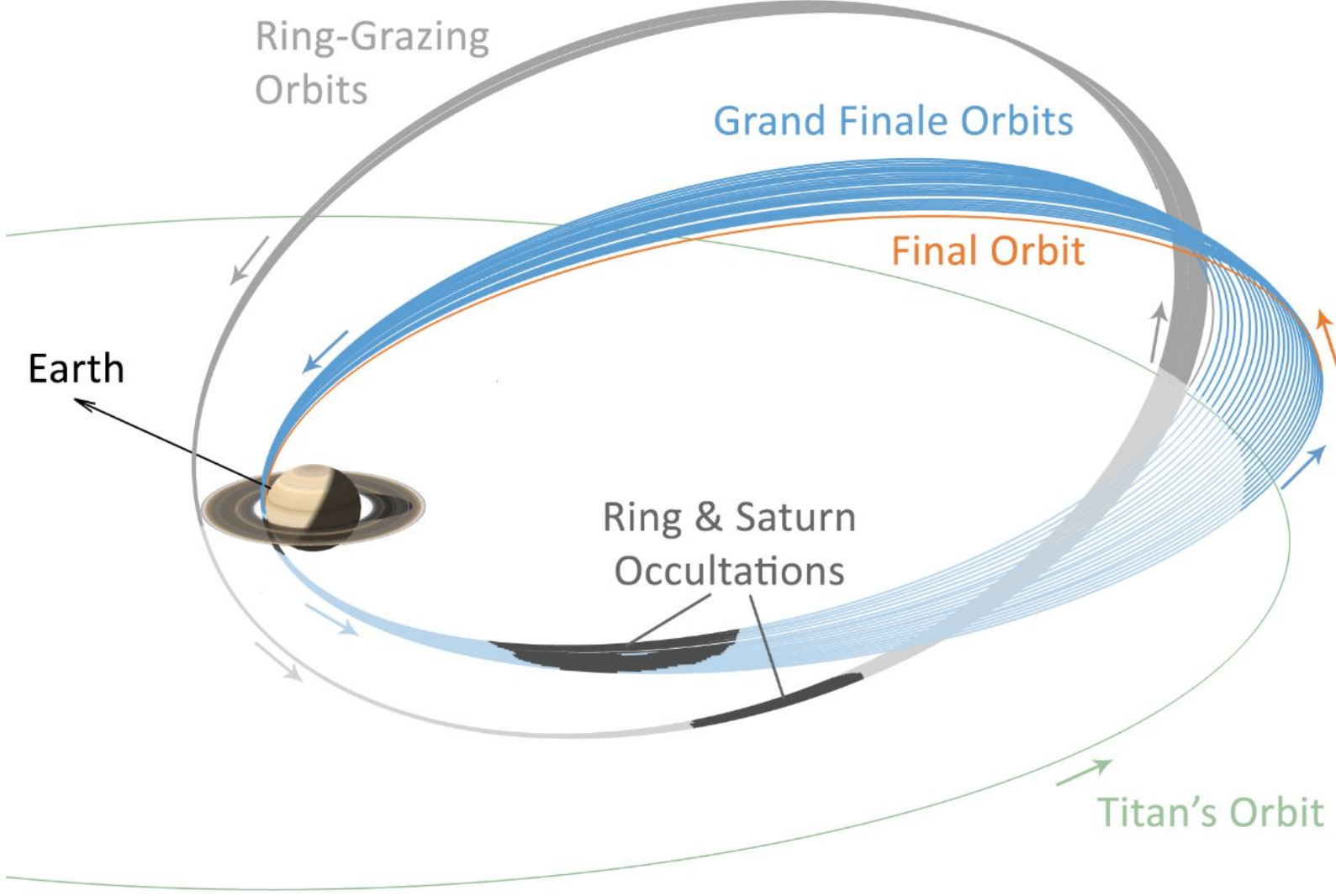


Промете
й

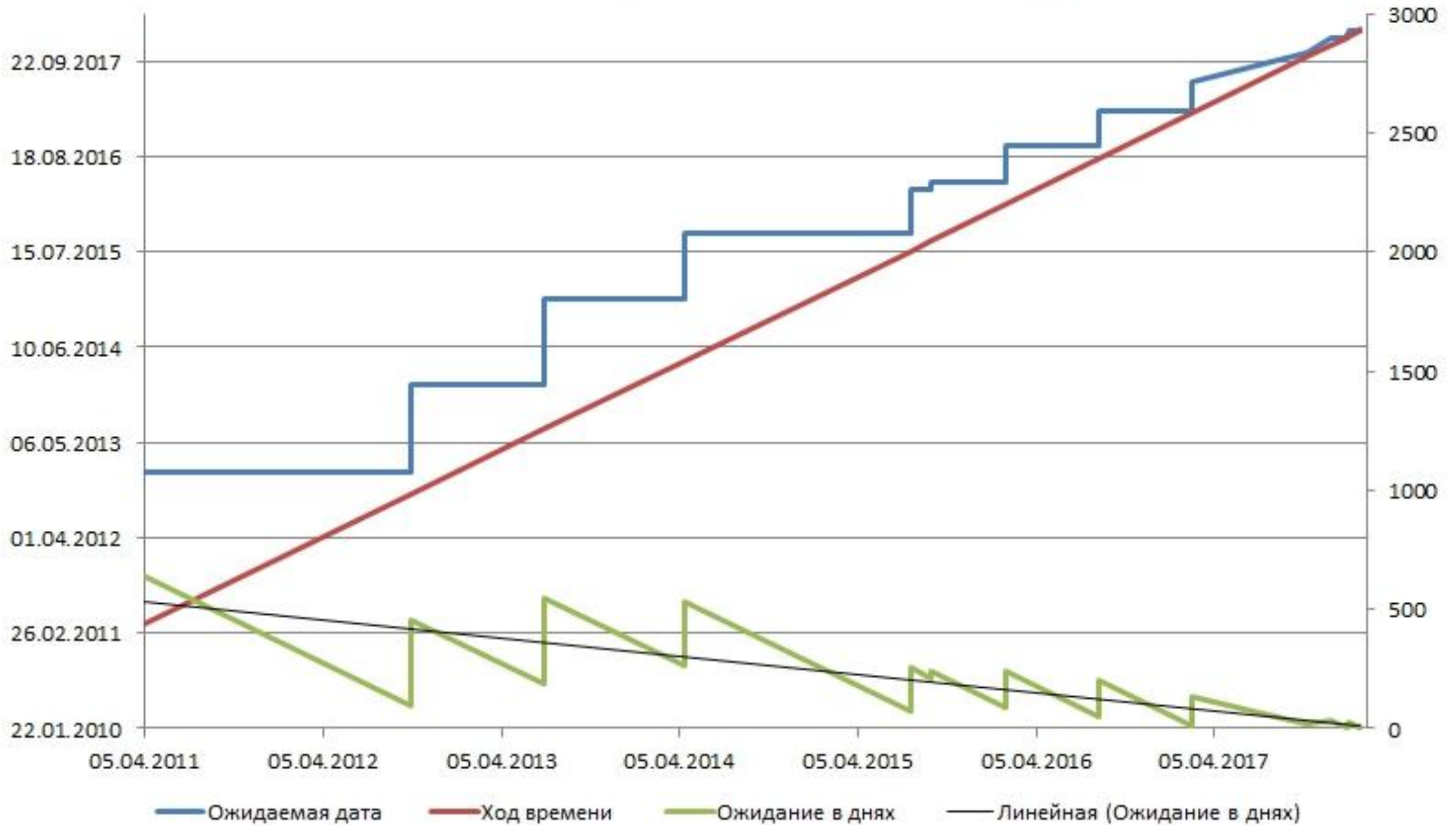


Cassini

NASA, ESA



Переносы даты старта Falcon Heavy



Falcon Heavy

SpaceX



Falcon Heavy

SpaceX

TECHNICAL OVERVIEW

