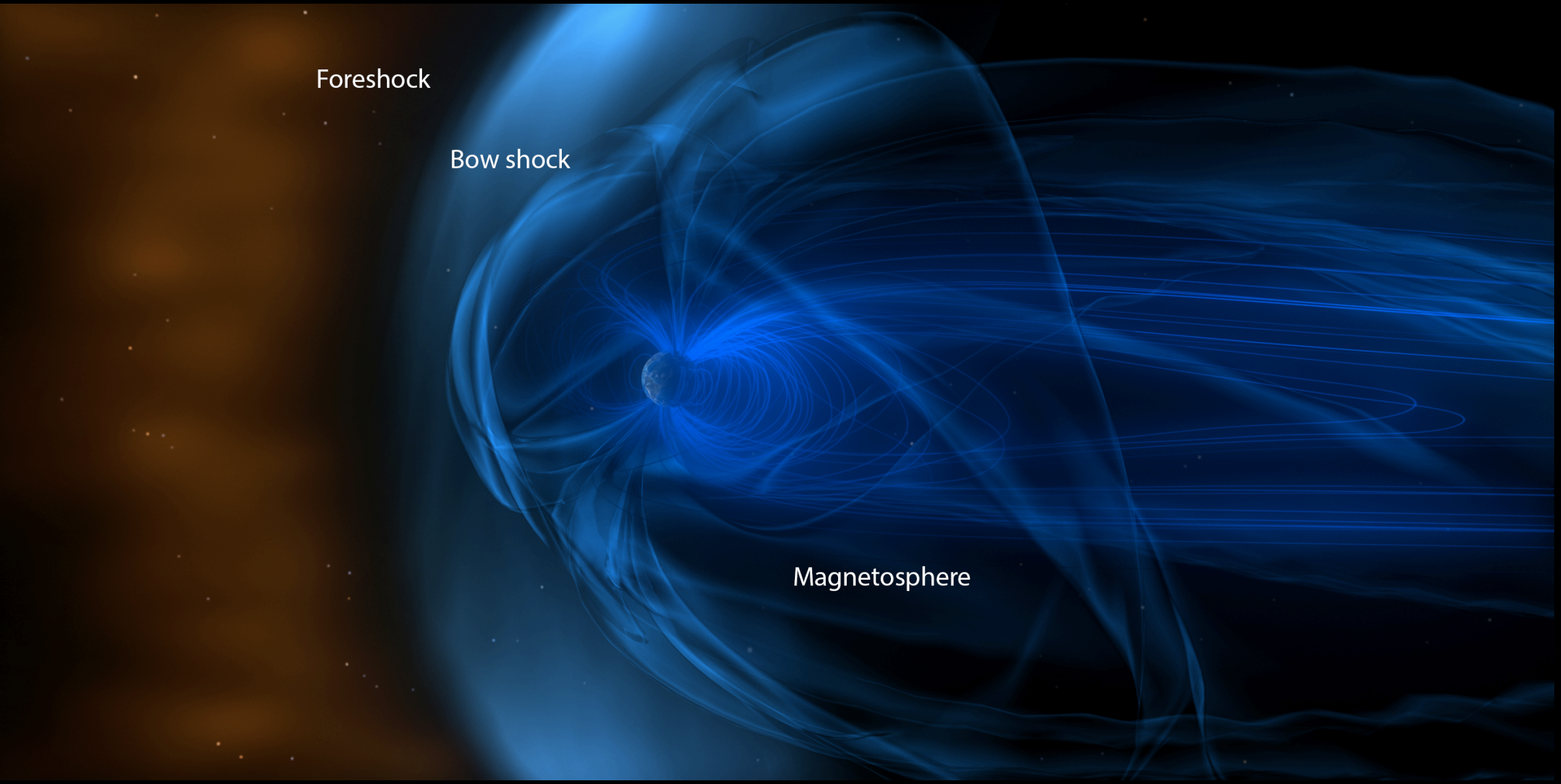
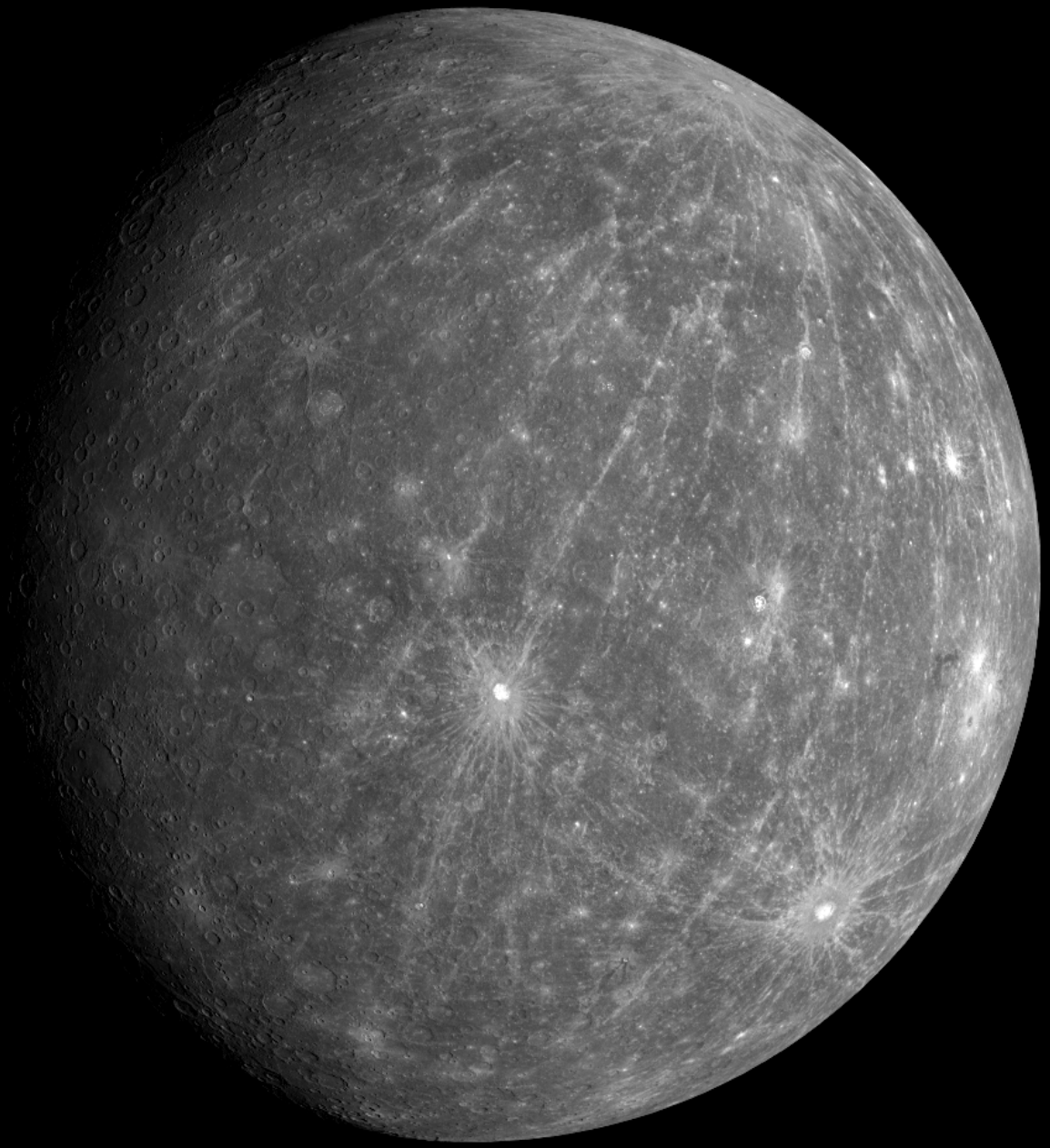
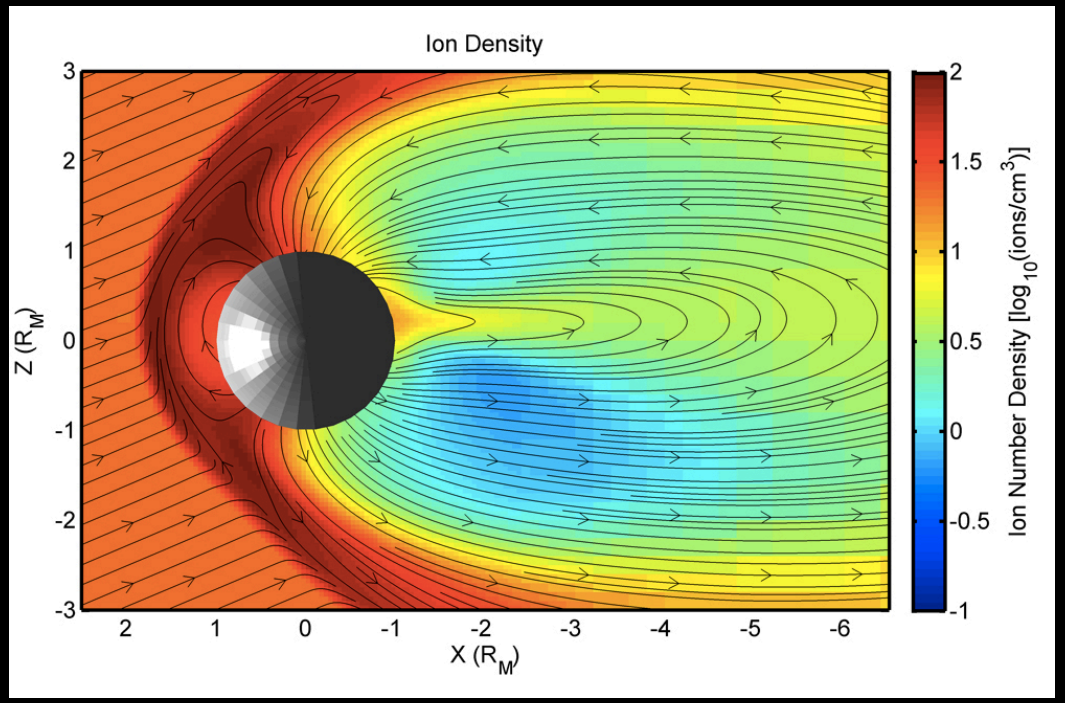
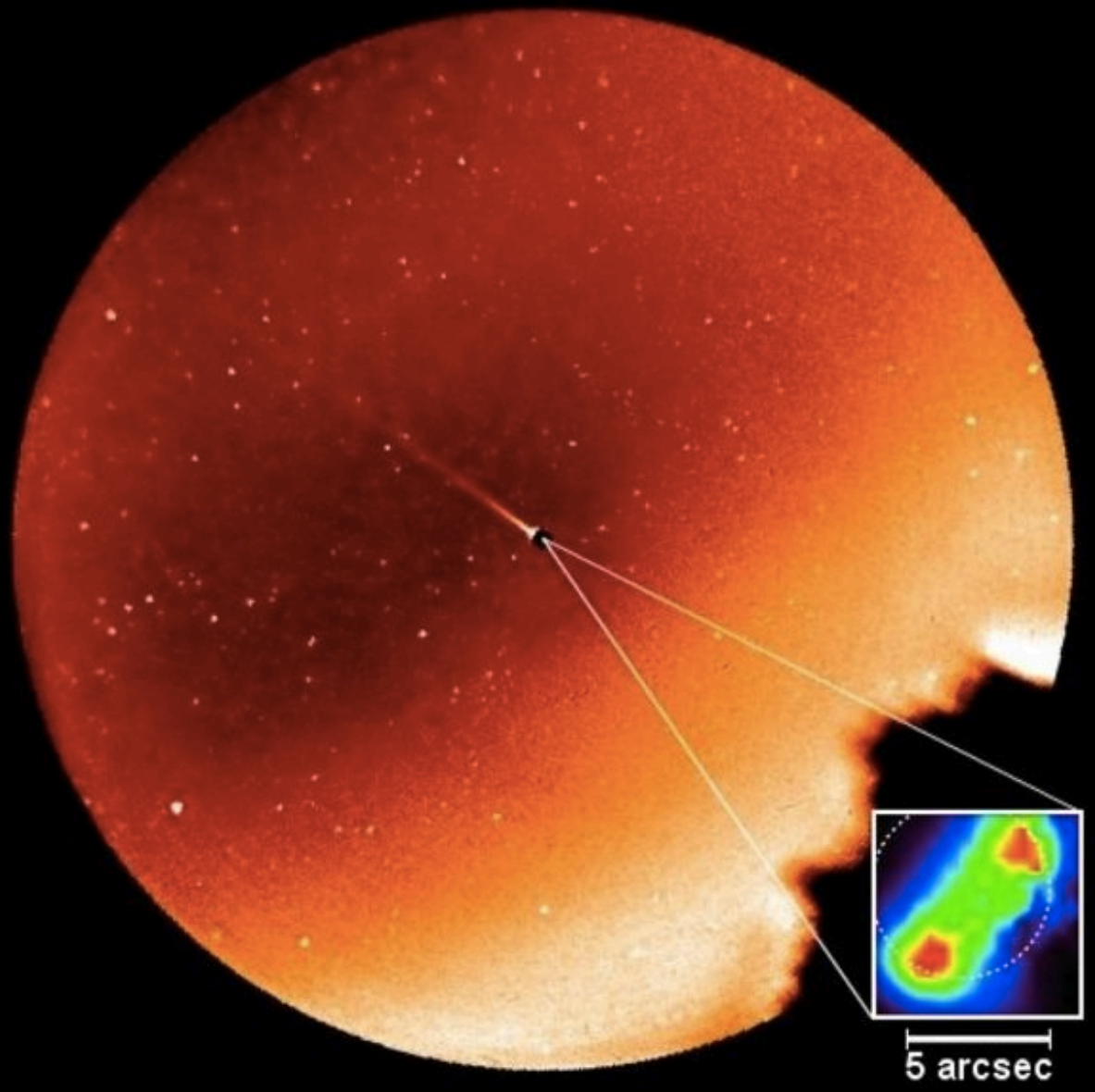
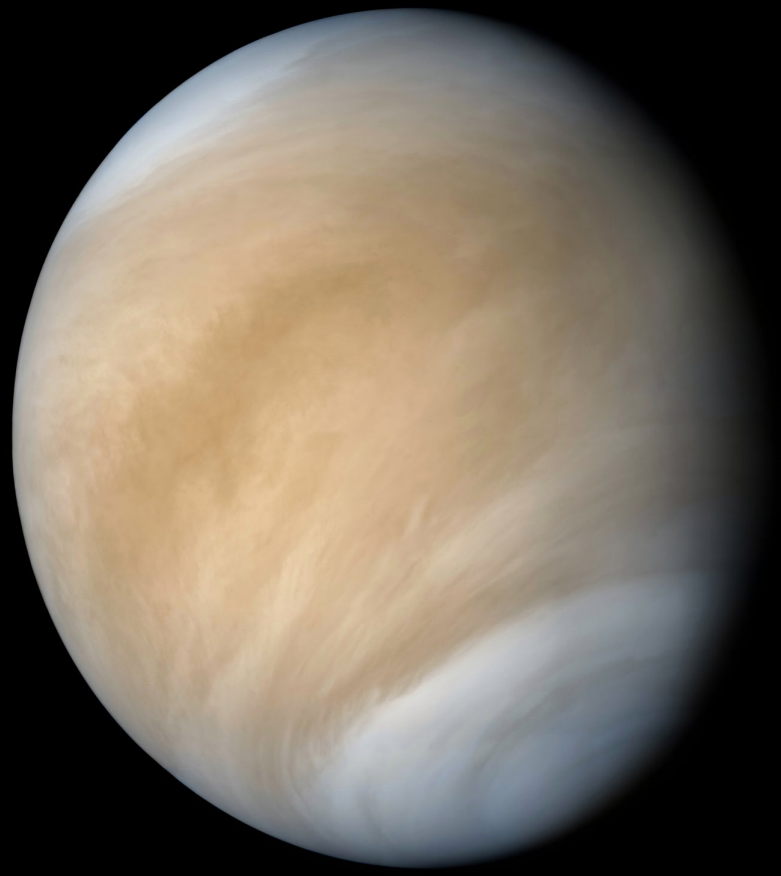

