

stellar times

humanity's journey to the moon, mars, and beyond · baa.business

THE LEAD

nasa's chief likes the odds that mars once had life.

NASA's chief sees "a very good chance" that Mars samples will show past life, but the US plan to bring them home is cancelled. our call: China's Tianwen-3 brings the first Mars rock to a lab on Earth.

THE EDITION, ONE LINE EACH

next five years. uncrewed missions lead to the Moon, Mars, Jupiter and Titan. our call: a crew walks on the Moon in sep 2028 and on Mars in jun 2029.

computers in orbit. the first computers in orbit carry about 1 kW each. our call: about 1 GW in orbit by the end of 2030, with heat as the hard limit.

starlink. about eleven thousand working Starlink satellites fly in thin shells a few hundred kilometers up.

tonight. a Mars day runs about 40 minutes longer than ours, and a radio message takes minutes to get there.

projections. our base case for 2030: about 1 GW of computing in orbit, and satellites serve about 1 in 65 people online, up from about 1 in 270.

the briefs. 15 short stories: crewed dates, Moon and Mars landers, computers in orbit, new money for rockets, and internet from space.

BEN'S COUNTDOWN TO MARS

06/28/2029

baa's bet: first humans on mars 06/28/2029, at Arcadia Planitia. 998 days from 10/04/2026.

BAA'S BETS

late 11/2026	Starship Flight 15 makes the first ship catch at the launch tower	LOW
04/15/2027	the first uncrewed Starship lands on the Moon	LOW
07/01/2027	the first Starship lands on Mars	LOW
09/15/2028	Artemis IV: the first crew lands on the Moon in a Starship	LOW
06/28/2029	the first human steps onto Mars, at Arcadia Planitia	LOW
04/11/2030	Europa Clipper enters orbit around Jupiter	HIGH
03/07/2031	Europa Clipper makes its first close flyby of Europa, just over 200 km up	HIGH
end of 2030	about 1 GW of computing in orbit, all operators (base case; range 20 MW to 15 GW)	LOW
2031	the first Mars rock in a lab on Earth is China's, from Tianwen-3	MEDIUM
2055	the first probe melts through Europa's ice and looks for life in its ocean (launch about 2047)	LOW

confidence: BAA confidence that the date holds within about 3 months. "our call" is a BAA estimate from public sources.



MORE ONLINE

the full stories, the orbit dial, the math for every countdown row, all 22 of baa's bets and every source:

baa.business/stellar-times/v2

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