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CHINA'S BEIDOU SATELLITE NAVIGATION SYSTEM

China Launches Final Beidou Satellite to Complete GPS-Like Navigation System.

1. On 23 June China successfully launched the final member in its Beidou satellite constellation. With this launch it has completed a new global navigation system which took a decade in the making.

2. The satellite was launched with long march 38 rocket from the Xichang Satellite Launch Center in southwest China after a weeklong delay due to a technical problem with the rocket.

3. China began developing its Beidou satellite system in the 1990s, with the first satellite launching in October 2000. A lengthy upgrade of the system beginning in 2009, the latest version called BDS-3, consists of 30 satellites for applications ranging from high-precision positioning to short message communications. The current launch completed 30 satellite in the Beidu-3 system. As per the Global times the BDS-3 has "higher bandwidth, enabling enhanced communication capability and carrying more accurate ... atomic clocks to improve the precision of timing and navigation services" when compared to BDS-3 predecessor systems.

4. China's BDS-3 network completion comes as the United States works to modernize its own satellite Global Positioning System (GPS). The ongoing coronavirus pandemic has delayed the next GPS III satellite launch to June 30, from a planned April launch. The U.S. GPS III network upgrade, an improvement over its predecessor GPS II, should be completed by 2023.

5. Two other global navigation systems are also competing with China's Beidou

system. Russia has its Glonass-M navigation satellites to serve Russian military services on land, air and sea. Europe's Galileo system became operational in 2016 and is expected to launch its last satellites late in 2020, according to the European Space Agency.