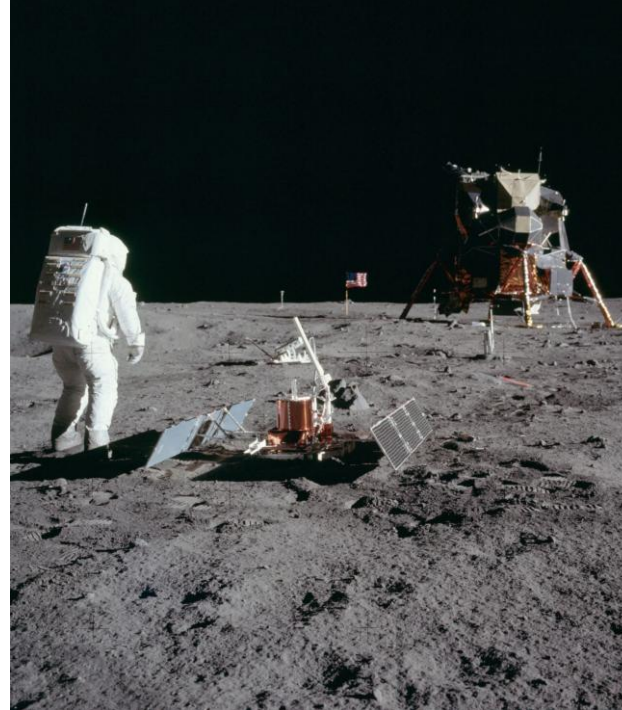




Cambio de paradigma en la exploración espacial

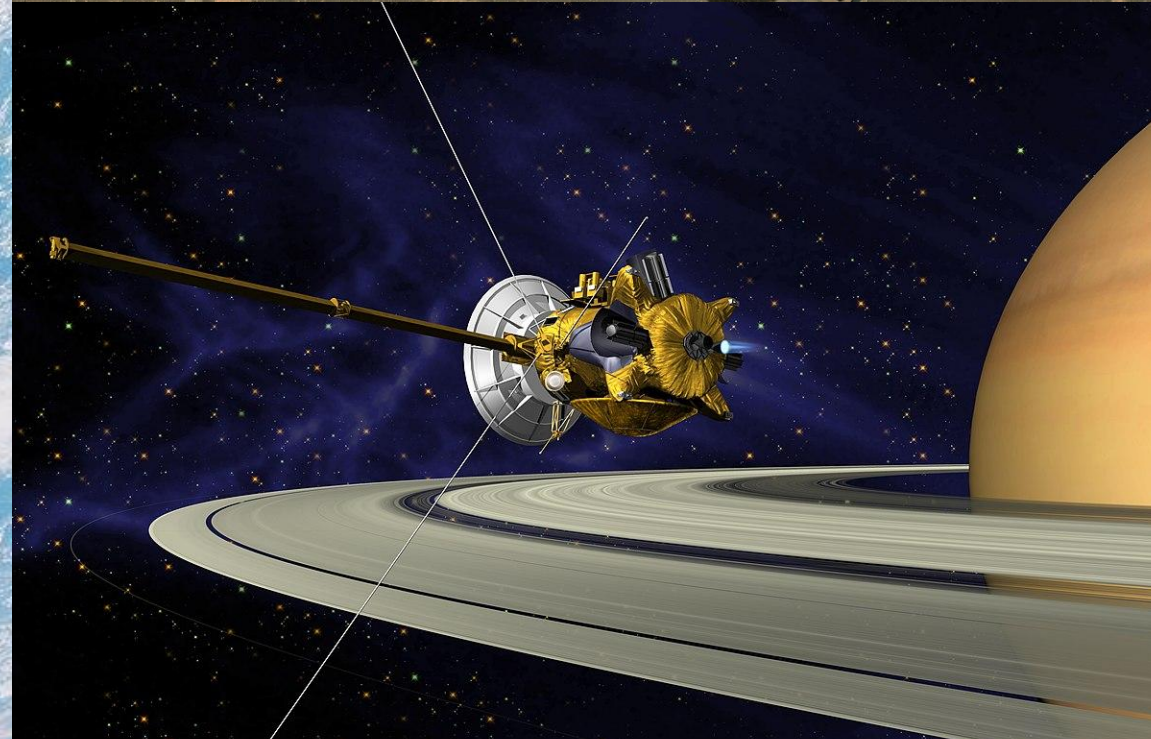
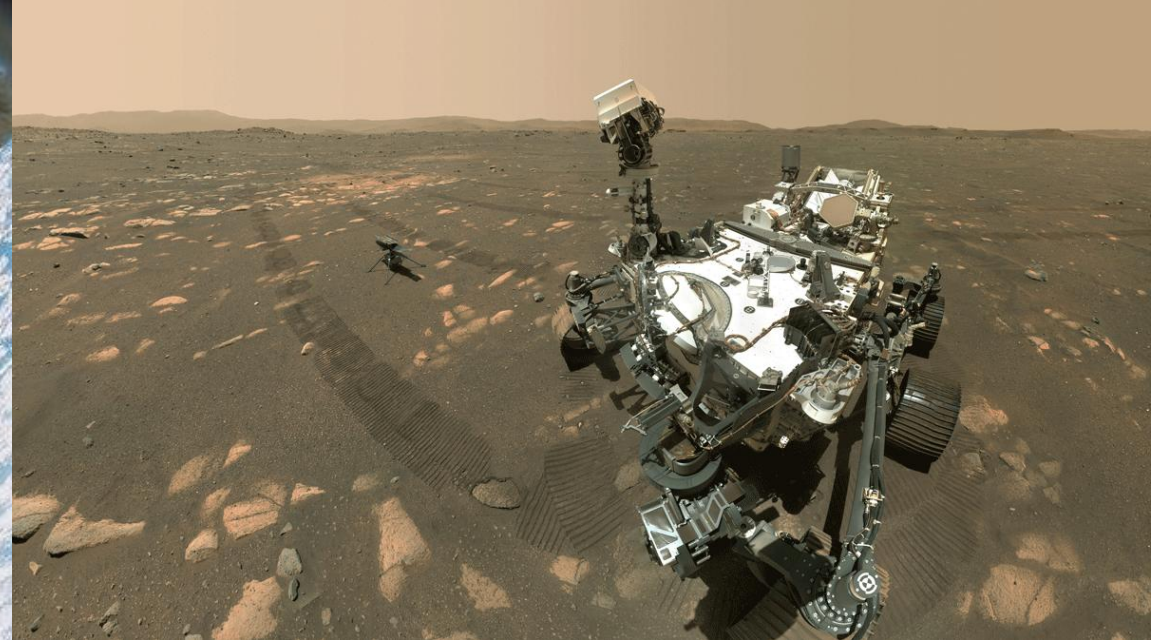


Nicolás Cahen
nicolas@canopea.net
Domingo 16 de marzo – 12h15





Domingo 16 de marzo –



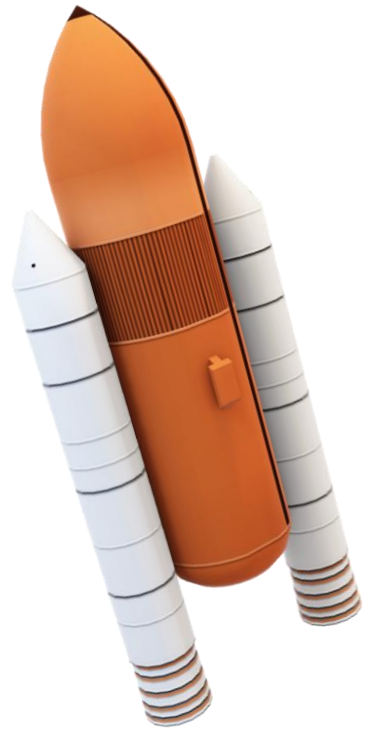
Old space



New space

¿Qué está pasando en el espacio?

- 1- Expansión acelerada del sector privado
- 2- Aumento exponencial de actividades
- 3- Nuevas potencias
- 4- Nuevos objetivos

