



The Sound of Space

EP. 20 - TECH IN SPACE - A CHRONICLE OF SPACE STATIONS (PART II)

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01:13 Operational Stations - ISS, Tiangong Space Station

- [1] K. Mars, "Space station 20th: Historical origins of ISS," *NASA*, January 22, 2020. [Online]. Available: <https://www.nasa.gov/feature/space-station-20th-historical-origins-of-iss>.
- [2] D. M. Harland, "International Space Station," *Encyclopædia Britannica*, April 29, 2020. [Online]. Available: <https://www.britannica.com/topic/International-Space-Station>.
- [3]" Canadian science on the International Space Station," Canadian Space Agency, June 12, 2018. [Online]. Available: <https://www.asc-csa.gc.ca/eng/iss/science/why-do-we-conduct-science-experiments-in-space.asp>.
- [4] A. Witze, "Astronauts have conducted nearly 3,000 science experiments aboard the ISS," *Nature News*, November 3, 2020. [Online]. Available: <https://www.nature.com/articles/d41586-020-03085-8>.
- [5] E. Lutz, "A tour of China's Tiangong Space Station," *The New York Times*, September 22, 2021. [Online]. Available: <https://www.nytimes.com/interactive/2021/science/tiangong-space-station.html>.
- [6] S. Mallapaty, "China's space station is preparing to host 1,000 scientific experiments," *Nature News*, July 23, 2021. [Online]. Available: <https://www.nature.com/articles/d41586-021-02018-3>.

19:16 Planned/ Proposed Future Stations - Lunar Gateway, Axiom Station, Russian Orbital Service Station

- [7] NASA, "Gateway", *nasa.com*, November 2022. [Online]. Available: <https://www.nasa.gov/gateway/overview>
- [8] D. Hartman, "All you need to know about NASA's Lunar Gateway", *BBC Sky at Night Magazine*, October 2022. [Online]. Available: <https://www.skyatnightmagazine.com/space-missions/nasa-lunar-gateway/>
- [9] Axiom Space. [Online]. Available: <https://www.axiomspace.com/>.
- [10] Guardian News and Media, "Russia unveils model of proposed Space Station after leaving ISS", *The Guardian*, August 15, 2022. [Online]. Available: <https://www.theguardian.com/world/2022/aug/15/russia-unveils-model-space-station-iss-roskosmos-age-ncy>.
- [11] B.Kirk, "Russian Orbital Service Station: Russia's defiant successor to the ISS launching in 2026", *autoevolution*, October 14, 2022. [Online]. Available:

<https://www.autoevolution.com/news/russian-orbital-service-station-russia-s-defiant-successor-to-the-iss-launching-in-2026-201309.html>.

29:11 Planned/ Proposed Future Stations- Starlab Space Station, Orbital Reef Station

- [12] M. Wall, "Meet Starlab: Private space station planned to fly in 2027 ", Space.com, October 21, 2021 . [Online]. Available: <https://www.space.com/starlab-private-space-station-earth-orbit>.
- [13] TAdviser, "American companies create the first independent space station", TAdviser.ru, 2021. [Online]. Available: [https://tadviser.com/index.php/Company:Starlab_\(space_station\)](https://tadviser.com/index.php/Company:Starlab_(space_station)).
- [14] L. Alaieva, "Airbus will create a commercial Starlab station", The Universe. Space. Tech, January 5, 2023. [Online]. Available: <https://universemagazine.com/en/airbus-joins-starlab-orbital-station-project/>.
- [15] "A new-era space destination", Starlab, April 7, 2023. [Online]. Available: <https://starlab-space.com/>.
- [16] "Blue Origin and Sierra Space Developing Commercial Space Station", Blue Origin, May 19, 2023. [Online]. Available: <https://www.blueorigin.com/news/orbital-reef-commercial-space-station/>.
- [17] Orbital Reef, "Orbital Reef will be the premier mixed-use space station in low Earth orbit for commerce, research, and tourism by the end of this decade", orbitalreef.com. [Online]. Available: <https://www.orbitalreef.com/>.
- [18] M. Sheetz, "Bezos' Blue Origin Unveils Private Space Station "Business Park" to be deployed later this decade" , CNBC, October 26, 2021. [Online]. Available: <https://www.cnbc.com/2021/10/25/jeff-bezos-blue-origin-unveils-ocean-reef-private-space-station.html>.

34:45 Planned/ Proposed Future Stations- ISRO Space Station, Lunar Orbital Station, Northrop Grumman Station

- [19] S. Tiwari, "India's Space Station: As China set to become the only country with a space station, will ISRO hit its 2030 deadline?," Eurasian Times , January 17, 2022. [Online]. Available: <https://eurasianimes.com/china-exclusive-space-station-will-indian-isro-meet-its-2030-deadline>.
- [20] A. Zak, "Lunar Orbital Station", Los, July 8, 2022. [Online]. Available: <https://www.russianspaceweb.com/los.html>.
- [21] "*Commercial space station*", Northrop Grumman, May 4, 2023. [Online]. Available: <https://www.northropgrumman.com/space/commercial-space-station/>.
- [22] "*Northrop Grumman and rhodium scientific to collaborate on Bio-Tech and Bio-Pharma research in low-earth orbit*", Northrop Grumman, February 2, 2023. [Online]. Available: <https://www.northropgrumman.com/space/commercial-space-station/related-news/northrop-grumman-and-rhodium-scientific-to-collaborate-on-bio-tech-and-bio-pharma-research-in-low-earth-orbit/>.