

**GOVERNMENT OF INDIA
MINISTRY OF RAILWAYS**

**LOK SABHA
UNSTARRED QUESTION NO.4554
TO BE ANSWERED ON 14.12.2016**

SMOOTH RUNNING OF TRAINS IN FOGGY WEATHER

**4554. SHRI S.R. VIJAYA KUMAR:
SHRI GAJANAN KIRTIKAR:
DR. SUNIL BALIRAM GAIKWAD:
SHRI T. RADHAKRISHNAN:
SHRI DUSHYANT SINGH:
SHRI BIDYUT BARAN MAHATO:**

Will the Minister of RAILWAYS be pleased to state:

- (a) the details of trains that have been reported late or cancelled in the country due to fog during the current year and the quantum of revenue loss occurred to the Railways as a result thereof;**
- (b) whether the Railways has come up with a strategy to combat rail delays due to fog and if so, the details of the same;**
- (c) whether new technological development are in trial or in operational phase to reduce delays and accident risk due to fog;**
- (d) if so, the details thereof and if not, the reasons therefor; and**
- (e) the further steps taken/being taken by the Government for timely running of trains during the current winter season?**

ANSWER

MINISTER OF STATE IN THE MINISTRY OF RAILWAYS

(SHRI RAJEN GOHAIN)

(a) to (e): Yes, Madam. During the current year, Indian Railways has

reported late running and cancellation of trains due to fog. From 1st November to 7th December 2016, 2678 trains were late and 148 trains were cancelled to ease out congestion during foggy weather.

As of now, there is no permanent solution for avoiding delay due to fog in winters. However, some temporary measures are taken to minimize the traffic congestion caused by reduced visibility during fog which include cancellation, partial cancellation, diversion and frequency reduction of less patronized trains, inducting scratch rakes to avoid rescheduling etc.

RDSO has taken up a pilot project for indigenous development of a cost effective safety system called Train Collision Avoidance System (TCAS). TCAS is a radio communication based system with continuous update of movement authority. The system is aimed at providing capability of preventing train accidents caused due to Signal Passing at Danger (SPAD) or non observance of speed restrictions by train drivers. Signal aspect is also displayed on DMI (Driver Machine Interface) screen inside the Locomotive in train system.

In addition, Fog Safe Devices (FSD) are being provided in locos on trial basis. Terrain Imaging for Diesel Drivers Infrared Enhanced Optical and Radar Assisted (TRI-NETRA) System a night vision camera based technology is also being tested.

Fog safe device (FSD) is a portable global positioning system (GPS) based device carried by loco pilot which aids the loco pilot by displaying the name and distance of approaching signals and other

critical landmark like Unmanned Level Crossing (UMLC) etc., in advance during poor visibility condition. These devices are being provided over fog affected region of Northern India and about 1860 such devices are working over Northern, North Eastern and North Western Railways. Further 5000 nos. fog safe devices are under procurement.

Railways have initiated a proposal to install TRI-NETRA System on locomotives for enhancing vision of loco pilot in inclement weather. The system shall be made up of high resolution optical video camera, high sensitivity infra red video camera system and additionally radar based mapping system. These three components of the system shall act as three eyes (TRI-NETRA) of the locomotive pilot. Initial trials of the device are underway and after successful field trials the device would be made available for commercial use.
