

**GOVERNMENT OF INDIA
MINISTRY OF RAILWAYS**

**LOK SABHA
UNSTARRED QUESTION NO. 1629
TO BE ANSWERED ON 27.07.2016**

TRAIN COLLISION AVOIDANCE SYSTEM

†1629. SHRI DILIPKUMAR MANSUKHLAL GANDHI:

Will the Minister of RAILWAYS be pleased to state:

- (a) the measures being taken with regard to the development and use of safety equipments like the Train Collision Avoidance System (TCAS), train safety and warning/alarm systems;**
- (b) whether the employees who operate the safety equipments/mechanism get any special training;**
- (c) if so, the places where training centres are situated along with the details thereof, State-wise;**
- (d) whether the Government is considering to open new training centres; and**
- (e) if so, the details thereof, zone-wise?**

ANSWER

MINISTER OF STATE IN THE MINISTRY OF RAILWAYS

(SHRI RAJEN GOHAIN)

(a) to (e) A Statement is laid on the Table of the House.

STATEMENT REFERRED TO IN REPLY TO PARTS (a) TO (e) OF UNSTARRED QUESTION NO. 1629 BY SHRI DILIPKUMAR MANSUKHLAL GANDHI TO BE ANSWERED IN LOK SABHA ON 27.07.2016 REGARDING TRAIN COLLISION AVOIDANCE SYSTEM

(a) 1. Train Collision Avoidance System (TCAS) is being indigenously developed by Research Designs and Standards Organisation (RDSO) in association with Indian Vendors. This Safety system is aimed at providing capability to prevent train accidents caused due to driver's error of Signal Passing at Danger (SPAD) or over-speeding.

After successful initial Proof of Concept trials, limited field trials with multi-vendor equipment have been conducted. Further, extended field trials of TCAS in pilot section Lingampalli-Vikarabad-Wadi-Bidar (250 RKms) of Secunderabad Division of South Central Railway have been taken up. Trials on two pair of passenger trains have commenced in the pilot section.

2. Train Protection and Warning System (TPWS) based on proven European Train Control System (ETCS L-1) technology has been provided in the following pilot sections:

- i) Chennai-Gummidipundi Suburban Section of Southern Railway (50 RKms) covering EMU sections.**
- ii) Hazrat Nizamuddin-Agra Section of Northern/North Central Railway (200 RKms). Gatiman Express running at 160 Kmph on Delhi-Agra section has been equipped with TPWS.**
- iii) Dum Dum-Kavi Subhash Nagar section of Kolkata Metro (25 RKms) covering the EMU sections.**

3. To ensure safety, all electric locomotives are equipped with Vigilance Control Device (VCD) to ensure alertness of Loco Pilot.

(b) Yes, Madam. All safety category railway employees are given structured training as per prescribed periodicity at various stages of their career. They also undergo mandatory refresher training programmes. Detailed modules

which give the periodicity and course content taking into account technological changes and operational requirement are available. Due emphasis is laid on practical training which helps in assimilating technology transferred and skill upgradation. Safety Category staff are also given training in Disaster Management.

(c) Training Centres are not organized State-wise. They are organized Railway Zone-wise for different categories of staff. There are 296 Recognized Training Centres on Indian Railways.

(d) & (e) Opening of new training centres is duly considered on the basis of proposal and justification received from Zonal Railway/Production Units. This is a continuous process.
