

**GOVERNMENT OF INDIA
MINISTRY OF RAILWAYS**

**LOK SABHA
STARRED QUESTION NO.236
TO BE ANSWERED ON 04.12.2019**

ANTI-COLLISION DEVICE

†*236.SHRI VISHNU DAYAL RAM:

Will the Minister of RAILWAYS be pleased to state:

- (a) the current status of installation of anti-collision device to control rail accidents;**
- (b) whether this device has been successfully checked and installed and if so, the details thereof;**
- (c) if not, the action plan to improve the device and make it more effective to control rail accidents;**
- (d) whether any machine/equipment is also being used in addition to taking assistance of Railway employees to know the condition of rail tracks; and**
- (e) if so, the details thereof along with the mechanism used in other countries to know/assess the condition of rail tracks?**

ANSWER

MINISTER OF RAILWAYS AND COMMERCE & INDUSTRY

(SHRI PIYUSH GOYAL)

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

STATEMENT REFERRED TO IN REPLY TO PARTS (a) TO (e) OF STARRED QUESTION NO. 236 BY SHRI VISHNU DAYAL RAM TO BE ANSWERED IN LOK SABHA ON 04.12.2019 REGARDING ANTI-COLLISION DEVICE

(a) to (c) Anti-Collision Device (ACD) developed by Konkan Railway Corporation Limited (KRCL) was provided as a pilot project on 1736 Route km on Northeast Frontier Railway (NFR). Complex operational and technical problems were experienced during these trials, which could not be fully resolved by KRCL due to design limitation of ACD. As such, proliferation of ACD has not been undertaken.

Presently following different Automatic Train Protection (ATP) systems are existing on Indian Railways:

- (i) Automatic Train Protection (ATP) System called Train Protection and Warning System (TPWS) based on European Train Control System Level-1 (ETCS L-1) Technology has been implemented on 345 Route km (200 Route km Delhi-Agra Section, 117 Route km Chennai Suburban section and 28 Route km of Metro Railway Kolkata).**
- (ii) An earlier version of ATP system called Auxiliary Warning System (AWS) is presently functional on 413 Route km in the Mumbai suburban section of Central Railway (289 Route km) and Western Railway (124 Route km).**
- (iii) Train Collision Avoidance System (TCAS) is an indigenous Automatic Train Protection (ATP) System installed on 250 Route km on South Central Railway.**

Further, a few of the advanced ATP systems have been identified. Pilot projects of these on few selected sections (1839 Route km) have

also been undertaken. Once successful, these shall be adopted on large scale on Indian Railways.

(d) and (e) In addition to Keyman's daily patrol, Ultrasonic Flaw Detection (USFD) technology is being extensively used in Indian Railways to detect flaw in service rails, welds and take remedial steps accordingly.

Similar technologies are used in other countries for detection and identification of flaws in rails.

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