HEIGHT

70 m 229.6 ft

STAGES

2

BOOSTERS

2

PAYLOAD TO LEO

63,800 kg 140,660 lb

PAYLOAD TO MARS

16,800 kg 37,040 lb

TOTAL WIDTH

12.2 m 39.9 ft

MASS

1,420,788 kg 3,125,735 lb

PAYLOAD TO GTO

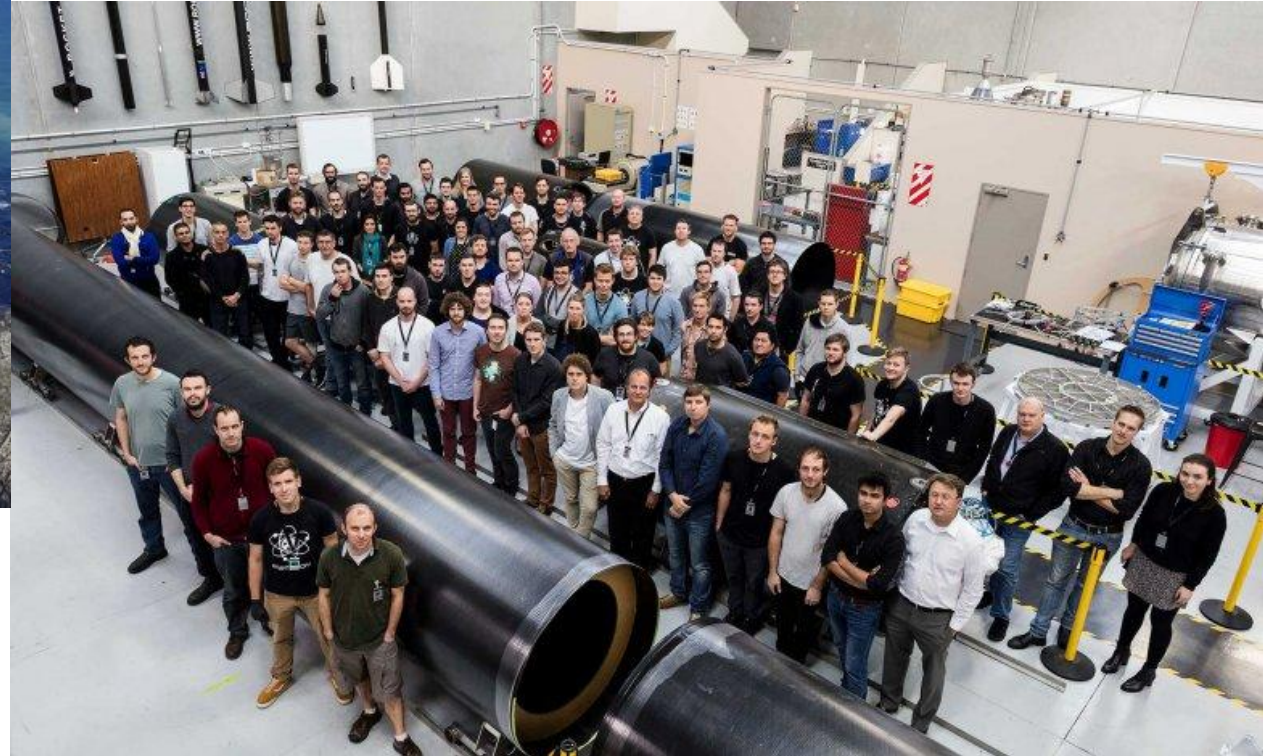
26,700 kg 58,860 lb

PAYLOAD TO PLUTO

3,500 kg 7,720 lb

Electron

Rocket Lab



Electron

Rocket Lab



Electron

Rocket Lab



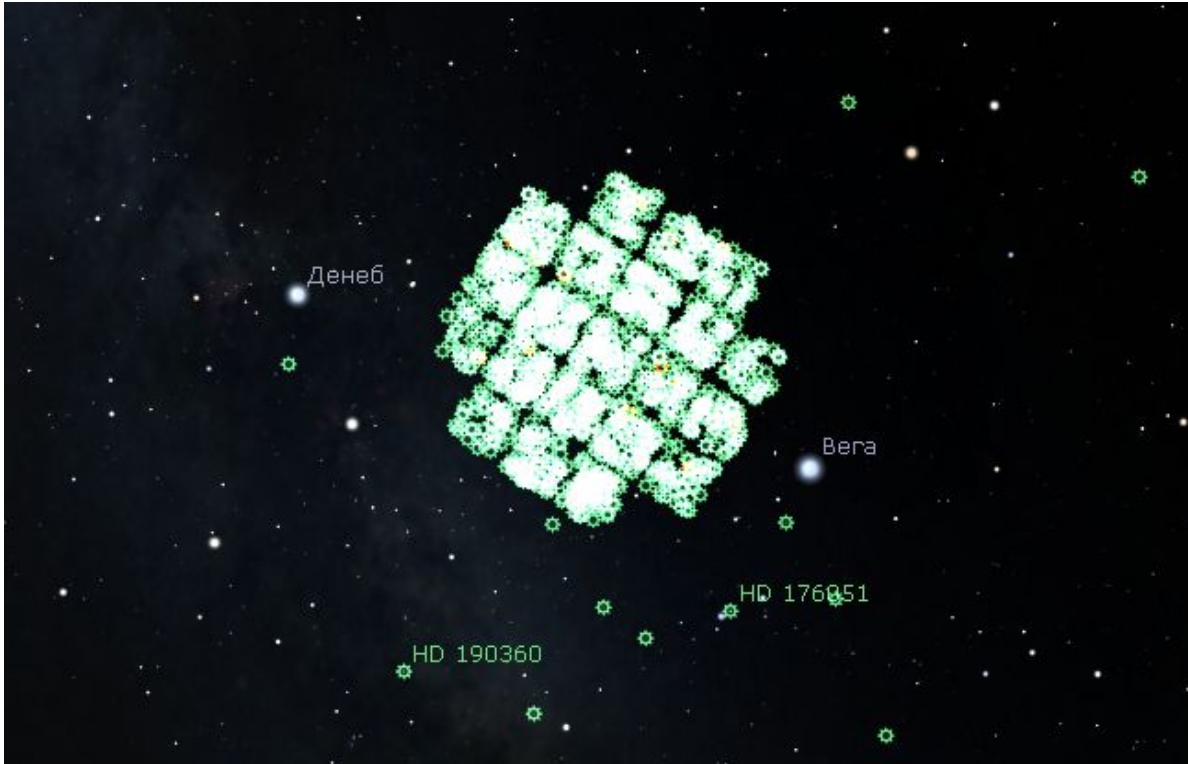
Electron

