

**GOVERNMENT OF INDIA
CIVIL AVIATION
LOK SABHA**

UNSTARRED QUESTION NO:1231

ANSWERED ON:01.12.2014

INSTALLATION OF GAGAN SYSTEM AT AIRPORTS

Mahajan Smt. Poonam

Will the Minister of CIVIL AVIATION be pleased to state:

- (a) the salient features of GPS Aided Geo Augmented Navigation (GAGAN) System;
- (b) the details of GAGAN System installations at various airports of the country State/UT-wise along with the expenditure incurred thereon;
- (c) whether the Government is examining the potential usages of this system to derive maximum benefits for all the sectors; and
- (d) if so, the details thereof ?

Answer

Minister of State in the Ministry of CIVIL AVIATION (Dr Mahesh Sharma)

(a) & (b): GAGAN (GPS Aided GEO Augmented Navigation) is an Indian satellite based navigation system, developed jointly by Airports Authority of India and Indian Space Research Organisation. The GAGAN System provides very accurate and high level of integrity satellite signals for precision air navigation over the entire Indian airspace.

The expenditure till October, 2014 for the GAGAN project is Rs,777.08 Crores. The details of GAGAN system installations are as follows:

(i) GAGAN system consists of 15 Indian Reference Stations (INRES), 2 Indian Master Control Centre (INMCC) and 3 Indian Land Uplink Station (INLUS), 2 Geostationary Satellites

(ii) The fifteen INRES are installed at various airports in India at Delhi, Ahmedabad (Gujarat), Bengaluru (Karnataka), Thiruvananthapuram (Kerala), Kolkata (West Bengal), Guwahati (Assam), Port-Blair (Andaman & Nicobar Islands-UT), Jammu (J&K), Gaya (Bihar), Jaisalmer (Rajasthan), Nagpur (Maharashtra), Dibrugarh (Assam), Bhubaneswar (Orissa), Porbandar (Gujarat) and Goa.

(iii) The two INMCCs are located in Bengaluru (Karnataka).

(iv) The two INLUS are located in Bengaluru (Karnataka) and one INLUS in Delhi.

(c) & (d) : Yes, Madam. An Inter-Ministerial Group (IMG) has been constituted to examine and promote the potential of sector specific utilization of GAGAN system for its use in Non-Aviation Sectors such as Railways, Road Transport, Shipping, Defence, Science & Technology, Mining, Agriculture, Urban Development, Power etc.