

US plan to transmit the internet in Cuba via high-altitude balloons

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In news- US plans to transmit the Internet to people in Cuba via high-altitude balloons when their government has blocked access.

Key updates-

- From December 2018, Cubans are getting Internet access on their phones through the state telecom monopoly.
- But the Cuban government restricts independent media and censors what's available to Cubans online.

Project Loon-

- Started in 2011 by Alphabet, the parent company of Google.
- The system aimed to bring Internet access to remote and rural areas poorly served by existing provisions, and to improve communication during natural disasters to affected regions.
- The Loon balloons were effectively **cell towers the size of a tennis court.**
- The balloons are maneuvered by adjusting their altitude in the stratosphere to float to a wind layer after identifying the wind layer with the desired speed and direction using wind data from the National Oceanic and Atmospheric Administration (NOAA).
- Users of the service connect to the balloon network using a special Internet antenna attached to their building.
- The signal travels through the balloon network from balloon to balloon, then to a ground-based station

connected to an Internet service provider (ISP), then into the global Internet.

- They floated 60,000 to 75,000 feet above the Earth.
- They were made of the plastic polyethylene, and the balloons **used solar panels for electricity** and could deliver service to smartphones in partnership with a local telecom.
- Though each balloon could serve thousands of people, they had to be **replaced every five months or so because of the harsh conditions in the stratosphere.**
- Navigating balloons through the stratosphere was also considered difficult.
- The project **shut down in January, 2021** as it wasn't commercially viable.
- Some of the technology developed by Loon LLC lives on as **Project Taara.**

Following the shutdown of the Project Loon, Project Taara which started its **pan-African rollout in Kenya** will continue to provide high-speed internet to unconnected and under-connected communities in Kenya.

However, according to the experts, it would not be that easy to set up a guerrilla Internet service for Cuba through balloons. It would need an unused band of spectrum, or radio frequencies, to transmit a connection to Cuba, and spectrum use is typically controlled by national governments.