Rocket Lab



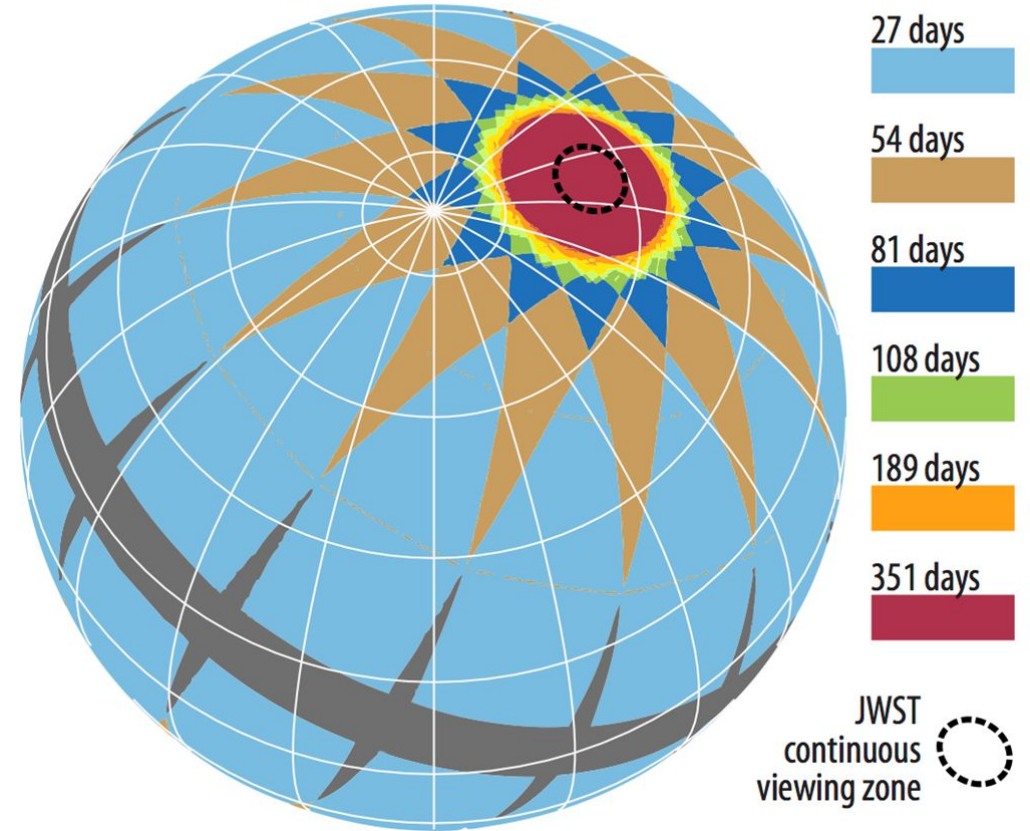
Transiting Exoplanet Survey Satellite

NASA



Kepler

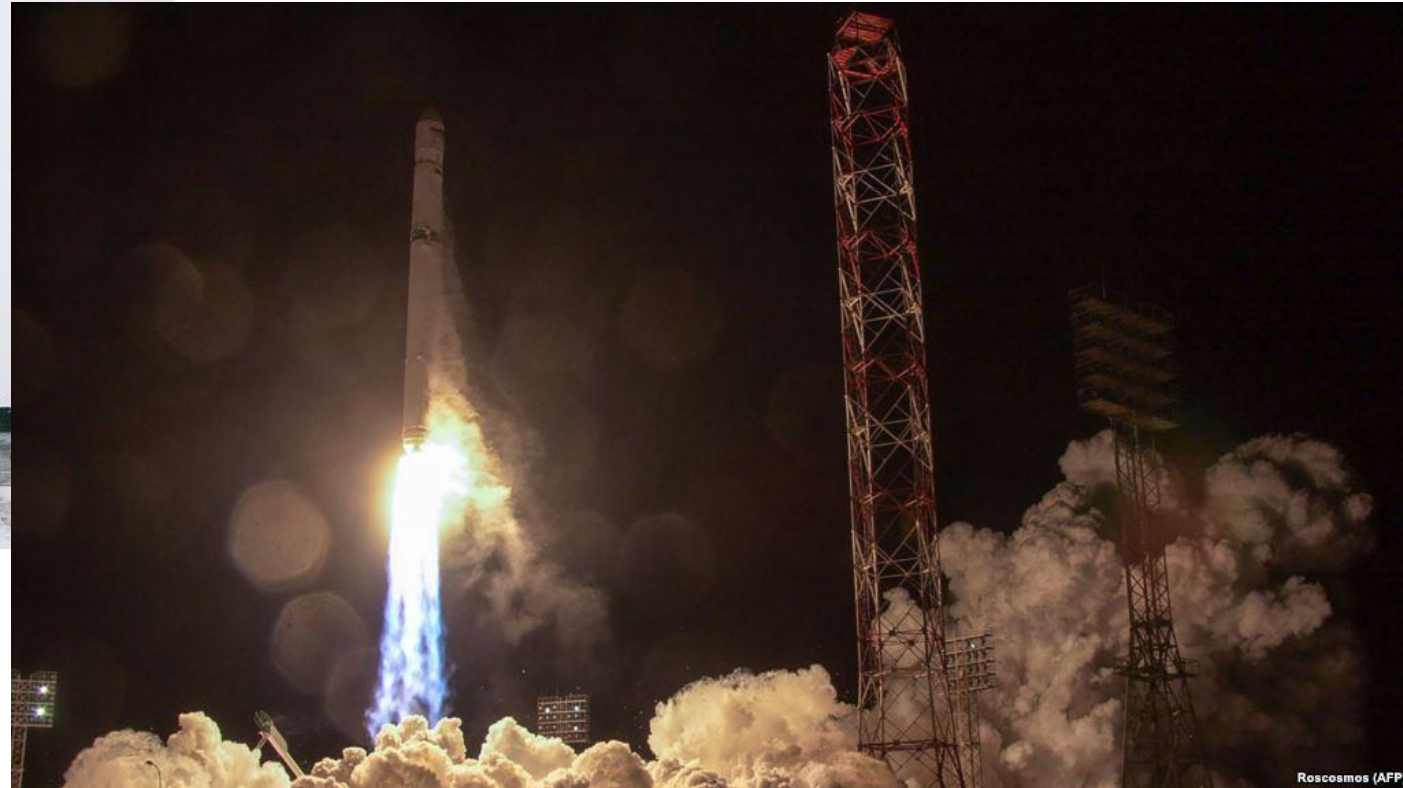
TESS 2-year sky coverage map



TESS

Зенит-3Ф (Ангосат)

