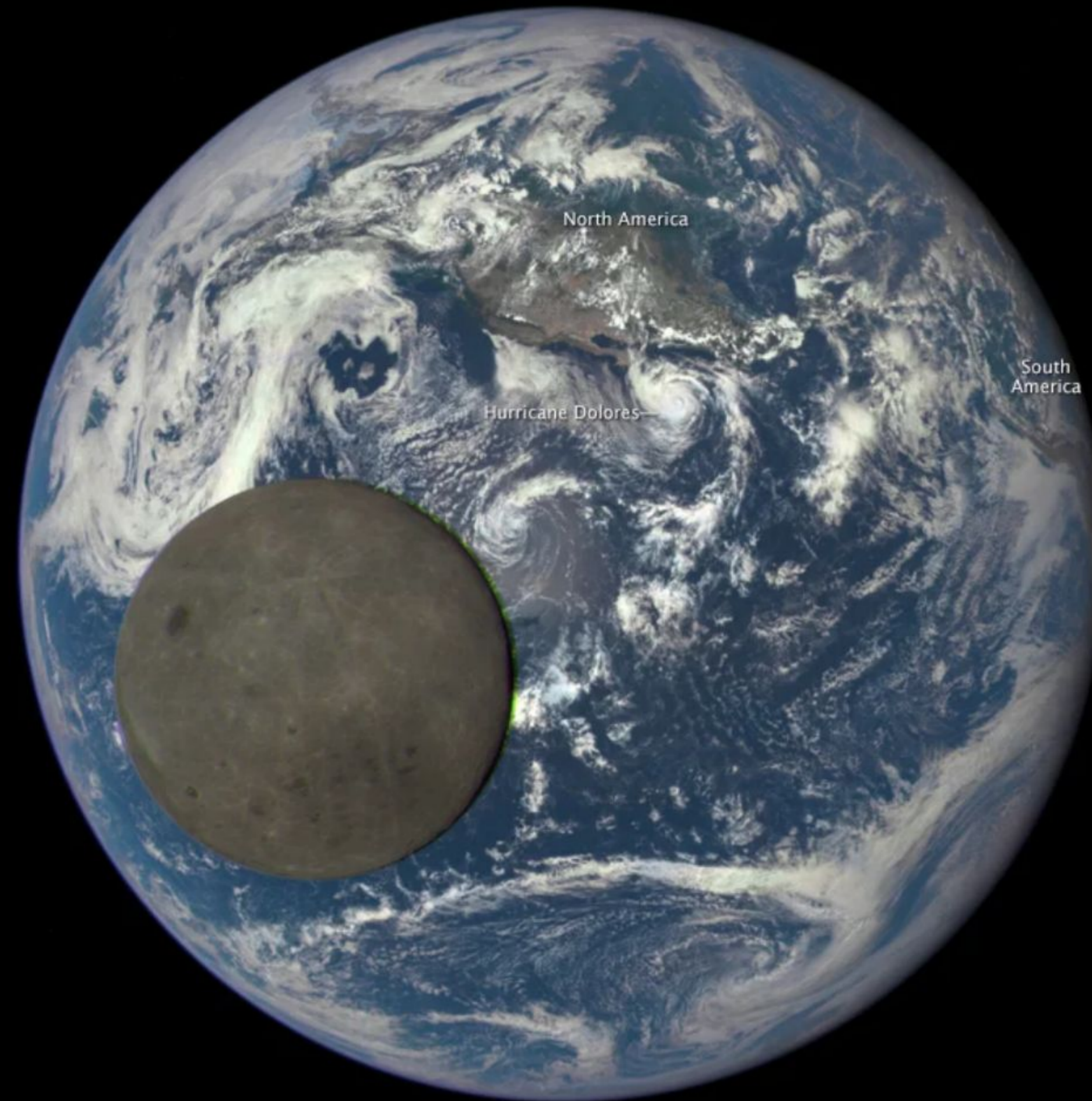




Dutch Guild Satelliet Toelatingstoets

Scan this QR code
to join →





A NASA camera aboard the [Deep Space Climate Observatory](#) (DSCOVR) has captured a unique view of the Moon as it passed between the spacecraft and Earth. A series of test images shows the fully illuminated “dark side” of the Moon that is not visible from Earth.



Sputnik 1

🌐 84 languages

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"Sputnik" redirects here. For other uses, see [Sputnik \(disambiguation\)](#).

Sputnik 1 (/ˈspʌtnɪk, ˈspʊtnɪk/, **Russian**: Спутник-1, *Satellite 1*) was the first artificial Earth satellite. It was launched into an elliptical [low Earth orbit](#) by the [Soviet Union](#) on 4 October 1957 as part of the [Soviet space program](#). It sent a radio signal back to Earth for three weeks before its three silver-zinc batteries became depleted. Aerodynamic drag caused it to fall back into the atmosphere on 4 January 1958. The world's first observation was made at the school observatory in [Rodawisch \(Saxony\)](#).^[6]

It was a polished metal sphere 58 cm (23 in) in diameter with four external radio antennas to broadcast radio pulses. Its radio signal was easily detectable by amateur radio operators,^[7] and the 65° [orbital inclination](#) made its flight path cover virtually the entire inhabited Earth.

The satellite's success was unanticipated by the United States. This precipitated the American [Sputnik crisis](#) and triggered the [Space Race](#), part of the [Cold War](#). The launch was the beginning of a new era of political, military, technological and scientific developments.^[8] The word *sputnik* is Russian for *satellite* when interpreted in an astronomical context;^[9] its other meanings are *spouse* or *traveling companion*.^{[10][11]}

Tracking and studying Sputnik 1 from Earth provided scientists with valuable information. The density of the upper atmosphere could be deduced from its drag on the orbit, and the propagation of its radio signals gave data about the [ionosphere](#).

Sputnik 1

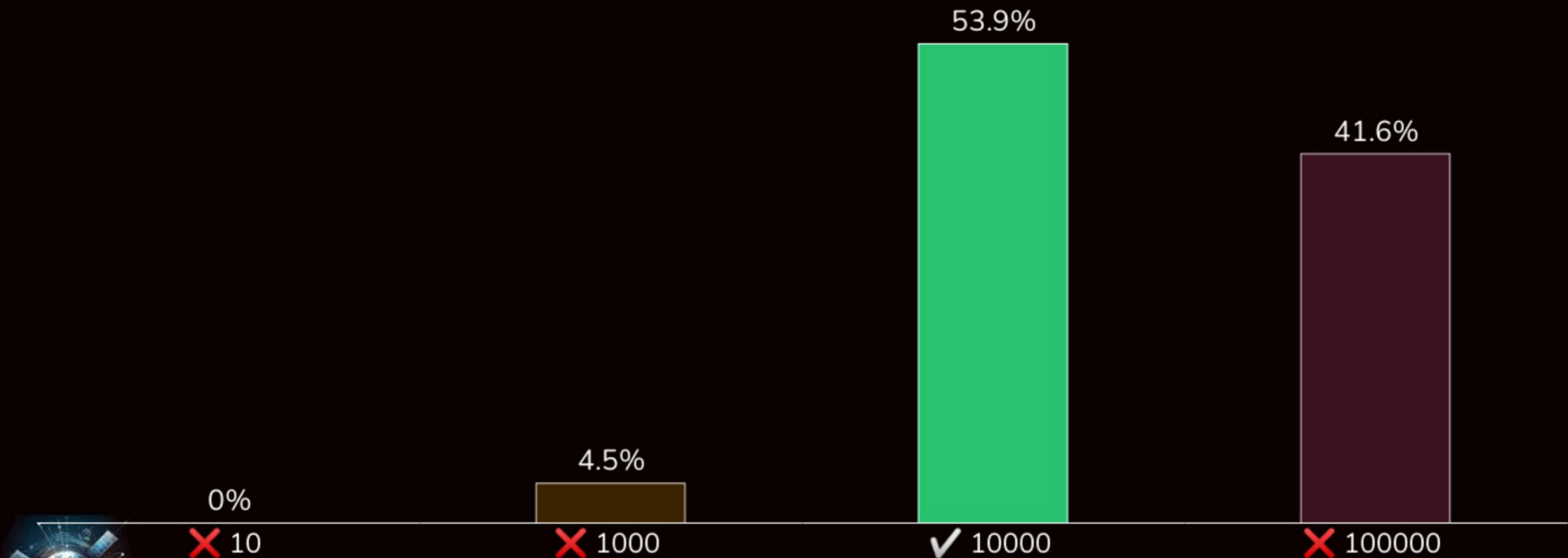


Replica of Sputnik 1 in the Museum of Space and Missile Technology (Saint Petersburg)

