



## MQ-9B UNMANNED AERIAL VEHICLE: SCIENCE & TECHNOLOGY

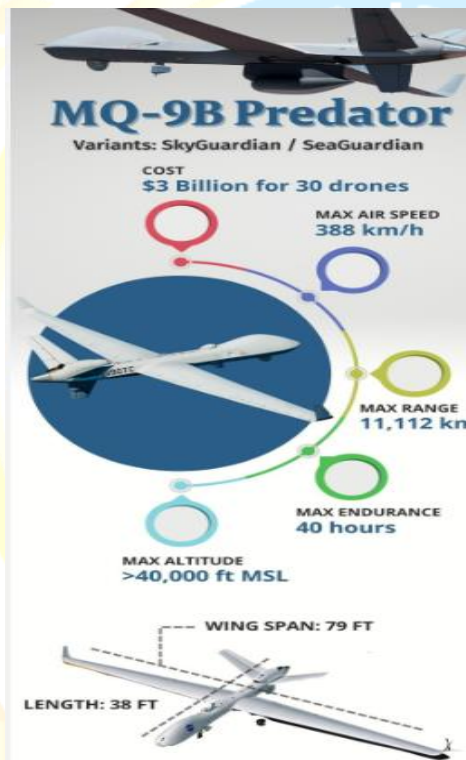
**NEWS :** CCS clears deals for 31 MQ-9B drones and submarines

### WHAT'S IN THE NEWS ?

The Cabinet Committee on Security has approved the acquisition of 31 MQ-9B UAVs and the indigenous construction of two nuclear attack submarines (SSNs). This decision underscores India's commitment to enhancing its defence capabilities across the three-armed services.

### MQ-9B High Altitude Long Endurance (HALE) UAVs:

- **Altitude:** Operates above 18,000 feet.



- **Endurance:** Can fly continuously for over 24 hours.
- **Applications:** Primarily used for Intelligence, Surveillance, Reconnaissance (ISR), and targeted strikes.
- **Notable Example:** MQ-9B, also known as the Reaper.
- **Features:** Equipped with advanced sensors, cameras, and real-time data transmission capabilities.



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- **Strategic Importance:** Enhances situational awareness and operational capabilities, reducing risk to human life in combat zones.

**MQ-9B**  
Predator Drones

Max Gross Takeoff Weight: **5,670 kg**  
Fuel Capacity: **2,721 kg**  
Payload Capacity: **2,177 kg across 9 hardpoints (8 wing, 1 centerline)**

**Crew:**  
Two pilots in ground control stations

**Weapons**  
Laser guided missiles  
Anti-tank missiles  
Anti-ship missiles

**Missions**

- Humanitarian Assistance/Disaster Relief
- Search and Rescue
- Law Enforcement
- Border Enforcement
- Defensive Counter Air
- Airborne Early Warning

**Missions**

- Electronic Warfare
- Anti-Surface Warfare
- Anti-Submarine Warfare
- Airborne Mine Counter Measures
- Long-Range Strategic ISR
- Over-the-Horizon Targeting

## Key Points on Nuclear Attack Submarines (SSNs):

- **Operational Role:** Provide second-strike capability in the event of a nuclear attack.
- **Indigenous Development:** India's SSBN fleet developed under the Advanced Technology Vessel (ATV) program.
- **Current Fleet:** INS Arihant (commissioned in 2016) and INS Arighaat (2023).
- **Displacement:** Typically displaces 6,000 to 7,000 tons.
- **Range:** Equipped with intercontinental ballistic missiles (ICBMs) with a range over 5,000 km.
- **Significance:** Enhances national security, deterrence, and ensures strategic autonomy.

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