



New space industry emerges

Posted at: 19/11/2018

New space industry emerges: servicing satellites in orbit-Fixing them is more profitable to companies than relaunching new ones

- Imagine an airport where thousands of planes, empty of fuel, are left abandoned on the tarmac.
- That is what has been happening for decades with satellites that circle the earth.
- When satellites run out of fuel, they can no longer maintain their precise orbit, rendering them useless even if their hardware is still intact.
- In recent years, new aerospace companies have been founded to try and extend the lifespan of satellites, on the hunch that many clients would find this more profitable than relaunching new ones.
- In 2021, Space Infrastructure and Civil Space company will launch a vehicle that is capable of servicing two to three dozen satellites in a distant geostationary orbit, some 36,000 km from the earth.
- This unmanned spacecraft will be able to latch onto a satellite to inspect it, refuel it, and possibly even repair it or change components, and put it back in the correct orbit.
- Intelsat, which operates 50 geostationary satellites, chose a different option and signed a contract with Space Logistics for its Mission Extension Vehicle (MEV).
- When it launches in 2019, the spacecraft will attach itself to a broken down satellite, and reposition it in its correct orbit.
- The MEV will stay attached and use its own engine to stay in orbit.
- On-orbit servicing could also help cut down on the perplexing problem of mounting space debris.

Too much debris

- The rest includes nearly 3,000 inactive satellites, 2,000 pieces of rockets and thousands of fragments produced by two key events: the deliberate missile explosion of a Chinese satellite in 2007, and the 2009 collision of an Iridium satellite with an ageing Russian one.

- A small Japanese company founded in 2013, Astroscale, is developing a system to approach and capture space debris and broken satellites.

The Hindu