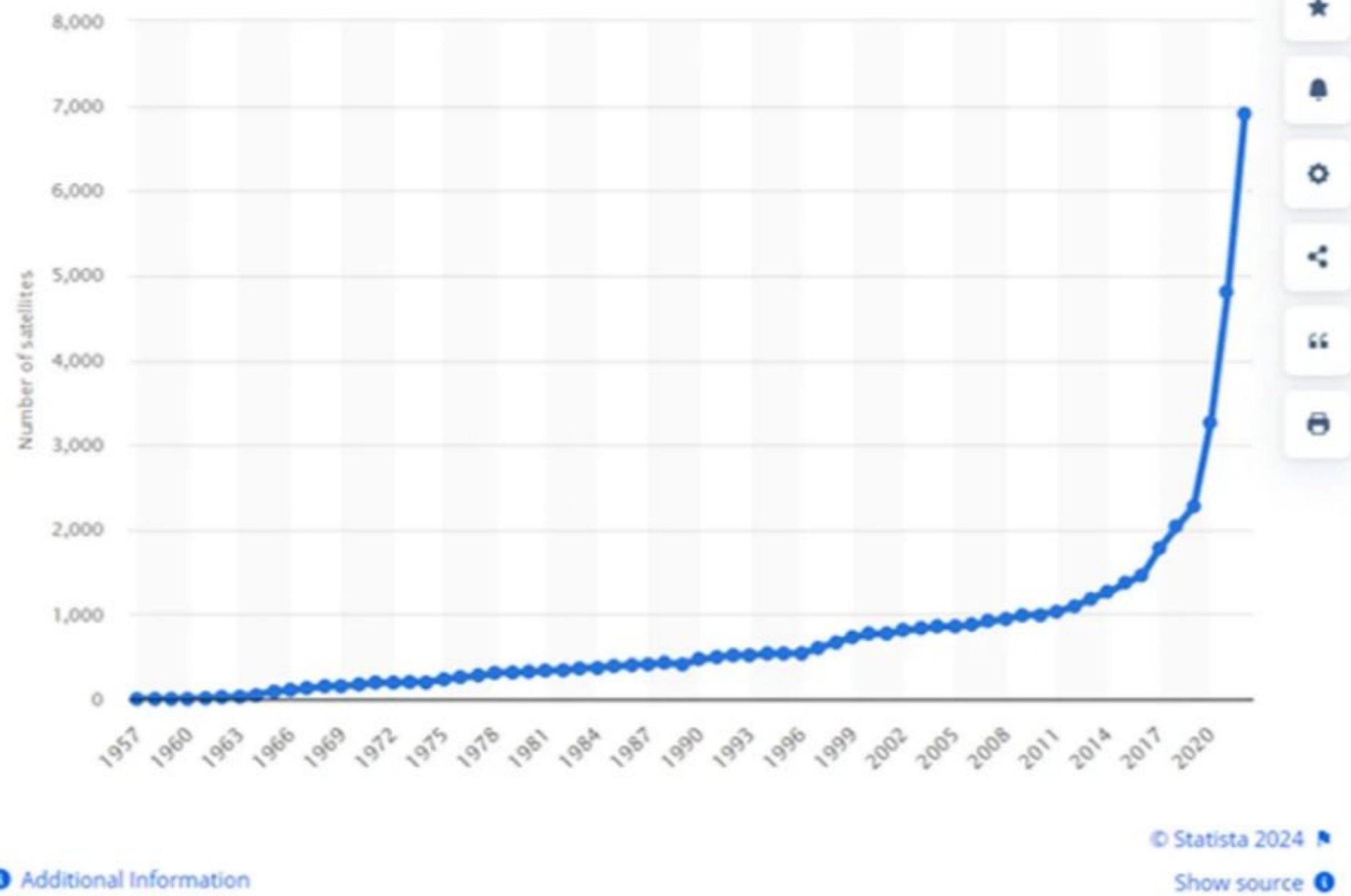
Names	Спутник 1 Object PS (<i>Prosteishiy Sputnik</i>) Простейший Спутник-1 Elementary Satellite-1
Mission type	Technology demonstration
Operator	ОКБ-1



Hoeveel actieve satellieten zijn er nu in orbit rond de aarde?



Number of active satellites from 1957 to 2022



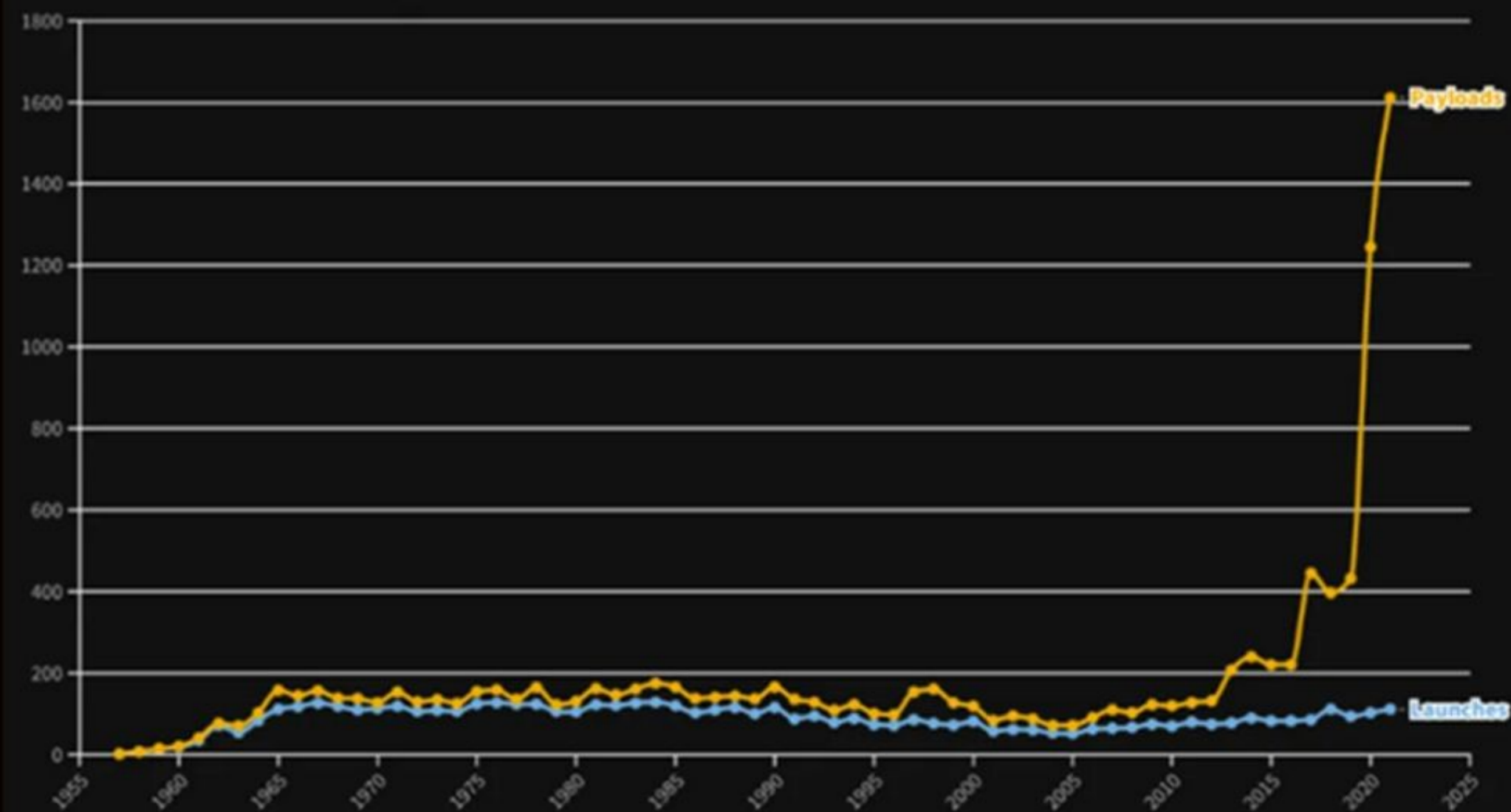
Additional Information

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Show source

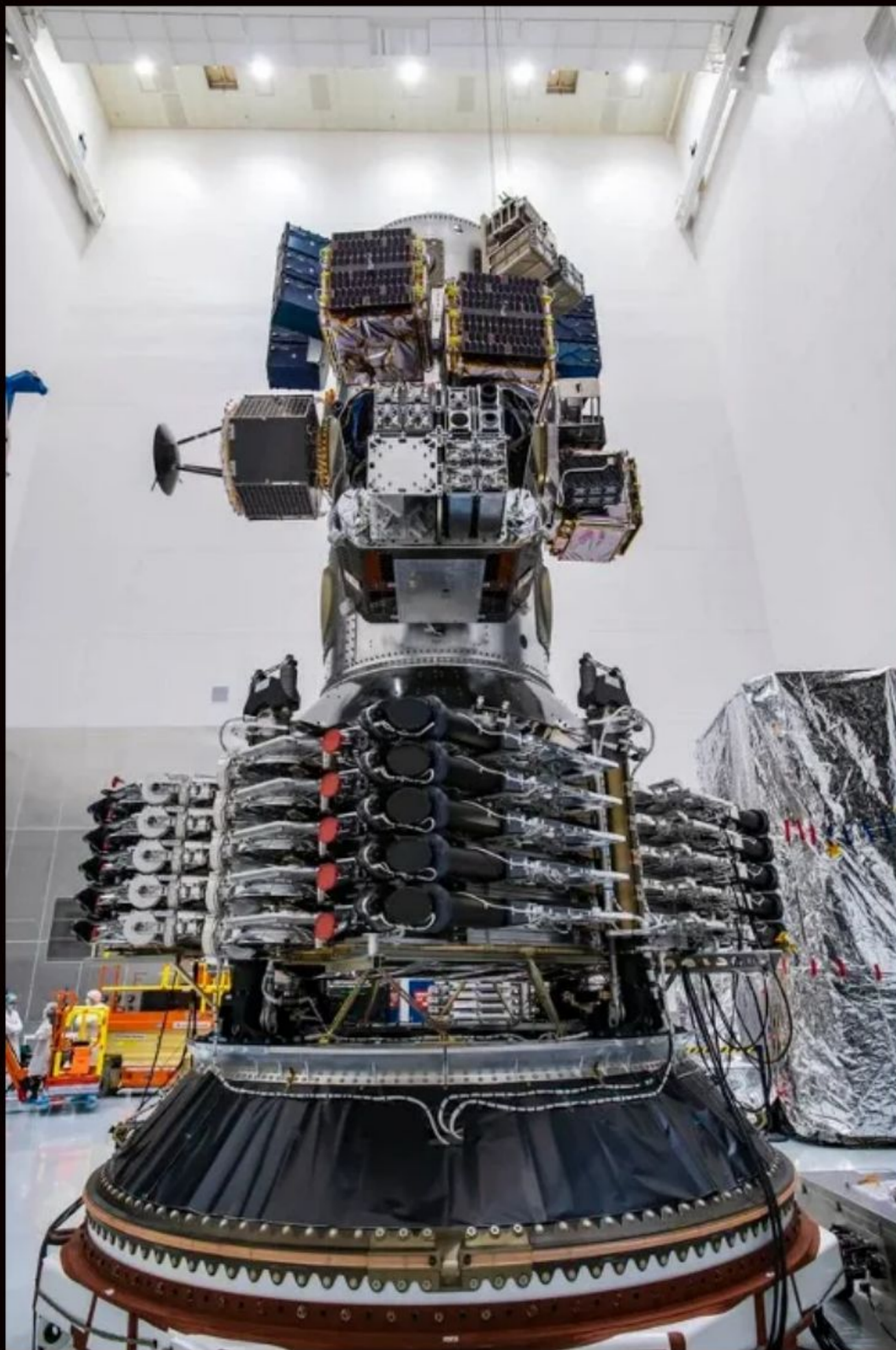
Earth's orbits are getting crowded

In 2021, more satellites were launched into space than in the entire decade prior, and tens of thousands more are to be launched in the next five years