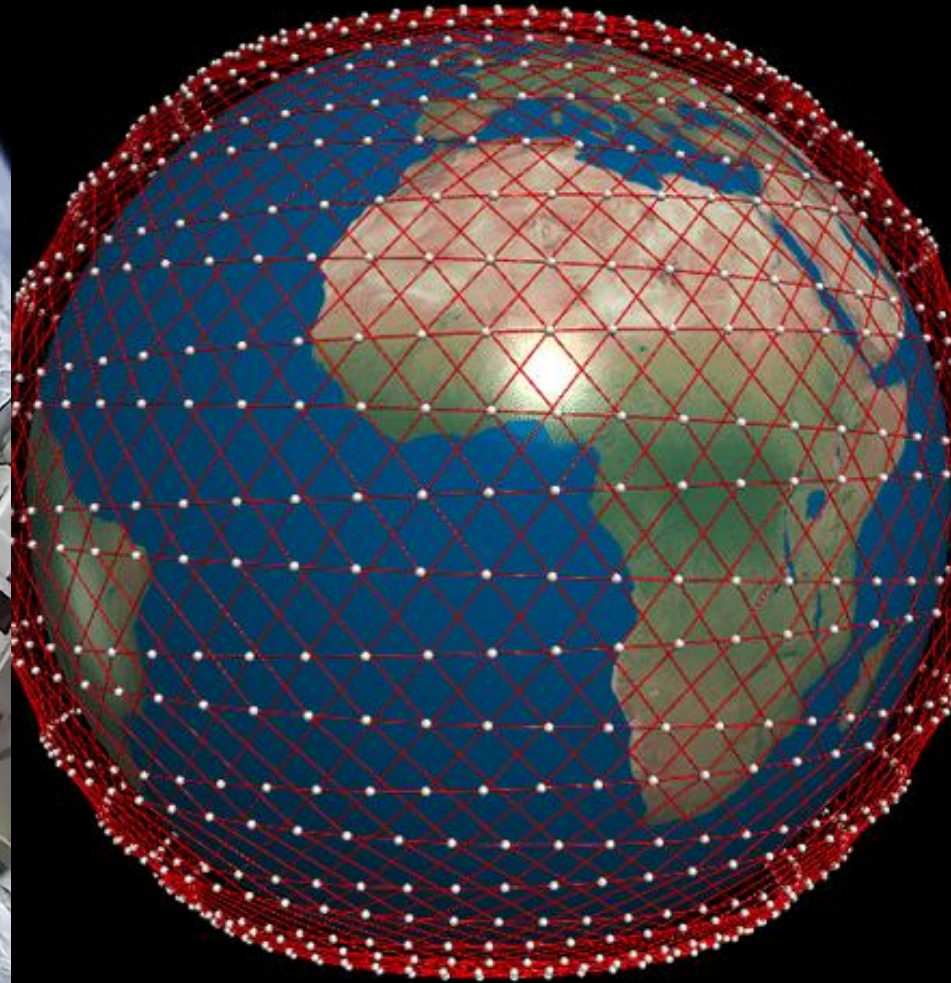


1- Expansión del Sector privado





Sector privado



SpaceX

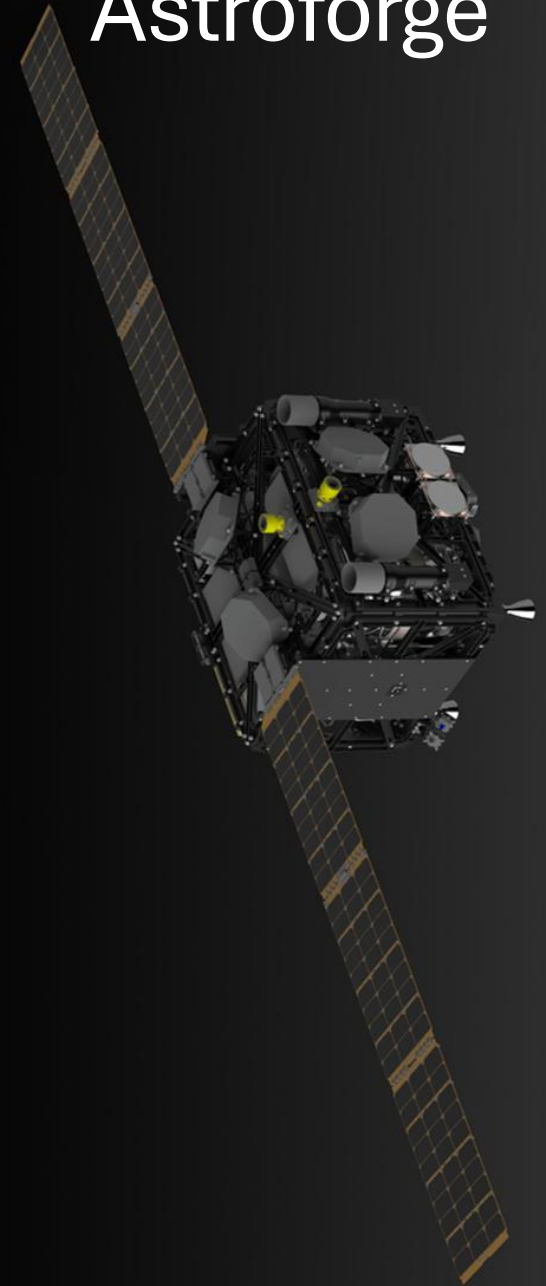
Blue Origin



Rocket Lab



Astroforge

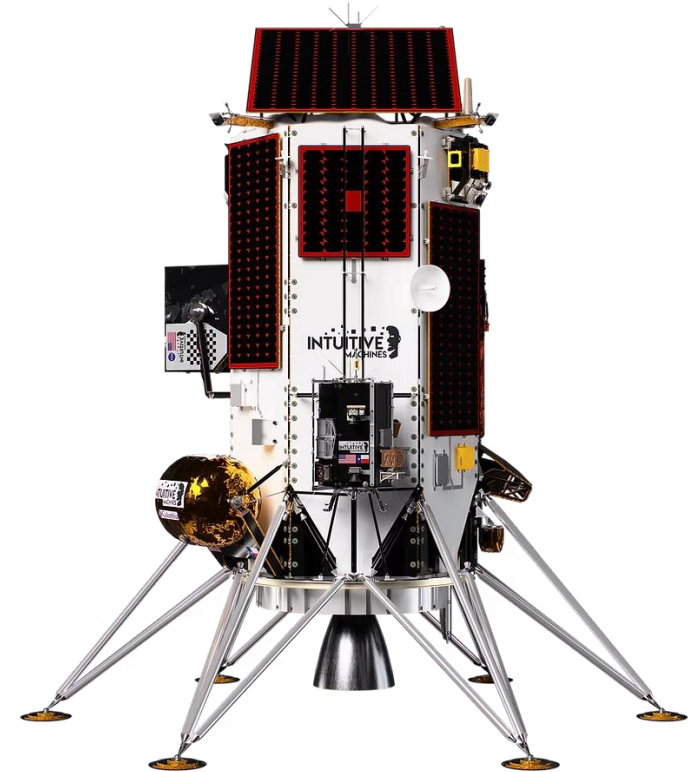


lzo.: <https://www.space.com/space-exploration/launches-spacecraft/blue-origins-powerful-new-gleNN-rocket-rises-on-the-pad-ahead-of-1st-launch-photo> - Centro: <https://www.rocketlabusa.com/launch/neutron/> -
Image credit: Blue Origin
Derecha: - <https://www.astroforge.com/updates/an-update-on-mission-1-mission-2-same-name-new-vehicle-new-standard-for-space-exploration>

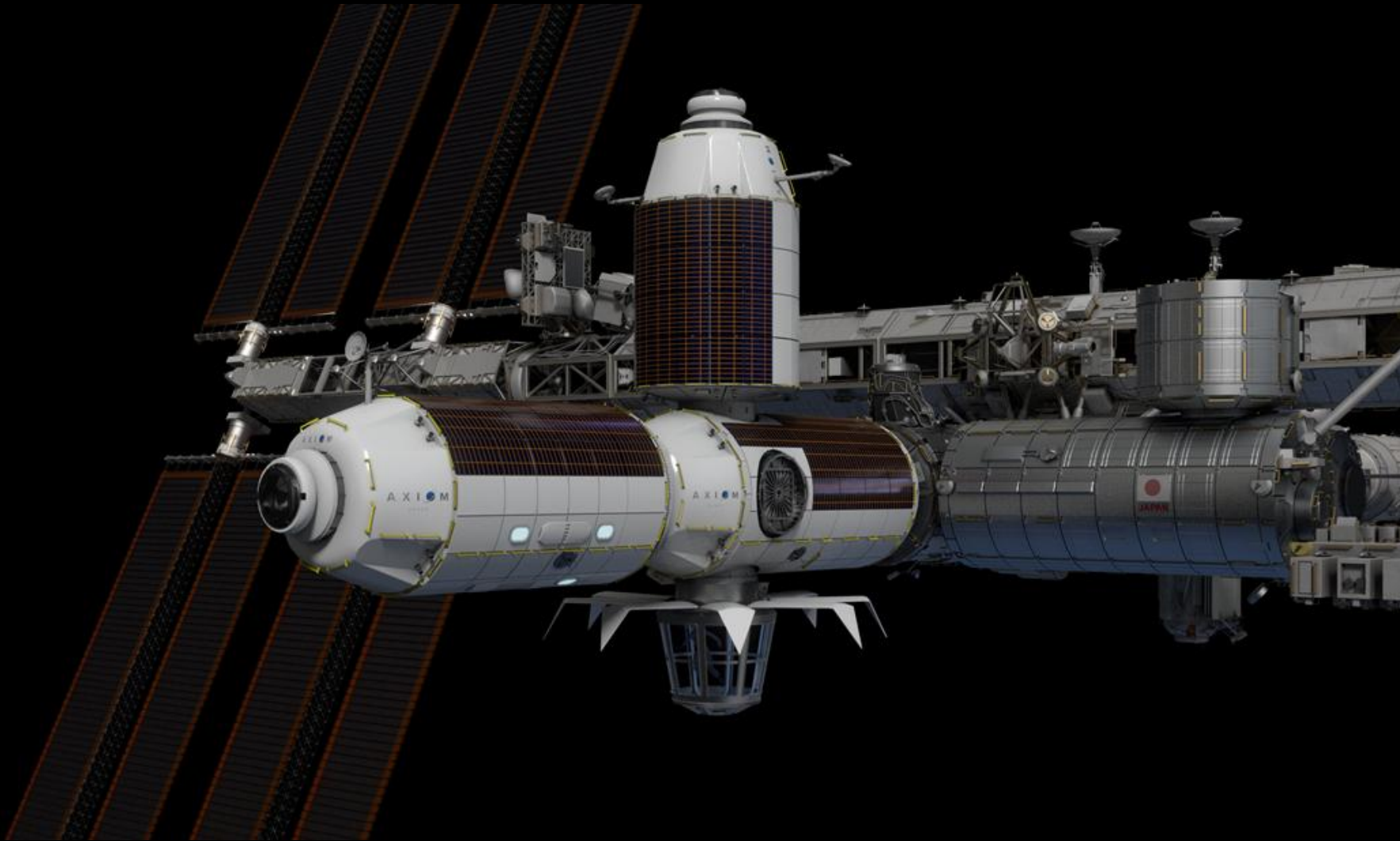
Firefly Aerospace



Intuitive Machines

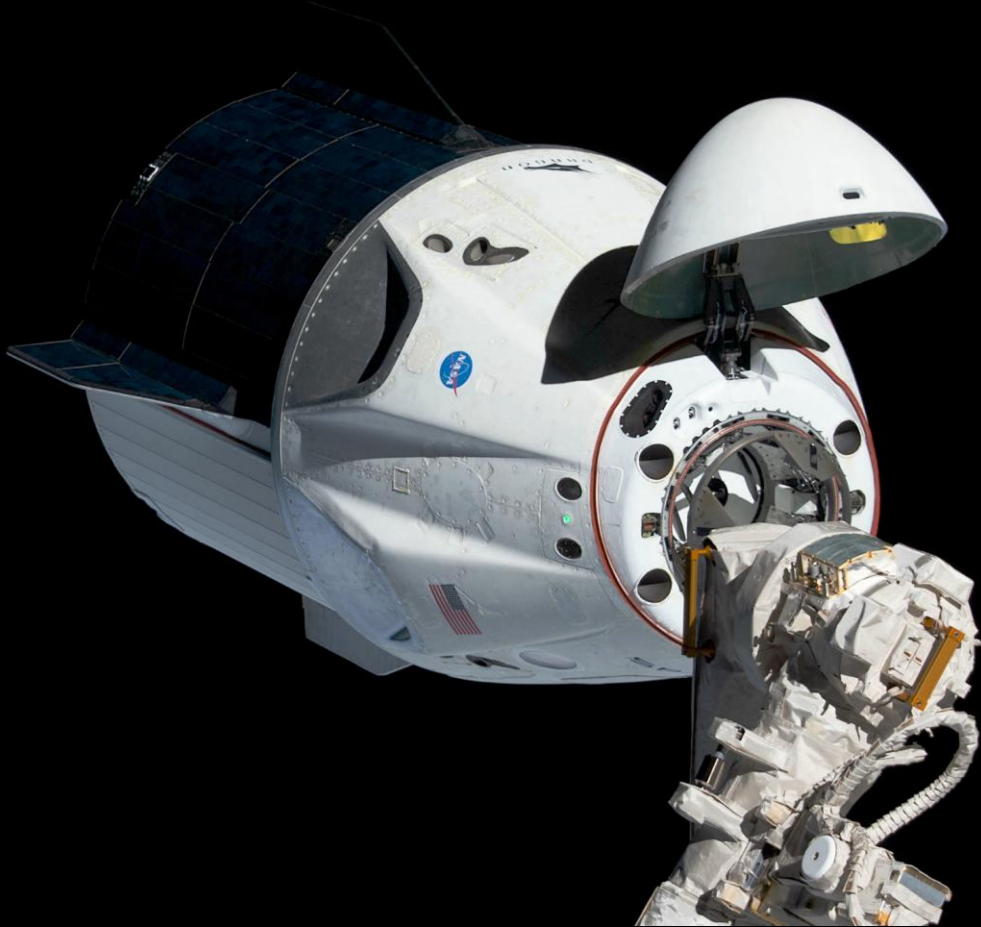


Axiom Space



... y cientos
más ...

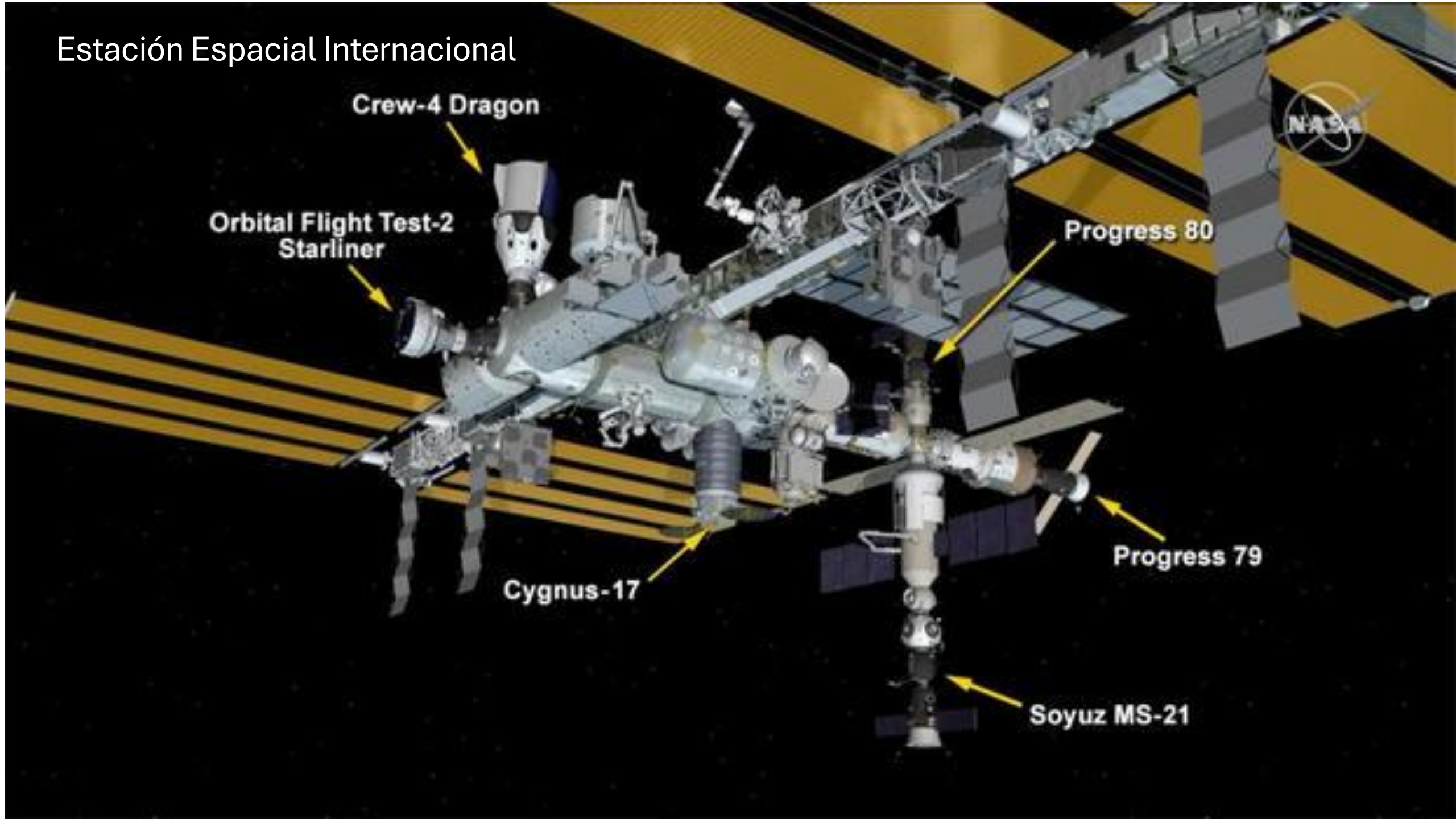
Crew Dragon (2020)