Foreshock
Bow shock
Magnetosphere

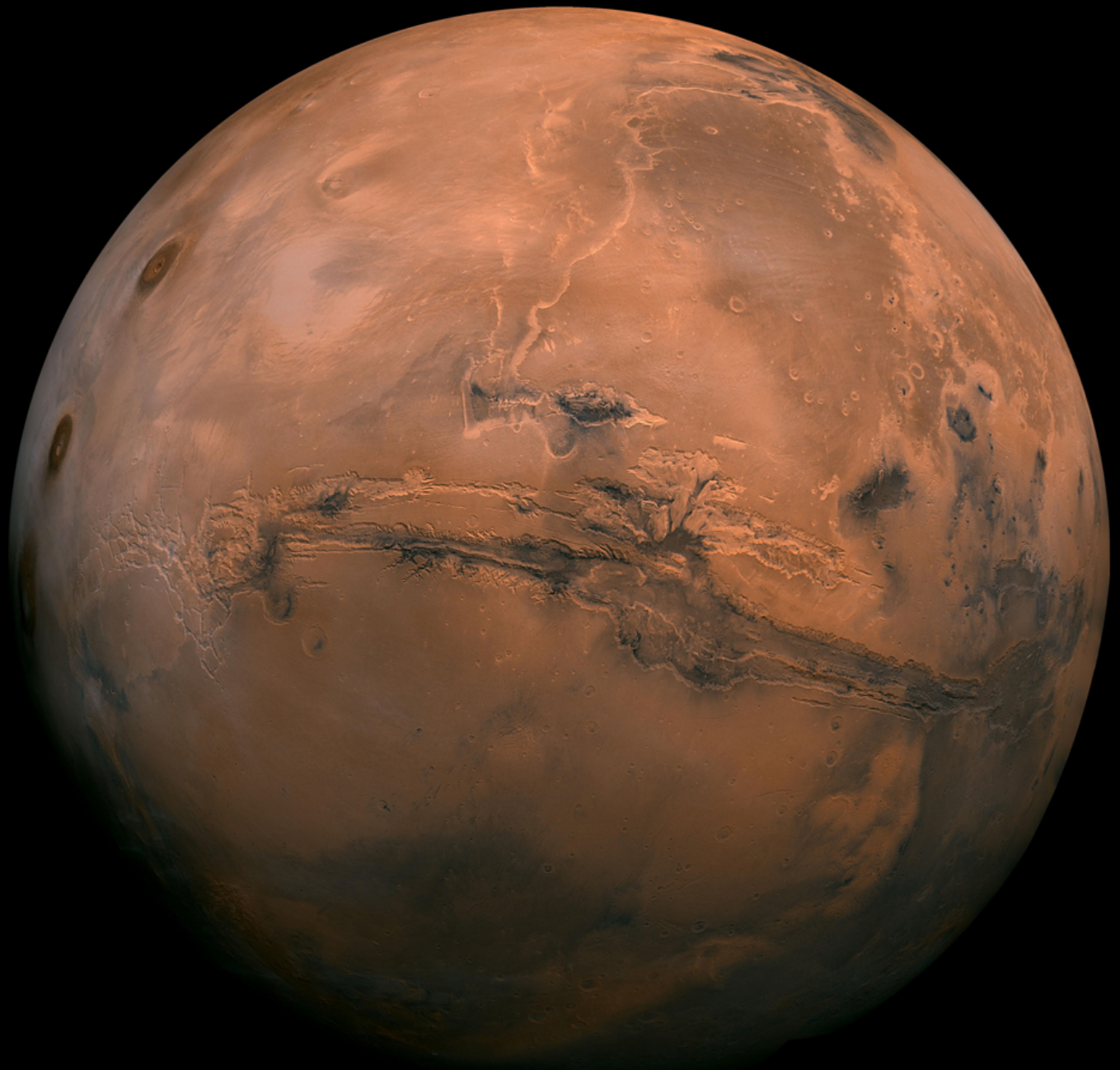


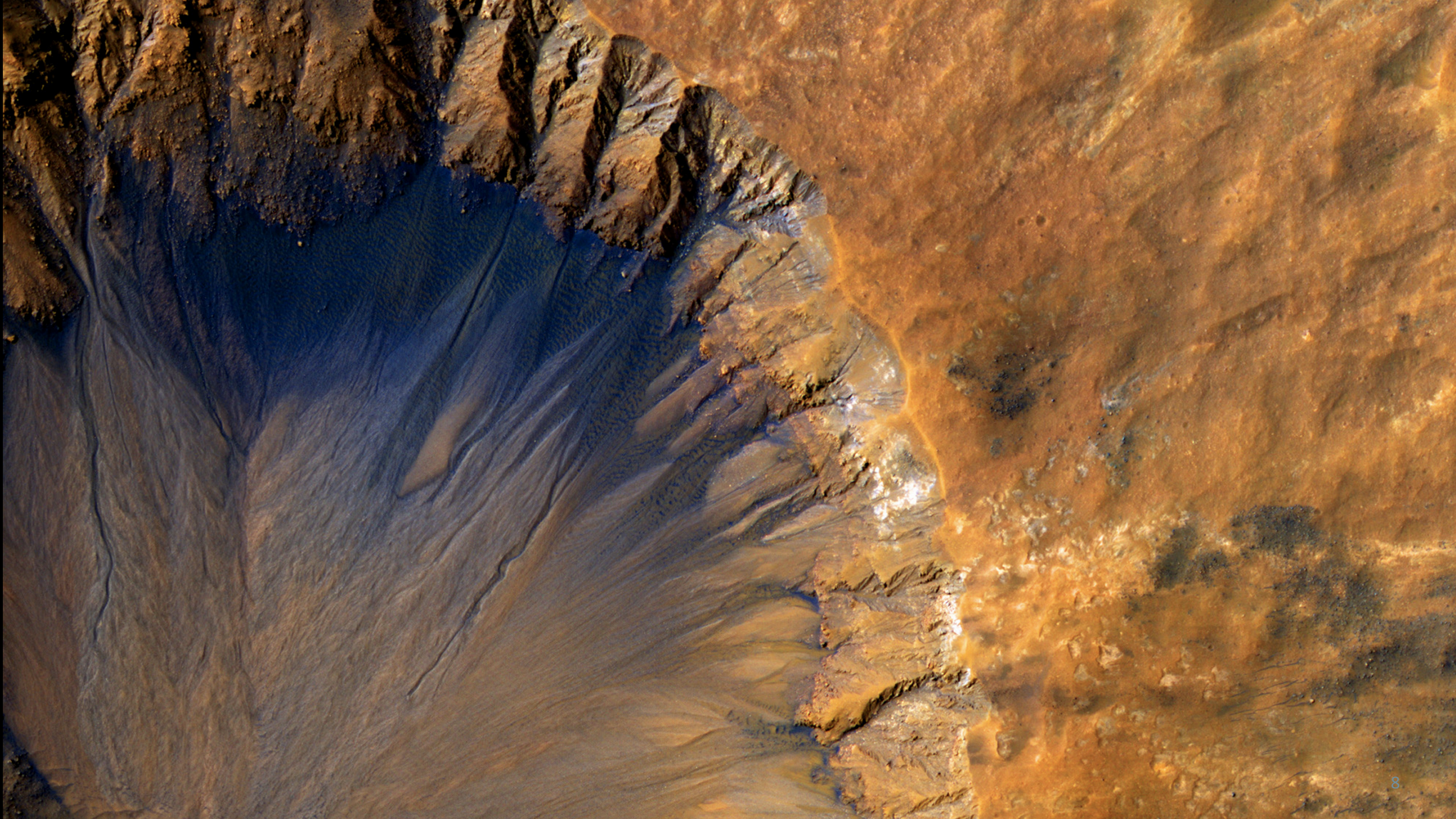

Ion Density
Z (R_M)
X (R_M)
Ion Number Density [$\log_{10}$(ions/cm^3)]
3
2
1
0
-1
-2
-3
2
1
0
-1
-2
-3
-4
-5
-6
2
1.5
1
0.5
0
-0.5
-1