Note: Payloads refer to space objects (e.g. satellites, space probes) designed to perform a specific function in space, excluding launch functionality. See Figure 2.3 in OECD (2022), Earth's Orbits at Risk: The Economics of Space Sustainability, available at <https://oe.cd/space> • Data source: US Space Force, <https://www.space-track.org>, accessed 23 November 2021.





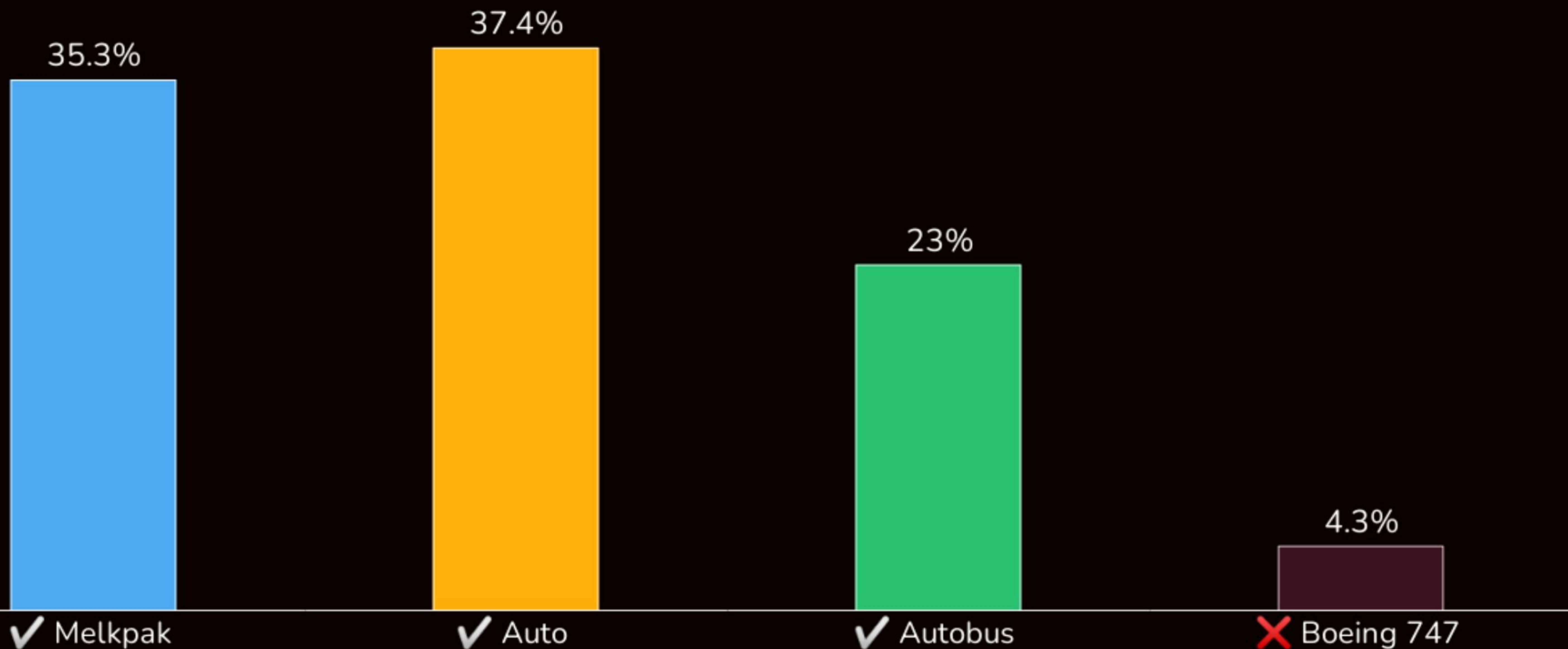
Residents of Northwestern parts of the U.S. and Canada were baffled at seeing a bright trail of lights—almost like a train flying through the

On January 24, 2021, SpaceX launched the largest rideshare mission in history, named Transporter-1, with a total of 143 payloads on board.

👍 375 ❤️ 173 😂 222 😱 163 🤔 131



Hoe groot is een satelliet bij lancering? (selecteer alle goede antwoorden)



DelfiPQ - 600 gram



Group name ^[1]	Mass (kg)
Extra Heavy satellite	> 7,000
Heavy satellite	5,001 to 7,000
Large satellite	4,201 to 5,000
Intermediate satellite	2,501 to 4,200
Medium satellite	1,201 to 2,500
Small satellite	601 to 1,200
Mini satellite	201 to 600
Micro satellite	11 to 200
Nano satellite	1.1 to 10
Pico satellite	0.1 to 1
Femto satellite	<0.1

Jupiter-3

The **heaviest satellite** ever launched is **Jupiter-3**, a commercial communications satellite built by Maxar Technologies ¹ ². It has a mass of **9,200 kilograms** and was placed in geosynchronous orbit by SpaceX's Falcon Heavy rocket in 2021 ¹ ². Jupiter-3 broke the previous record for the heaviest geostationary and commercial satellite by nearly two tonnes ².

Learn more:

¹ SpaceX's Falcon Heavy puts into orbit world's h...

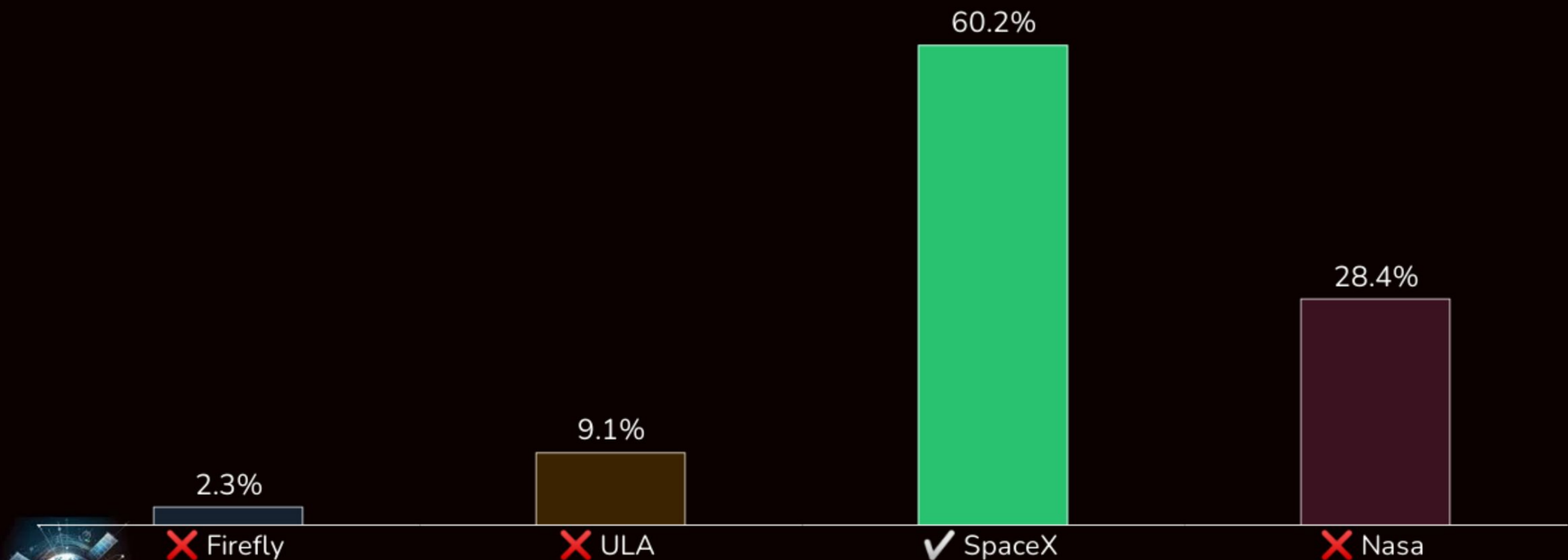
[interestingengineeri...](#)

² Falcon Heavy launches largest ever geostation...