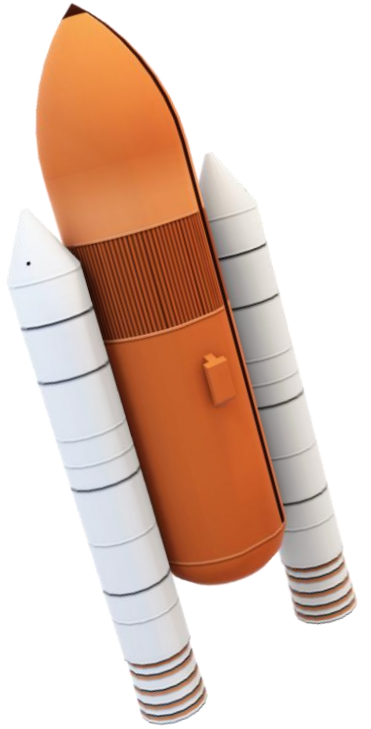
Starliner (2024)



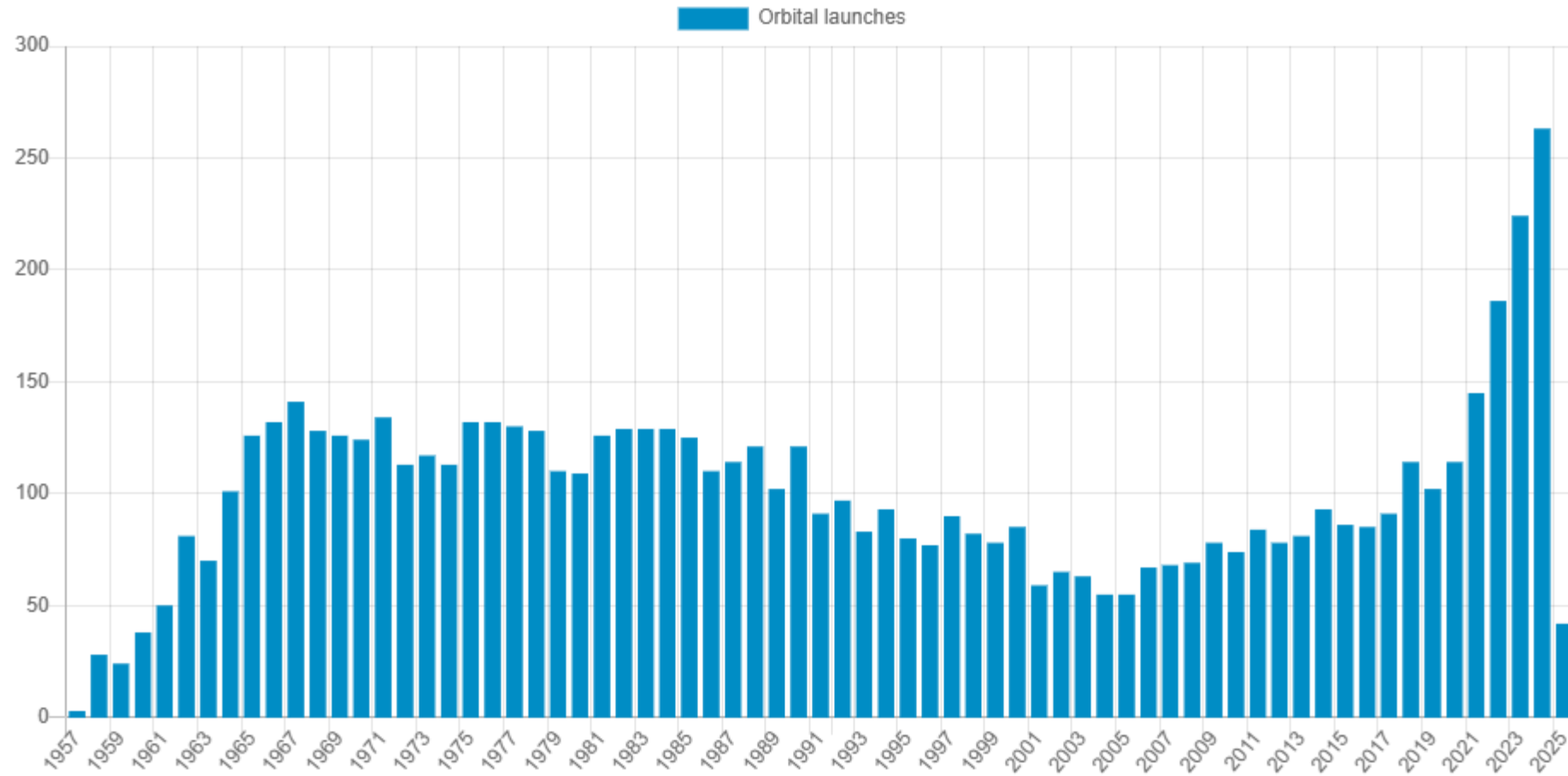
Estación Espacial Internacional



2- Aumento exponencial de actividades



Lanzamientos orbitales por año

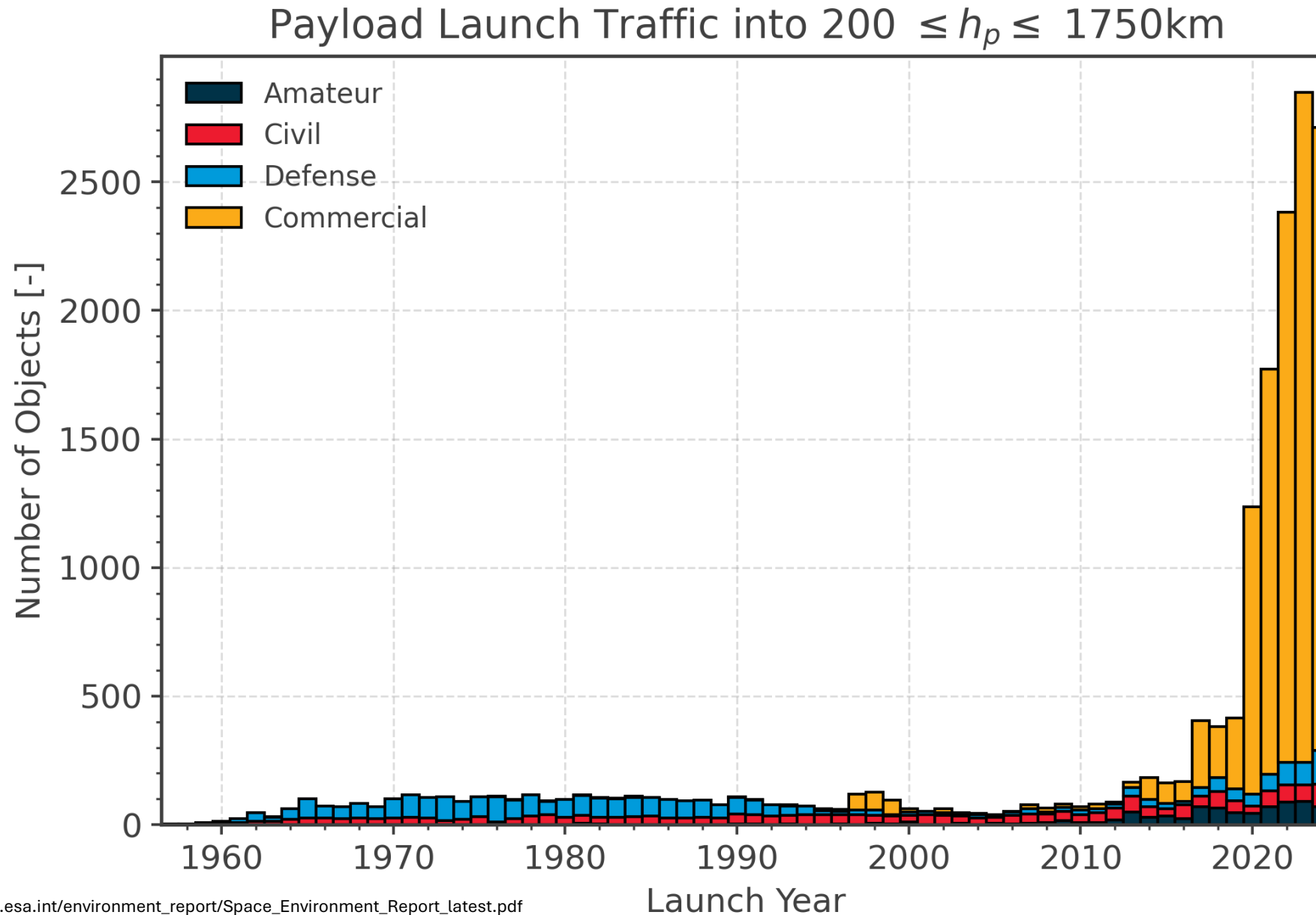




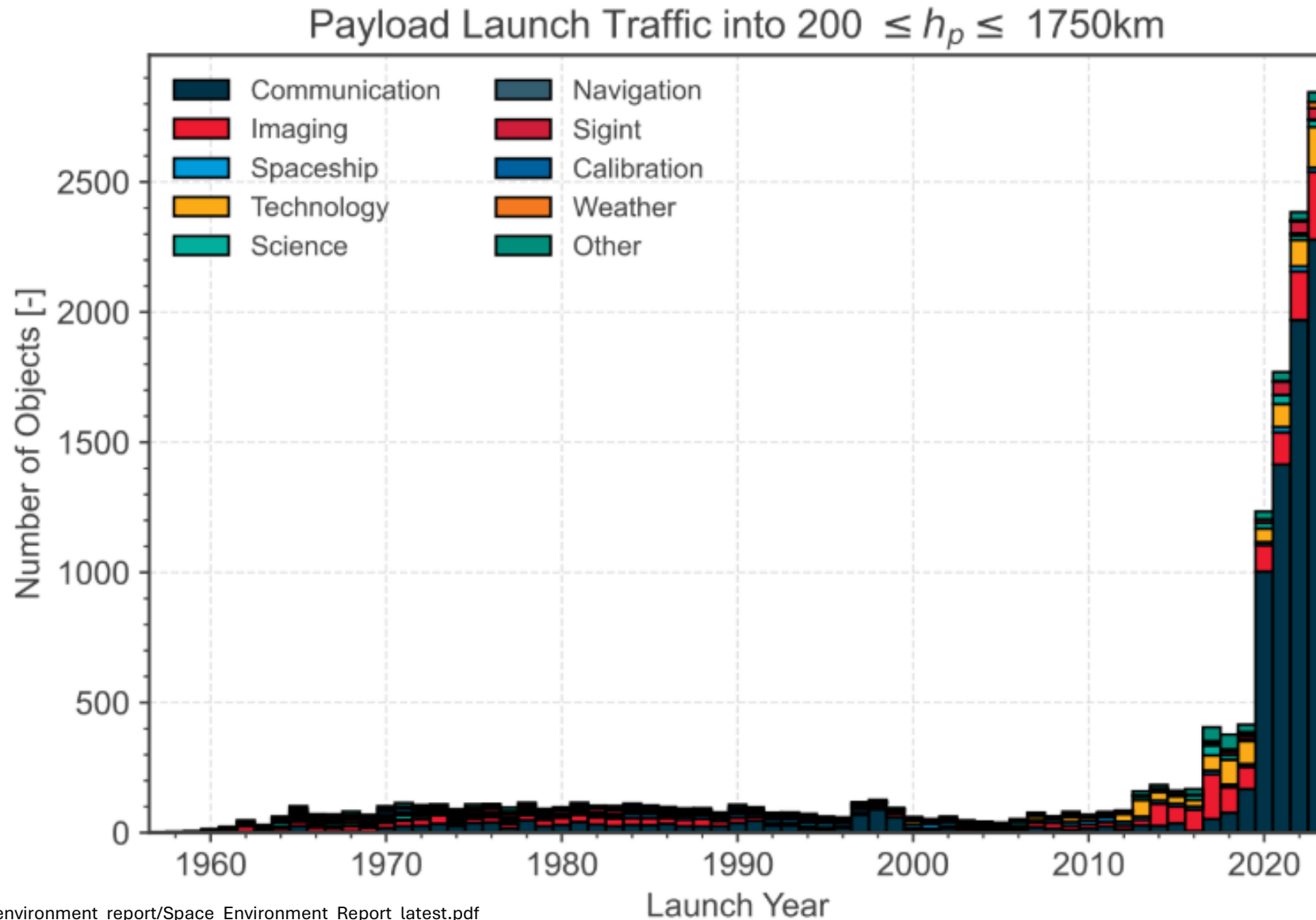
4 de febrero de 2025 : 5 lanzamientos previstos en 24 horas. 4 de ellos son comerciales.

