

DRDO Upgrades SAAW with New Satellite Guidance for Enhanced Precision



India's Defence Research and Development Organisation (DRDO) is advancing its Smart Anti-Airfield Weapon (SAAW) programme with a major technological upgrade. The indigenously developed precision-guided glide bomb will now incorporate a Satellite Navigation (SATNAV) guidance system, enabling improved mid-course corrections and higher targeting accuracy for the Indian Air Force (IAF).

Originally designed as a “fire-and-forget” weapon, the SAAW relied on an inertial navigation system (INS) supported by GPS and GLONASS for targeting. With the addition of SATNAV, the weapon will be capable of adjusting its trajectory during flight, significantly enhancing precision, adaptability, and resilience against jamming attempts. This improvement is expected to extend its stand-off range and effectiveness against a broader range of targets.

According to sources familiar with the project, the upgraded system will allow the SAAW to engage not only fixed targets such as runways, aircraft shelters, and ammunition depots but also hardened, mobile, and time-sensitive targets. The ability to make in-flight corrections will be particularly valuable in contested environments where GPS signals may be degraded or disrupted.

A key part of this enhancement is the integration of India's own Navigation with Indian Constellation (NavIC) satellite system. By leveraging NavIC, DRDO aims to reduce reliance on foreign satellite networks, ensuring secure and reliable navigation. This aligns with the

Government of India's "Aatmanirbhar Bharat" initiative, which emphasises self-reliance in critical defence technologies.

The SAAW is already deployed on several IAF platforms, including the Jaguar, Su-30MKI, and HAL Tejas aircraft. The upgraded version will allow these strike aircraft to operate from greater distances, reducing exposure to enemy air defences while maintaining high precision. The upgrade is expected to provide the IAF with a strategic advantage in high-threat operational scenarios.

Developmental trials of the SATNAV-equipped SAAW are currently underway, with user trials expected within the next year. If successful, the integration could boost the IAF's precision strike capabilities and pave the way for future indigenous weapon systems, including advanced glide bombs and long-range cruise missiles.

By focusing on indigenous innovation and minimising reliance on foreign technology, DRDO's work reflects India's broader push to strengthen strategic autonomy in defence manufacturing. Once operational, the upgraded SAAW is expected to become a critical asset in India's arsenal, offering improved accuracy, flexibility, and survivability in modern aerial warfare.