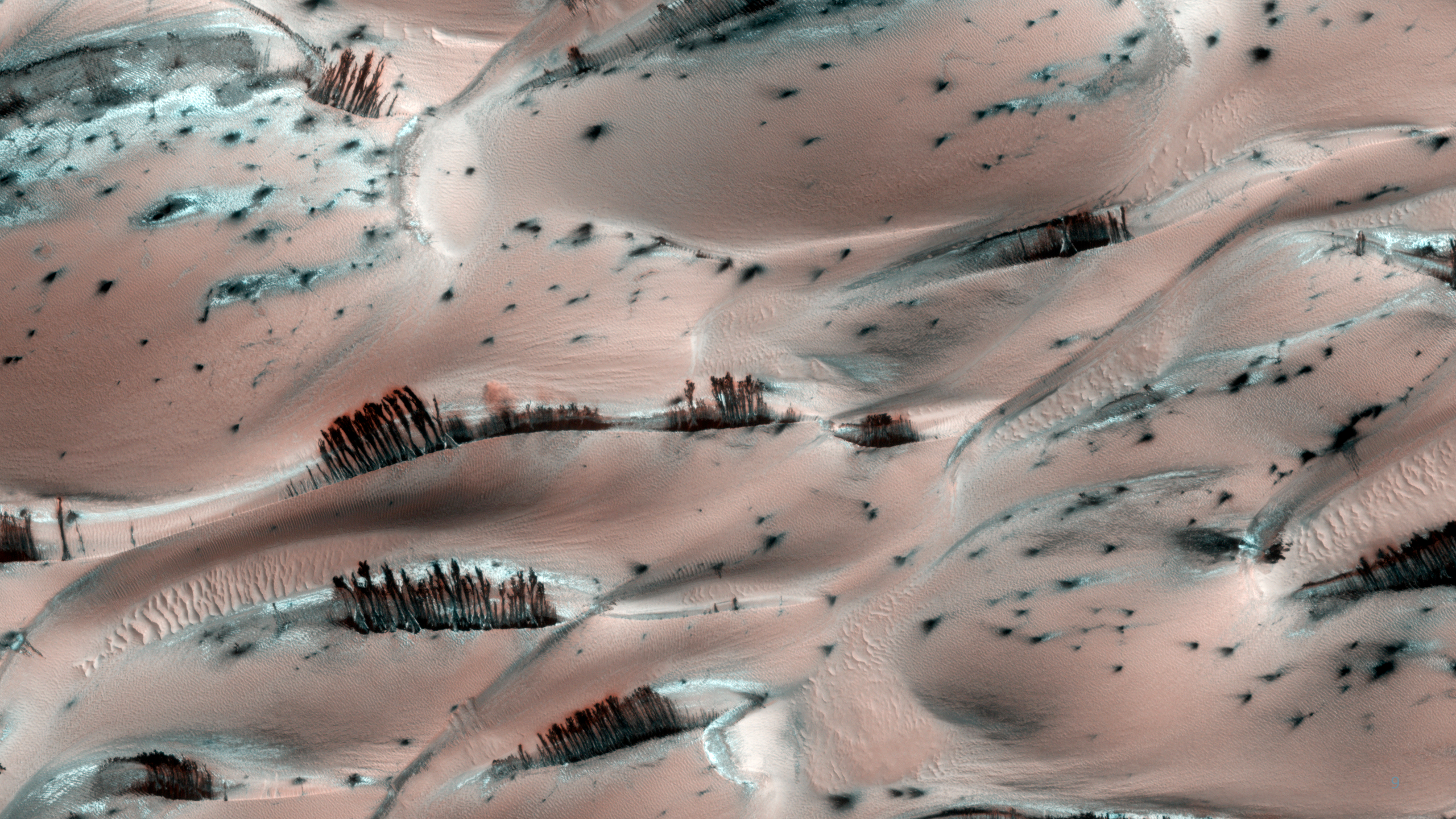

5 arcsec

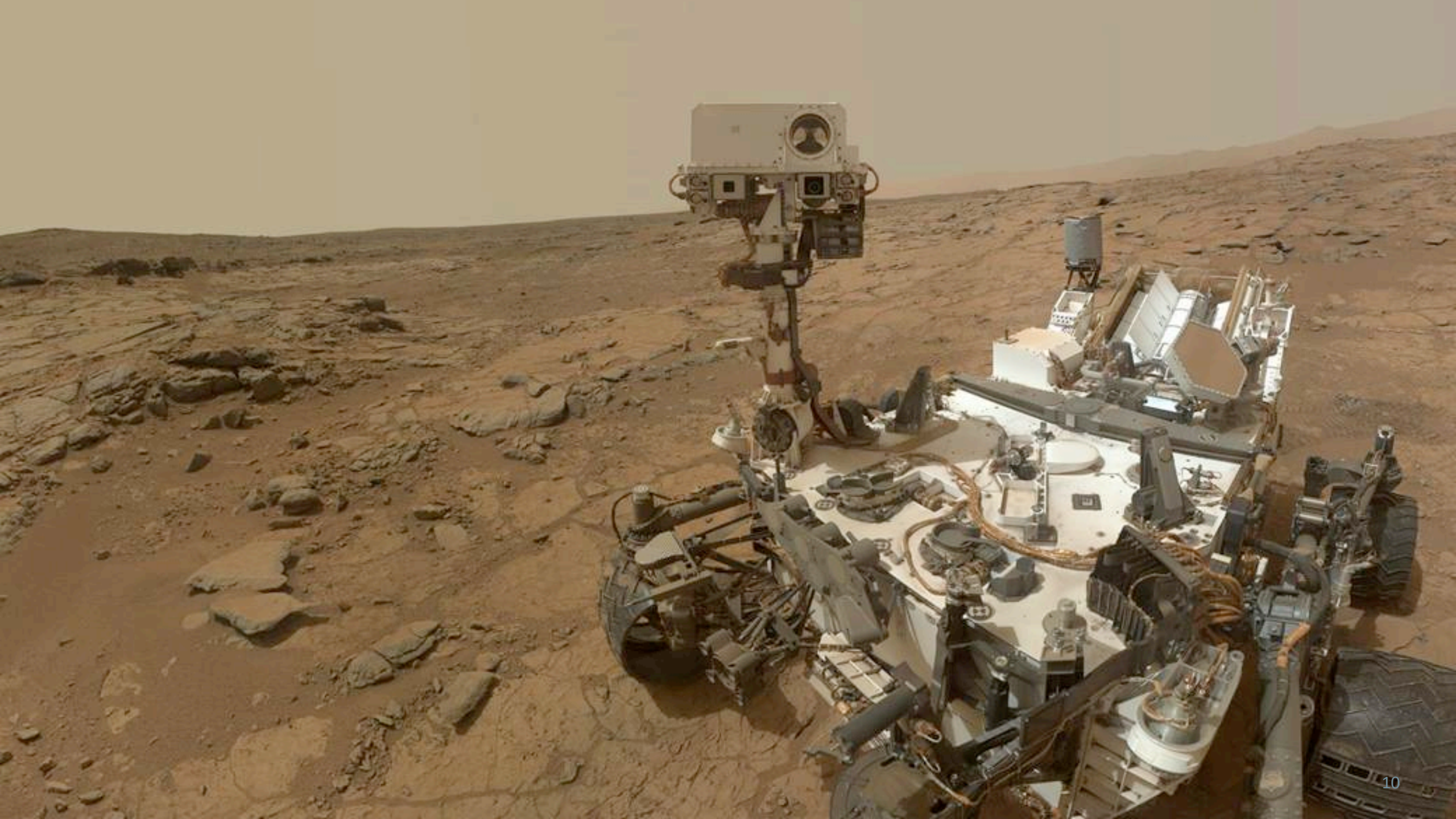
MANIA



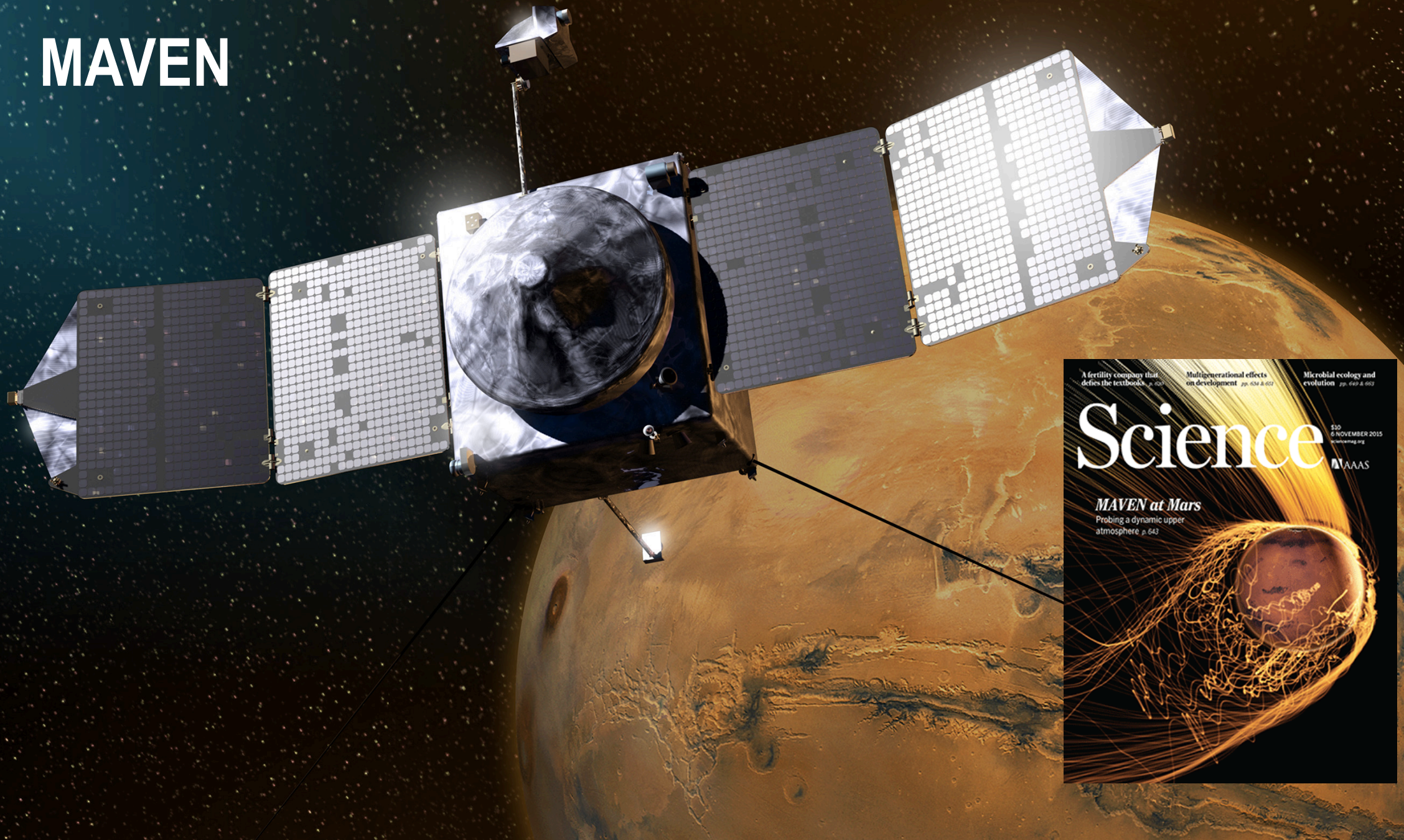


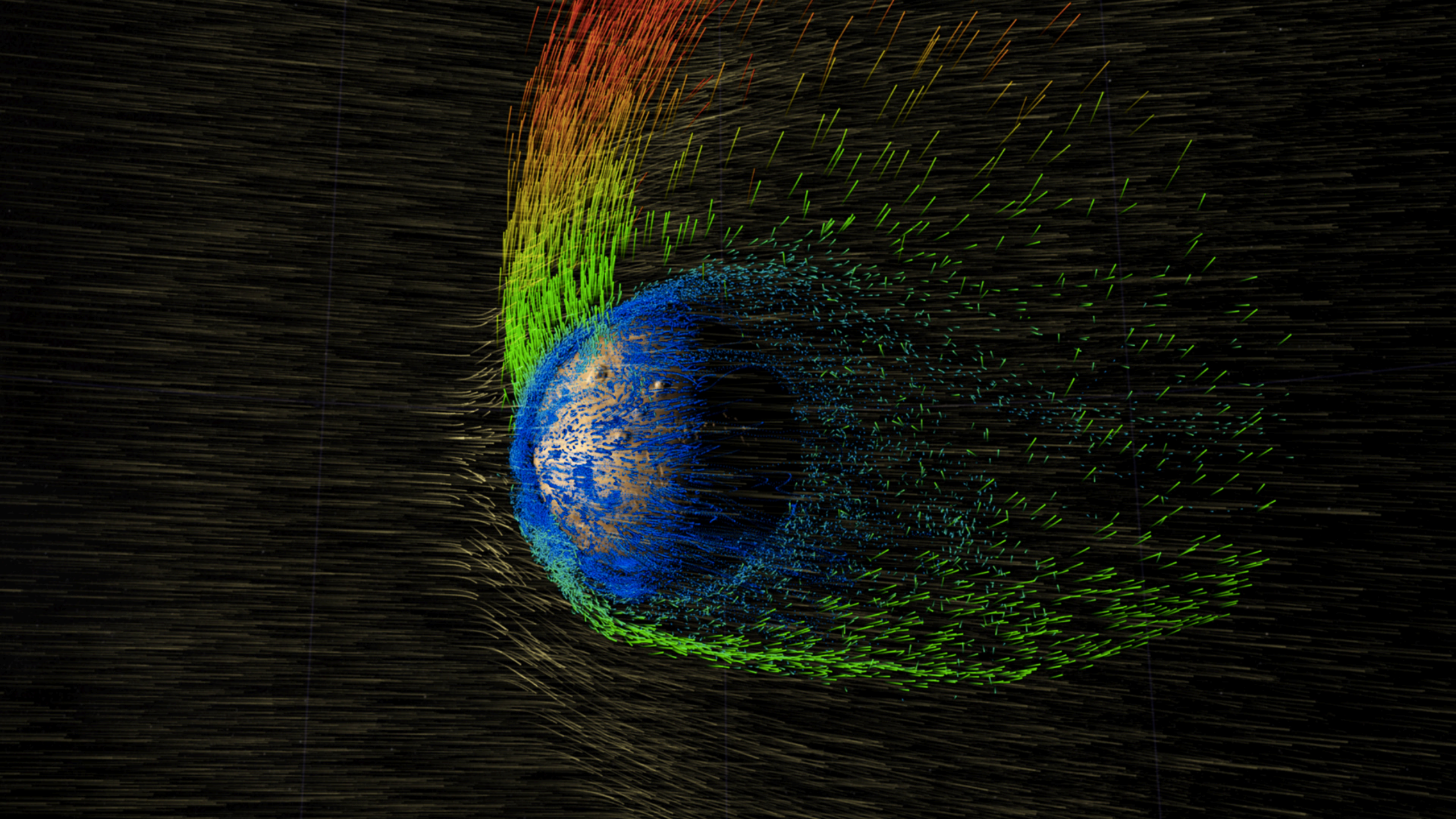


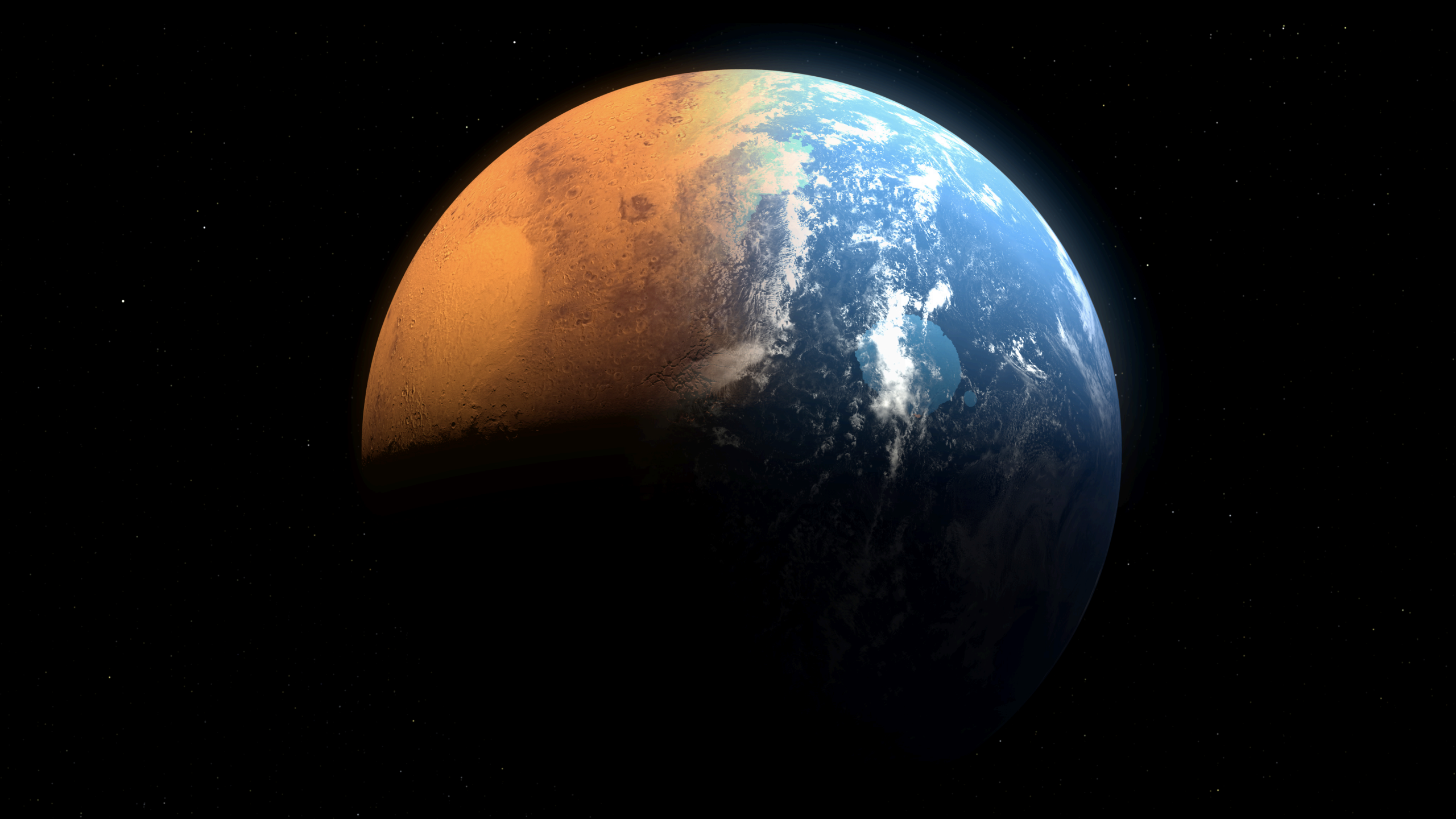


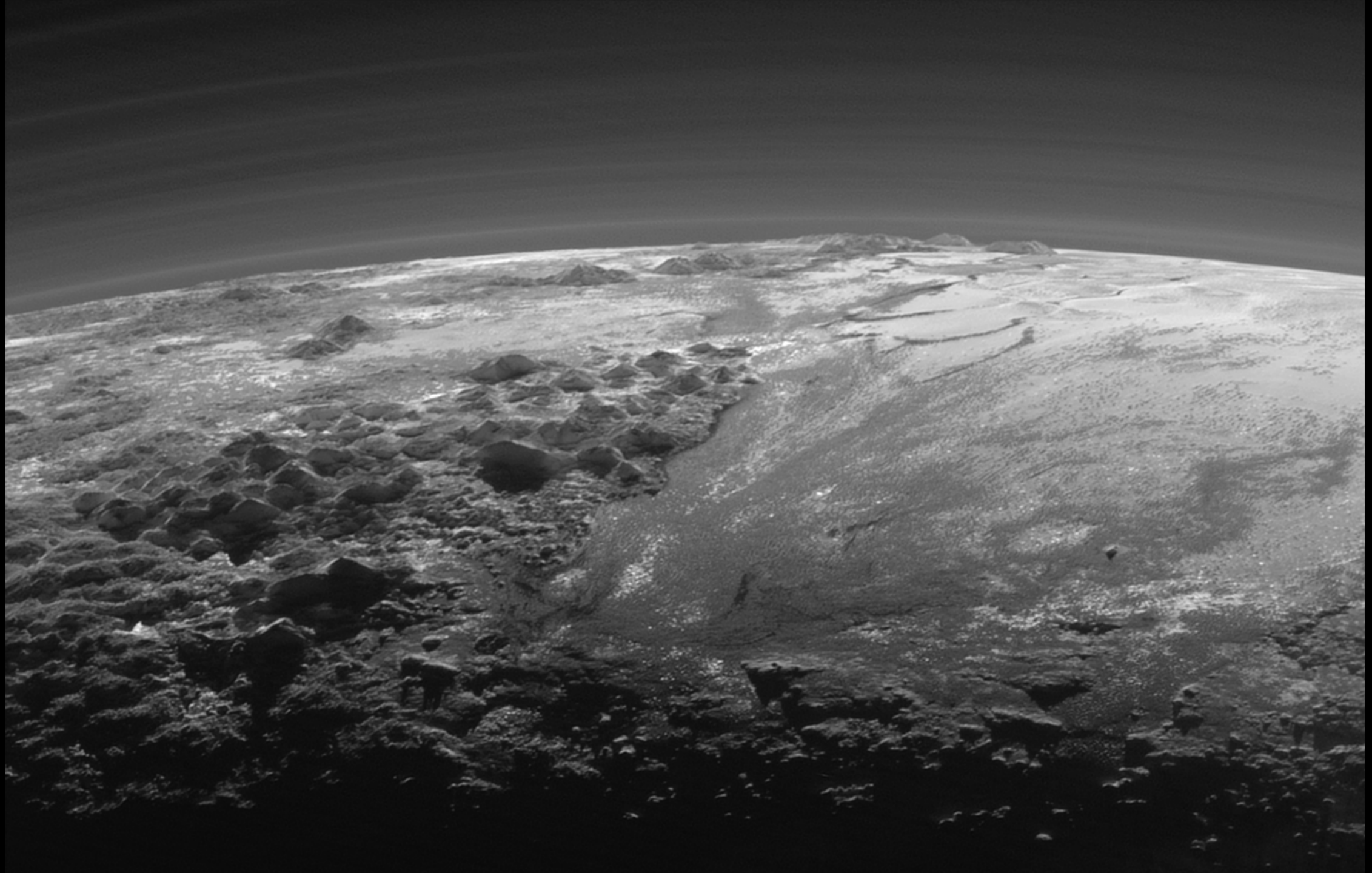


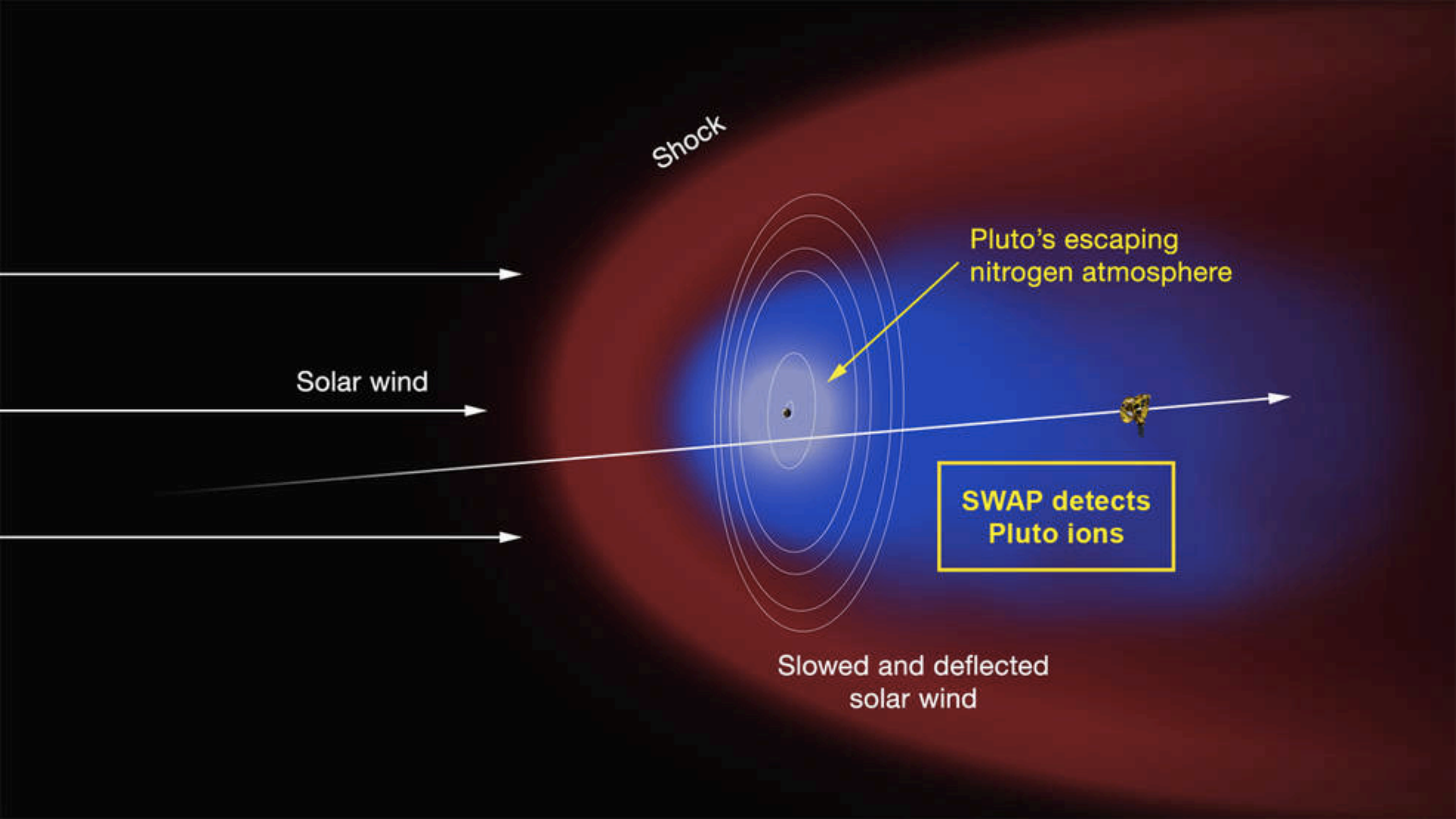
MAVEN

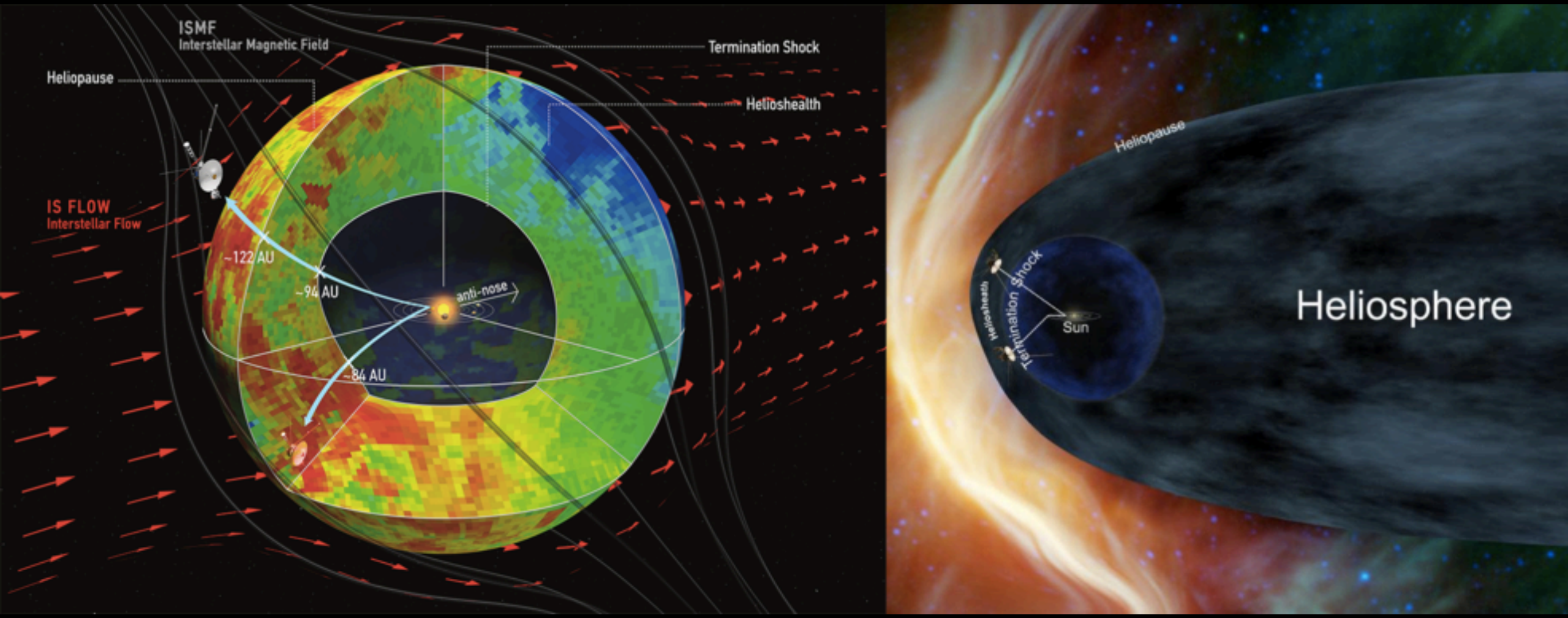

A fertility company that defies the textbooks
Multigenerational effects on development pp. 634 & 651
Microbial ecology and evolution pp. 649 & 663
Science
$10
6 NOVEMBER 2015