<https://www.space.com/space-exploration/launches-spacecraft/new-record-coming-5-rockets-scheduled-to-launch-in-next-24-hours>

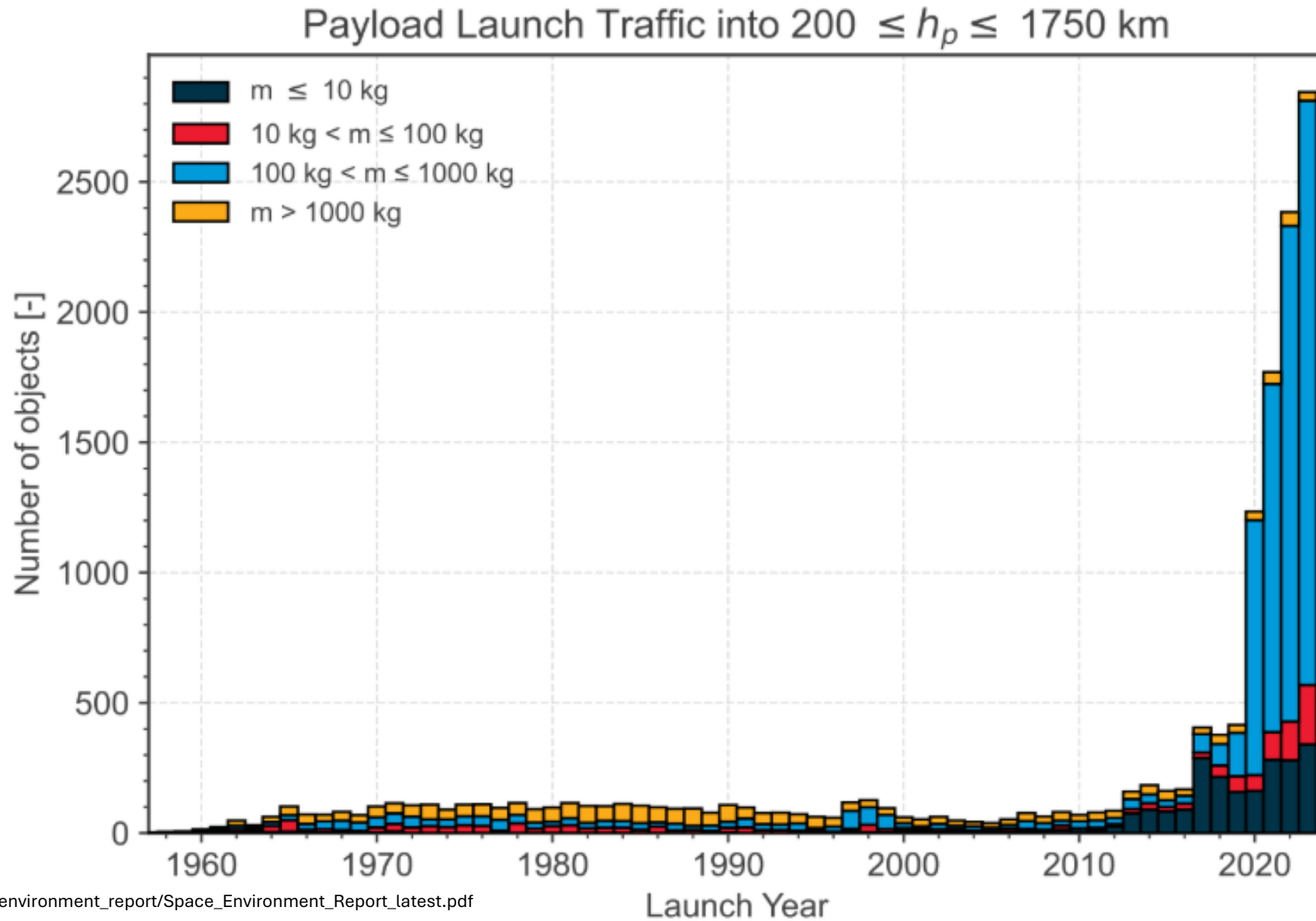
Número de satélites puestos en órbita baja por año - sector



Satélites puestos en órbita baja por año - tipo

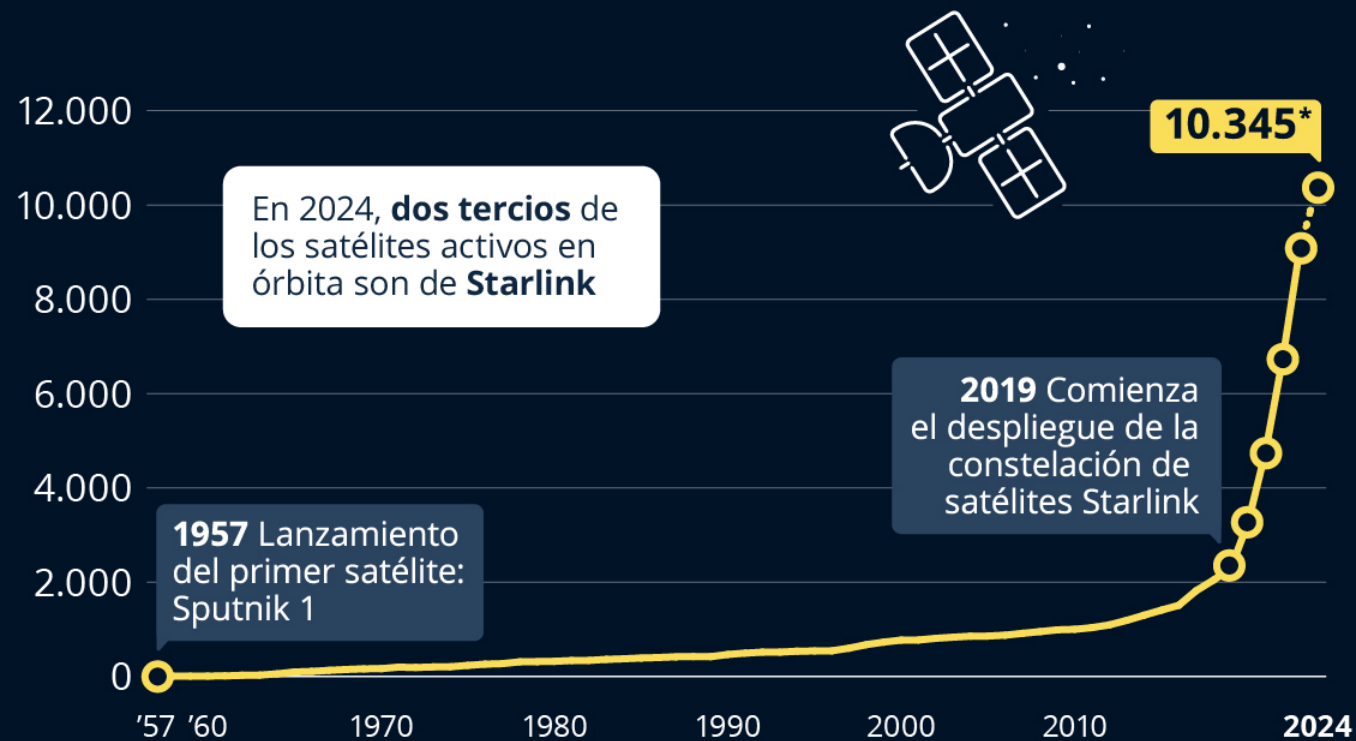


Satélites puestos en órbita por año - masa



Hay más de 10.000 satélites activos sobre nuestras cabezas

Número de satélites activos en órbita alrededor de la Tierra de 1957 a 2024



* Datos del 6 de septiembre de 2024.

Fuentes: Jonathan's Space Report (JSR), CelesTrak



Show Menu

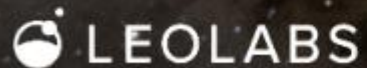
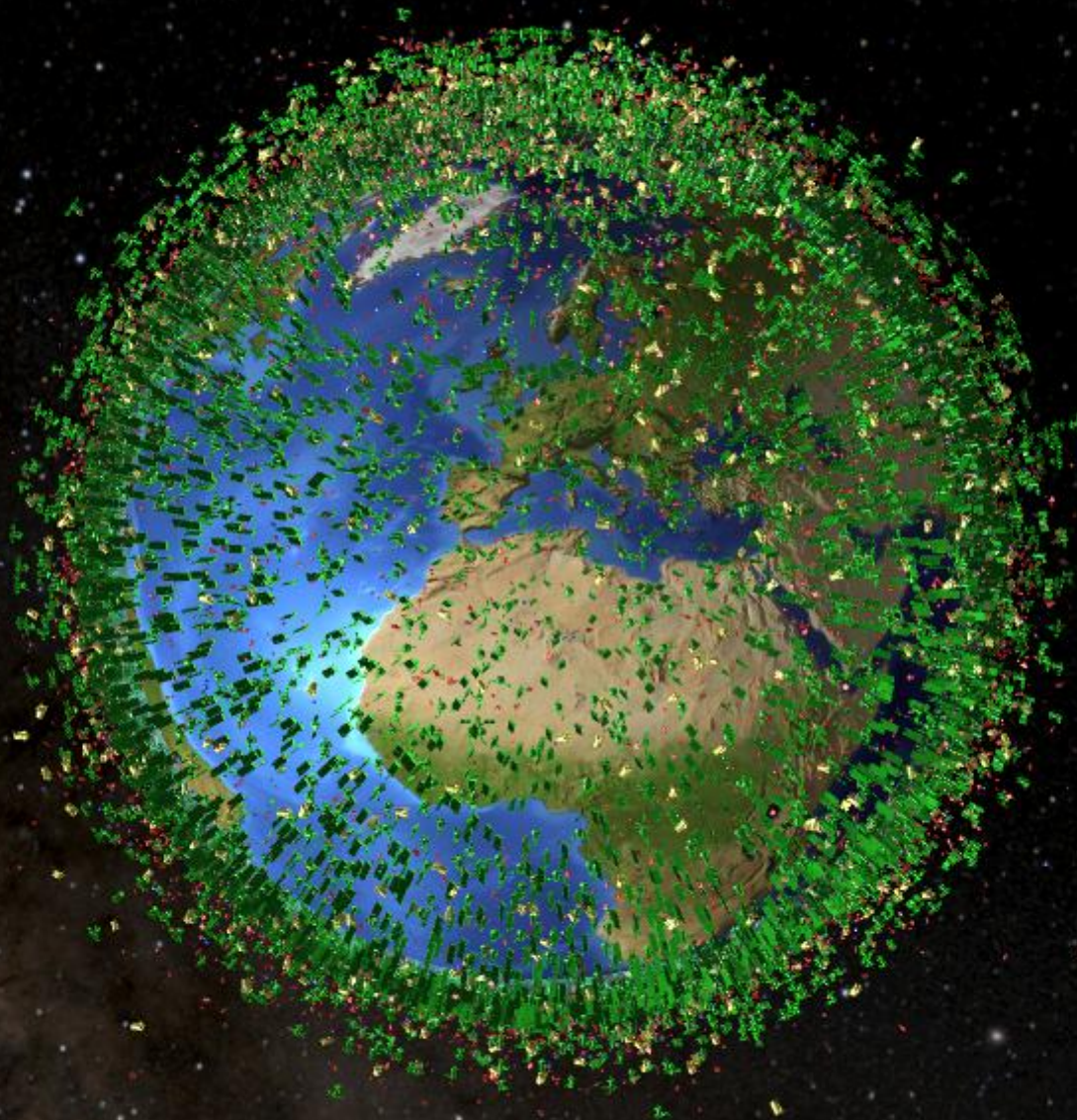
⚠ Special events are not shown.

