

6. Working of In-flight Wi-Fi Services

Prelims Syllabus: Scientific Exploration

Mains Syllabus: Science and Technology - developments and their applications and effects in everyday life Achievements of Indians in Science & Technology; Indigenization of Technology and developing New Technology.

Why in News?

- The government has permitted airlines operating in India to provide in-flight Wi-Fi services to passengers.
- This move comes after the Telecom Commission had given its green signal to in-flight connectivity of Internet and mobile communications on aircraft in Indian airspace in 2018.

Who Can Permit?

- The pilot may permit the access of Internet services by passengers on board an aircraft in flight, through Wi-Fi on board, when laptop, smartphone, tablet, smart watch, e-reader or a point of sale device is used in flight mode or airplane mode.

How in-flight Connectivity Works?

- In-flight connectivity systems use two kinds of technologies– terrestrial and satellite internet services.
- Once flight mode is activated, the plane's antenna will link to terrestrial Internet services provided by telecom service providers.
- Then, when the aircraft has climbed to 3,000 m, the antenna will switch to satellite-based services.
- This way, there will be no break in Internet services to passengers, and cross-interference between terrestrial and satellite networks will be avoided.

What are its Impacts?

- Globally, more than 30 airlines allow voice calls and internet access during flights. This facility will now will help Indian airlines compete with foreign carriers.
- Business travellers greatly value these services as they can continue their work commitments without any deterrence.
- Other travellers can be in touch with their near and dear ones even during the flight.

What are the Challenges Faced?

- Airlines will have to bear the initial cost of installing antennae on aircraft. So, the additional cost could find a way into ticket prices.

- Apart from the equipment, airlines will have to bear additional fuel costs, given the extra weight and drag aircraft will face due to the antenna.
- Technology and laws allow calls to be made from aircraft, which in turn lead to noisy cabins.