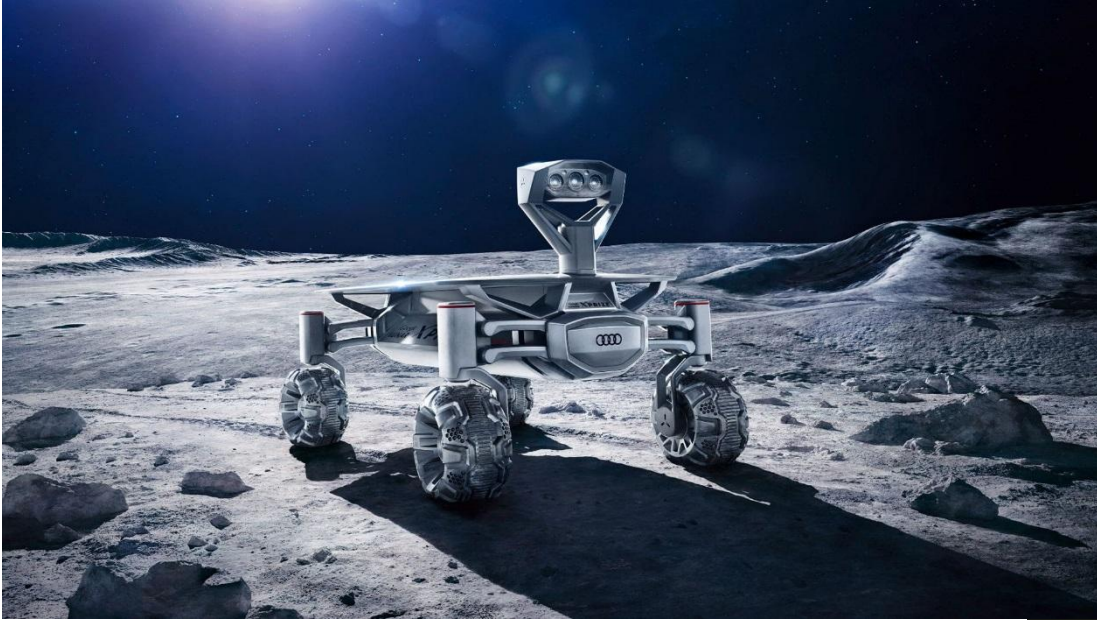
НПО ЮЖМАШ, КБ Южное



Google Lunar XPrize



Google Lunar XPrize



Dragon 2 и CST-100 Starliner

SpaceX



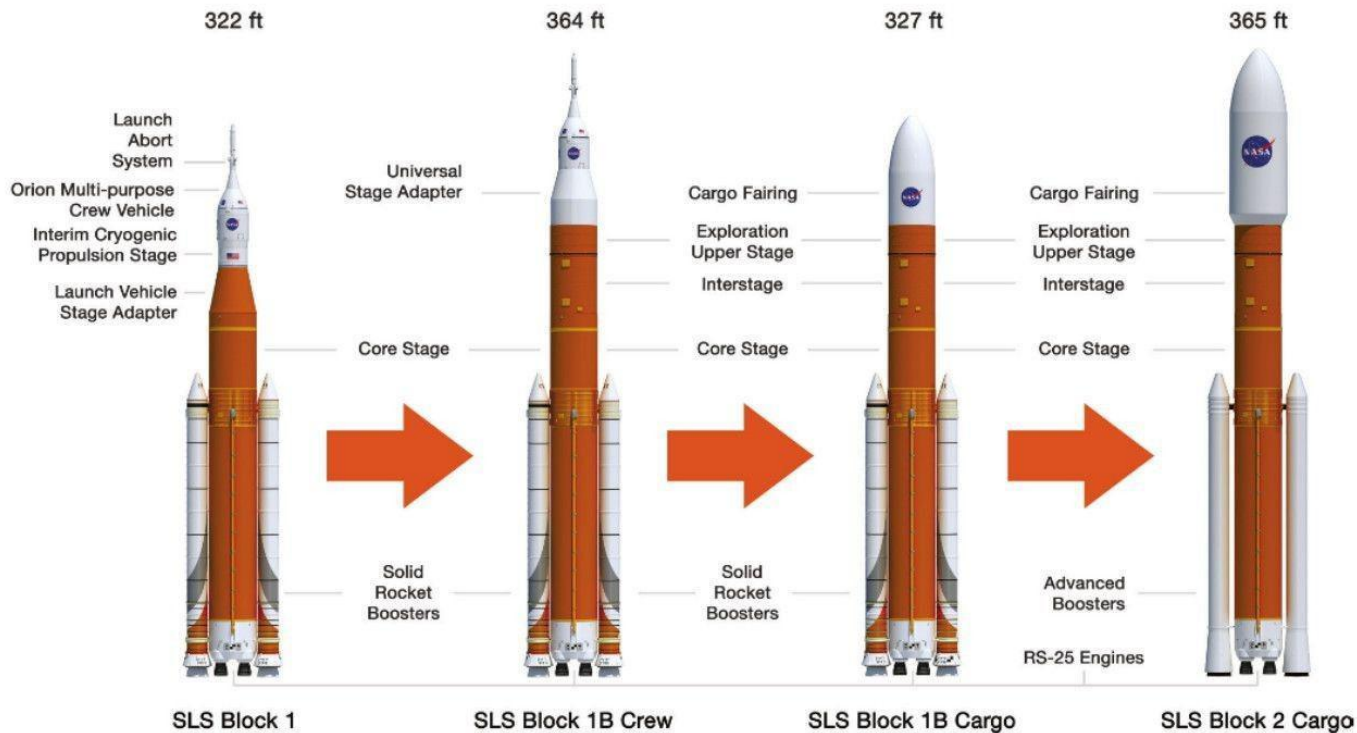
Boeing



Space Launch System & Orion

NASA (Boeing, ULA, Orbital ATK)

Lockheed Martin, Airbus)