🔗 Copy link to share

Órbita terrestre baja

Object Type

- Payload
- Rocket Body
- Debris
- Unknown



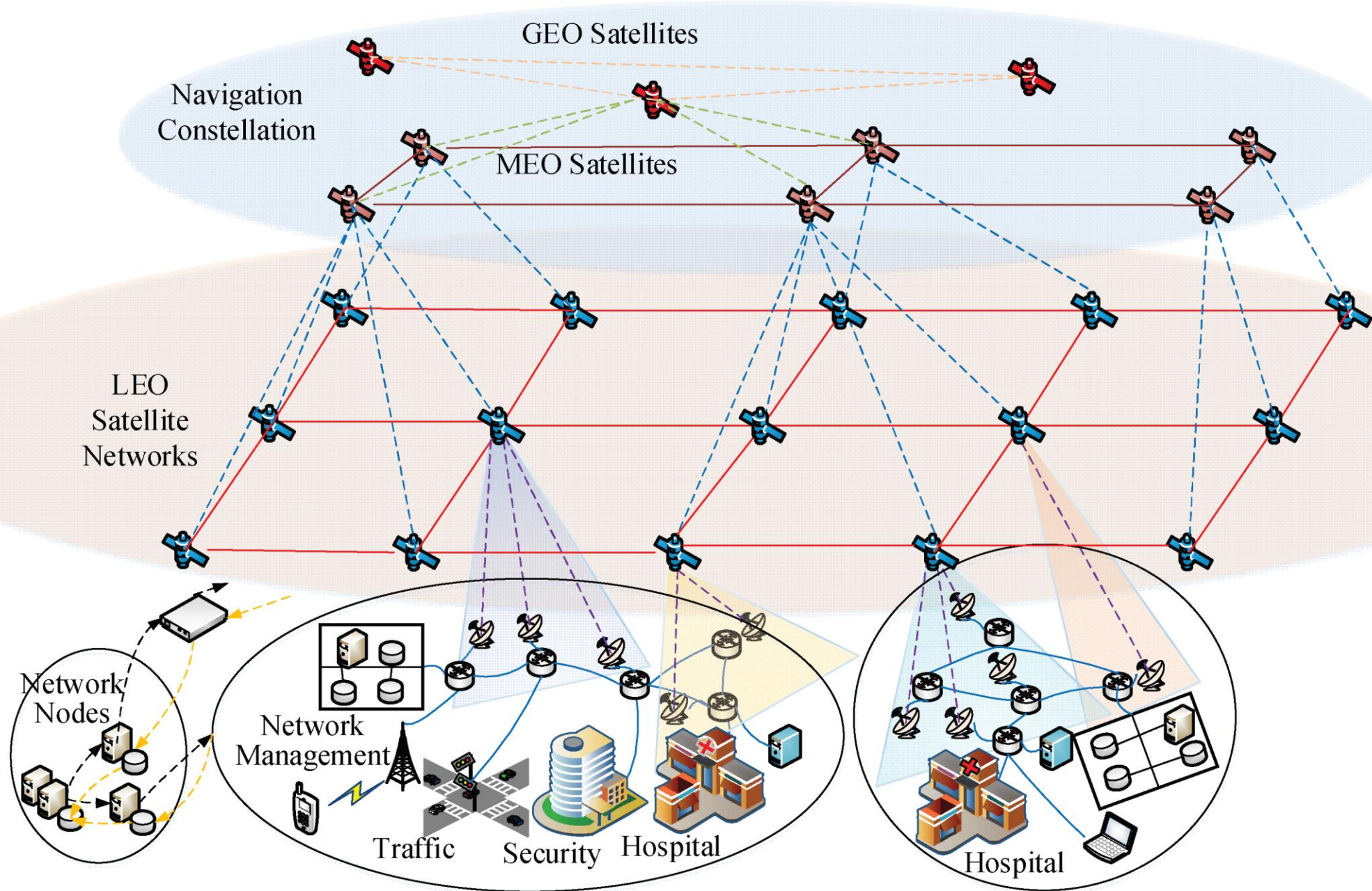
© 2016, 2022, 2025 LeoLabs Inc. [Terms for sharing](#).

Milky Way images from NASA/Goddard Space Flight Center Scientific Visualization Studio