AAAS
MAVEN at Mars
Probing a dynamic upper atmosphere p. 643



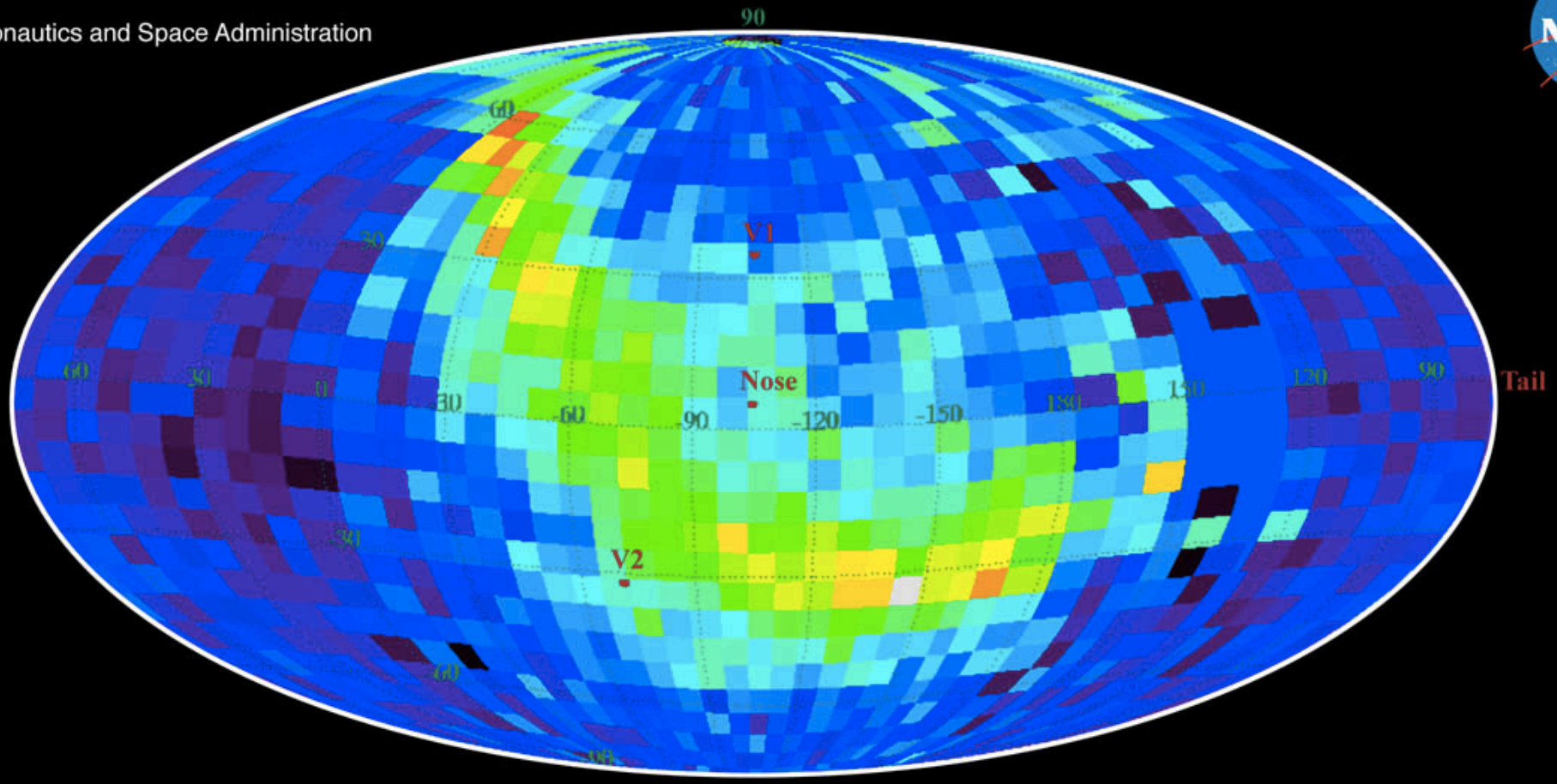





Shock
Pluto's escaping
nitrogen atmosphere
Solar wind
SWAP detects
Pluto ions
Slowed and deflected
solar wind

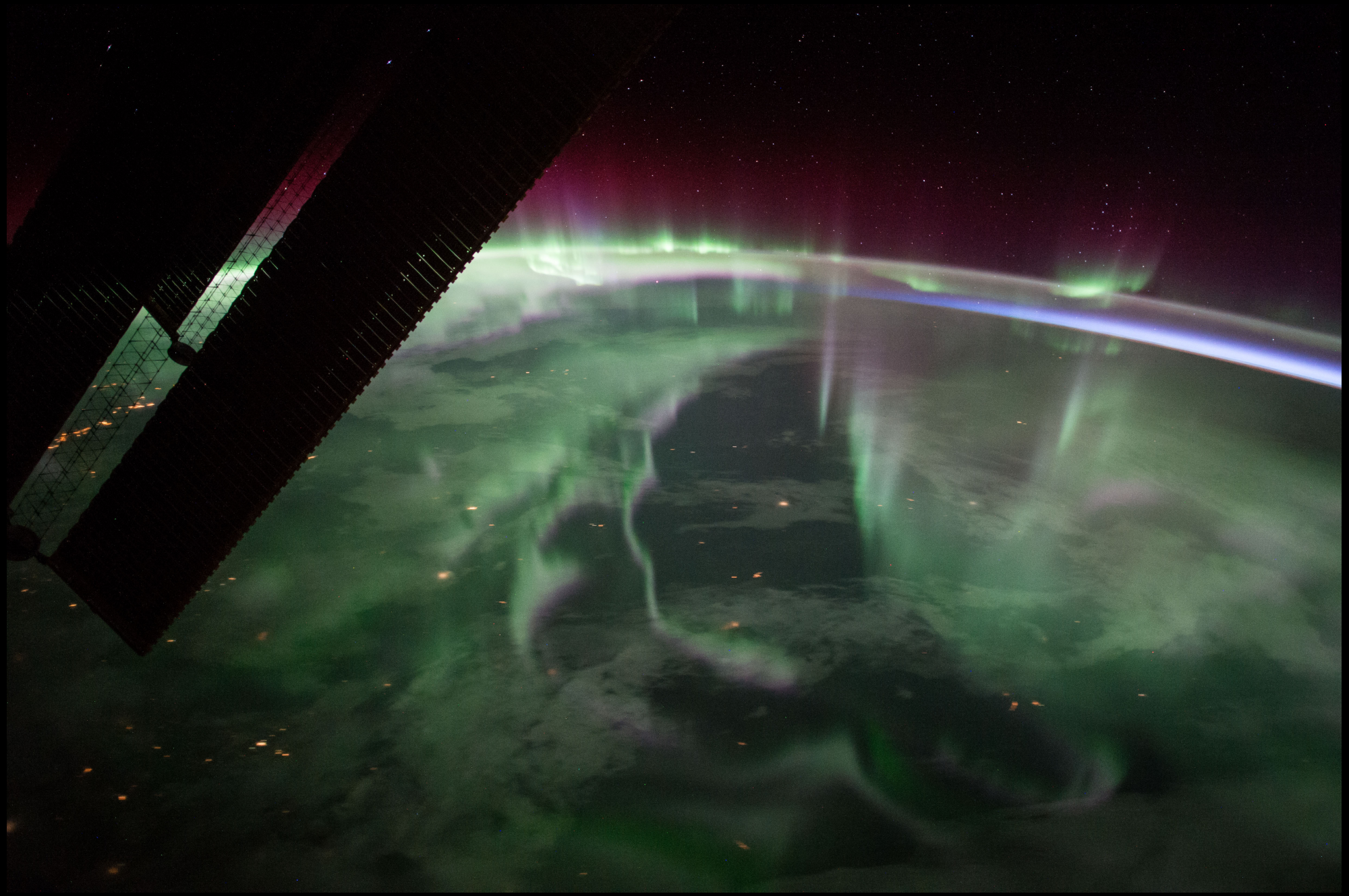

ISMF
Interstellar Magnetic Field
Heliopause
Termination Shock
Heliosheath
IS FLOW
Interstellar Flow
~122 AU
~94 AU
anti-nose
~84 AU
Heliopause
Heliosheath
Termination Shock
Sun
Heliosphere

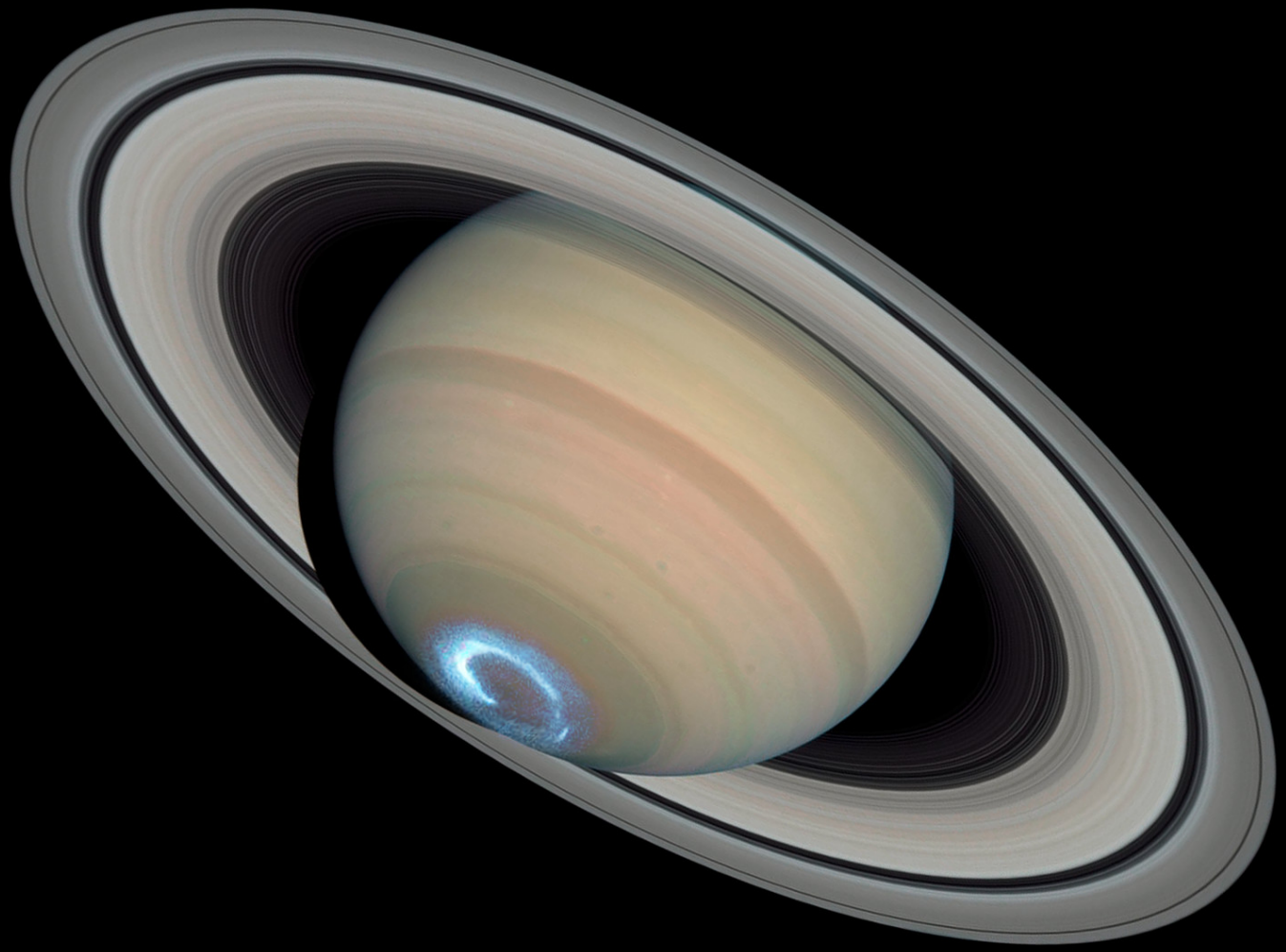
National Aeronautics and Space Administration

