

**GOVERNMENT OF INDIA  
RAILWAYS  
LOK SABHA**

UNSTARRED QUESTION NO:1584  
ANSWERED ON:18.11.2010  
SIGNALLING AND TELECOMMUNICATION SYSTEMS  
Nirupam Shri Sanjay Brijkishorilal ;Singh Shri Ganesh

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

- (a) the projects that were taken up to improve the signalling and telecommunication systems under the corporate safety plan 0( 2003-13);
- (b) the number of projects completed so far;
- (c) the reported improvements shown in the signalling and telecommunication systems after implementation of corporate safety plan;
- (d) whether any cases of unsatisfactory installation and functioning of the safety devices installed under these projects in certain sections are reported;
- (e) if so, the details thereof; and
- (f) the steps taken by the Railways in this regard?

**Answer**

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

(a) and (b) : A Statement is attached.

(c): Signaling system improvements have contributed to railways productivity & increased throughputs on its routes. Also, defect rate per 1000 Signal & Telecommunication units per year reduced to almost half between 2003-10.

(d): Yes, Madam, in respect of functioning of some devices.

(e): In functioning of Anti-Collision Device (ACD) on Northeast Frontier Railway (NFR), spurious detections about abnormal situations often leading to manual isolation of the system have occurred. As for Train Protection & Warning System (TPWS), on-board equipment retrofitted on existing rolling stock were affected by electromagnetic interference and local conditions.

(f): Specification for ACD has been revised to improve its efficacy & reliability and its suitability for multiple line electrified sections. Regarding TPWS on Southern Railway, steps to eliminate the electromagnetic interference have been taken.

STATEMENT REFERRED TO IN THE REPLY TO PARTS (a) & (b) OF UNSTARRED QUESTION NO. 1584 BY SHRI GANESH SINGH AND SHRI SANJAY BRIJKISHORE LAL NIRUPAM TO BE ANSWERED IN LOK SABHA ON 18.11.2010 REGARDING SIGNALLING AND TELECOMMUNICATION SYSTEMS.

(a)& (b): Identified works of Signalling & Telecommunication System which were taken up under the Corporate Safety Plan 2003-13, were replacement of over aged signalling system, track circuiting in station section, axle counters for automatic clearance of block section, interlocking and provision of telephone at level crossing gates, Light Emitting Diode Signals, continuous track circuiting/ automatic signaling, Train Protection & Warning systems (TPWS), Anti Collision Device(ACD), Mobile Train Radio Communication and voice recorders in control offices. The works done so far are as under:

SN Name of Work Identified for completion Done  
upto March 2014 upto March 2010

1	Replacement of over aged signalling system (No of station)	1494	2653
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2	Track circuiting at station	7309	10699
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section (No of location)		
3 Axle counters for automatic clearance of block section (No of Block Sections)	Lumpsum	2199
4 Interlocking of level crossing gate (No)	2887	2757
5 Telephone at level crossing gates (No)	2495	2332
6 Light Emitting Diode Signals (No of station)	Lumpsum	3113
7 Continuous track circuiting/ automatic signaling (Route KMs)	4000	747
8 Train Protection & Warning systems (TPWS) (Route KMs)	280	50
9 Anti Collision Device # (ACD) (Route KMs)		1736
10 Mobile Train Radio Communication (Route KMs)	2415	1700
11 Voice recorders in control offices (No)	84	74

# To improve the efficacy & reliability of the ACD system, at present, trials are on with the improved version of ACD in multiple line, electrified section on Southern Railway. The proliferation of ACD on the Indian Railway network shall be considered on success of the trials.