



Falcon Heavy Rocket

Why in News?

Recently, **SpaceX launched the Falcon Heavy rocket into a [geosynchronous Earth orbit](#)** from Launch Complex 39A at the Kennedy Space Center in Florida, US.

- This is the **fourth launch of the giant rocket system**, and the first one in nearly three years since its last launch in 2019.

What is the Current Mission?

- The rocket is carrying satellites to space for the U.S. military in a mission named as **US Space Force (USSF)-44**.
 - The mission deployed **two spacecraft payloads**, one of which is the **TETRA 1 microsatellite** created for various prototype missions in and around the geosynchronous earth orbit. **The other payload is for national defence purposes.**
 - It will place the satellites for the **Space Systems Command's Innovation and Prototyping.**

What is the Falcon Heavy Rocket?

- SpaceX claims Falcon Heavy to be the **most powerful rocket in the world** by a factor of two.
- The rocket has a **height of 70 m, a width of 12.2 m** and a **mass of 1,420,788 kg**.
- Falcon Heavy has **27 Merlin engines** which together generate more than **five million pounds of thrust at lift-off**, equaling around eighteen 747 aircraft at full power which makes it the most capable rocket flying.
 - Merlin is a **family of rocket engines developed by SpaceX** for use on its Falcon 1, **Falcon 9 and Falcon Heavy launch vehicles.**
 - Merlin engines use **RP-1 and liquid oxygen as rocket propellants** in a gas-generator power cycle.
 - These engines were **designed for recovery and reuse.**
- The rocket has a **lifting capacity of around 64 metric tonnes** into orbit.
- The Falcon Heavy **uses three boosters for added thrust and lift capacity.**
- SpaceX last **[launched its Falcon Heavy rocket in June 2019](#)** from NASA's Kennedy Space Center.
 - It carried **24 satellites** as part of the Department of Defense's Space Test Program-2.

[Source: TH](#)