[nasaspaceflight.com](#)

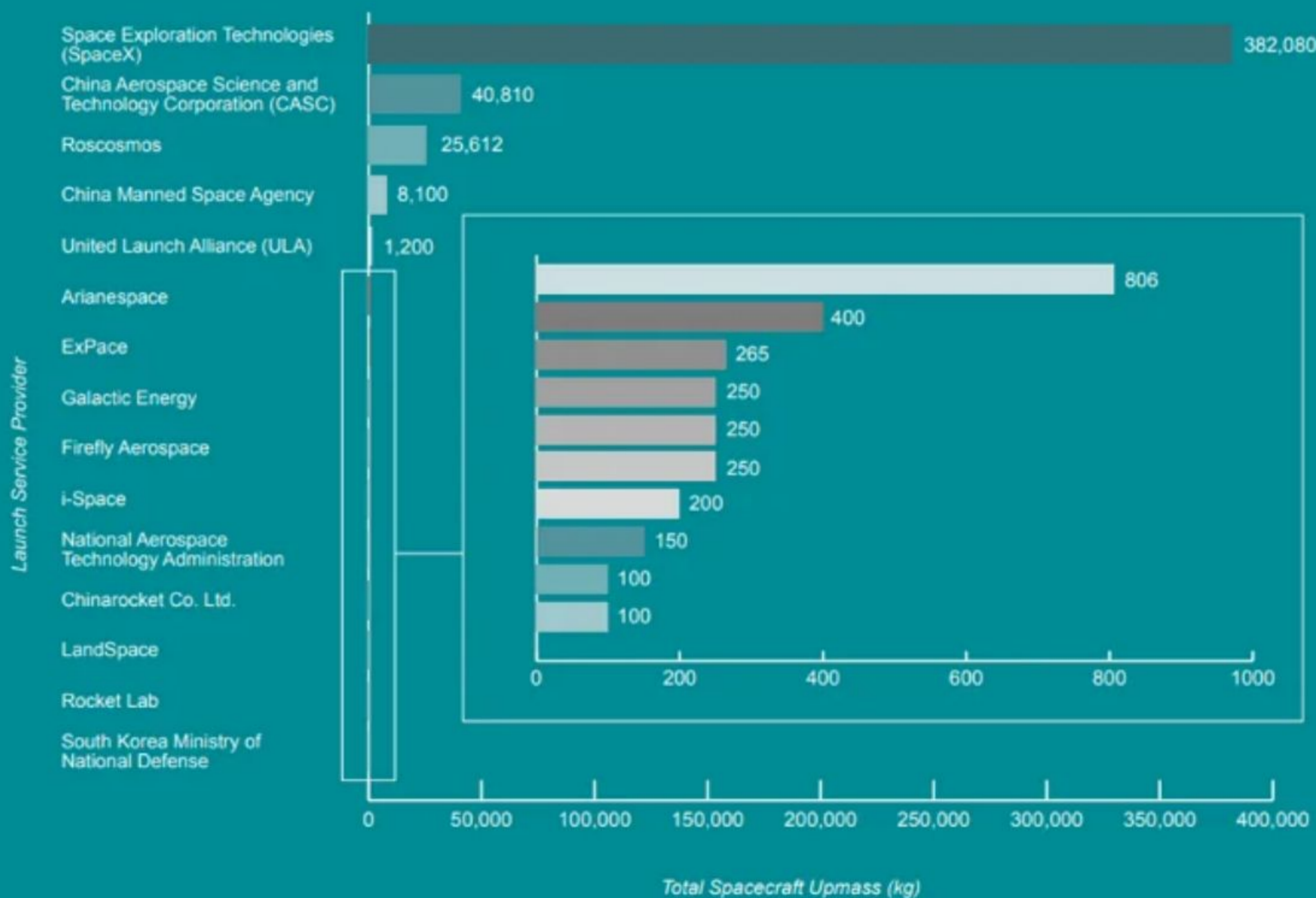


Welke launch provider lanceert het meeste gewicht in orbit?



Spacecraft Upmass Carried by Launch Provider

SpaceX launched about 382,060 kg of spacecraft upmass in Q4, followed by CASC with about 40,810 kg





*Includes estimates of spacecraft mass when not publicly disclosed



Leaderboard

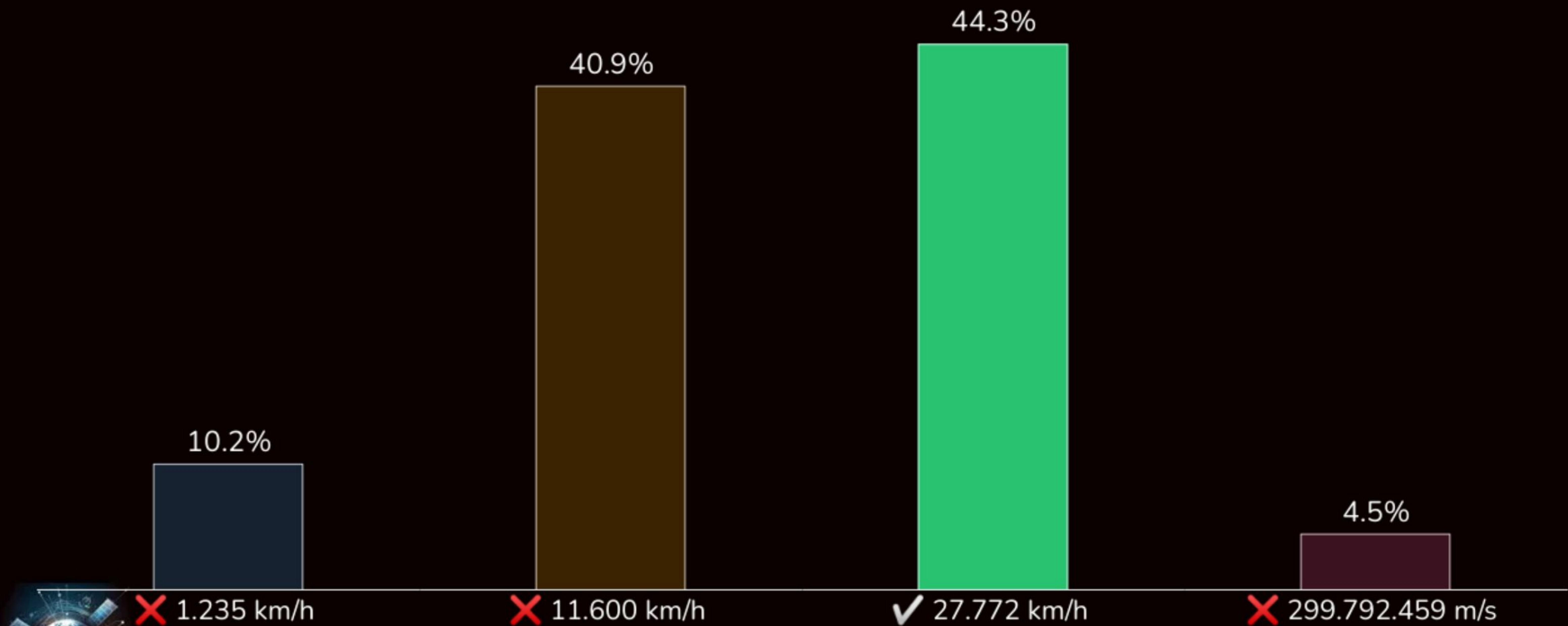
97 players


x 3
 Tim L is rocking the longest streak!

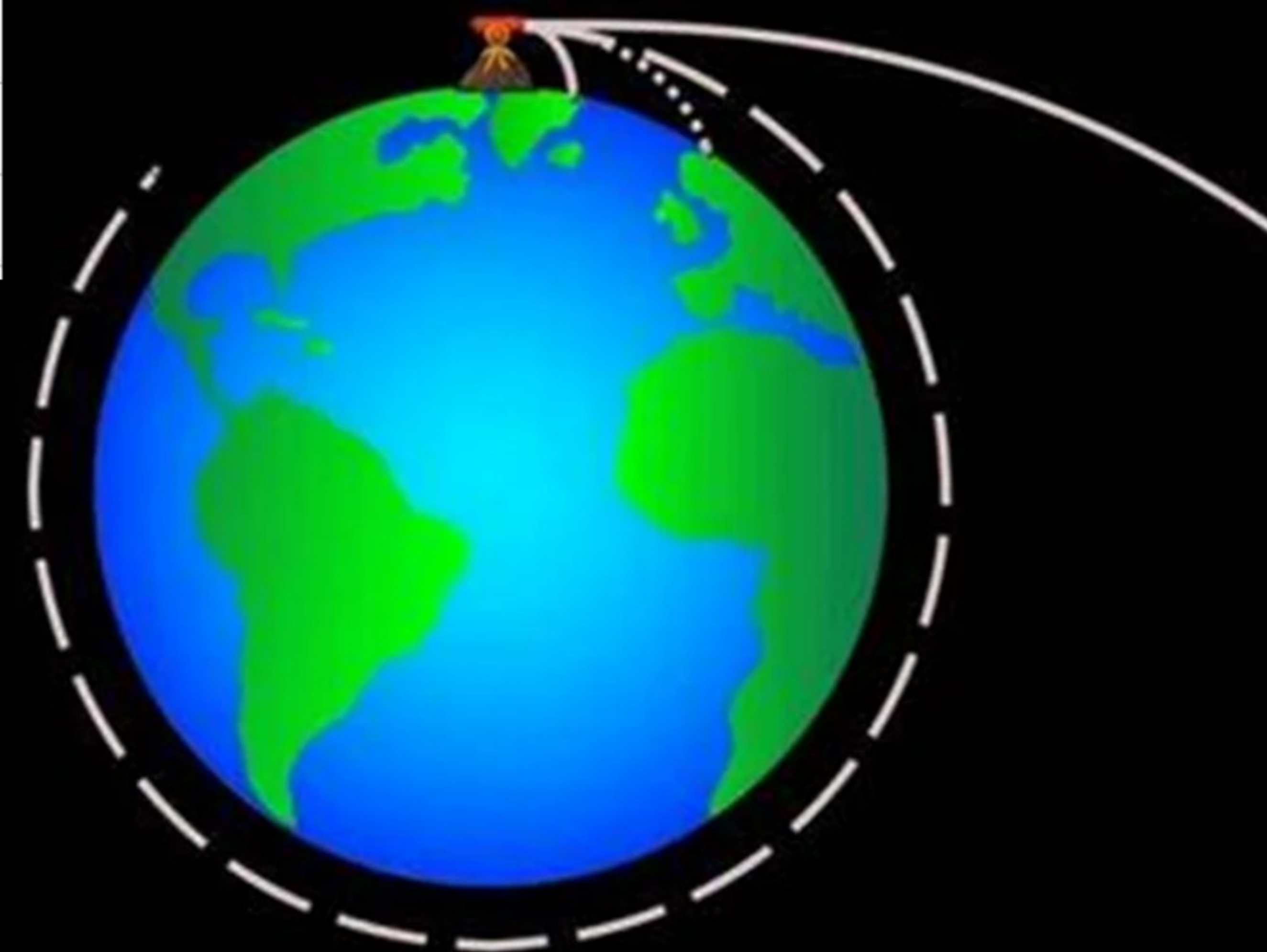
1	 Tim L	273p +273
2	 Arian	270p +270
3	 Jan Paul Dekker	269p +269
4	 Santi	268p +268
4	 Erik	268p +268



Met welke snelheid krijg je een satelliet in orbit?