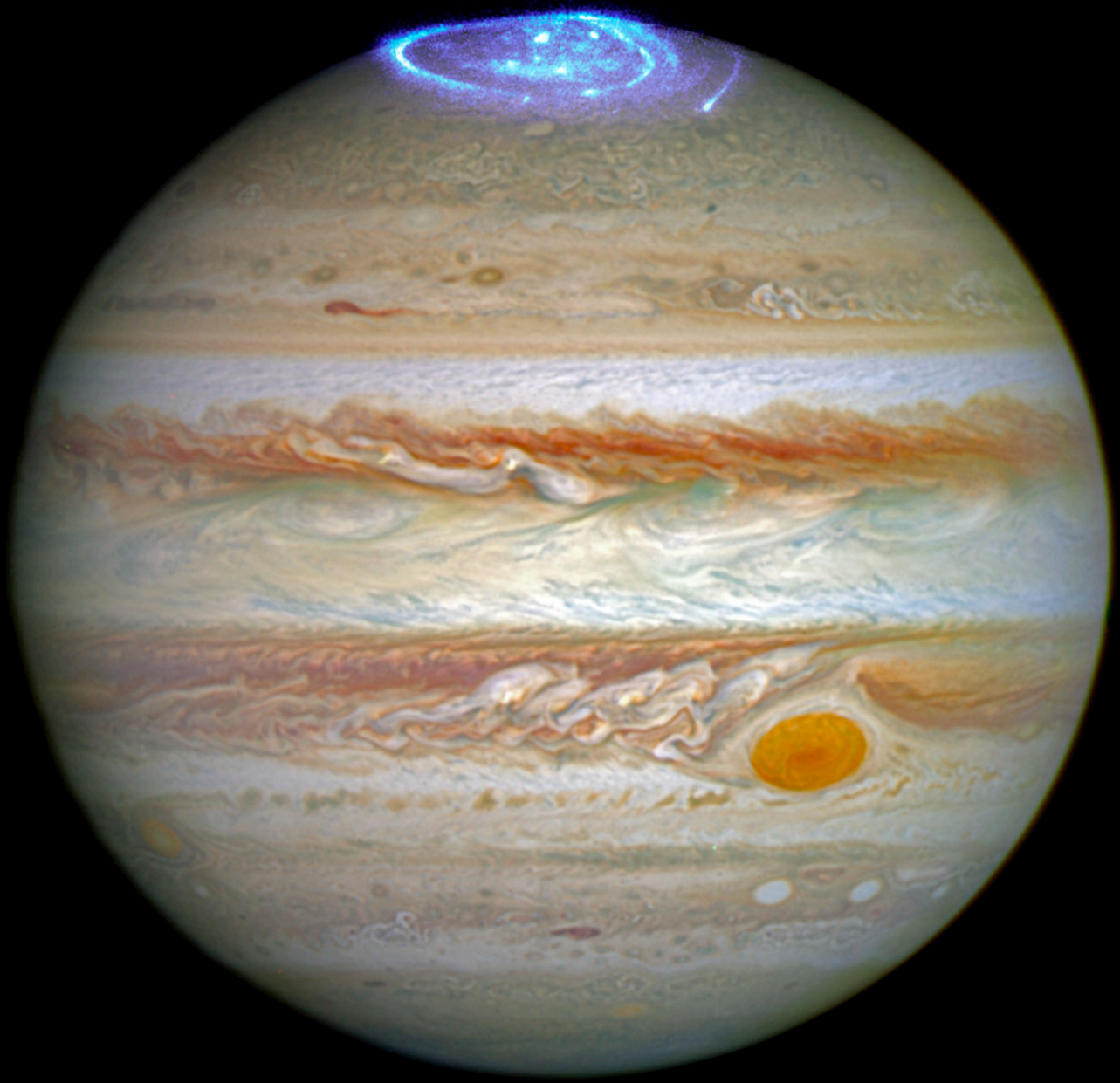


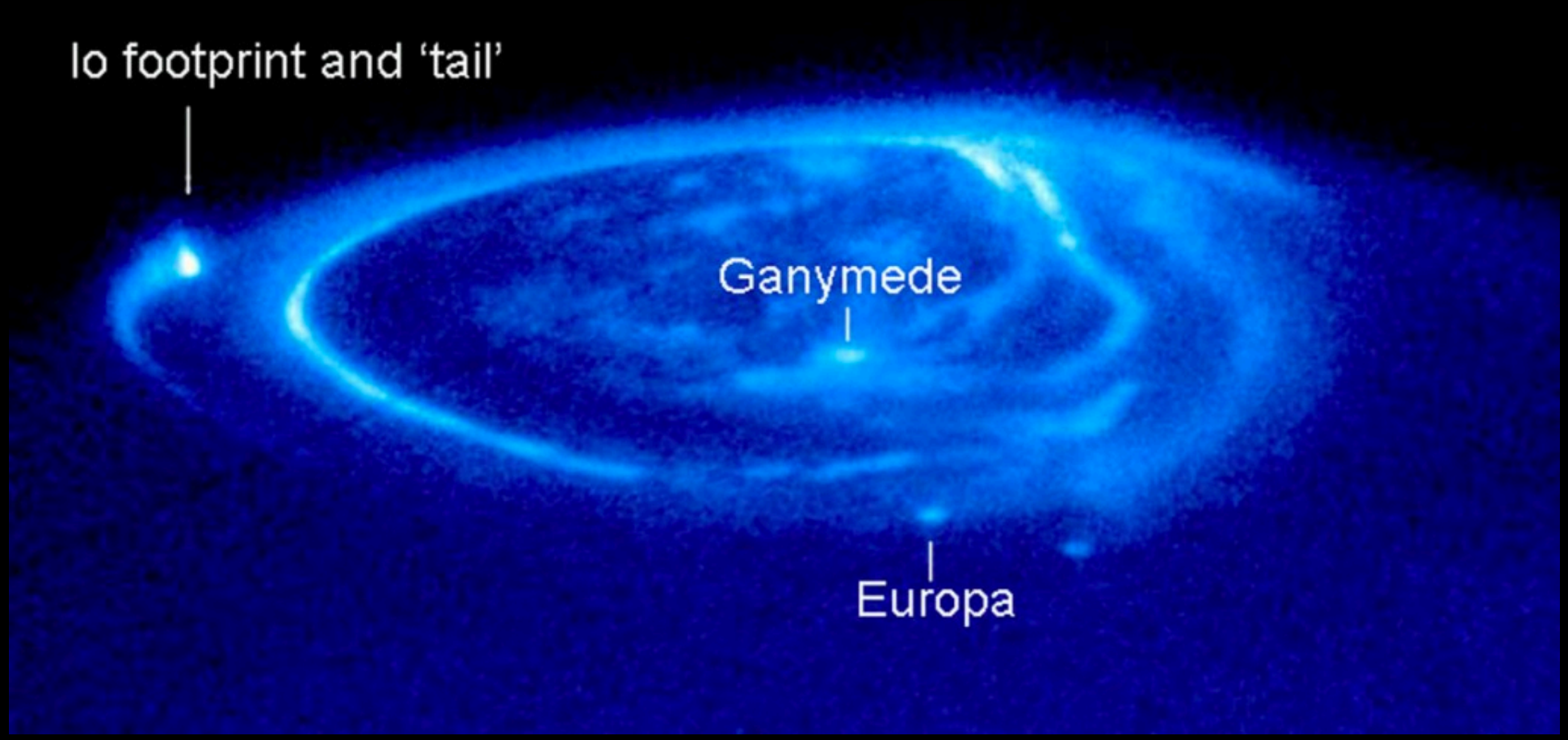
IBEX-Hi (1.3-2.4 keV)Flux

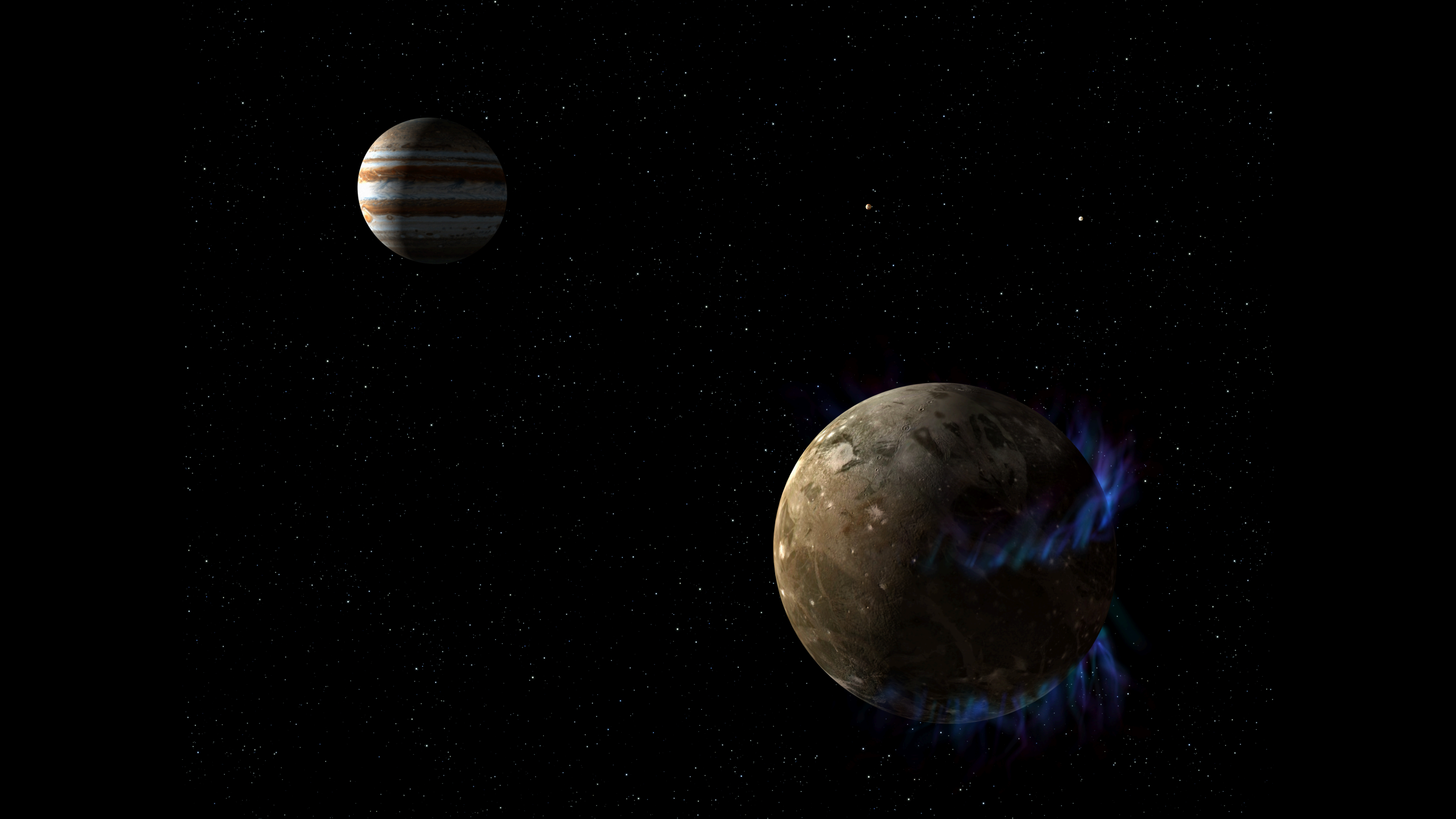
Flux [ENAs / (cm^2 s sr keV)]



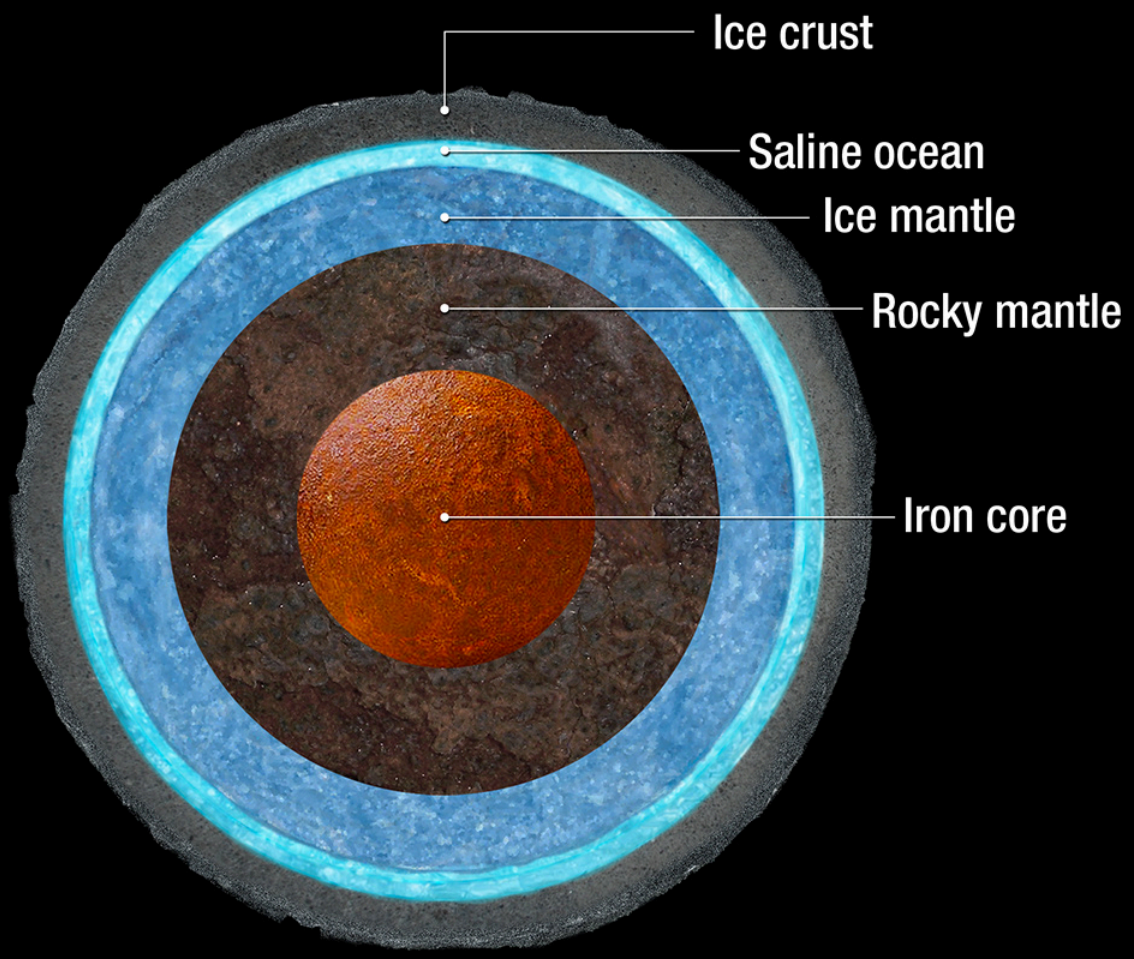





Io footprint and 'tail'
Ganymede
Europa



Ganymede Interior



EXOPLANET EXPLORATION
Planets Beyond Our Solar System

The Search for Life | Explore | News | Multimedia | Exoplanet Program | NASA Science

exoplanets.nasa.gov
5/24/2018

BREAKING NEWS

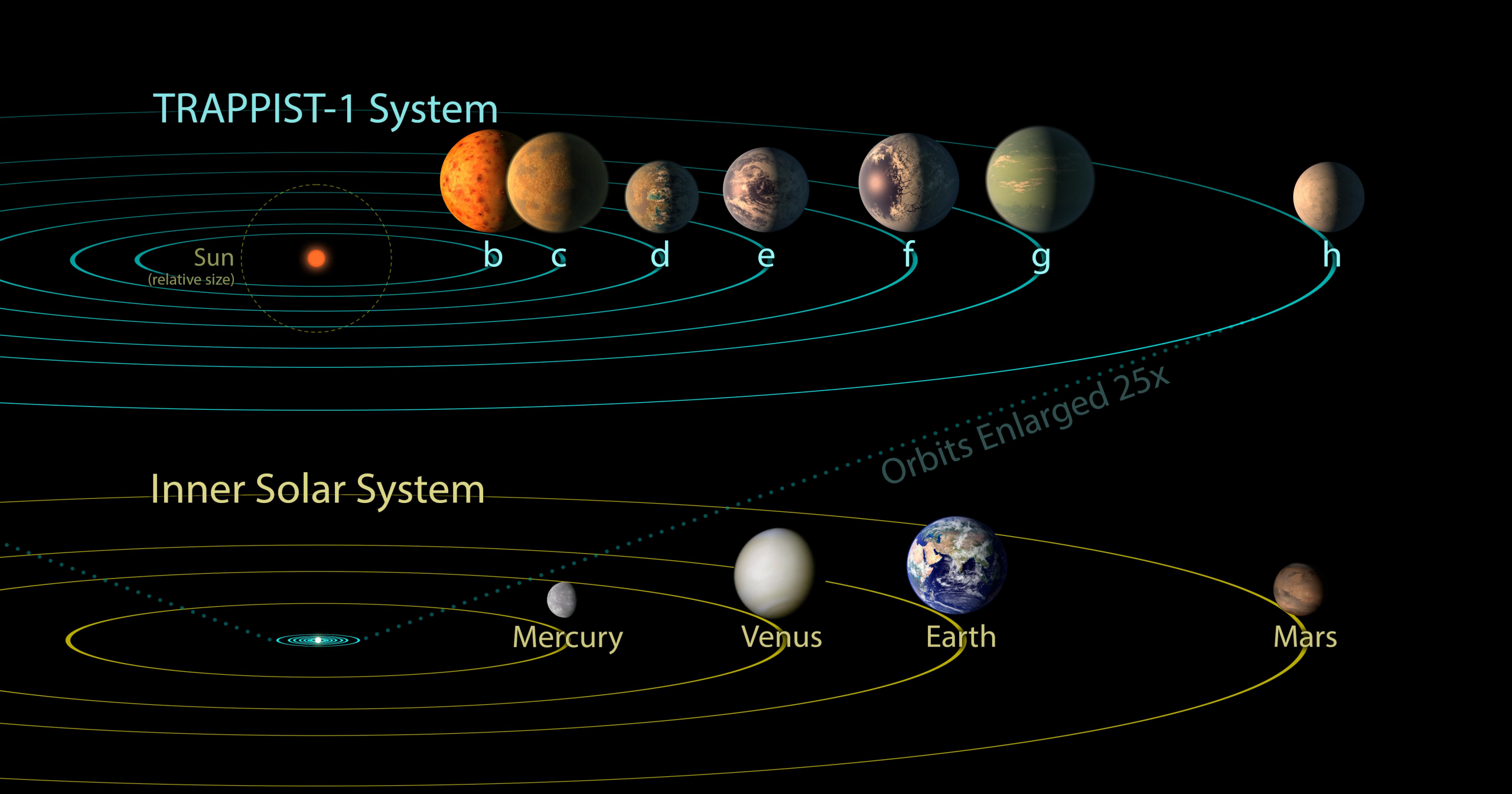
Liftoff!