New Glenn

Blue Origin

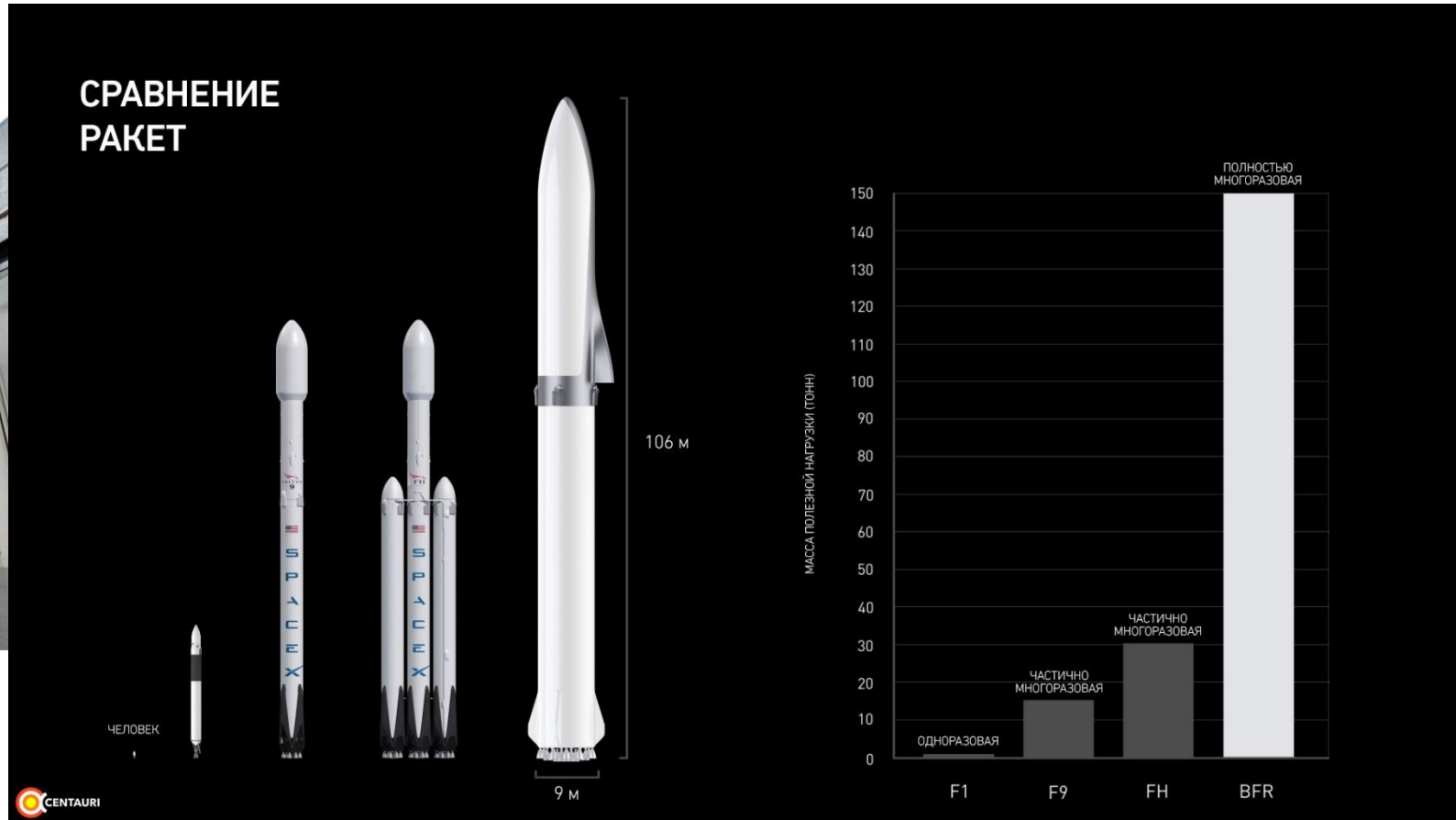


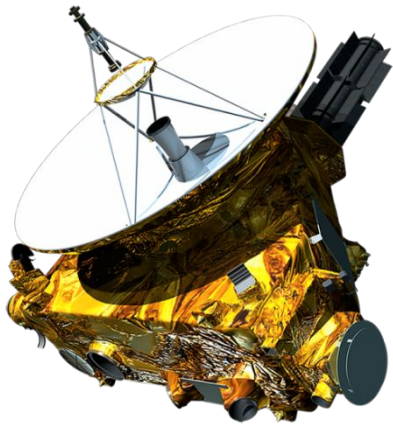
BFR

SpaceX



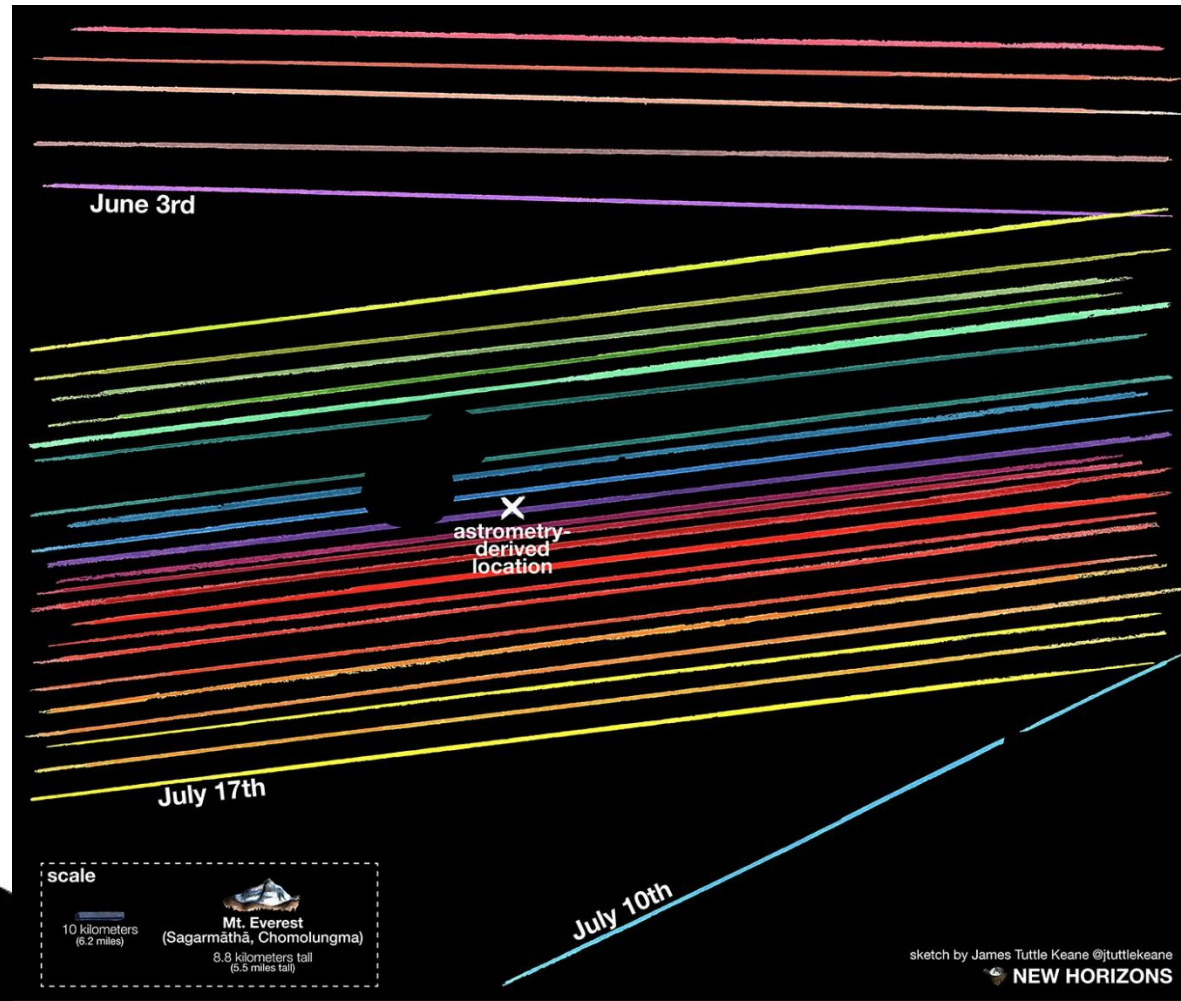
СРАВНЕНИЕ РАКЕТ