Orbit	Center-to-center distance	Altitude above the Earth's surface	Speed	Orbital period
Earth's own rotation at surface (for comparison— not an orbit)	6,378 km	0 km	465.1 m/s (1,674 km/h or 1,040 mph)	23 h 56 min 4.09 sec
Orbiting at Earth's surface (equator) theoretical	6,378 km	0 km	7.9 km/s (28,440 km/h or 17,672 mph)	1 h 24 min 18 sec
Low Earth orbit	6,600–8,400 km	200–2,000 km	Circular orbit: 7.7–6.9 km/s (27,772–24,840 km/h or 17,224–15,435 mph) respectively Elliptic orbit: 10.07–8.7 km/s respectively	1 h 29 min – 2 h 8 min
Molniya orbit	6,900–46,300 km	500–39,900 km	1.5–10.0 km/s (5,400–36,000 km/h or 3,335–22,370 mph) respectively	11 h 58 min
Geostationary	42,000 km	35,786 km	3.1 km/s (11,600 km/h or 6,935 mph)	23 h 56 min 4.09 sec
Orbit of the Moon	363,000–406,000 km	357,000–399,000 km	0.97–1.08 km/s (3,492–3,888 km/h or 2,170–2,416 mph) respectively	27.27 days



Op welke hoogte begint de ruimte?



Kármán line

🌐 56 languages ▾

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The **Kármán line** (or **von Kármán line** /vɒn ˈkɑːrmɑːn/^[2]) is a proposed conventional boundary between [Earth's atmosphere](#) and [outer space](#) set by the international record-keeping body [FAI](#) (Fédération aéronautique internationale) at an altitude of 100 kilometres (54 nautical miles; 62 miles; 330,000 feet) above [mean sea level](#). However, such definition of the [edge of space](#) is not universally adopted.

The Kármán line has no particular physical significance, in that there is no noticeable difference between the characteristics of the atmosphere above and below it, but it is important for legal and regulatory purposes, since [aircraft](#) and [spacecraft](#) are subject to different jurisdictions and legislations. [International law](#) does not define the edge of space, or the limit of national airspace.^{[3][4]}

The line lies well above the altitude reachable by a conventional airplane or a [high-altitude balloon](#), and is approximately where satellites, even on very eccentric trajectories, will [decay](#) before completing a single orbit.

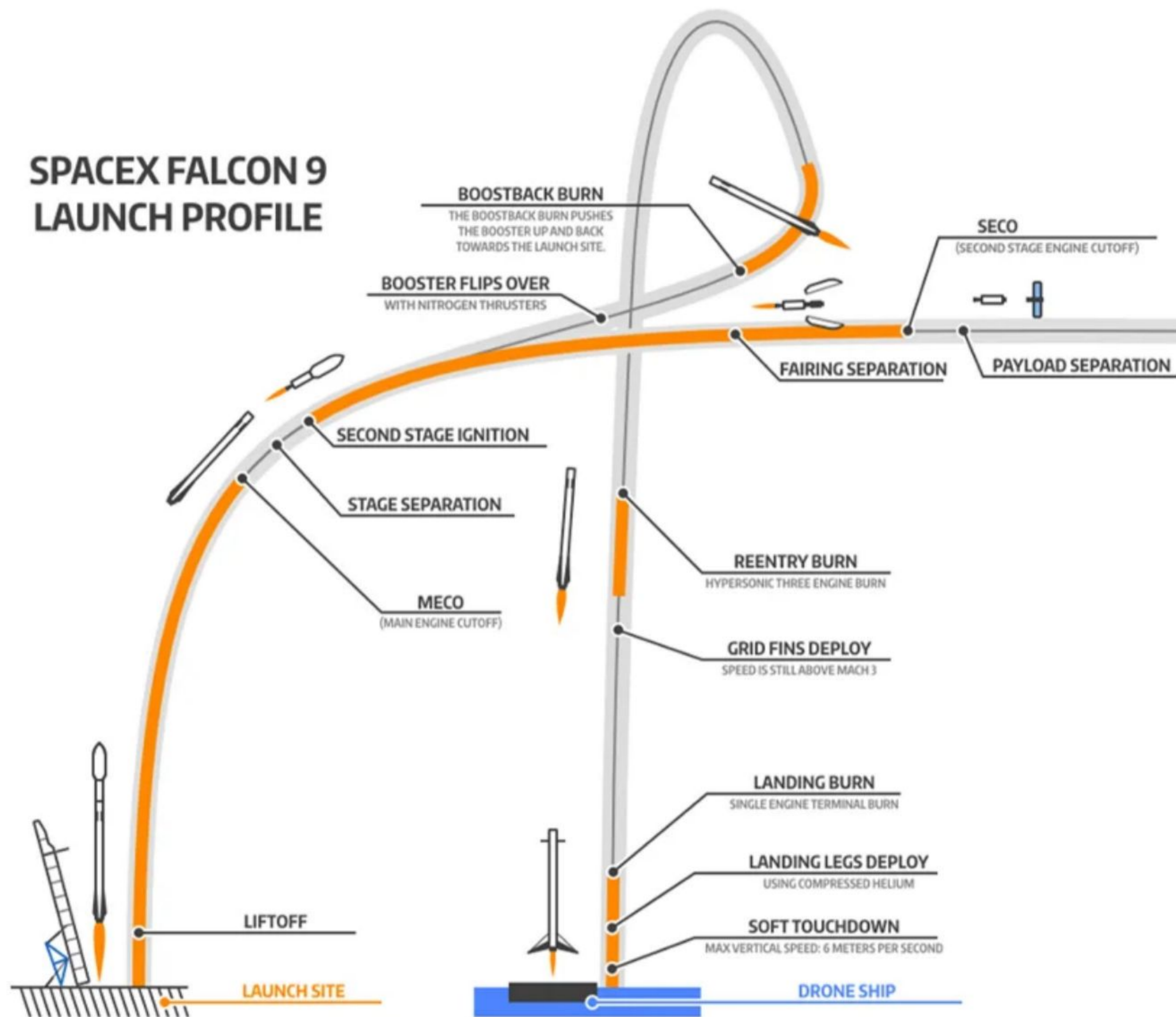


Earth's atmosphere photographed from the [International Space Station](#). The orange and green line of [airglow](#) is at roughly the altitude of the Kármán line.^[1]