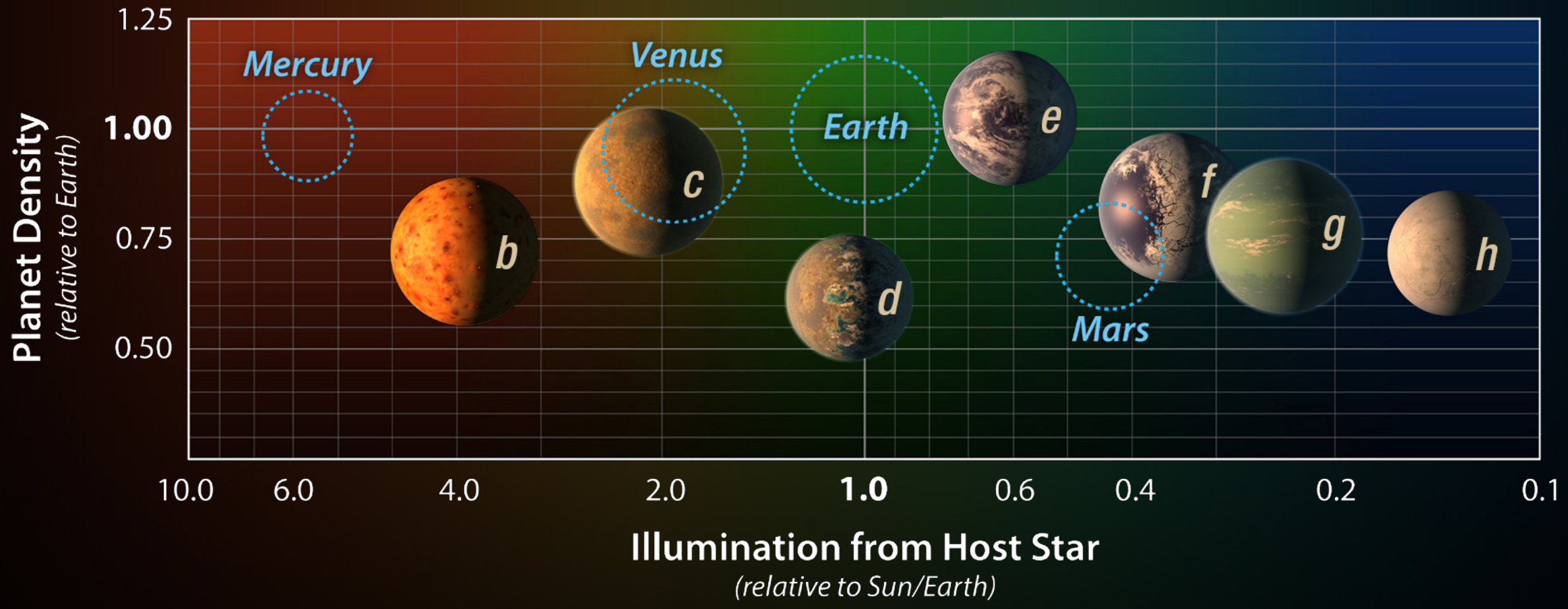
NASA's Transiting Exoplanet Survey Satellite, or TESS, is flying free following an on-time liftoff and successful journey to orbit aboard a SpaceX Falcon 9 rocket.

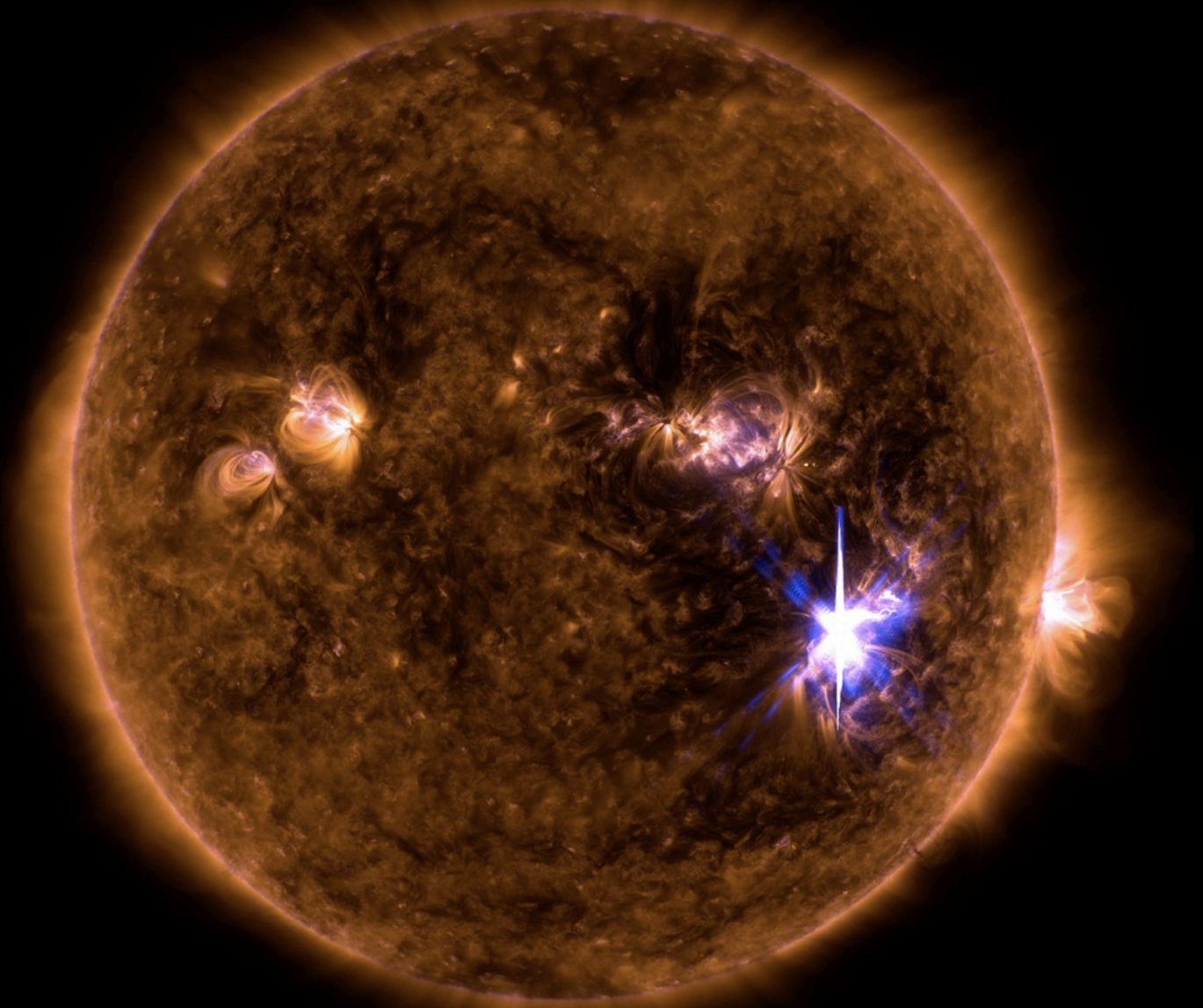
READ MORE

Exoplanets	3,726	4,496	2,779	153
	CONFIRMED	CANDIDATES	STAR SYSTEMS	TERRESTRIAL

EXPAND


TRAPPIST-1 System
Sun
(relative size)
b
c
d
e
f
g
h
Orbits Enlarged 25x
Inner Solar System
Mercury
Venus
Earth
Mars


Planet Density
(relative to Earth)
1.25
1.00
0.75
0.50
Mercury
Venus
Earth
Mars
b
c
d
e
f
g
h
10.0
6.0
4.0
2.0
1.0
0.6
0.4
0.2
0.1
Illumination from Host Star
(relative to Sun/Earth)

