

GOVERNMENT OF INDIA
MINISTRY OF CIVIL AVIATION
LOK SABHA

UNSTARRED QUESTION NO. : 1959
(TO BE ANSWERED ON THE 30th July 2026)

INTEGRATION OF NAVIC AND GAGAN NAVIGATION SYSTEMS

1959. SHRI DUSHYANT SINGH

Will the Minister of CIVIL AVIATION

be pleased to state:-

- (a) whether the Government is integrating India's indigenous satellite navigation systems namely NavIC and GAGAN with the expanding aviation infrastructure to enhance navigation precision, air traffic management and safer aircraft operations and if so, the details thereof;
- (b) the details of the coverage range and operational capabilities of NavIC and GAGAN for civilian aviation including their use in approach procedures, runway navigation and aircraft tracking particularly at newly developed and regional airports;
- (c) the steps taken to integrate these systems with national air traffic management systems, logistics hubs and multimodal transport networks; and
- (d) whether the Government proposes to expand the use of satellite-based augmentation systems for performance-based navigation and satellite-guided landing procedures especially at smaller airports under the Regional Connectivity Scheme-UDAN and if so, the details thereof?

ANSWER

Minister of State in the Ministry of CIVIL AVIATION

(Shri Murlidhar Mohol)

(a): NavIC (Navigation with Indian Constellation), developed by Indian Space Research Organisation (ISRO), is an indigenous regional satellite navigation system currently being utilized for non-civil aviation applications and is not integrated with aviation infrastructure. GAGAN (GPS Aided GEO Augmented Navigation) is India's Satellite-Based Augmentation System (SBAS), jointly developed by the Indian Space Research Organisation (ISRO) and the Airports Authority of India (AAI), integrated with aviation infrastructure to enhance navigation precision, air traffic management and safer aircraft operations.

(b) to (d): Director General of Civil Aviation (DGCA) has certified GAGAN for Required Navigation Performance (RNP-0.1) enroute operations across Indian Flight Information Regions (FIRs) and for Approach with Vertical Guidance (APV-1) services at airports with published approach procedure charts, enabling precision approach and landing for suitably equipped aircraft.

GAGAN supports Performance-Based Navigation (PBN) and satellite guided landing procedures. At present, 23 GAGAN-based landing approach procedures have been published for 15 airports across India including 09 airports operationalised under UDAN, namely Kadapa, Kishangarh, Deoghar, Jalgaon, Kandla, Belagavi, Porbandar, Pantnagar and Kolhapur where suitably equipped aircraft can utilise these procedures.