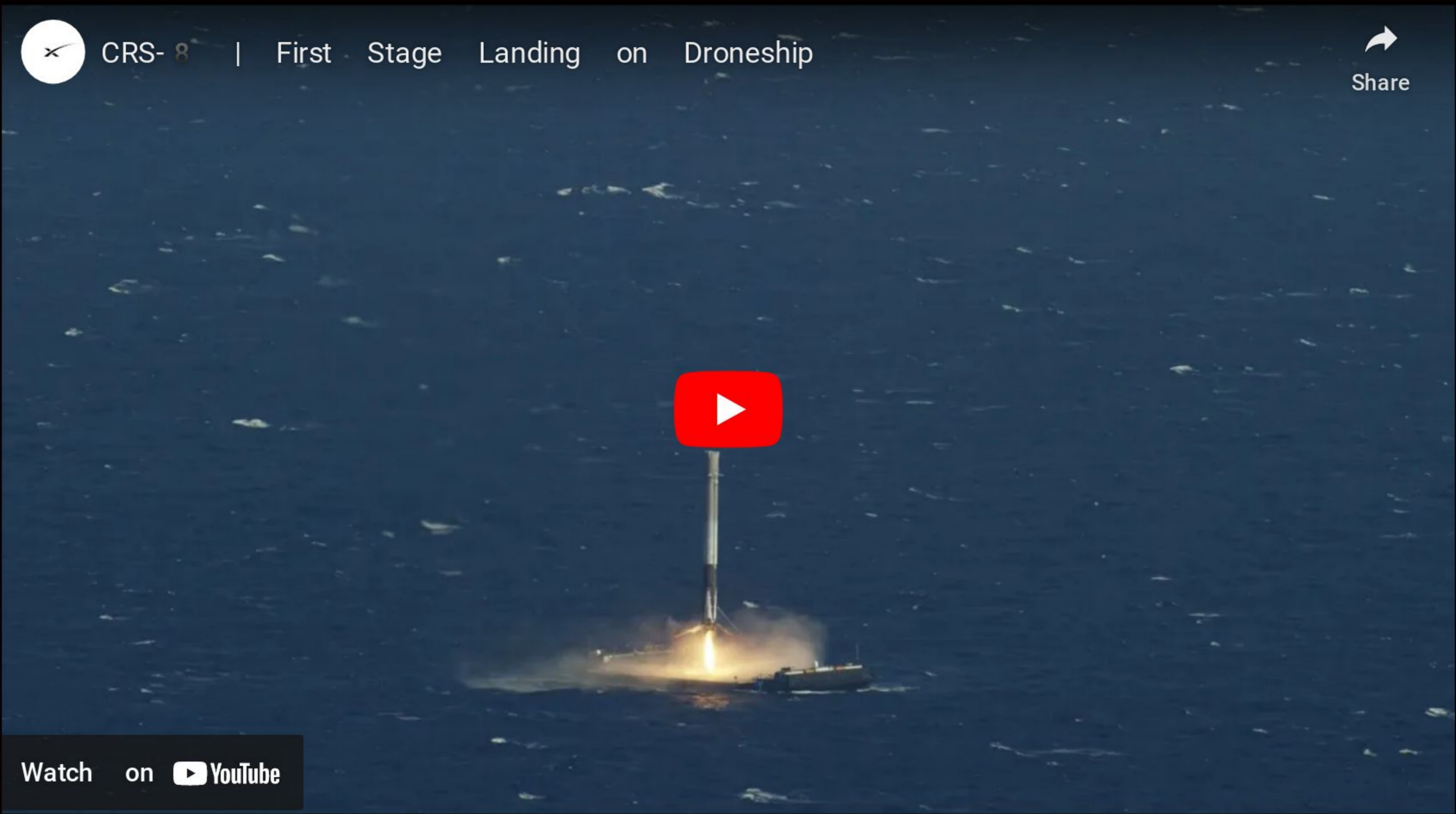
SPACEX FALCON 9 LAUNCH PROFILE





CRS- 8 | First Stage Landing on Droneship

Share

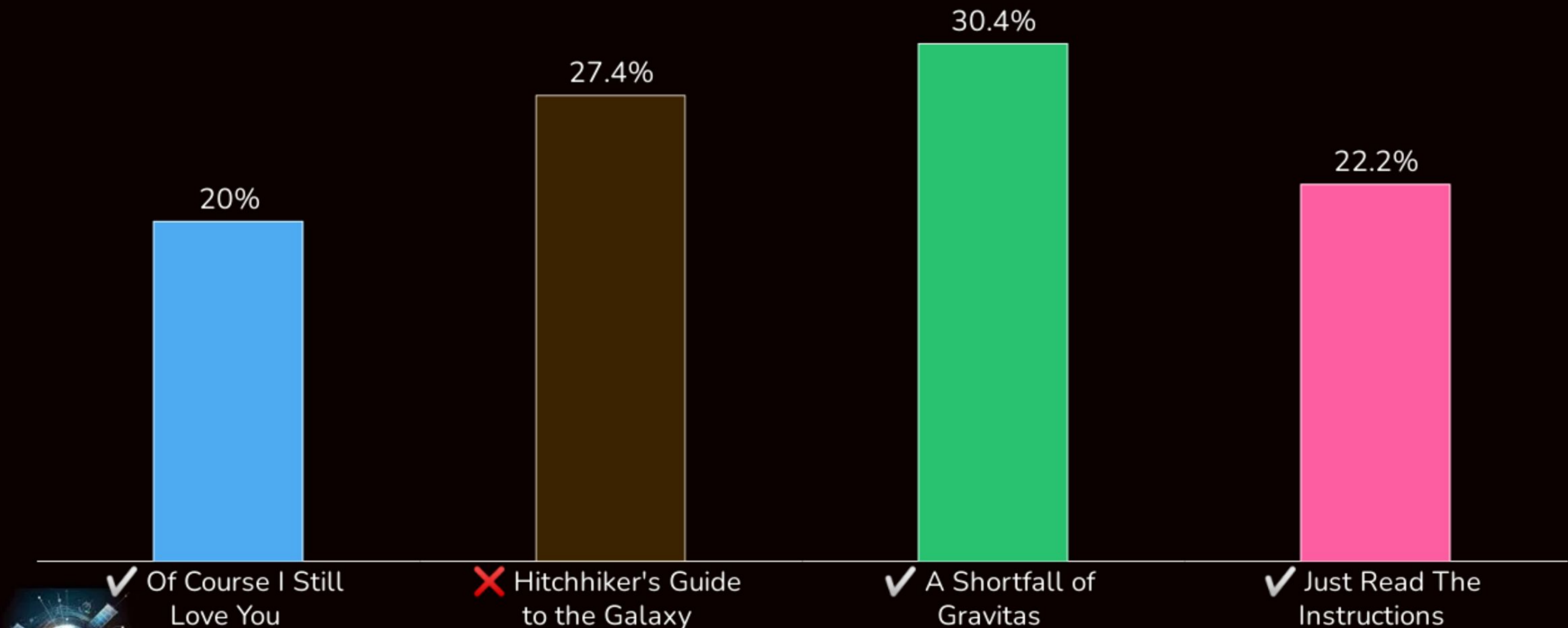


Watch on YouTube

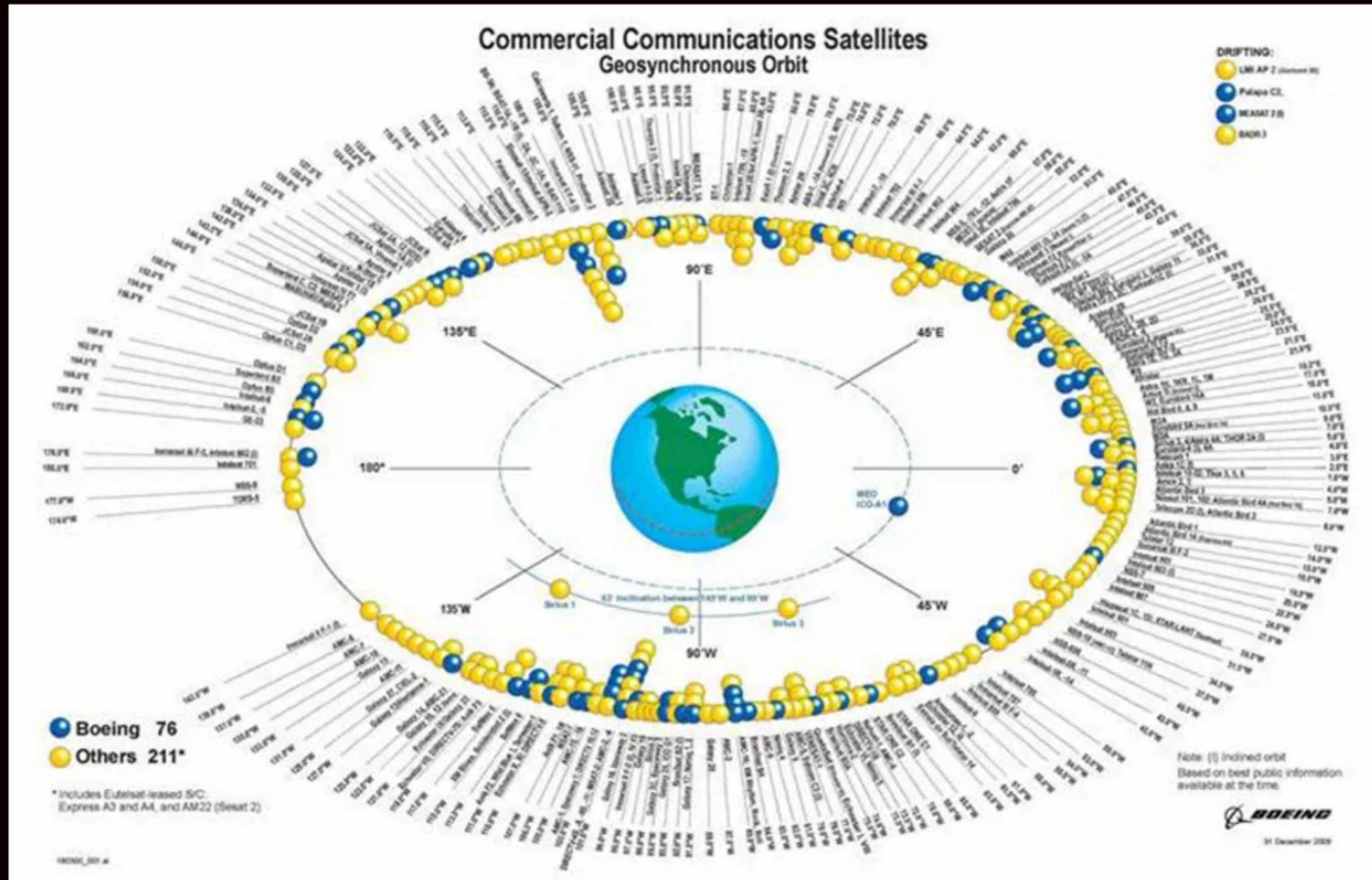


375 173 222 163 131

Selecteer alle namen van de SpaceX drone ships?

