Sentinel-6B

Prelims: *Current events of national and international importance | Conservation*

Why in News?

Sentinel-6B was launched recently from the Vandenberg Space Force Base in California.

- **Mission Name -** Copernicus Sentinel-6 (also known as the Jason-CS mission, for Continuity of Service).
- **Aim** - It is an ocean-tracking satellite to measure the rising sea levels and their impacts on the planet.
- It is the latest in a series of satellites launched since the 1990s.
- **Twin Satellite -** It is the twin of the first satellite, Sentinel-6 Michael Freilich (originally Sentinel-6A), which launched in November 2020.
- **Agency** – It is a joint mission between the United States' NASA and the National Oceanic and Atmospheric Administration, and the European Space Agency.
- **Orbiting speed** – It will orbit Earth at a speed of 7.2 km per second, completing one revolution every 112 minutes.
- **Coverage** - It maps more than 90% of the world's ice-free oceans every 10 days.
- **Additional Measurements**
- Beyond sea level, the satellite also collects data on:
    - **Ocean Dynamics-** It measures significant wave height and wind speed over the oceans to support operational oceanography and forecasting.
    - **Atmospheric Data** -It collects high-resolution vertical profiles of temperature and humidity in the atmosphere using the GNSS Radio Occultation instrument, which helps to improve weather prediction models and climate assessment.
    - **Inland Water -** The altimetry data can also be used to monitor the height of major rivers and lakes.

- **Significance** -It is expected to improve the accuracy of weather forecasts, including storm and flood predictions, enabling administrators to make better real-time decisions to safeguard public property and protect coastal infrastructure.

Reference

The Indian Express | Sentinel-6B