

Soyuz 2.1b launched Russian Early Warning Satellite

November 29, 2021

In news- Recently, a Soyuz 2.1b rocket launched the Tundra 15L early warning satellite for the Russian Ministry of Defence.

About Tundra 15L-

- The rocket was **launched from the Plesetsk cosmodrome in Russia's Arkhangelsk region.**
- Believed to be an **early warning anti-missile system (satellite), the payload has been placed into orbit.**
- It would travel in a highly elongated orbit with the parameters of 1626 km × 38552 km.
- It will **detect and provide information to the Russian military on potential ballistic missile launches towards the country.**
- The Tundra 15 will join the four Tundra satellites currently orbiting Earth.
- The first Tundra 11L in this sequence was launched on November 17, 2015, also with the Soyuz-2.1b rocket.
- The next two satellites were launched in 2017 and 2019, respectively.

About Soyuz-2-

- It is a modernized version of the Soviet Soyuz rocket.
- In its basic form, **it is a three-stage launch vehicle for placing payloads into low Earth orbit.**
- Compared to the previous versions of the Soyuz, the first-stage boosters and two core stages feature upgraded engines with improved injection systems.
- Soyuz-2 is often flown with an upper stage, which allows it to lift payloads into higher orbits, such as Molniya and geosynchronous orbits.
- The 2.1b version adds an upgraded engine (RD-0124) which

greatly increases the specific impulse of the upper stage and hence improves payload capability from 7 tonnes to 8.2 tonnes.