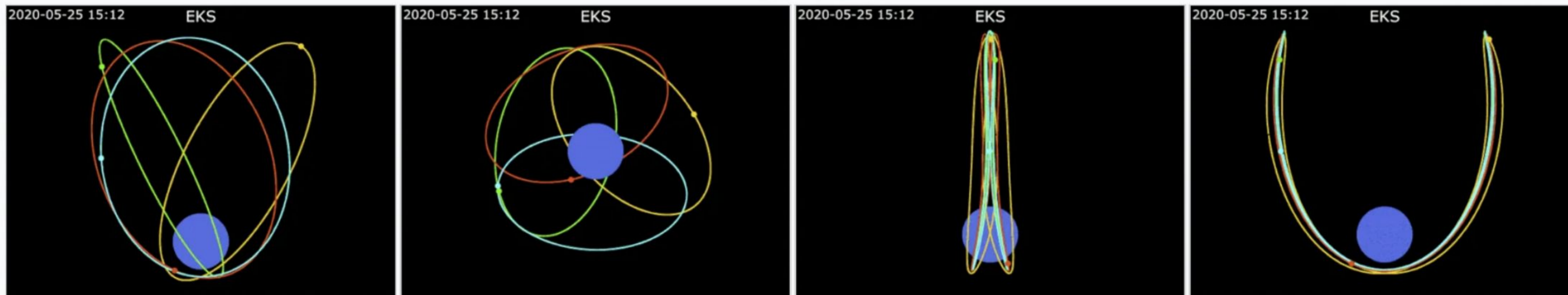


Orbits



Orbits

Animation of EKS



Equatorial view

Polar view

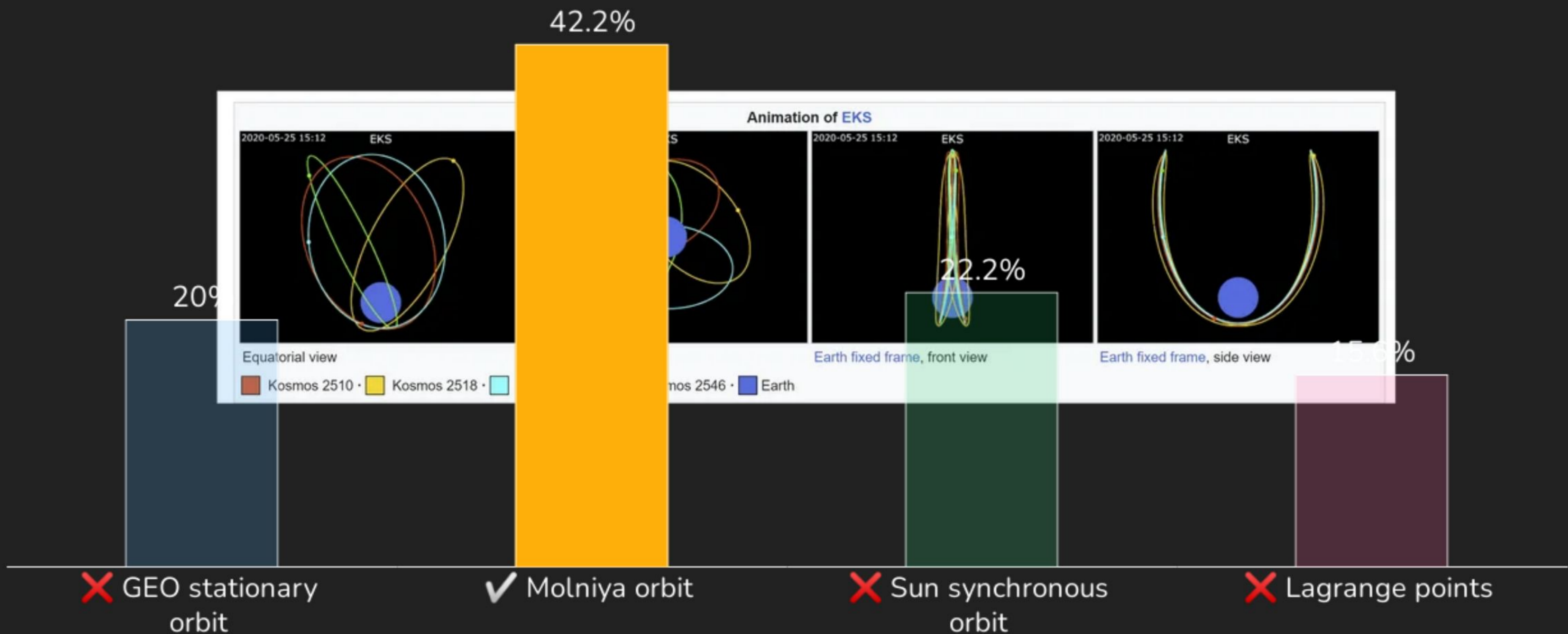
Earth fixed frame, front view

Earth fixed frame, side view

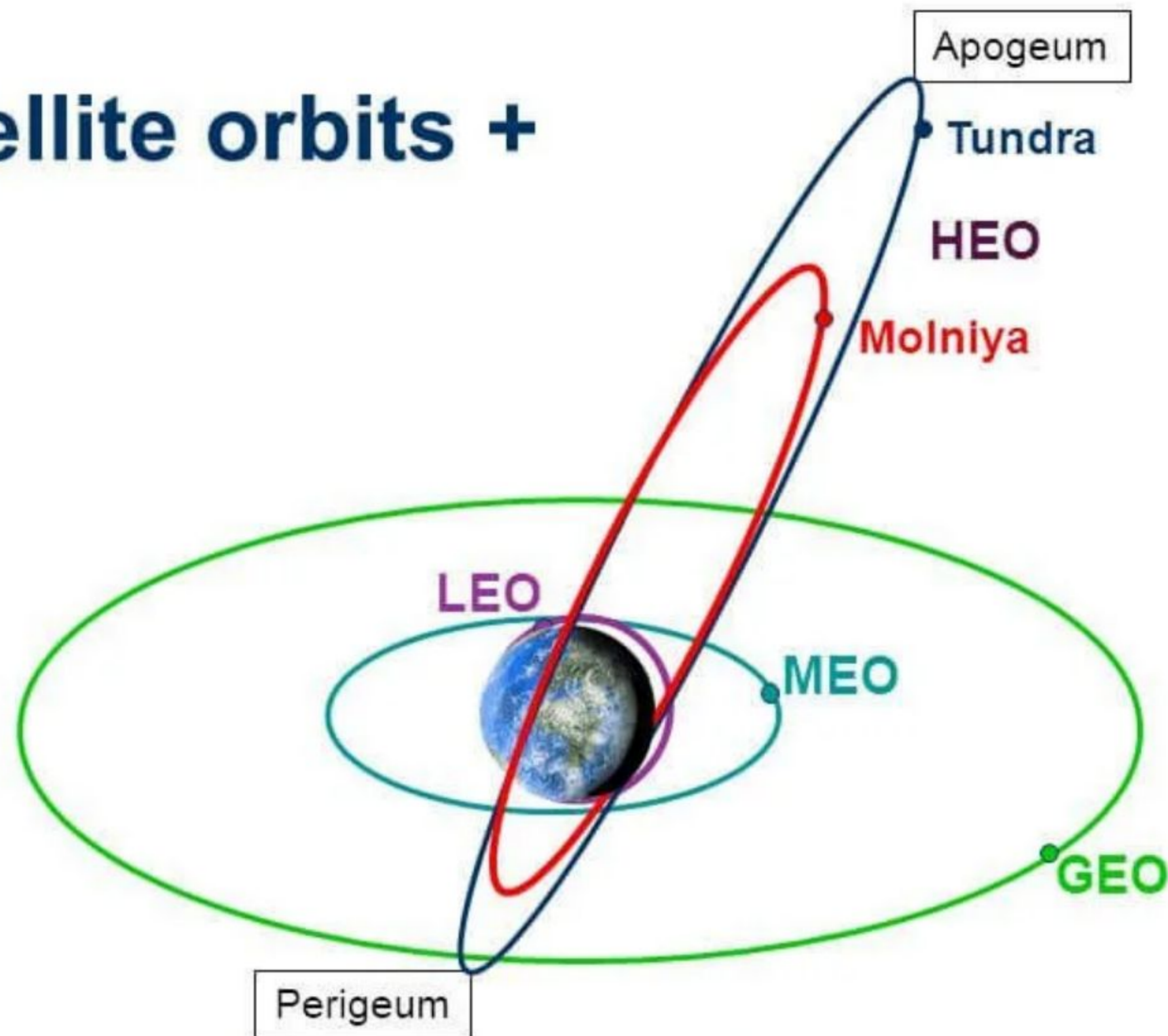
■ Kosmos 2510 ·
 ■ Kosmos 2518 ·
 ■ Kosmos 2541 ·
 ■ Kosmos 2546 ·
 ■ Earth



