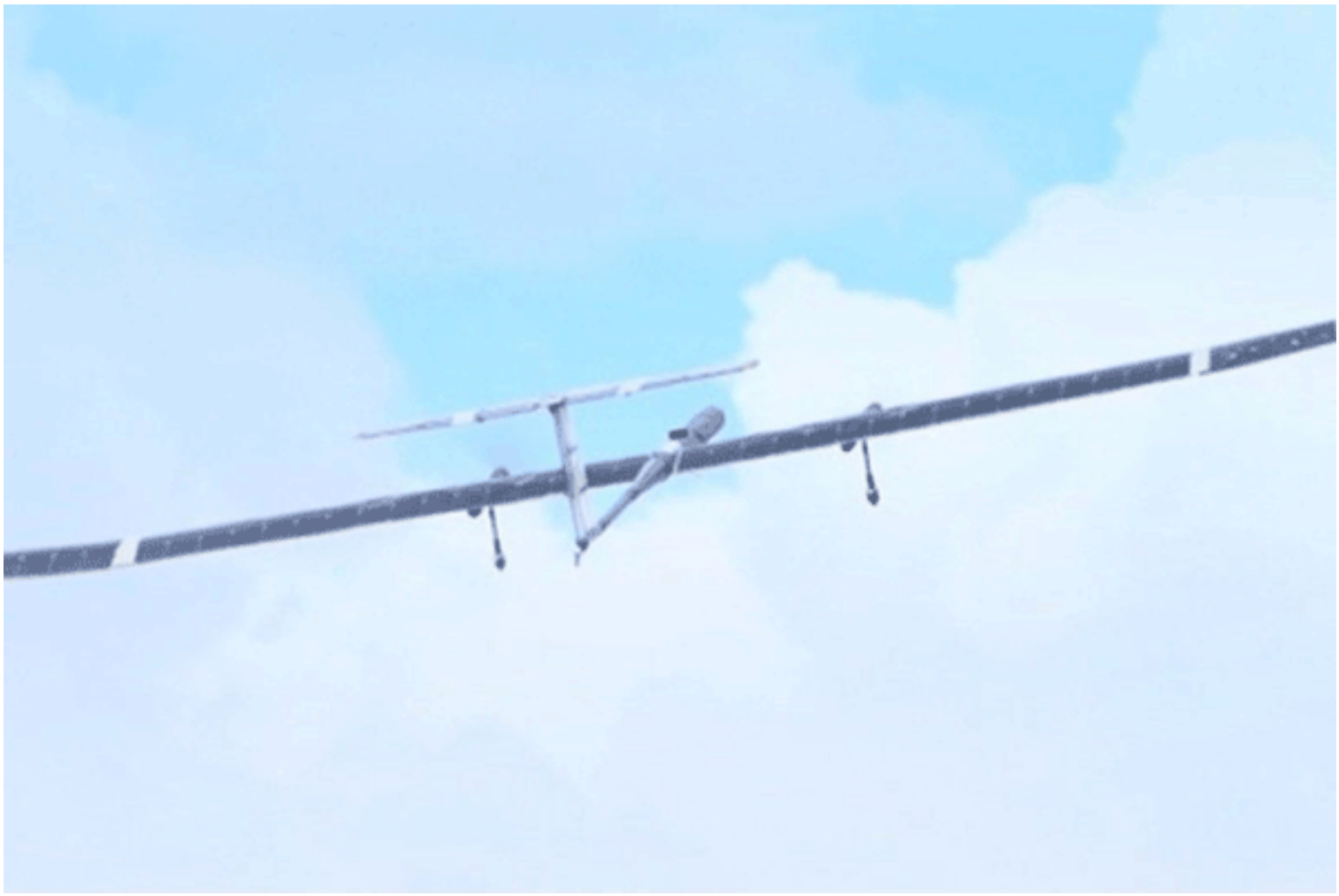
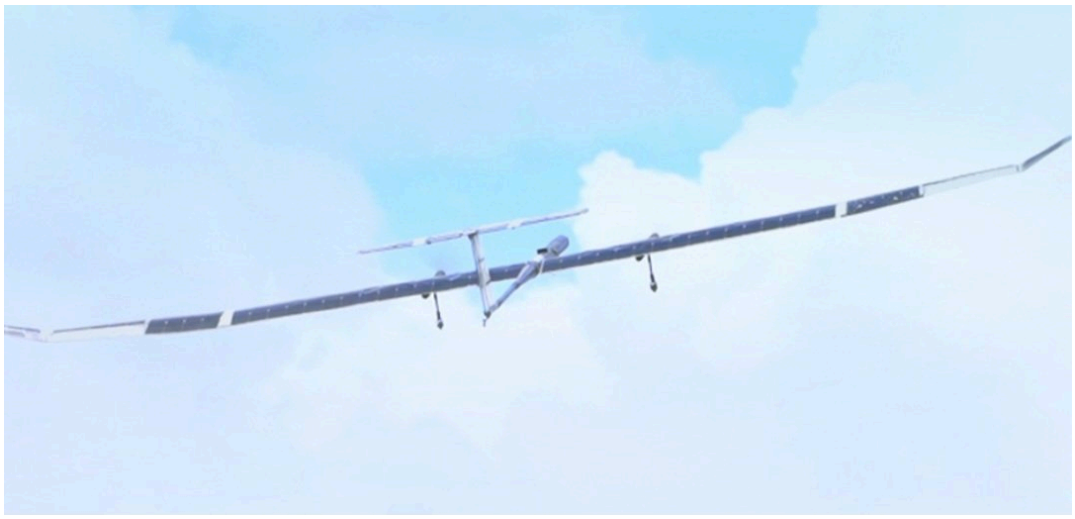
High-Altitude Pseudo Satellite Vehicle (HAPS)

By IASToppers | 2024-02-12 15:35:00



High-Altitude Pseudo Satellite Vehicle (HAPS)

THE National Aerospace Laboratories (NAL) in Bengaluru has completed the first test of a solar-powered High-Altitude Pseudo Satellite Vehicle (HAPS).



[Ref: X]

About High-Altitude Pseudo Satellite Vehicle (HAPS):

- The High-Altitude Pseudo Satellite Vehicle (HAPS) is a new-age **unmanned aerial vehicle (UAV)** developed by the **National Aerospace Laboratories (NAL)** in Bengaluru, India.
- It is designed to fly at altitudes of **18-20 km from the ground**, which is nearly double the heights achieved by commercial aeroplanes.
- It utilizes **solar power for propulsion**, enabling it to remain airborne for months or even years, akin to the capabilities of a satellite.
- Unlike traditional satellites, HAPS **does not** require a rocket to be launched into space, significantly reducing operational costs.
- NAL aims to further develop HAPS technology with the goal of achieving a deployment target by 2027.
- HAPS technology is considered crucial for **enhancing surveillance and monitoring capabilities** in border areas, especially following events like the **Doklam standoff in 2017**.
- Other countries, including **China, South Korea, and the UK**, are also engaged in developing similar high-altitude **pseudo-satellite vehicles**.
- Besides surveillance, HAPS can be utilized for **disaster management** and providing **mobile communications networks** in remote areas during calamities.

