

CENJOWS

SPACE TECHNOLOGY – CHINESE LONG MARCH 8

1. **China Launches Long March 8 Rocket on Debut Flight, Plans for Reusable Booster.** China has embarked on new rocket boosters on the Long March 8 that will eventually be reusable and make upright landings similar to SpaceX's Falcon 9. The new two-stage rocket uses two side boosters, with its main stages based on the designs of other Chinese rockets. The first stage is based on the Long March 7 and the second stage is based on the Long March 3.
2. The **first long march 8** was launched from the Wenchang Spacecraft Launch Site in south China's Hainan province on 20 Dec 20 at 11:37 p.m. EST. The **rocket successfully flew five test satellites into orbit, and used environmentally friendly liquid hydrogen and liquid oxygen fuels for the launch.**
3. *Presently, it is not clear that whether first rocket was reusable, but China has disclosed plans to reuse long march 8 booster in the coming years. The Long March 8 rocket is designed for the international commercial space launch market and is expected to fill a gap in launch capabilities for low- and medium-orbit satellites either to geosynchronous orbits (allowing for gazing consistently at one area of Earth) or to sun-synchronous orbits (which allows for consistent lighting conditions for imaging), depending on the mission needs.*
4. The reusable boosters of the rocket will significantly reduce costs and shorten the launch cycle. **It is estimated that to turn around a booster for another launch would be possible within 10 days.**¹

¹ <https://www.space.com/topics/china-space-program>

5. The Indian Space Research Organization (**ISRO**) **too has outlined plans to develop reusable rockets along with other areas** in space launches namely, development of heavy lift launchers, advanced propulsion and to foster private space activities across the 2020s.²

² <https://spacenews.com/india-aims-for-reusable-rockets-advanced-propulsion-in-decadal-spaceflight-plan/#:~:text=HELSINKI%20%E2%80%94%20The%20Indian%20Space%20Research,space%20activities%20across%20the%202020s.&text=Every%20ISRO%20center%20and%20unit,been%20laid%20out%20in%20brief>.