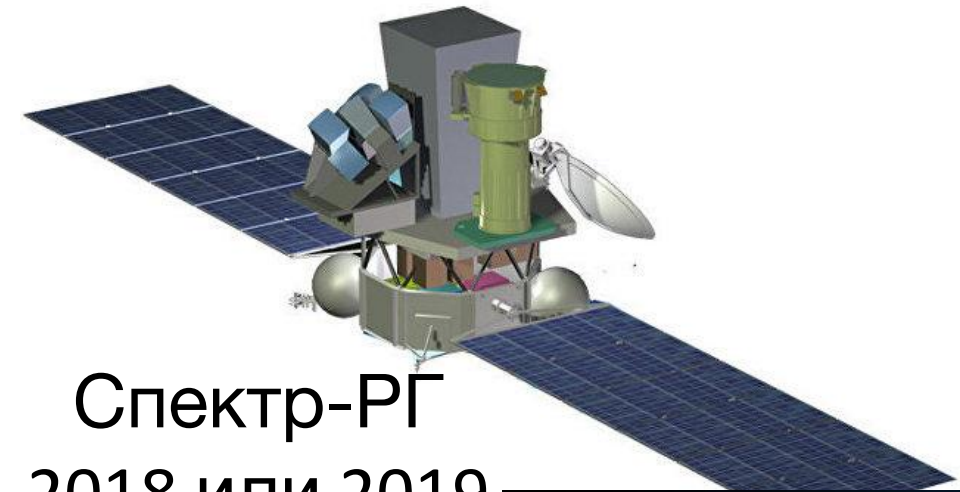


New Horizons

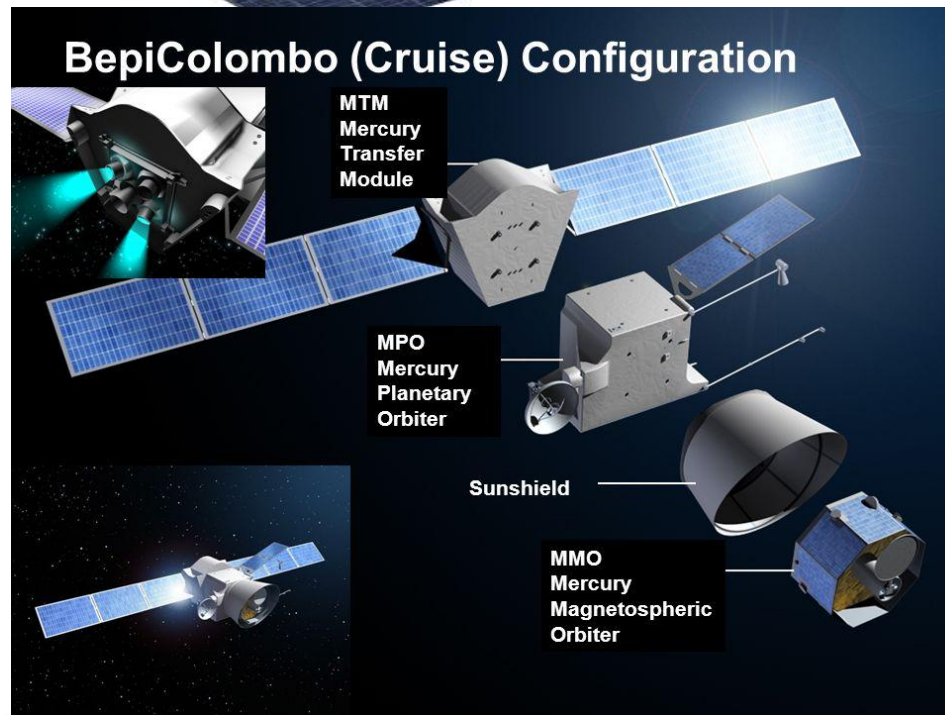
NASA



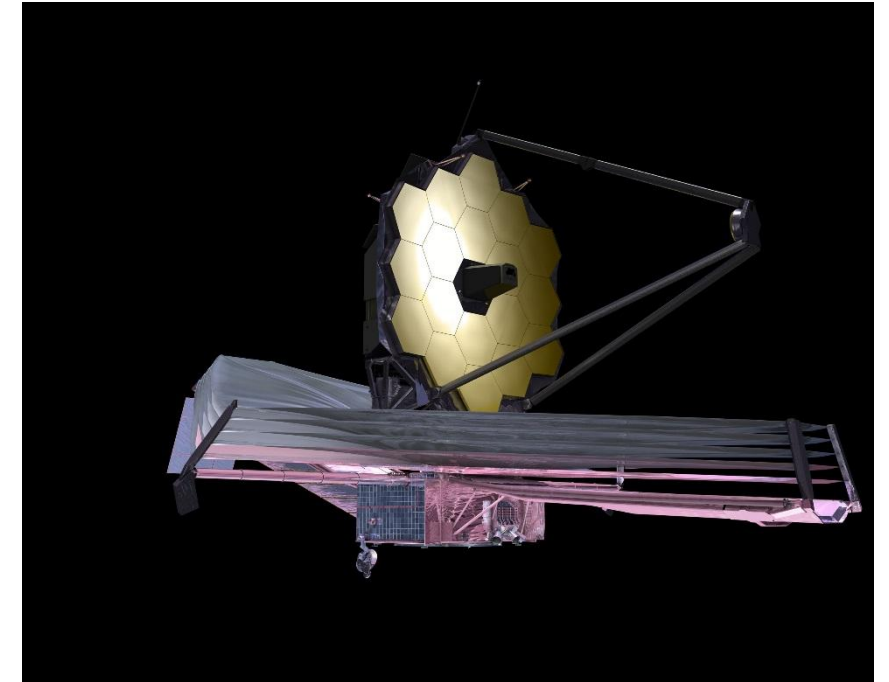
Планируемые аппараты



Спектр-РГ
