

India's satellite-based navigation system, NavIC, is as good as GPS of USA: MoS

By TIOL News Service

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MoS says, India's satellite-based navigation system, NavIC, is as good as GPS of the United States in terms of position accuracy and availability in its service region.

Replying to a question in the Rajya Sabha, Union Minister of State (Independent Charge) Science & Technology; Minister of State (Independent Charge) Earth Sciences; MoS PMO, Personnel, Public Grievances, Pensions, Atomic Energy and Space, Dr Jitendra Singh said that NavIC can help in navigation on land, air, sea and also in disaster management.

NavIC satellites are placed at a higher orbit than the GPS of United States. NavIC satellites are placed in geostationary orbit (GEO) & geosynchronous orbit (GSO) with an altitude of about 36,000 km; GPS satellites are placed in medium earth orbit (MEO) with an altitude of about 20,000 km.

NavIC uses dual frequency bands, which improves accuracy of dual frequency receivers by enabling them to correct atmospheric errors through simultaneous use of two frequencies. It also helps in better reliability and availability because the signal from either frequency can serve the positioning requirement equally well.

At the time of inception, an indigenously developed satellite navigation system was conceptualized to cater to requirements of critical national applications, including those of defence and commercial establishments. Hence the coverage area was designed to cover Indian Territory and surrounding 1500 km of Indian borders. The needs of critical national applications do evolve with time and efforts are continuously made to meet these requirements, including from the point of view of coverage.