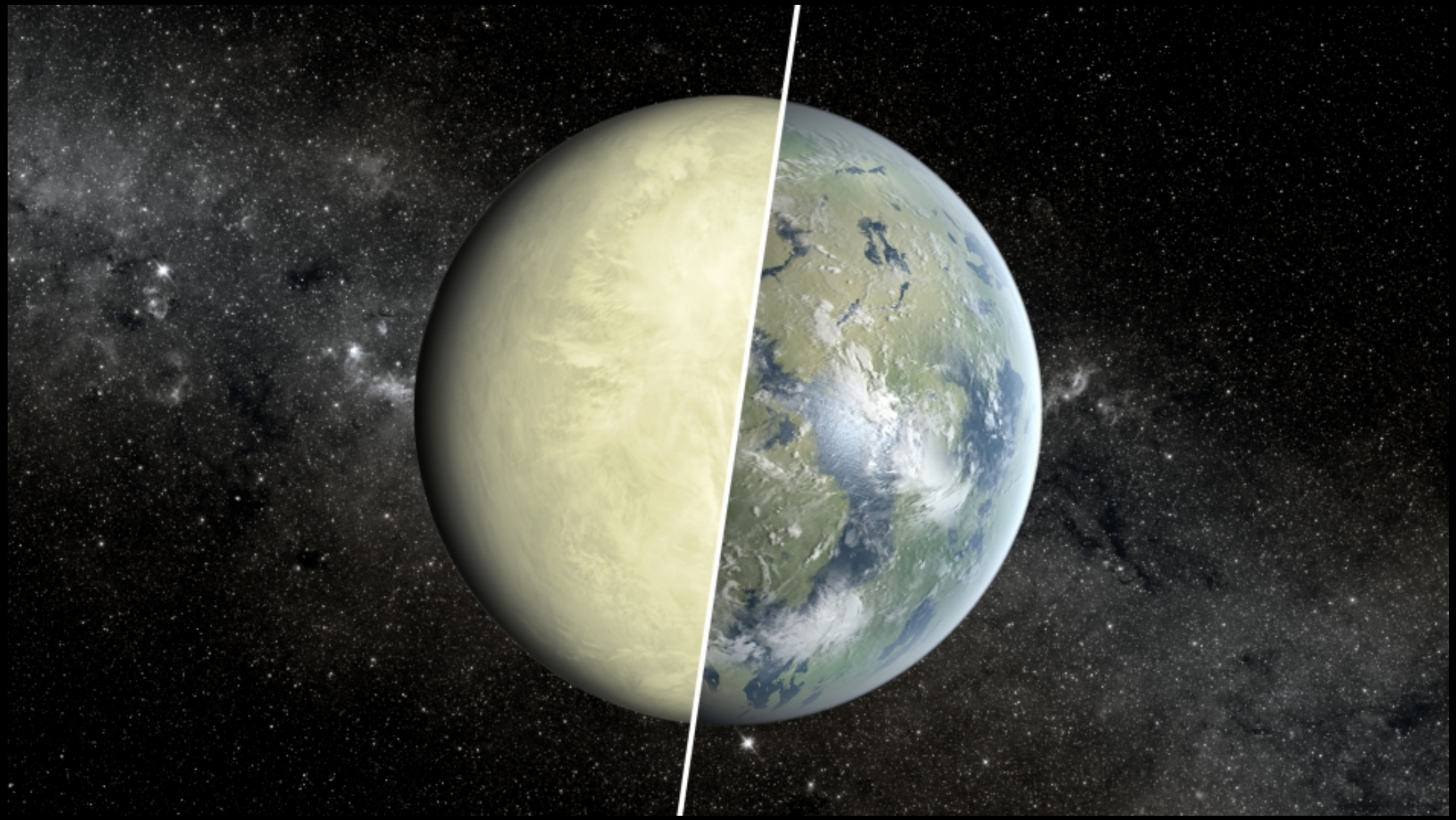


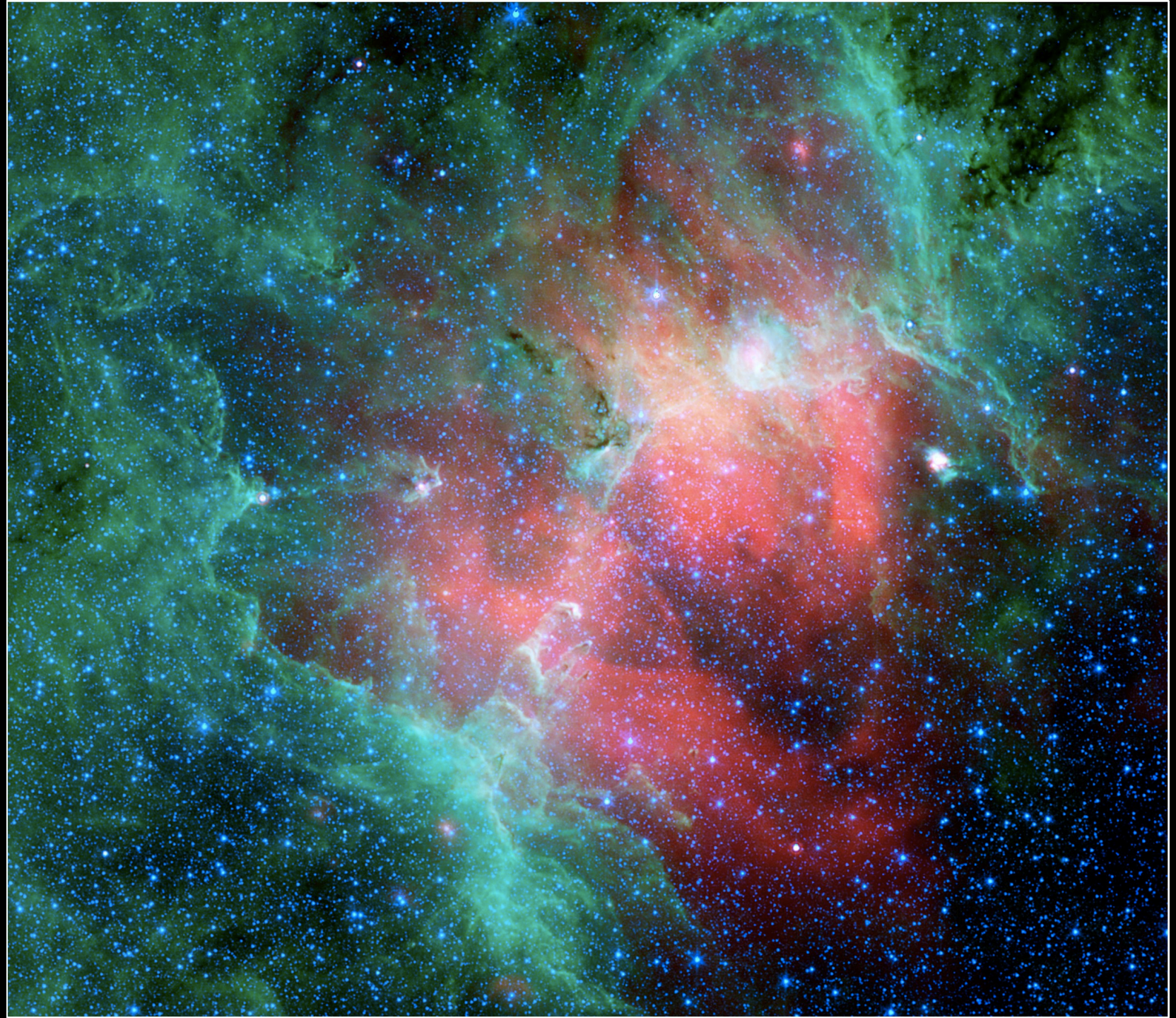
TESS

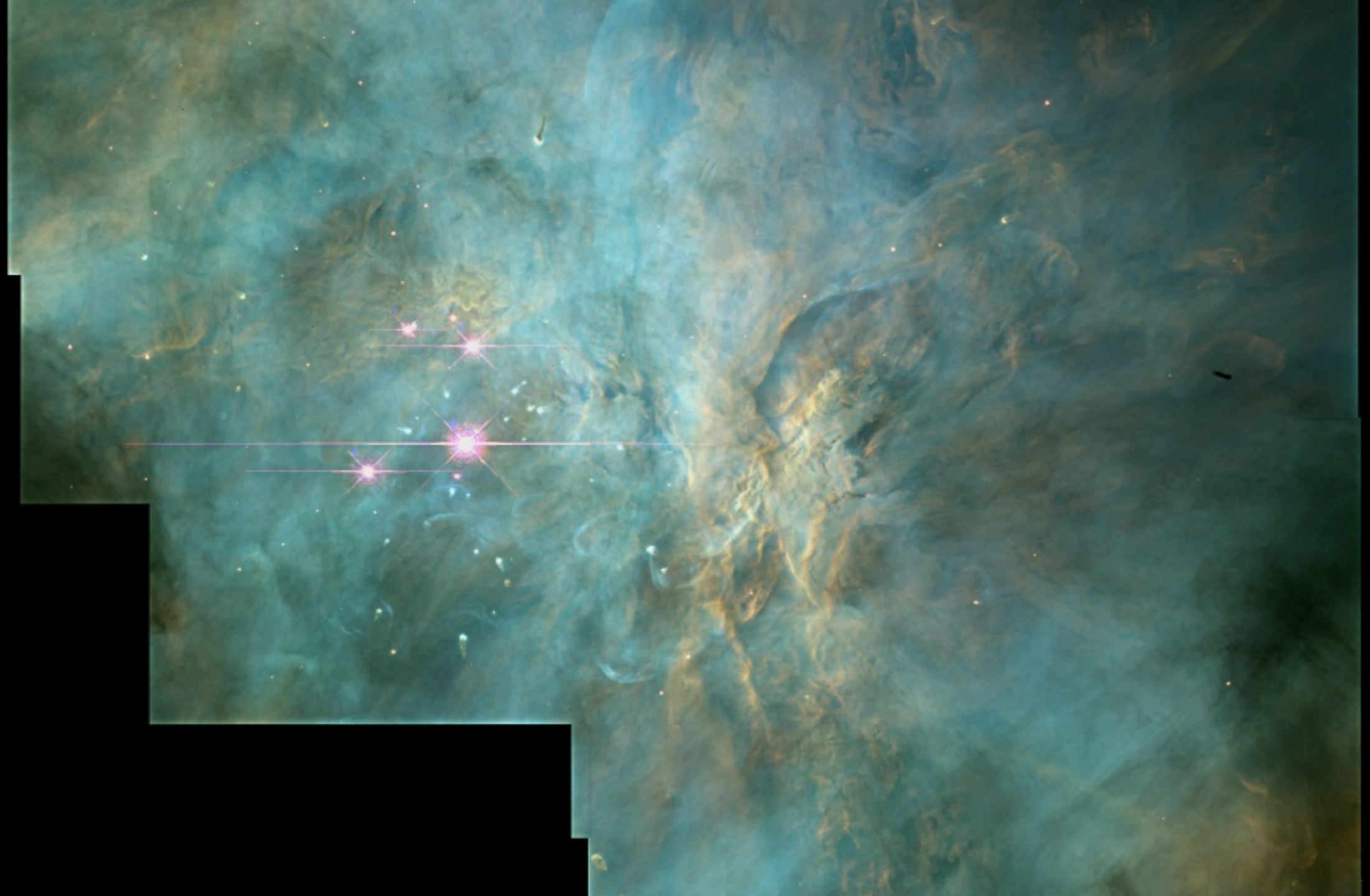
Launched April 18, 2018

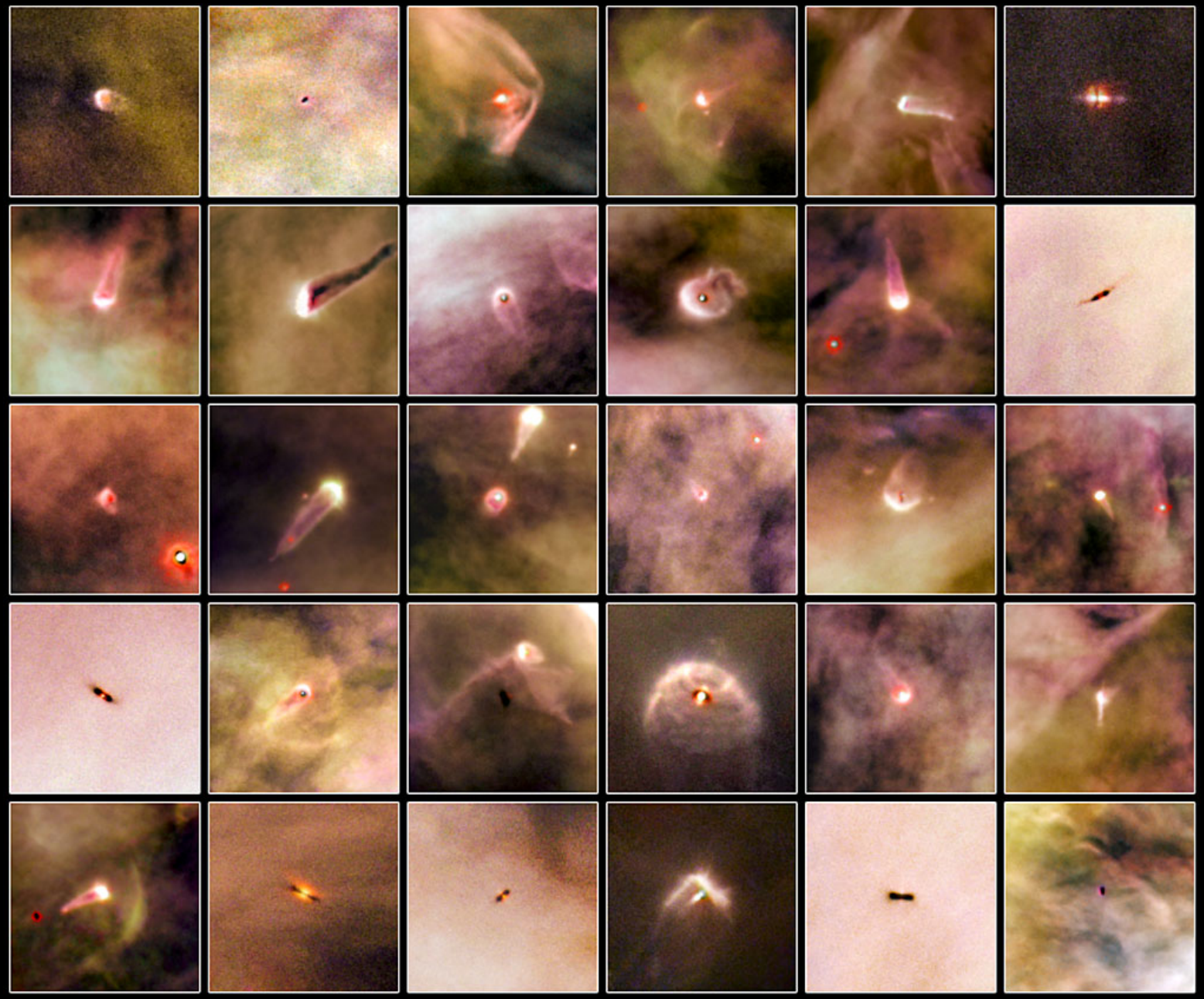
April 18, 2018 - SpaceX Falcon 9 rocket launches from Cape Canaveral carrying NASA's Transiting Exoplanet Survey Satellite (TESS)