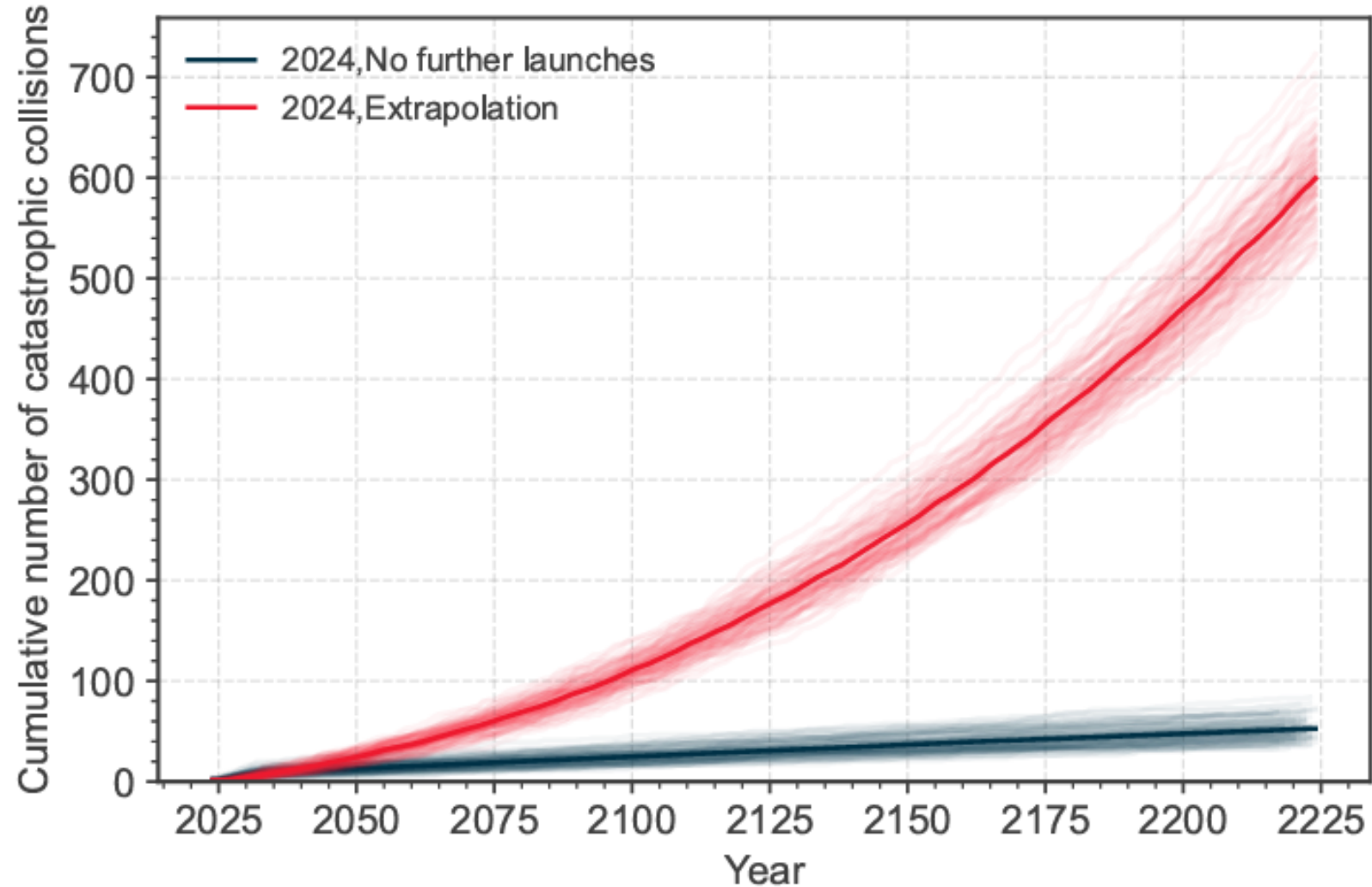
2025-03-12 15:11 UTC

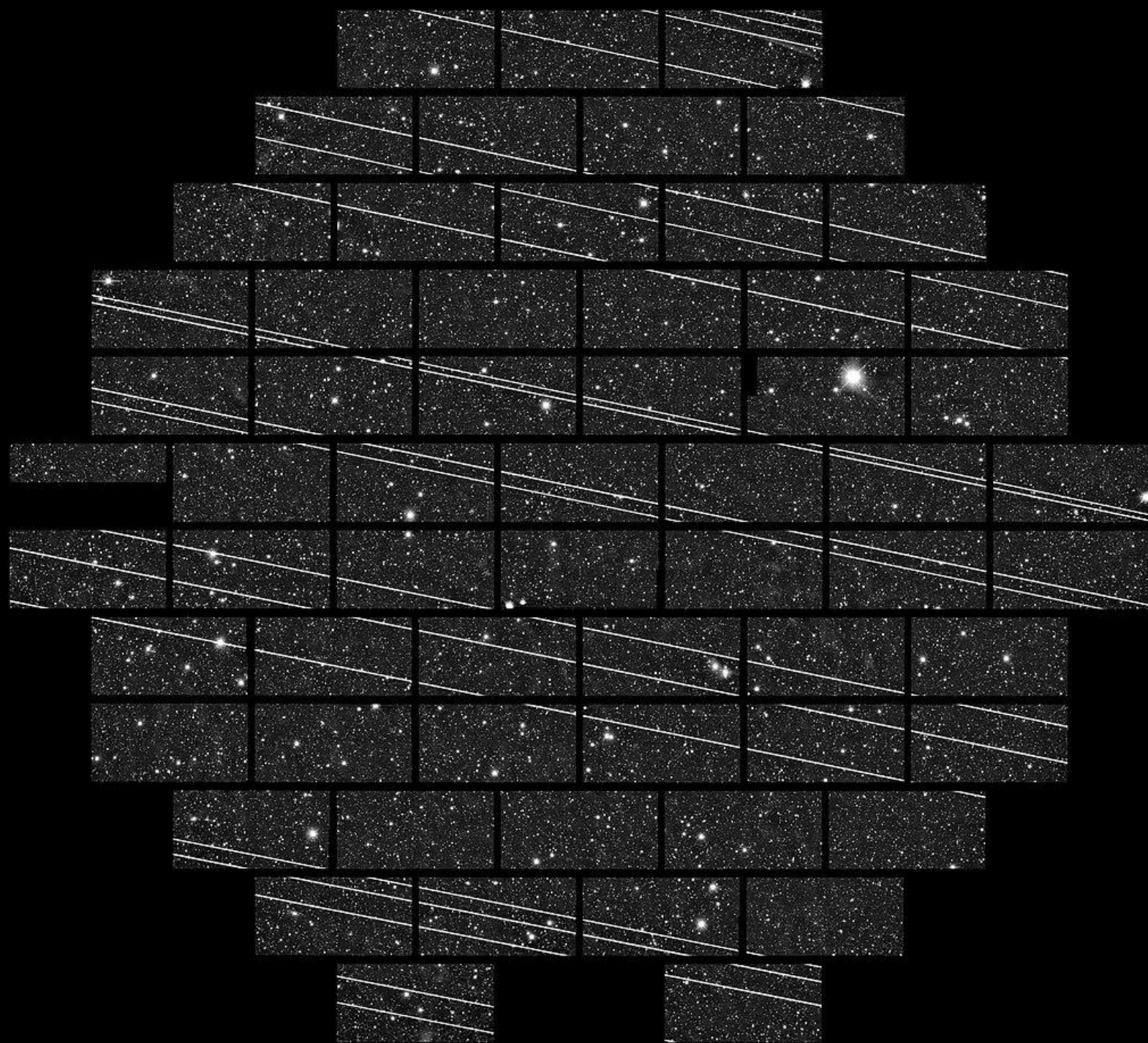
22851 objects displayed

<https://platform.leolabs.space/visualization>

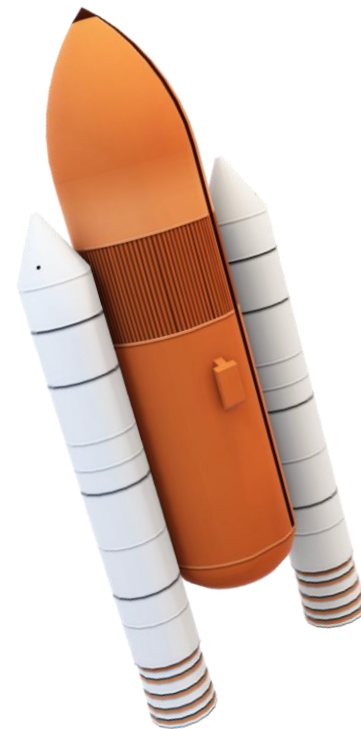


Probabilidad proyectada de colisión





-3- Nuevas potencias

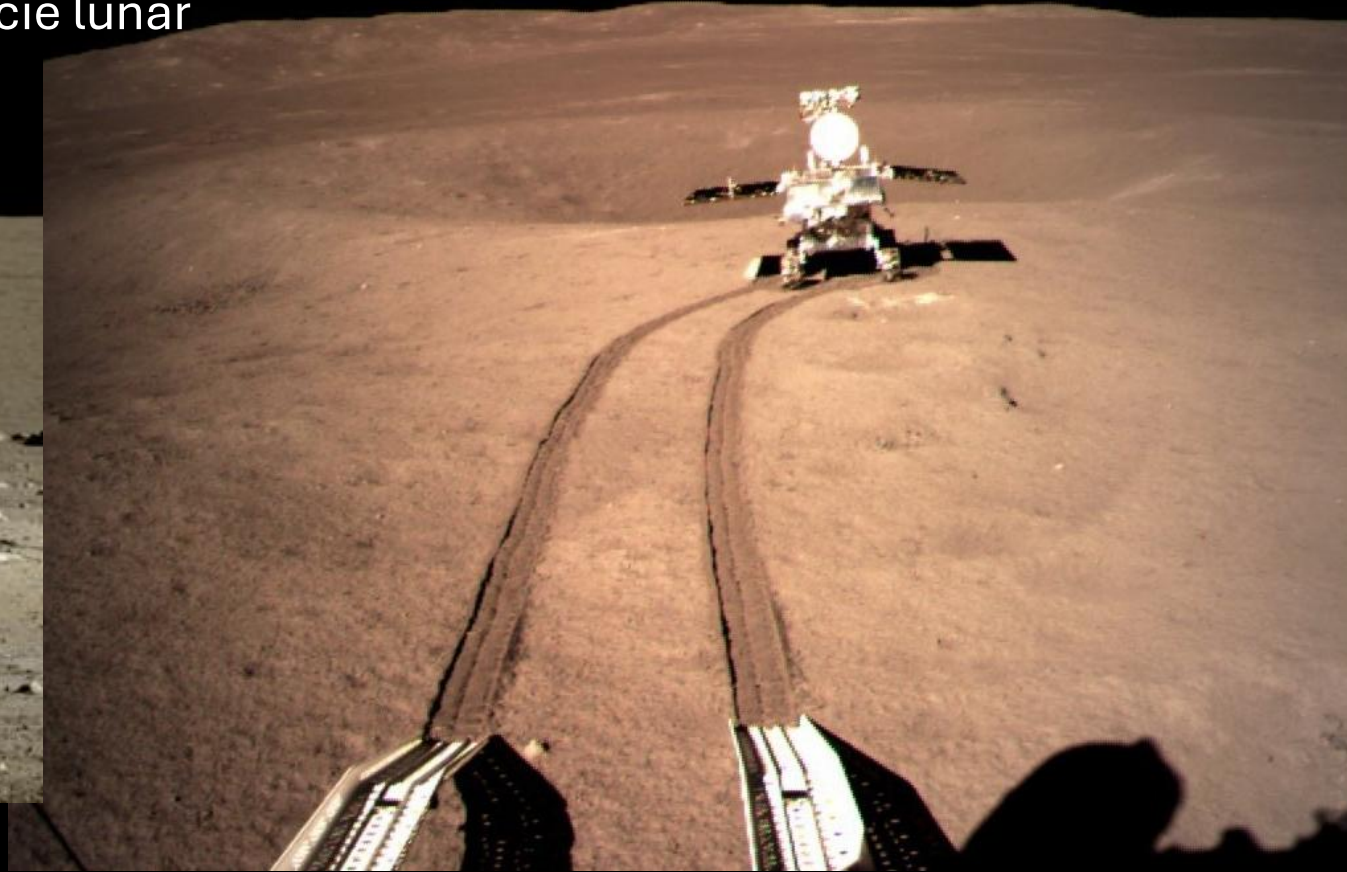
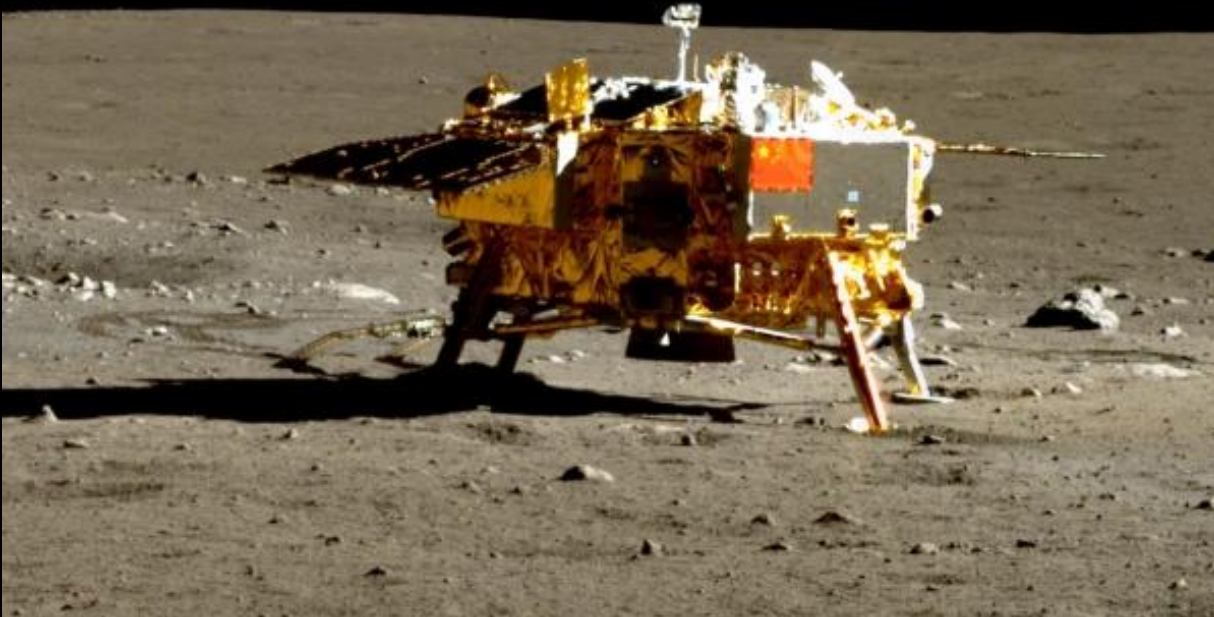


Chang'e 3 (China)

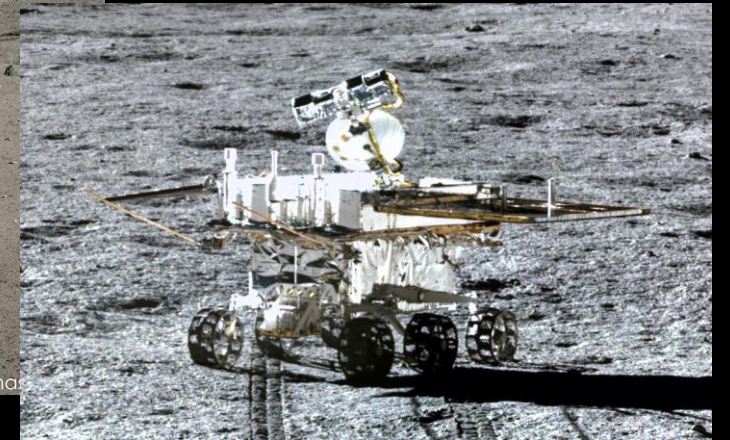
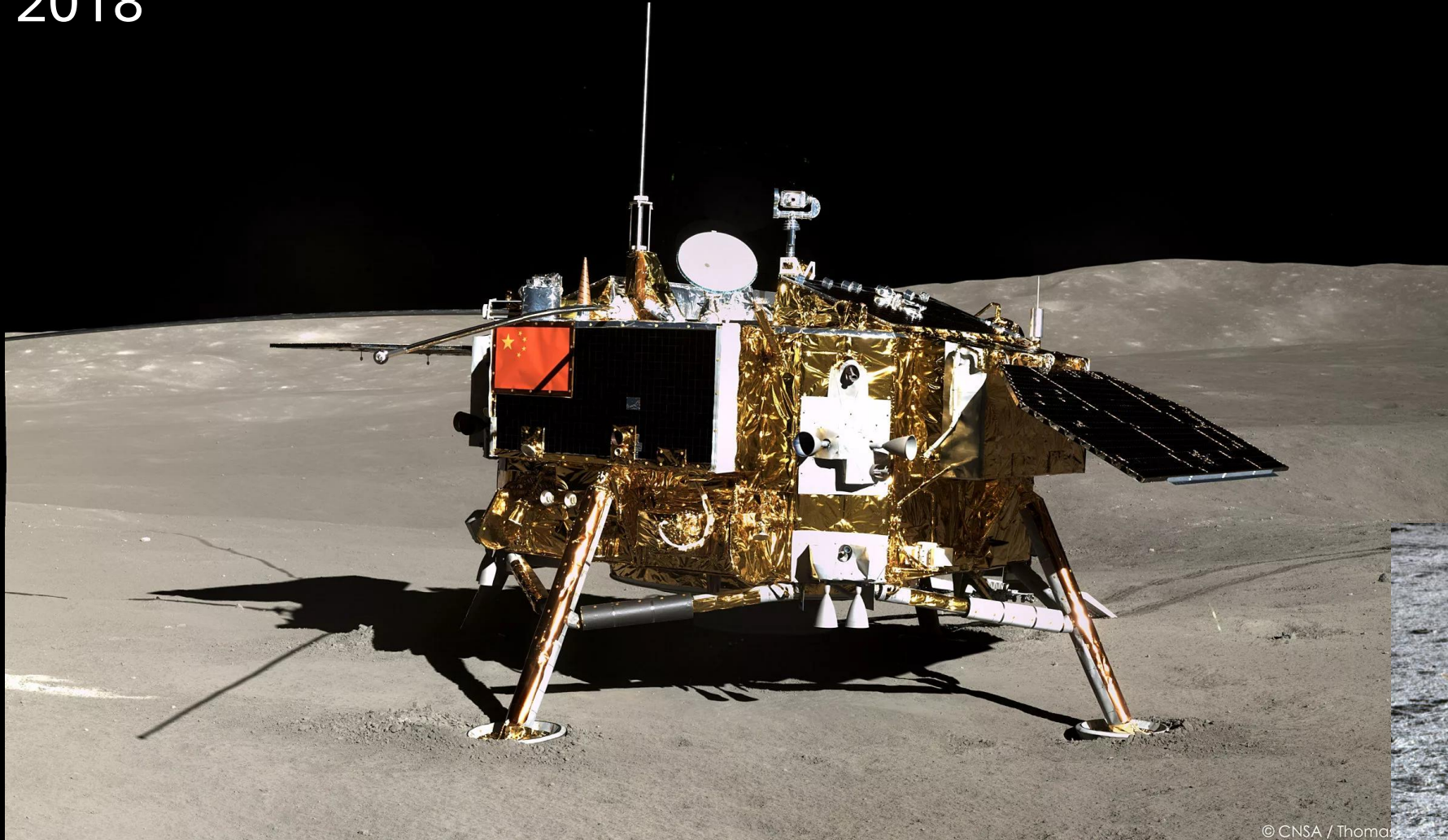
2013