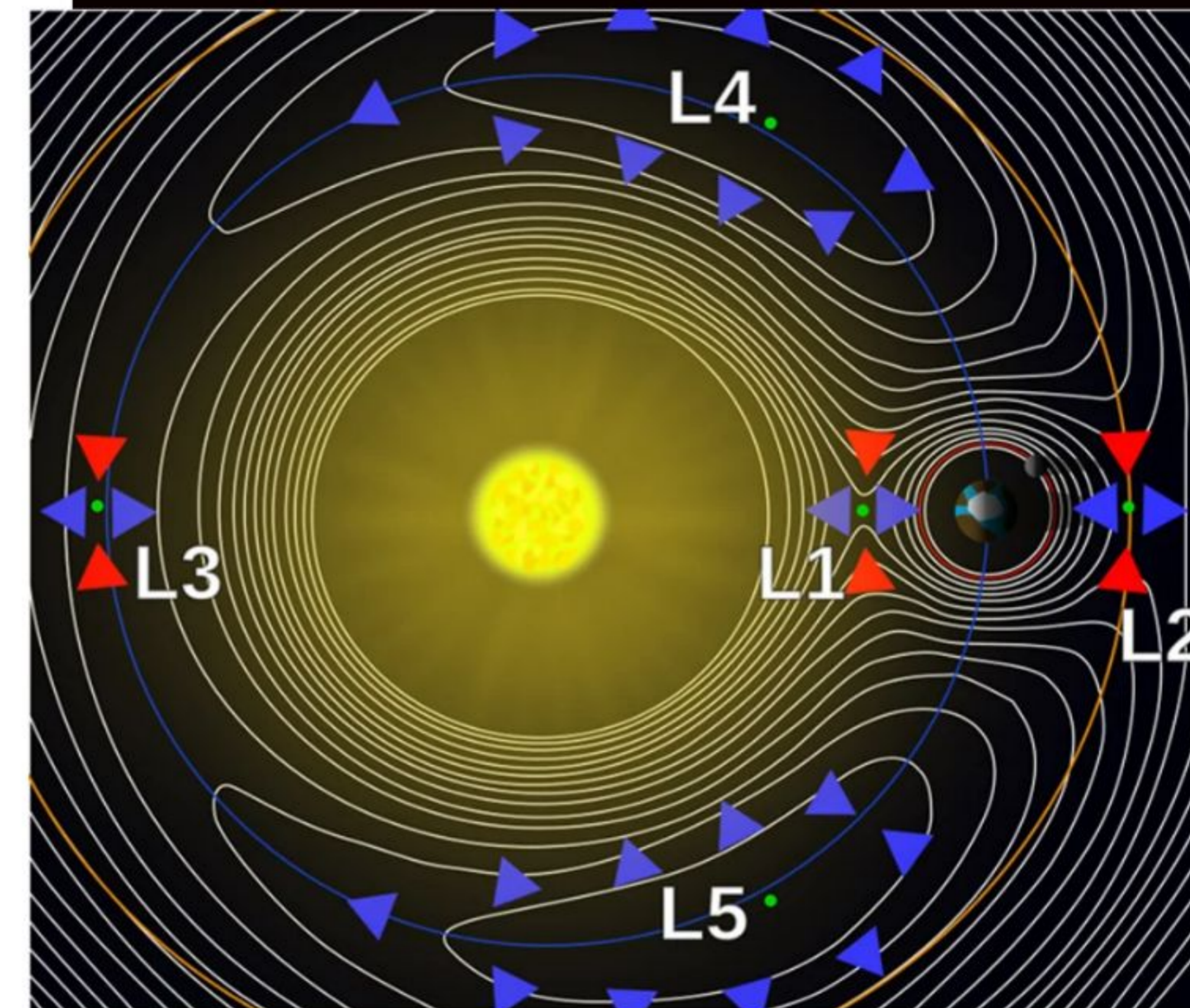
Wat is de naam van deze orbit?



Satellite orbits +



- LEO: Low Elliptical Orbit (Height: 200 - 2000 km)
- MEO: Medium Elliptical Orbit (Height: 2.000-GEO, normally: 10.000-20.000 km)
- GEO: Geostationary Orbit (Height: 35.786 km)
- HEO: High Elliptical Orbit (Height: 500-50.000 km)



Wat is de grootste raket ooit in de ruimte geweest?

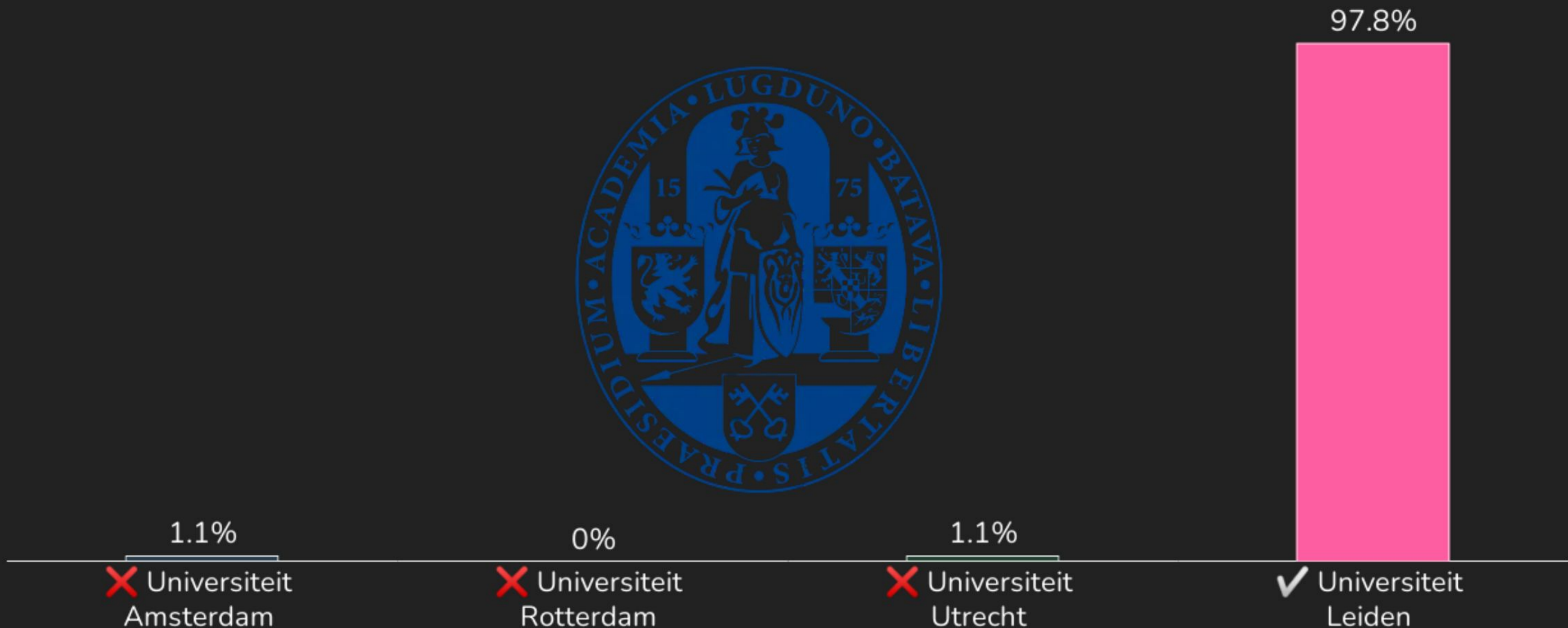




Bonusvraag 1



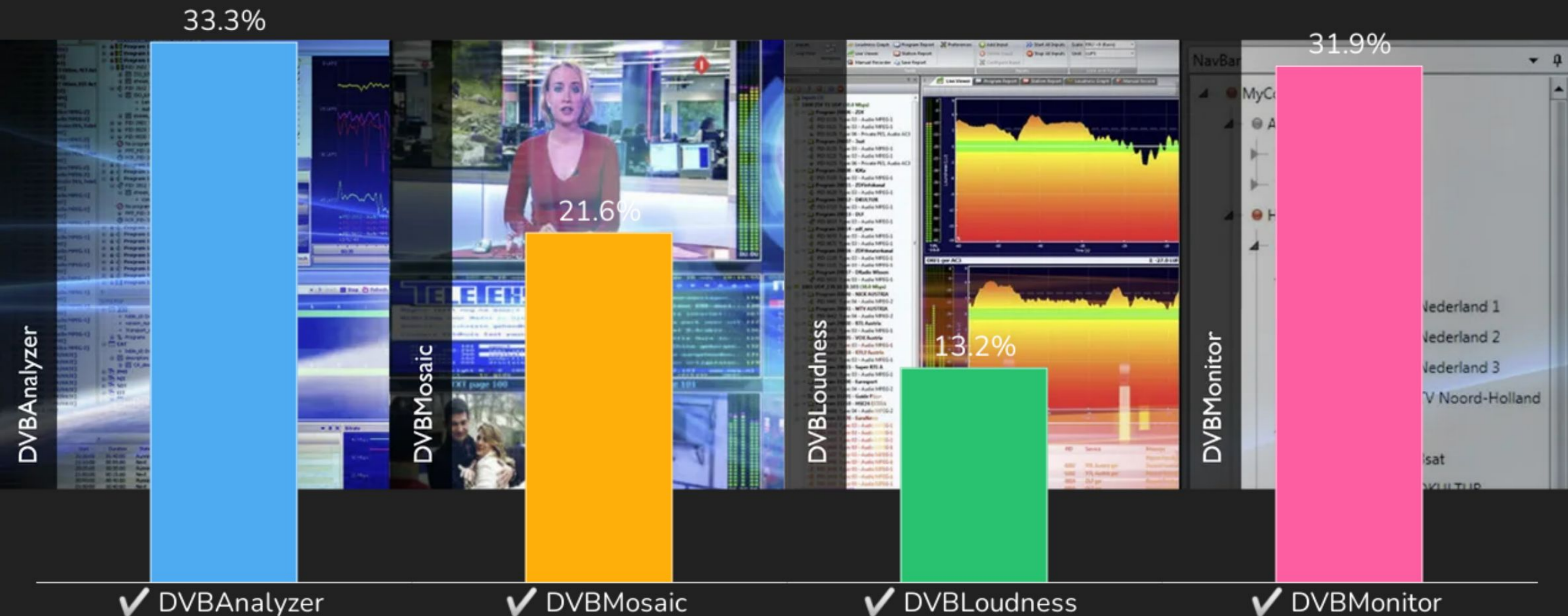
Welke universiteit lanceerde in 2018 het MULTIPLY platform om informatiestromen van nieuwste ESA-satellieten te integreren voor aardobservaties.



Bonusvraag 2





Wat is de beste satelliet DVBcontrol software?









Leaderboard

98 players

 x 7  Santi holds the longest streak record!

Tim L

1	 Tim L		801p +528
2	 Santi		776p +508
3	 Alex Bevan		721p +517
4	 EricM		645p +464
5	 Lewis		610p +400

801 points



Wat zijn leuke onderwerpen voor de volgende DGs?

