

**GOVERNMENT OF INDIA  
RAILWAYS  
LOK SABHA**

UNSTARRED QUESTION NO:2483

ANSWERED ON:08.12.2011

TECHNOLOGY FOR RAIL SAFETY

De Dr. Ratna; Hussain Shri Syed Shah Nawaz; McLeod Smt. Ingrid; Muttemwar Shri Vilas Baburao; Pakkappa Shri S.; Panda Shri Bajayant; Pradhan Shri Nityananda; Singh Shri Jagada Nand

**Will the Minister of RAILWAYS be pleased to state:**

- (a) whether the Railways are considering to adopt new technology to make train travel accident-free;
- (b) if so, the details thereof inter alia indicating the type of technology adopted with the current status of its implementation and the funds allocated to each such technology during each of the last three years;
- (c) whether the Railways have fixed any time-frame for the implementation of each such technology through out the country;
- (d) if so, the details thereof; and
- (e) the other steps taken by the Railways to make the train travel accident free?

**Answer**

MINISTER OF STATE IN THE MINISTRY OF RAILWAYS (SHRI K.H. MUNIYAPPA)

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

STATEMENT REFERRED TO IN REPLY TO PARTS (a) TO (e) OF THE UNSTARRED QUESTION NO. 2483 ASKED BY SHRIMATI INGRID MCLEOD, SHRI BAJAYANT JAY PANDA, SHRI SYED SHAHNAWAZ HUSSAIN, DR. RATNA DE (NAG), SHRI JAGADANAND SINGH, SHRI NITYANANDA PRADHAN, SHRI VILAS MUTTEMWAR AND SHRI S. PAKKIRAPPA TO BE ANSWERED IN LOK SABHA ON 08.12.2011 REGARDING TECHNOLOGY FOR RAIL SAFETY.

(a): Yes, Madam.

(b) to (d): The important modern technologies under trial/implementation for railway safety are given below:-

(i) Train Protection Warning System (TPWS)- TPWS eliminates the accidents caused by human error like signal passing at danger and over speeding. Two pilot projects of TPWS were sanctioned on Southern and Northern/North Central Railway. The pilot project on suburban section of Southern Railway, i.e. between Chennai Central and Gummidpundi (50 Route kilometres) has been commissioned on 02.05.2008 and is operational. The service trials of pilot project of TPWS on non-suburban section are in progress on Delhi-Agra section (200 route kilometres) of North Central Railway. Five works have been sanctioned at a total cost of Rs. 599.47 crores covering 895 Route Kilometres on Eastern Railway, North Central Railway, Southern Railway, South Eastern Railway and Western Railway. A low cost TPWS is being explored by RITES. Fund allotment for 2011-12 for TPWS works is Rs. 50.8 Crore.

(ii) Anti Collision Device (ACD)- Anti collision device (ACD) supplied by Konkan railway corporation limited (KRCL) had been installed at 1736 Route Kilometres on Northeast Frontier Railway. Based on the experience gained on Northeast Frontier Railway, the specification were modified for electrified, Multiple Line, Automatic Signalling Sections and trials were conducted on Southern Railway. The deficiencies noticed during trials are being analysed by KRCL for modifying the software. Further, trials will be conducted after removal of deficiencies. ACD works are sanctioned on 6760 route kilometres over 7 zones. Fund allotment for the year 2011-12 is Rs. 28 crore.

(iii) Vigilance Control Device (VCD) - Vigilance Control Device (VCDs) are being provided on locomotives to check alertness of drivers through sensing positive actions from the driver like sounding of horn, application of brakes pressing of button every 60 seconds and applying brakes if found lacking thus ensuring train safety. About 75 % of Diesel locomotives & 25% of Electric locomotives have been provided with VCDs. Balance locomotives are targeted for provision by the year 2012.

(iv) Comprehensive Fire and Smoke Detection system in coaches – A pilot project for field trial with fire and smoke detection system has been taken up in one rake of New Delhi- Bhubaneswar Rajdhani. The system is reported to be working satisfactorily. Extensive field trials on a representative population of coaches are planned to be conducted further. Inducting new technologies for safe and reliable train operations is a continuous process. The proliferation of these systems on the entire railway network shall be considered on successful completion of the trials in phases and funds are allocated accordingly.

(e) Awareness drives have been launched to educate Public for Safely crossing the unmanned Level Crossing gates through SMS,

Nukkad Natak, News Paper Advertisements, Radio/TV talks, counselling at Schools, interaction with village Panchayat etc.