Primer alunizaje desde 1976

Primera observación astronómica desde superficie lunar

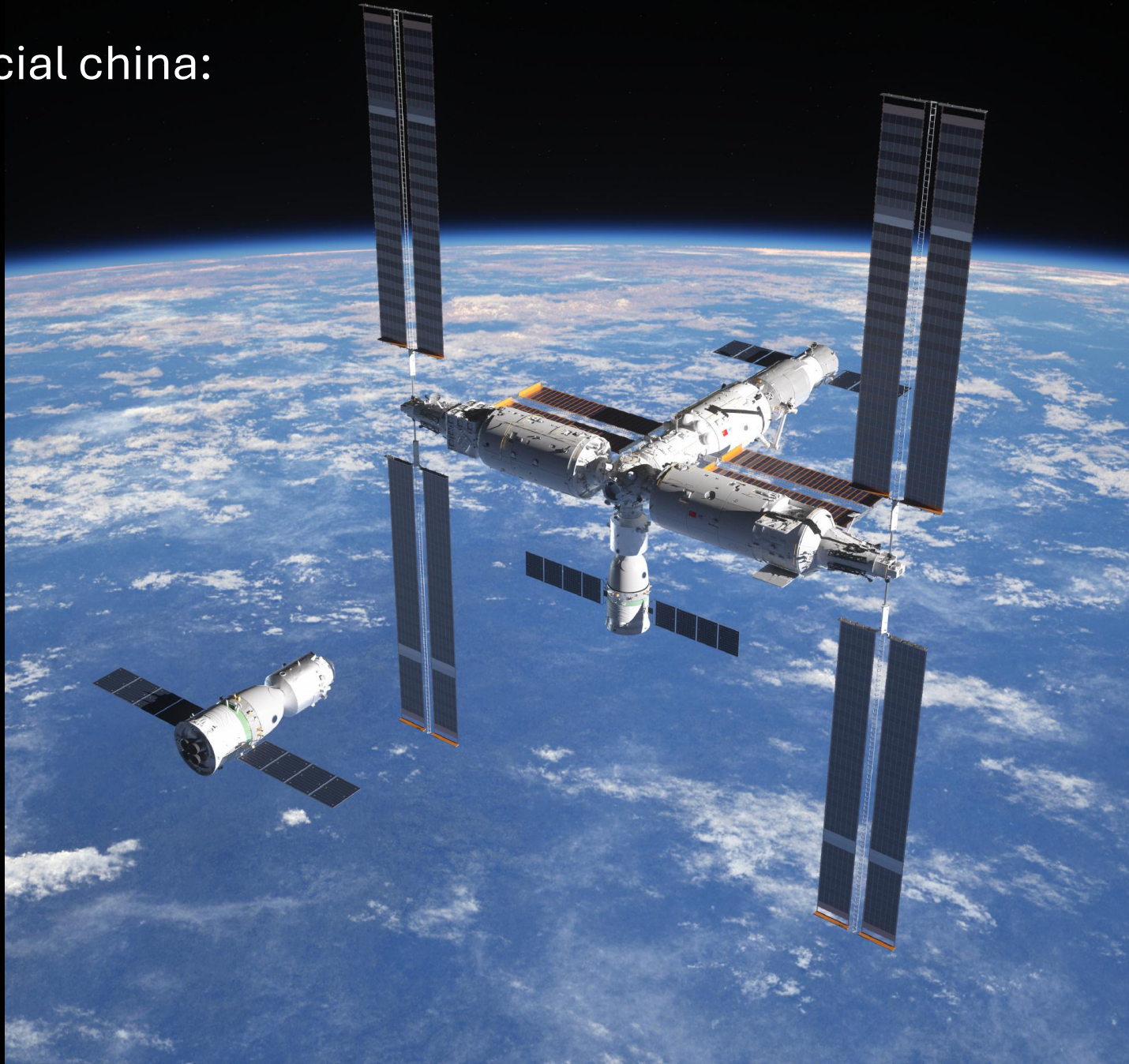


Chang'e 4 (China) 2018



© CNSA / Thomas

Estación espacial china: 2021 - ...



Misiones a la Luna: China: 202x

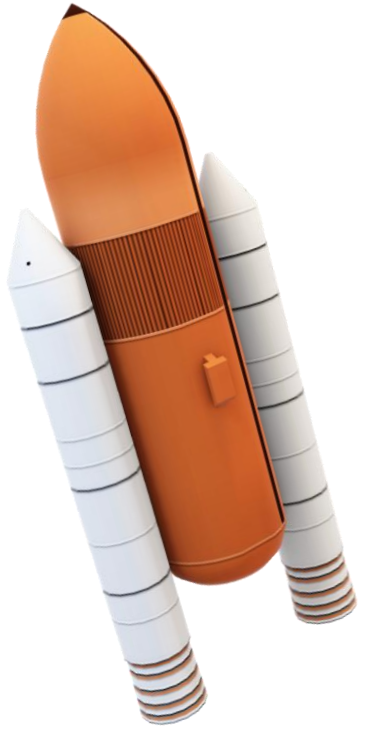


Chandrayaan-3

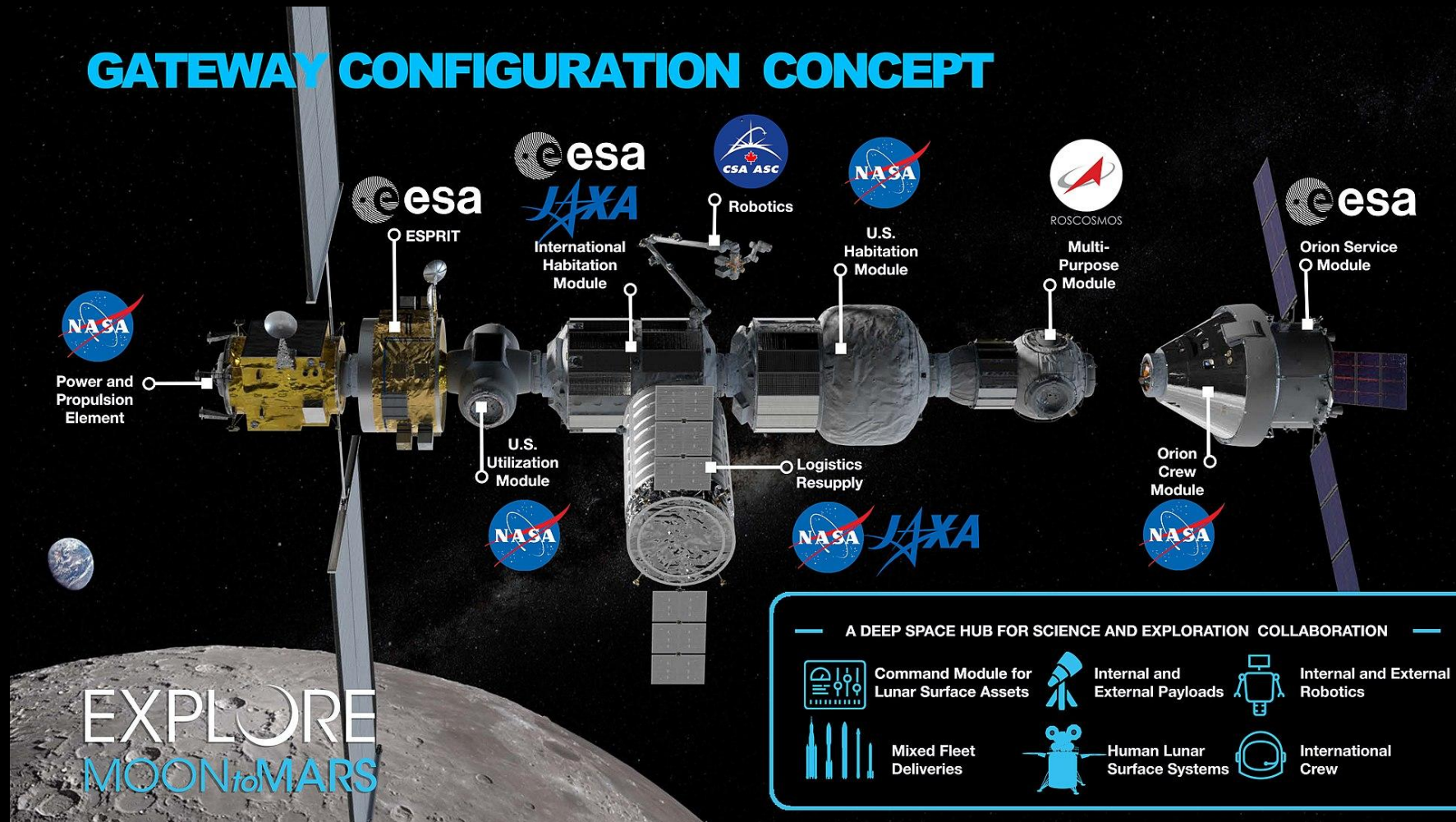
Agosto de 2023



Nuevos objetivos



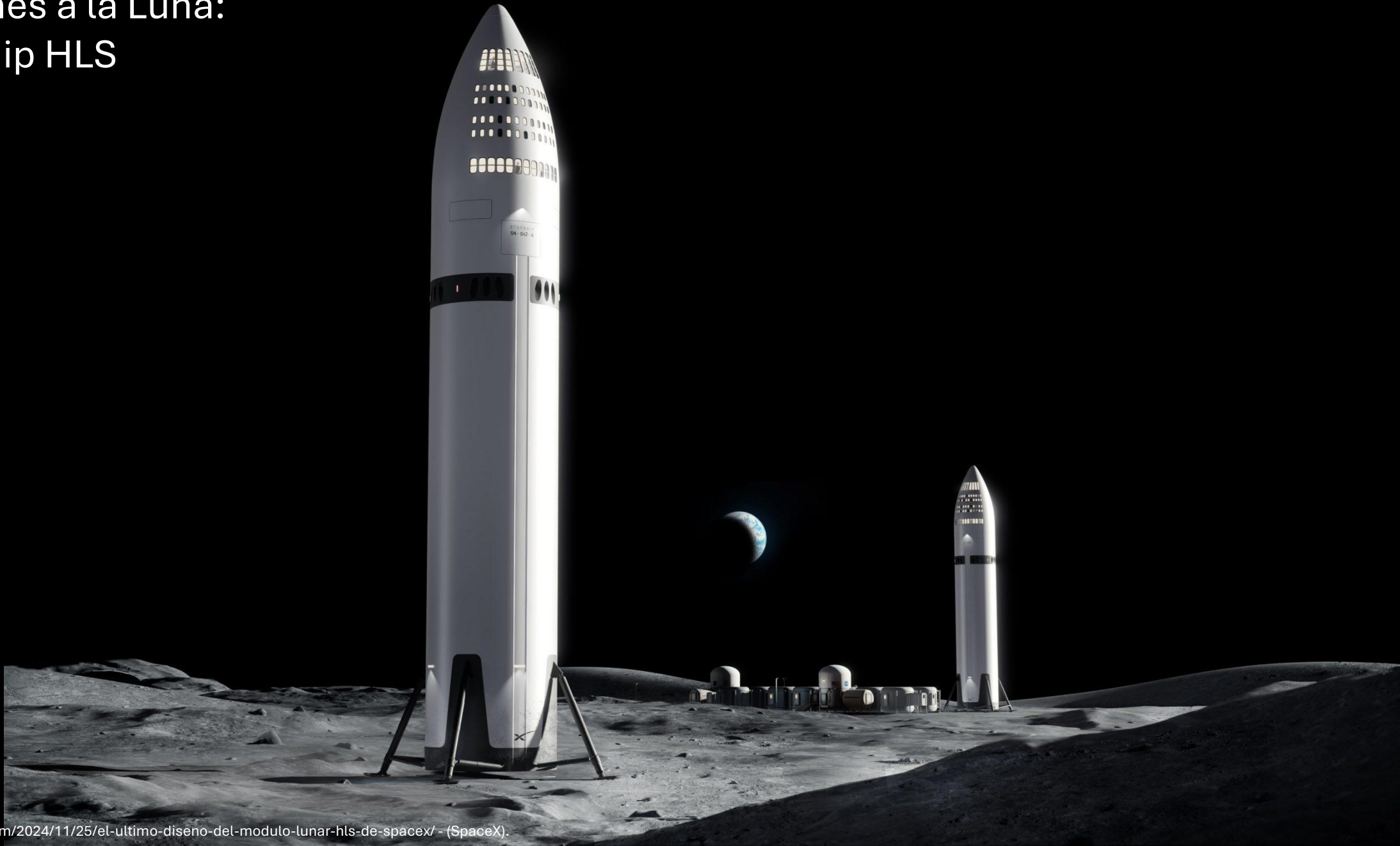
Misiones a la Luna: Artemisa: 202x



Misiones a la Luna: Base del programa Artemisa



Misiones a la Luna: Starship HLS



Discurso de toma de posesión del presidente Trump

Estados Unidos volverá a considerarse una nación **en crecimiento**: una nación que aumenta su riqueza, expande su territorio, construye sus ciudades, eleva sus expectativas **y lleva su bandera a nuevos y hermosos horizontes.**

Y perseguiremos nuestro **destino manifiesto hacia las estrellas**, lanzando astronautas estadounidenses para **plantar las barras y estrellas en el planeta Marte.**

Viking Project, USGS, NASA

¿Jared Isaacman Nuevo director de la NASA?