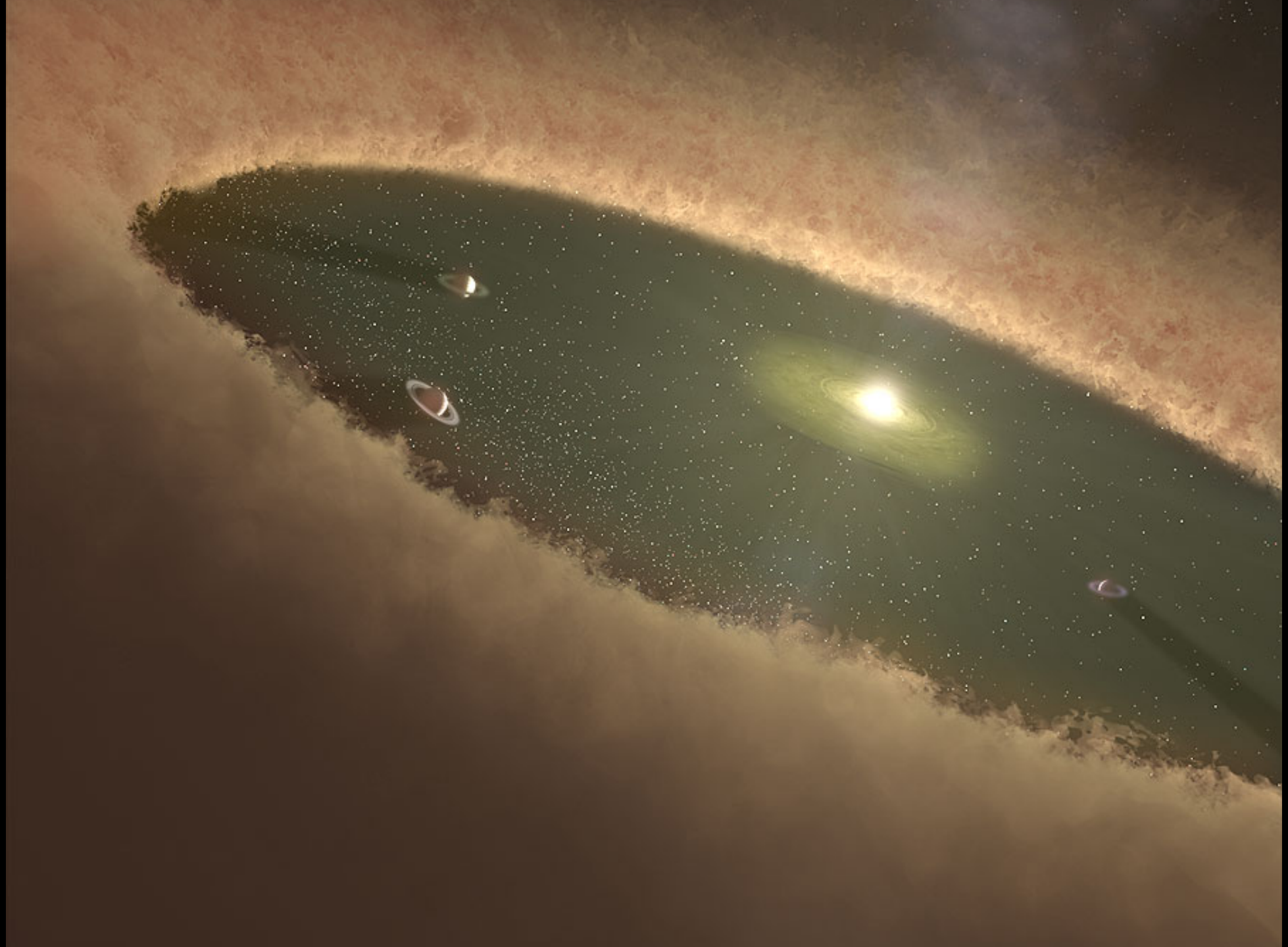
Discover the Secrets of the Universe

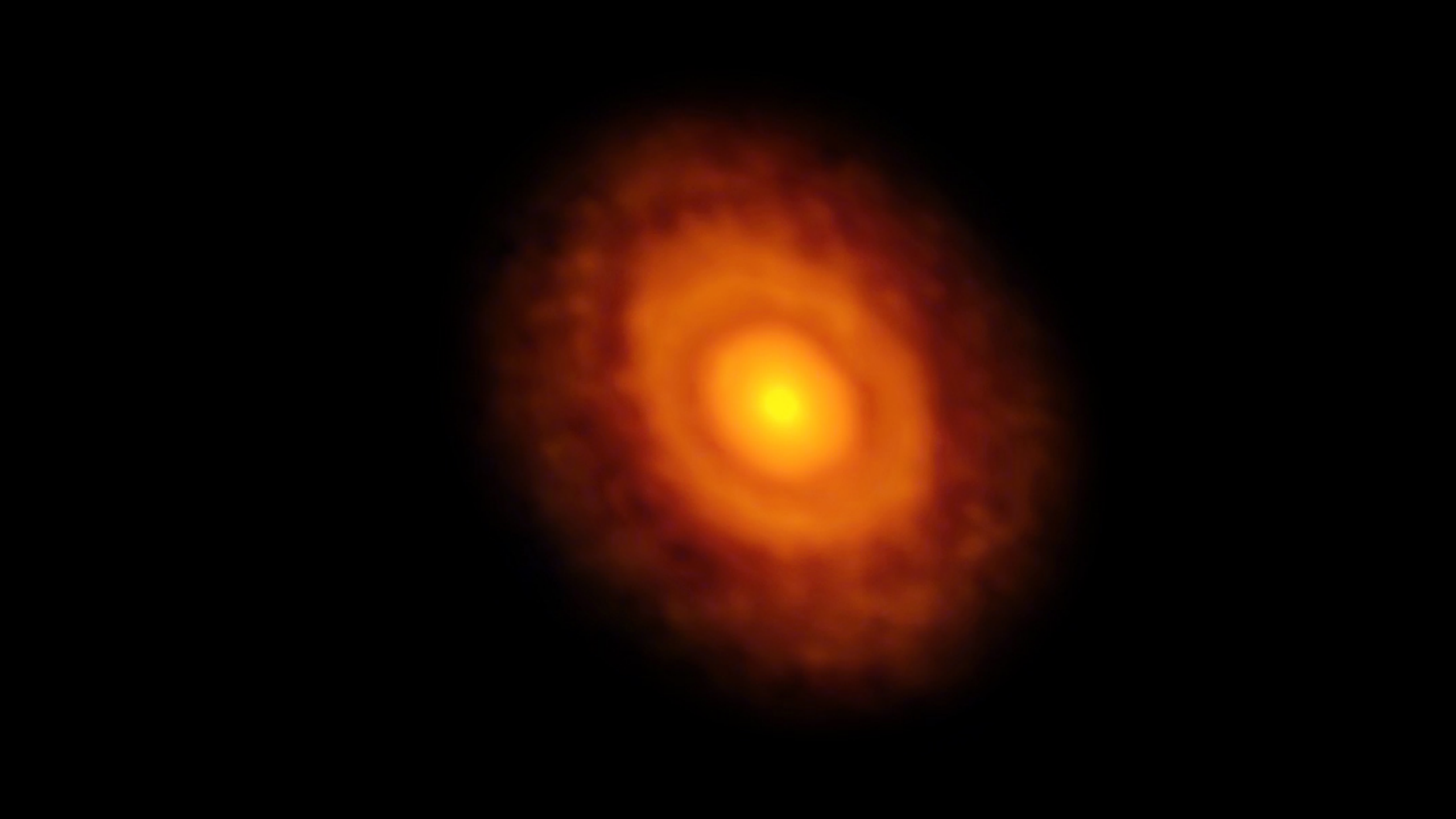


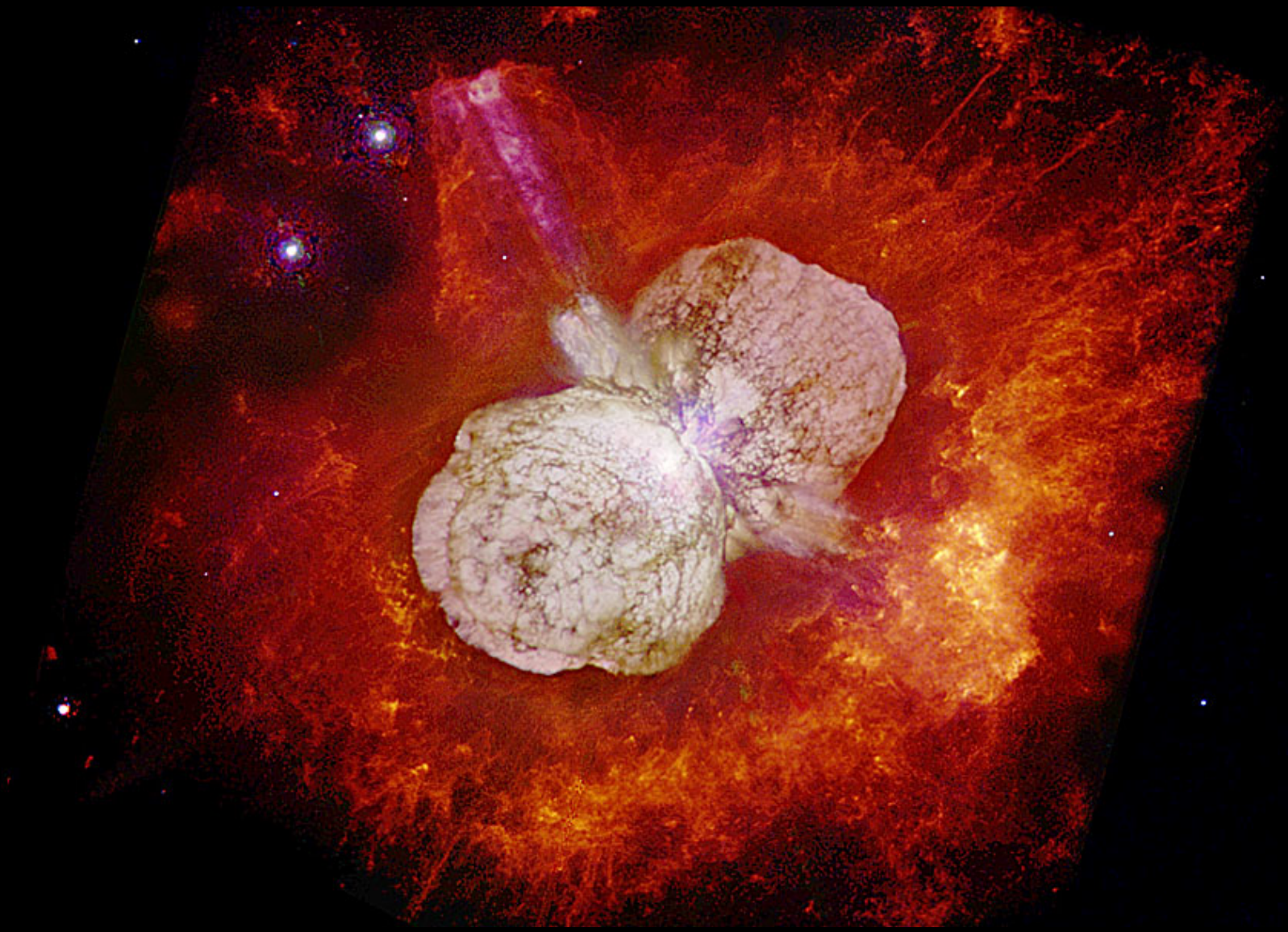


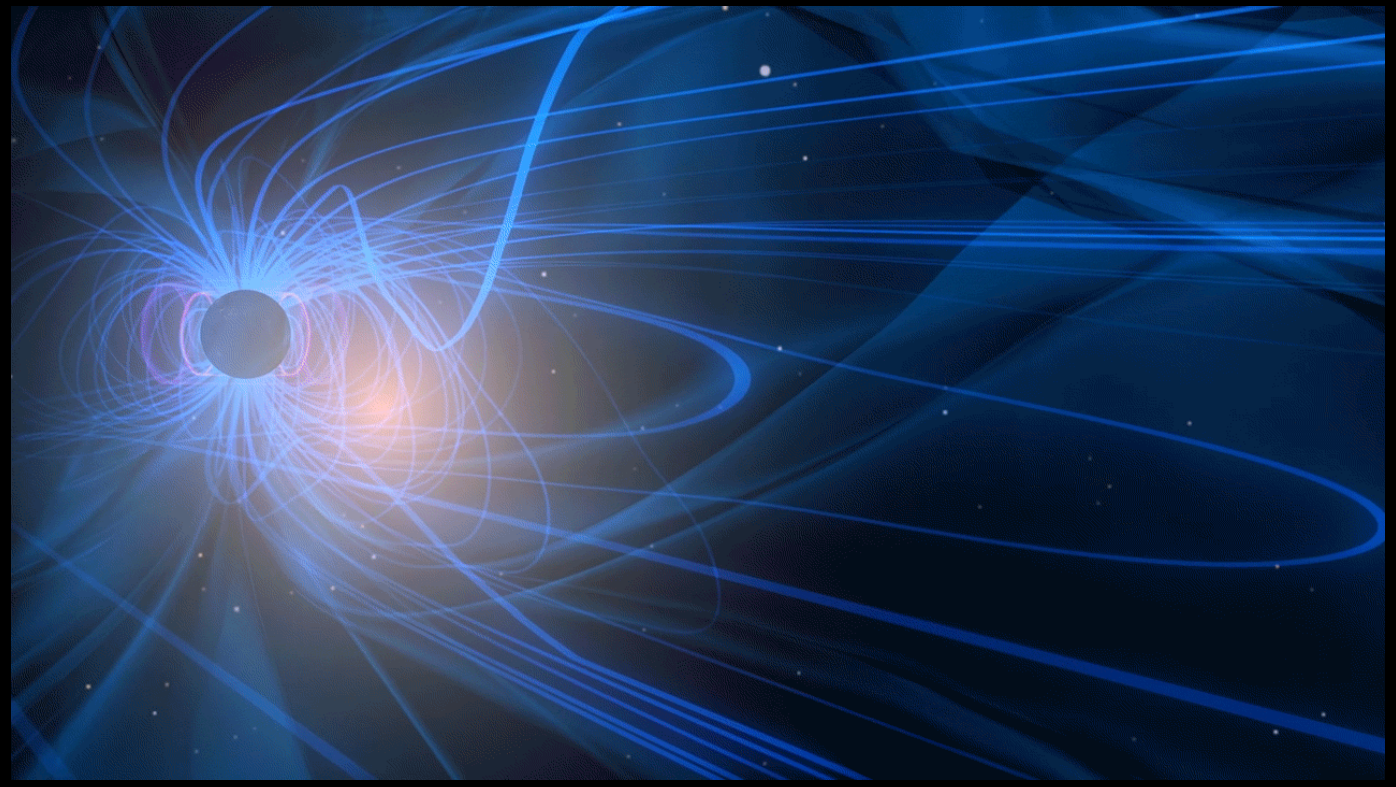


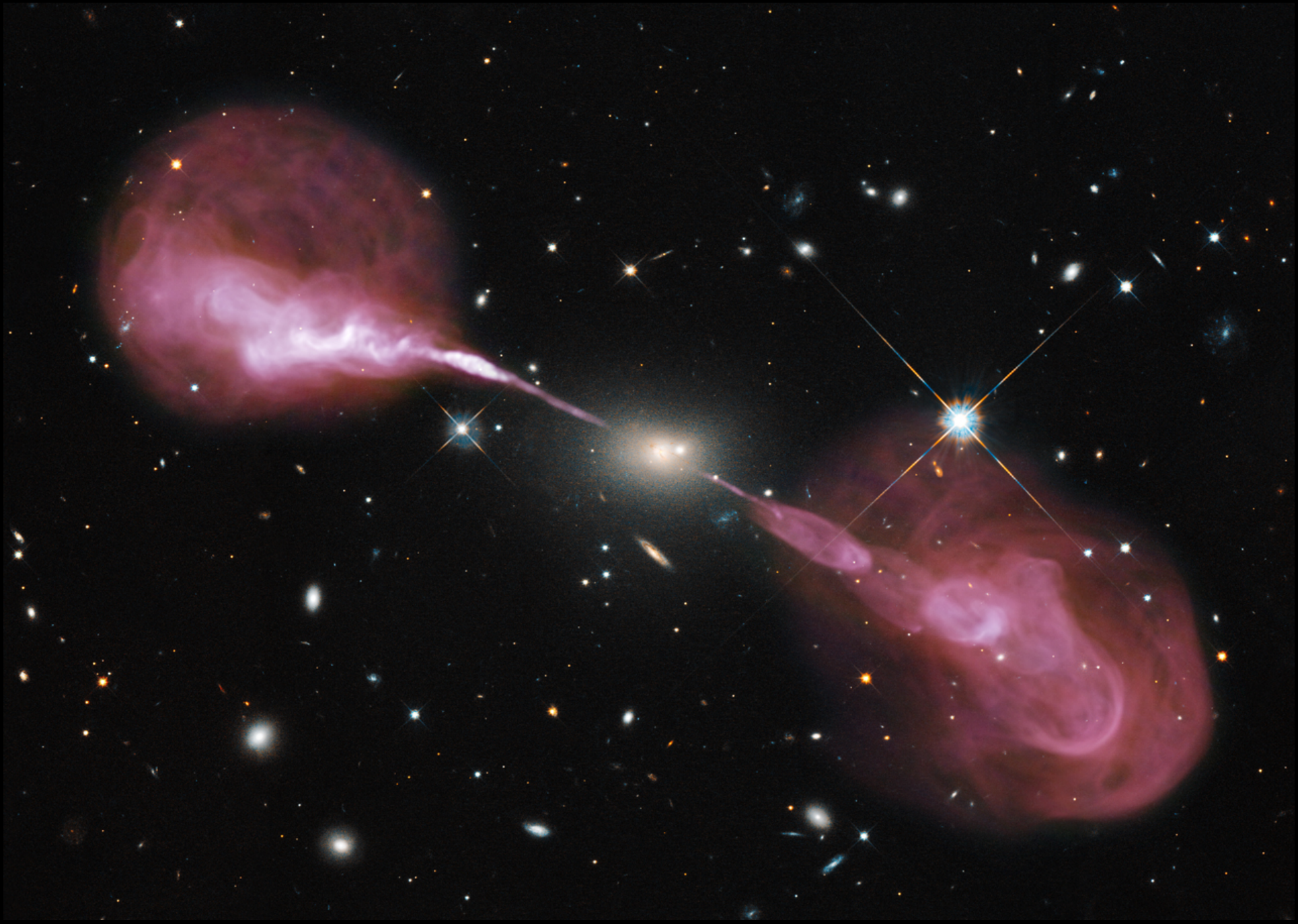


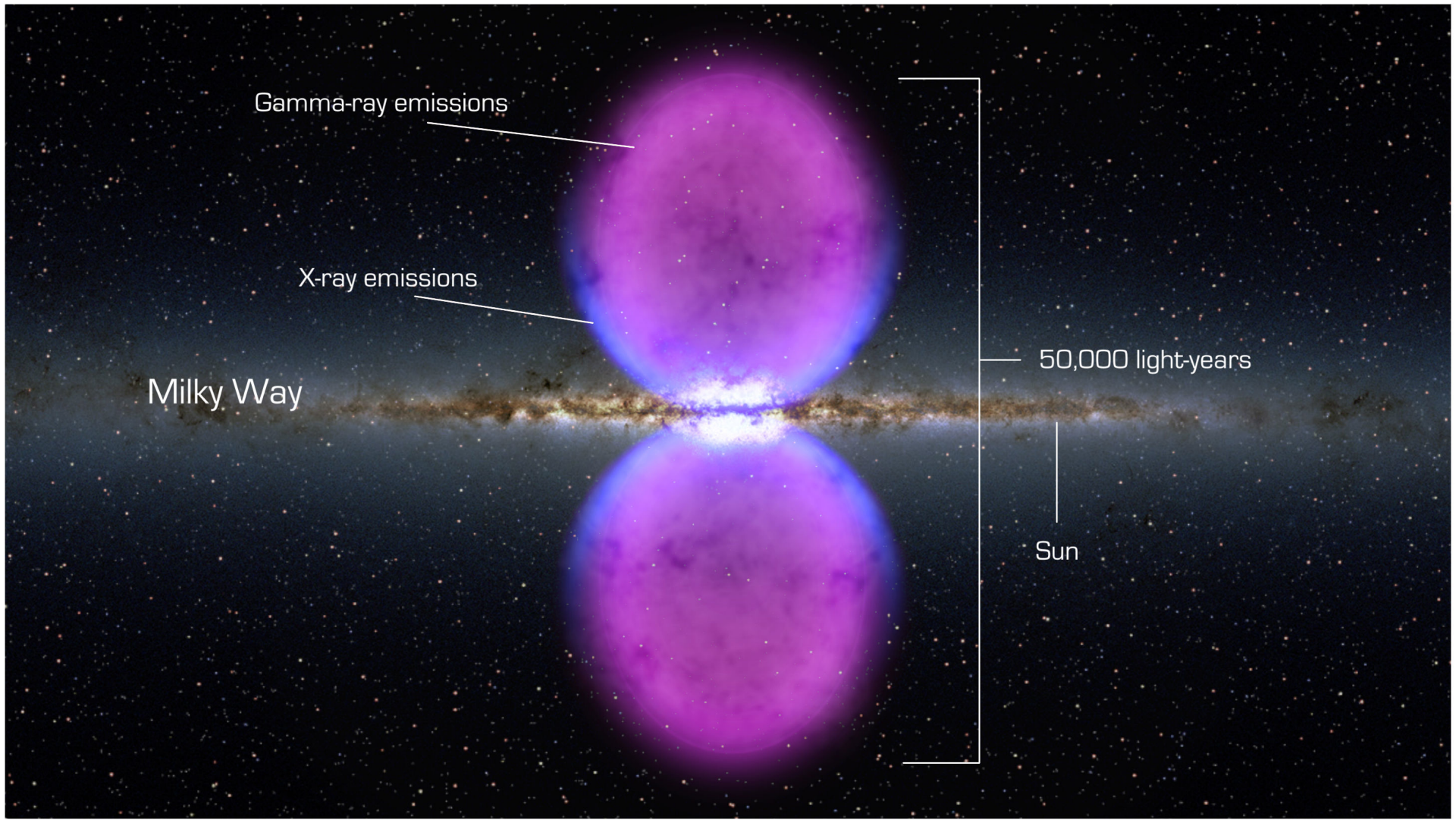




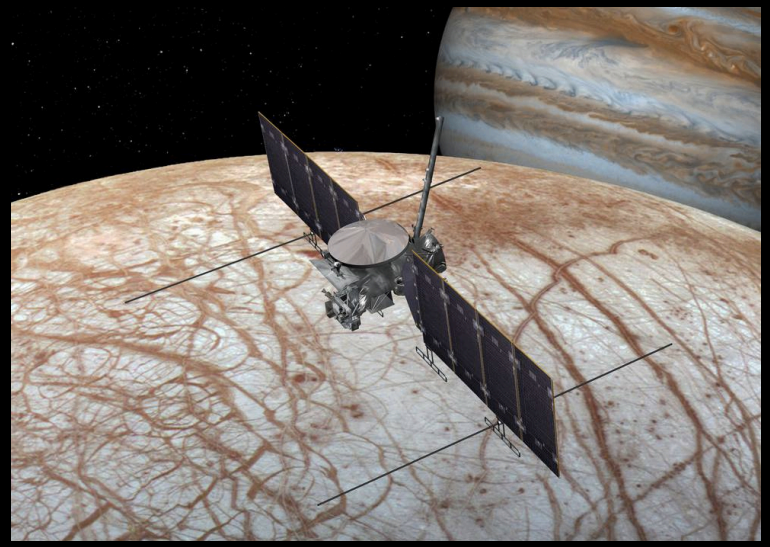


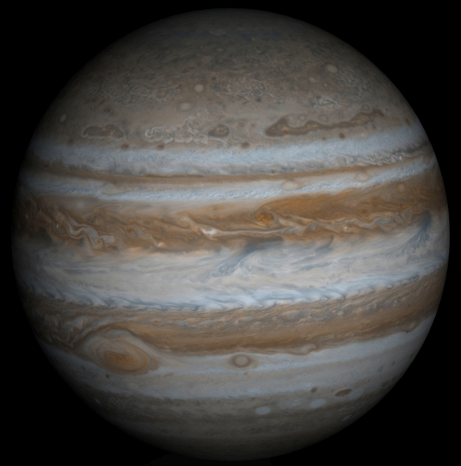


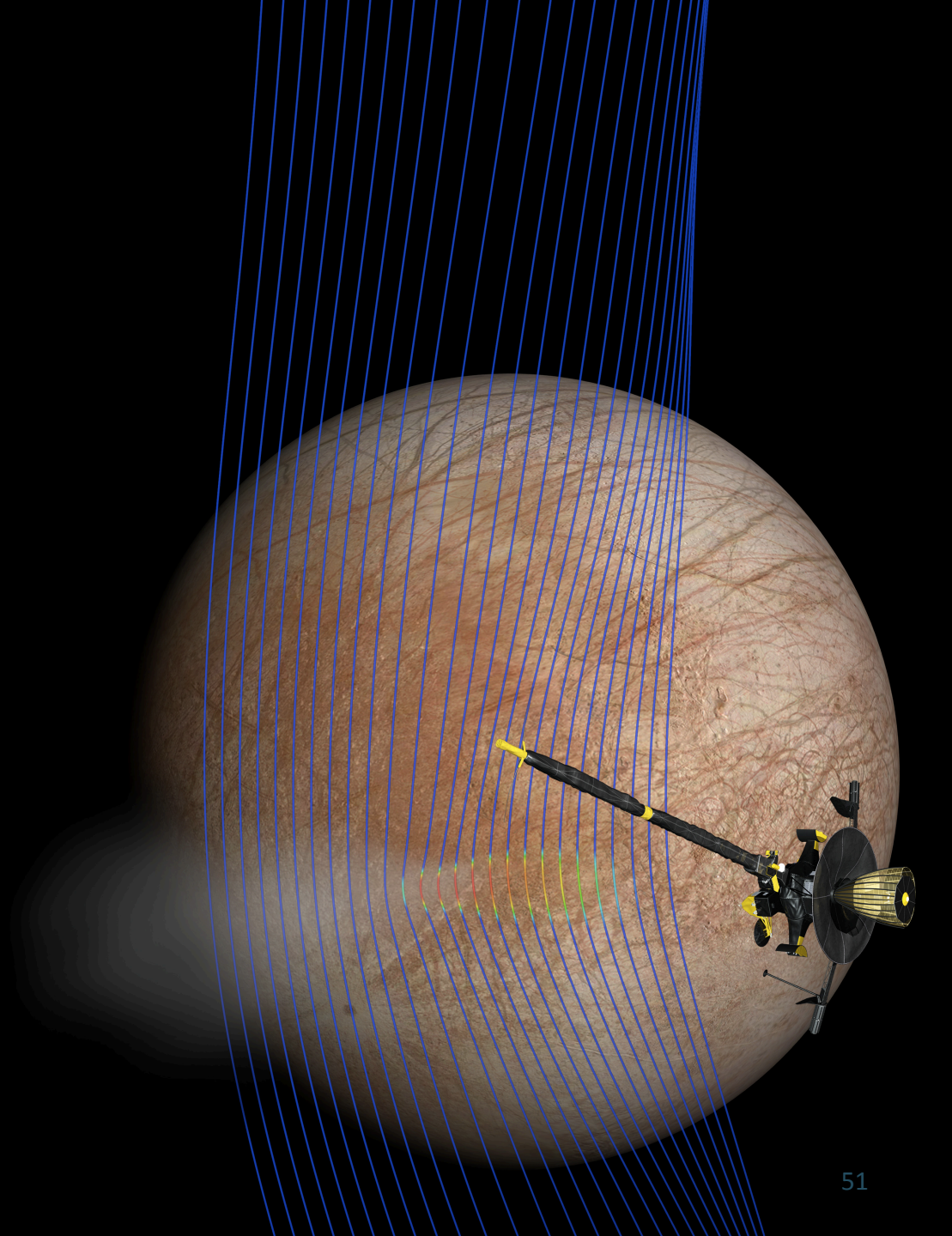



Gamma-ray emissions
X-ray emissions
Milky Way
50,000 light-years
Sun

Europa Clipper







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