



Space Traffic Management and New Space Update

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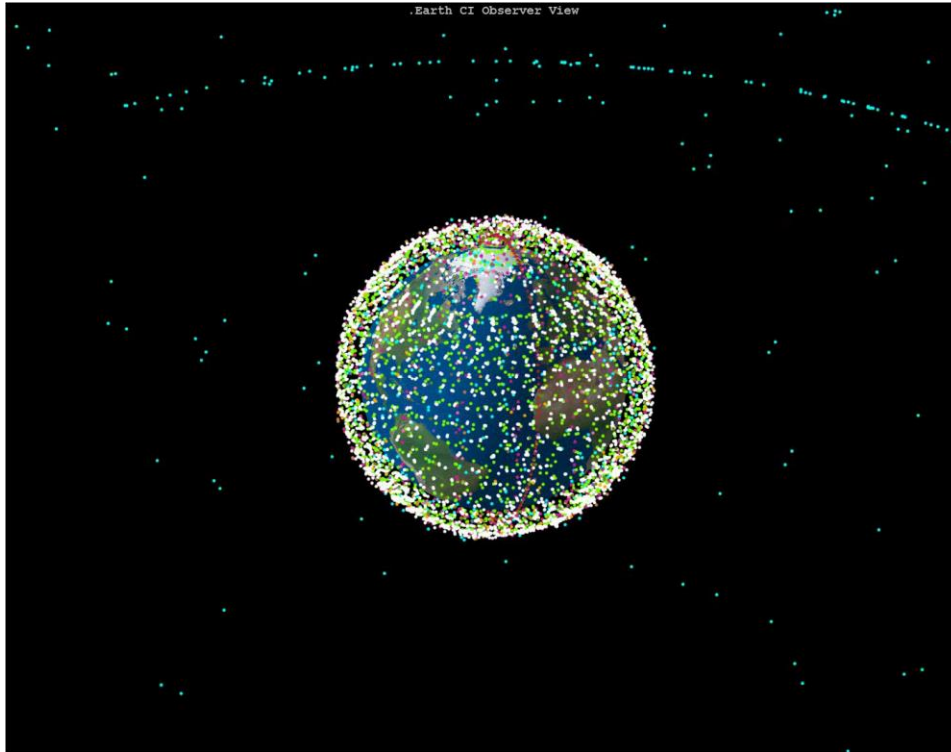
5 June 2019



Many Large Constellations are Proposed

As many as 20,000 new satellites in the next decade

Some possible new constellations



| Operator | Num sats | Alt (km) | Country |
|-----------------|----------|-----------|-----------|
| SpaceX V-band | 7518 | 335-345 | US |
| Capella | 48 | 350-650 | US |
| Planet Swift | 6 | 350-650 | US |
| Black Sky | 60 | 450 | US |
| Satelogic NuSat | 300 | 500 | Argentina |
| Kepler | 140 | 550 | US |
| SpaceX Starlink | 1584 | 550 | US |
| Skybox | 30 | 576 | US |
| Fleet | 100 | 580 | Australia |
| Amazon Kuiper | 3236 | 590-630 | US |
| Commsat | 800 | 600 | China |
| Kineis | 20 | 600 | France |
| Yalini | 135 | 600 | Canada |
| Spire | 100 | 651 | US |
| Planet Doves | 150 | 675 | US |
| Orbcomm | 31 | 750 | US |
| Iridium | 72 | 780 | US |
| Theia | 112 | 800 | US |
| Lucky Star | 156 | 1000 | China |
| Telesat LEO | 72 | 1000 | Canada |
| Boeing | 4008 | 4025 | US |
| Hongyan | 300 | 1100 | China |
| Xinwei | 32 | 1100 | China |
| SpaceX Starlink | 2825 | 1110-1325 | US |
| OneWeb | 720 | 1200 | ESA |
| Telesat LEO | 45 | 1248 | Canada |
| Boeing | 4948 | 4275 | US |
| Astrome Tech | 600 | 1400 | India |
| LeoSat | 108 | 1400 | US |
| Globalstar | 40 | 1412 | US |
| Samsung | 4500 | 4500 | Korean |

We will see a fundamental change in the LEO environment – Business as Usual will not work anymore

New large constellations will change the profile of LEO space