0:40:08
EVA ELAPSED TIME

DRAGON
0.0
PSIA

SUIT
5.2
PSIA

HATCH OPEN

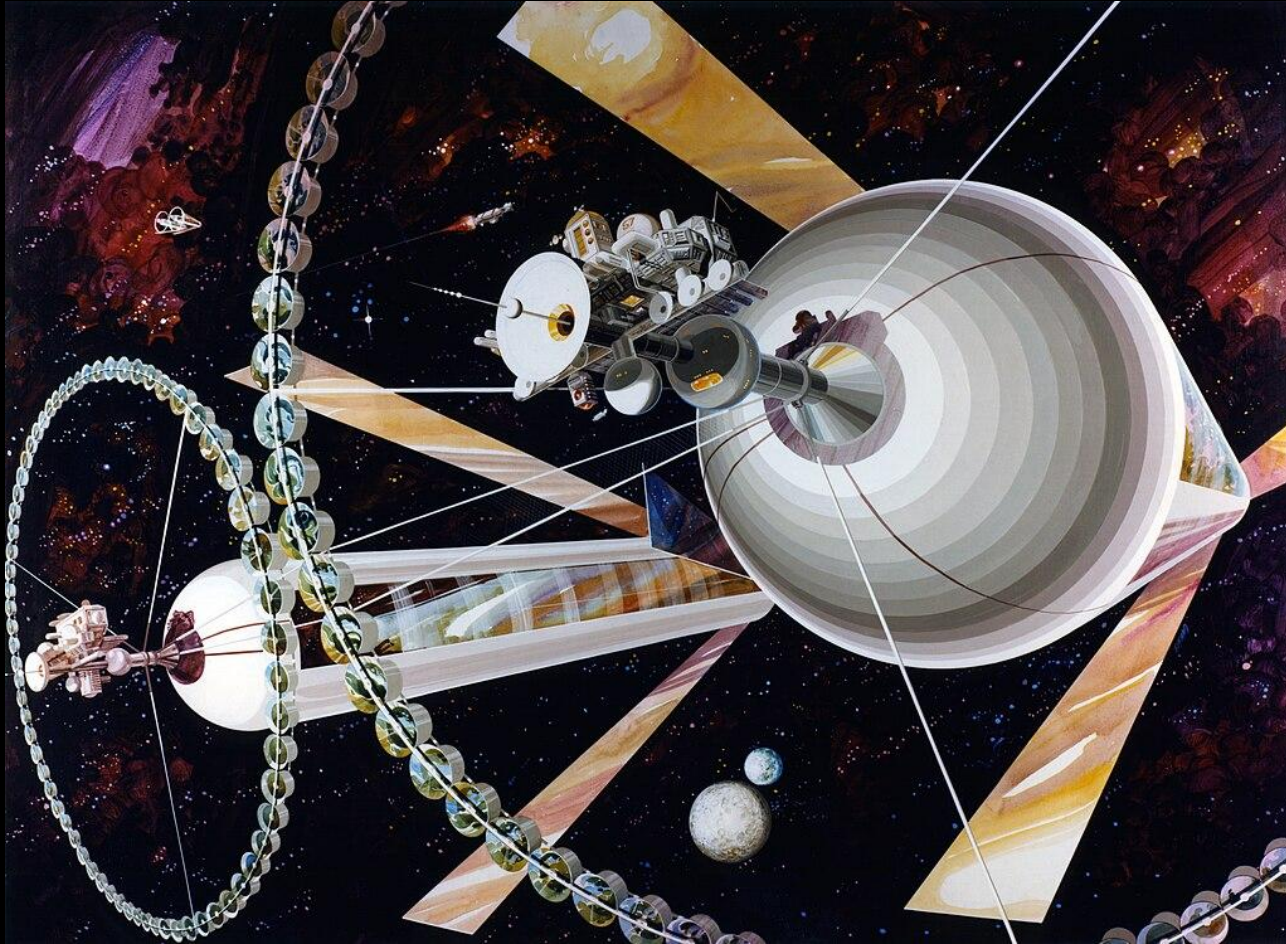
EV1 EGRESS

EVA 1 IN PROGRESS

SPEED
25275
KMH

LIVE 1.7M views

Gerard O'Neill



Colonias en el espacio



By NASA/Rick Guidice - <https://space.nss.org/settlement/nasa/70sArtHiRes/70sArt/art.html>, Public Domain, <https://commons.wikimedia.org/w/index.php?curid=617874>

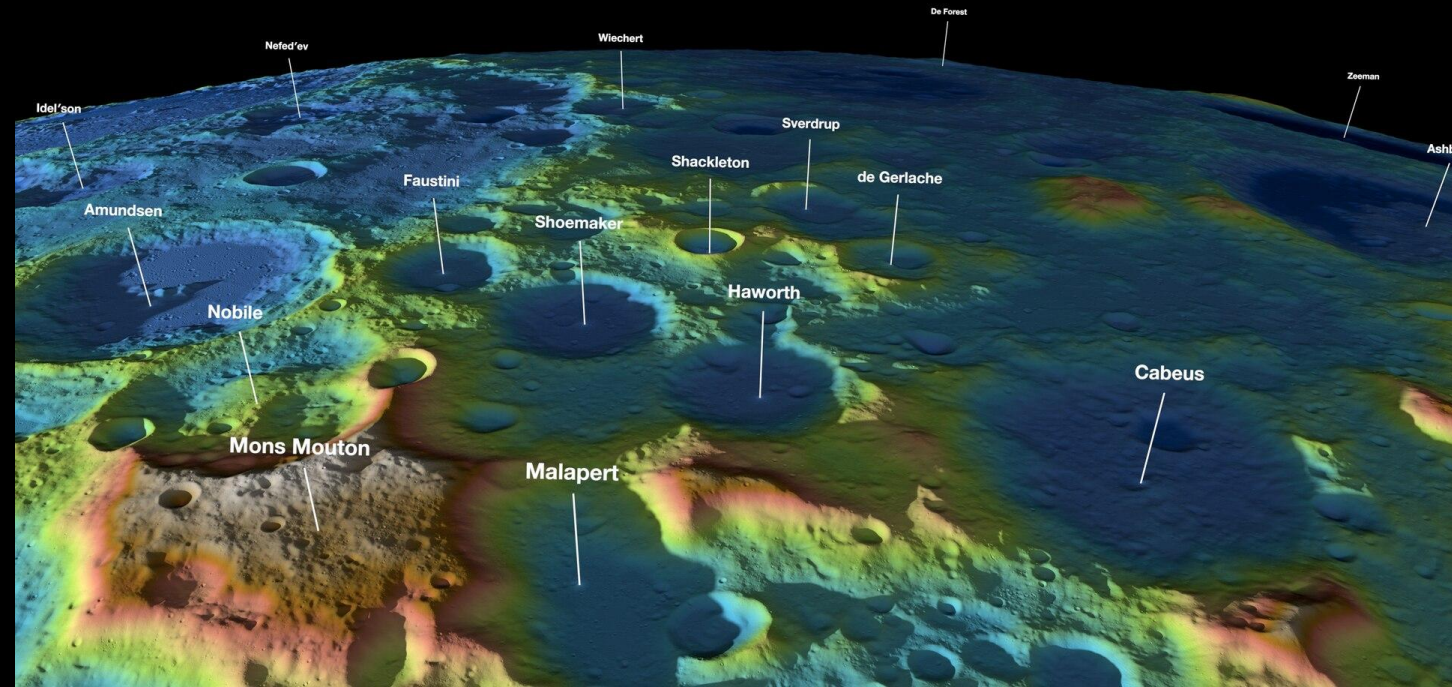
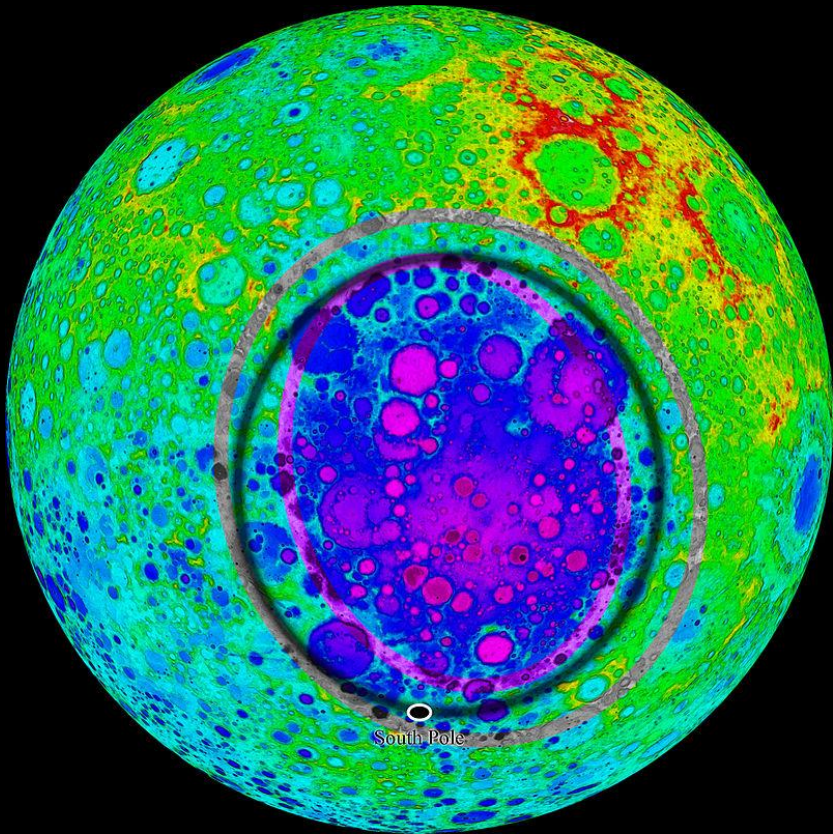
By NASA, Johnson Space Center - [1], Public Domain, <https://commons.wikimedia.org/w/index.php?curid=11831772>

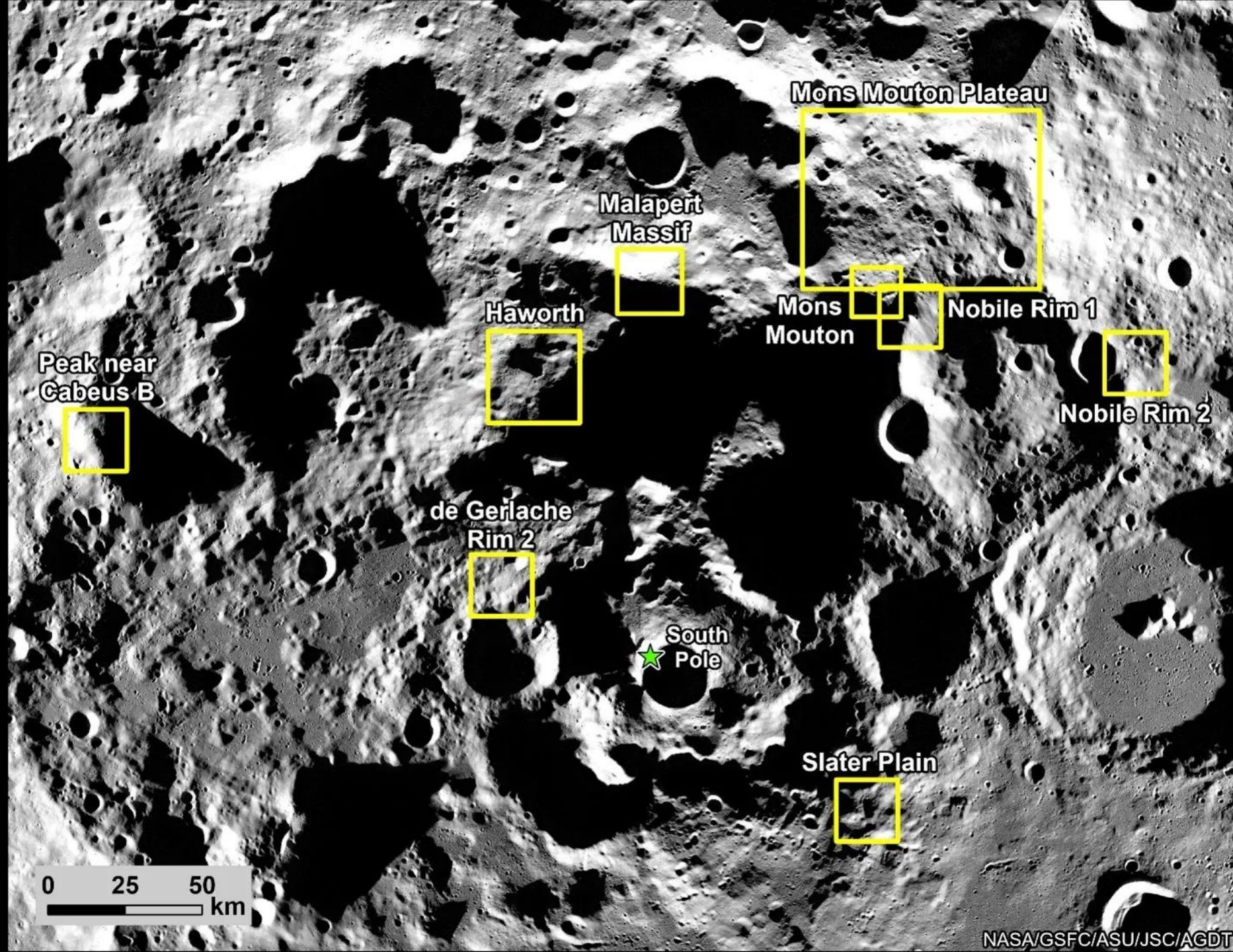
Konstantin Tsiolkovski





Intuitive Machines 2





Gràcies!

¡Gracias!

Thanks!