2018 или 2019

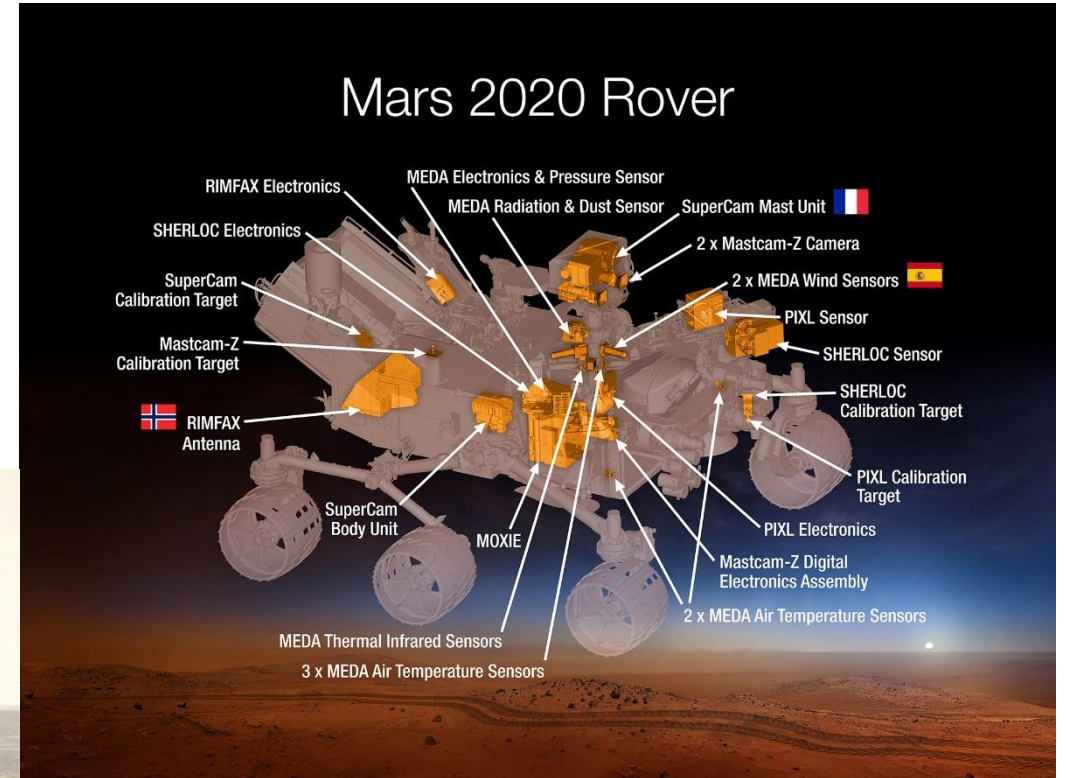


BepiColombo
2018



James Webb Space Telescope
2020

Планируемые аппараты



Mars 2020
2020 :D

fin.

"I NEVER WANT
TO HOLD AGAIN!"

