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Moon Bases 2026

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Multiple national agencies and private companies now project operational moon bases beginning in the 2030s, with some political roadmaps calling for initial outposts as early as 2028. Most plans envision incremental buildup: short stays late in the 2020s, then more permanent, power-rich research and industrial sites through the 2030s–2040s.

NASA's Artemis campaign aims to return crews and gradually extend surface stays, with an Artemis Base Camp concept at the south pole that adds power, radiation shielding, rovers, and a habitat supporting crews for up to about a week at a time. A recent U.S. space policy under President Donald Trump sets a political goal of a prototype "Golden Dome" moon base by 2028, though the document is light on technical detail and depends on budget and program execution.

Concepts from commercial players like SpaceX and others center on using heavy-lift vehicles and reusable landers to pre-position cargo and possibly convert landed vehicles into habitable volume, but these remain at the proposal stage.

The 2030s are the most common target for the first continuously operated bases, especially at the lunar south pole.

China and Russia's International Lunar Research Station (ILRS) roadmap calls for long-term robotic and then crewed operations, with a "basic" south-pole complex targeted for completion around 2035.
ILRS utilization missions in the early 2030s (ILRS-1 to 5) focus on establishing command, energy, telecoms, in-situ resource utilization (ISRU) infrastructure, and scientific facilities, using heavy-lift launchers like Long March 9. China and Russia are studying a nuclear reactor on the lunar surface by about 2035 to power the base, signaling an expectation of multi-kilowatt to megawatt-class continuous power needs.

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Some countries frame lunar bases in explicitly economic terms beyond pure research. South Korea's roadmap upgrades earlier plans for a robotic lander into a more capable program aimed at a "lunar economic base" by 2045, built on precursor landings planned around 2032–2040. Broader "moon mining" concepts anticipate the Moon as an industrial satellite for manufacturing, mining, and habitation, underpinned by surface fission power to support energy-intensive activities.

Different actors emphasize different mission profiles rather than one uniform base type.
Research outposts: Focused on geology, astronomy, and human-factors research, typically small crews with rotating occupancy and strong reliance on Earth resupply.
Resource and industrial sites: Target water ice and regolith for propellant, construction materials, and power, potentially acting as logistics hubs for cislunar traffic.
Distributed camps: NASA is studying multiple smaller camps at different lunar locations, rather than a single south-pole base, to diversify science targets and launch-window options.

Timelines are aspirational and hinge on several factors.
Budget and politics: Deadlines like 2025–2028 for robust surface infrastructure depend on sustained funding and political support across multiple administrations and partners.
Technology readiness: Long-duration life support, surface nuclear power, ISRU, and heavy-lift launchers (e.g., Long March 9) must mature and demonstrate reliability in hostile lunar conditions.
International coordination: Multi-partner ventures such as Artemis and ILRS require governance frameworks, standards, and agreements on resource use, which are still evolving.

Overall, the most defensible projection is: brief, repeat crew stays with limited infrastructure in the late 2020s; the first continuously operated, power-rich research bases in the 2030s; and early economic/industrial moon bases by the 2040s if technical, financial, and political conditions hold.