GOVERNMENT OF INDIA
MINISTRY OF RAILWAYS

RAJYA SABHA
UNSTARRED QUESTION NO. 1084
ANSWERED ON 28.07.2023

TRAIN ACCIDENTS

1084. SHRI RANDEEP SINGH SURJEWALA:
SHRI A. D. SINGH:

Will the Minister of RAILWAYS be pleased to state:

(a) number of 'Consequential' train accidents since 2018 and the number of lives lost in the same period, year-wise;

(b) the number of 'Consequential' train accidents since 2018 that have happened due to signal and telecom failure or Signal Passed at Danger - SPAD;

(c) the number of 'Non-Consequential' train accidents since 2018 and the number of 'Non-Consequential' train accidents due to signal and telecom failure or Signal Passed at Danger – SPAD; and

(d) the remedial being taken by Government in this regard?

ANSWER

MINISTER OF RAILWAYS, COMMUNICATIONS AND
ELECTRONICS & INFORMATION TECHNOLOGY

(SHRI ASHWINI VAISHNAW)

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

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STATEMENT REFERRED TO IN REPLY TO PARTS (a) TO (d) OF UNSTARRED QUESTION NO. 1084 BY SHRI RANDEEP SINGH SURJEWALA AND SHRI A. D. SINGH ANSWERED IN RAJYA SABHA ON 28.07.2023 REGARDING TRAIN ACCIDENTS

(a): The year-wise details of number of Consequential train accidents and the number of lives lost, since 2018, are given below:

Year	Number of Consequential Train Accidents	Number of persons who lost their lives
2018-19	59	37
2019-20	55	5
2020-21 (Covid year)	22	4
2021-22 (Covid year)	35	17
2022-23	48	8

It may be noted that the average number of consequential train accidents during the period, 2004-14 was 171 per annum, while the average number of consequential train accidents during the period, 2014-23 declined to 71 per annum.

(b): The number of Consequential train accidents since 2018, that have happened due to Signal and Telecom failure or Signal Passed at Danger (SPAD), is given below:

Year	Number of Consequential train accidents on account of Signal and Telecom Department	Number of Consequential train accidents due to Signal Passed at Danger (SPAD)
2018-19	03	00
2019-20	02	03
2020-21 (Covid year)	00	01
2021-22 (Covid year)	01	02
2022-23	01	04

(c): Non-Consequential accidents are the accidents that have no serious repercussion in terms of loss of human life, human injury, major loss to Railway property, or substantial interruption to Rail traffic.

The Signal Passed at Danger (SPAD) is not an accident but treated as an indicative accident which in real terms is just a potential hazard.

Since 2018, the number of Non- Consequential accidents due to Signal and Telecom failure or Signal Passed at Danger (SPAD), is given below:

Year	Number of Non- Consequential accidents on account of Signal and Telecom Department	Number of Non- Consequential accidents due to Signal Passed at Danger (SPAD)
2018-19	05	07
2019-20	02	02
2020-21 (Covid year)	01	02
2021-22 (Covid year)	03	04
2022-23	02	01

(d): The following steps have been taken by Government to prevent train accidents:-

1. Rashtriya Rail Sanraksha Kosh (RRSK) has been introduced in 2017-18 for replacement/renewal/upgradation of critical safety assets, with a corpus of Rs. 1 lakh crore for five years. From 2017-18 till 2021-22 a Gross expenditure of Rs. 1.08 lakh crore was incurred on RRSK works.
2. Electrical/Electronic Interlocking Systems with centralized operation of points and signals have been provided at 6427 stations upto 31.05.2023 to eliminate accident due to human failure.
3. Interlocking of Level Crossing (LC) Gates has been provided at 11093 level Crossing Gates up to 31.05.2023 for enhancing safety at LC gates.
4. Complete Track Circuiting of stations to enhance safety for verification of track occupancy by electrical means has been provided at 6377 stations upto 31.05.2023.
5. Detailed instructions on issues related with safety of Signalling e.g. mandatory correspondence check, alteration work protocol, preparation of completion drawing, etc. have been issued.
6. System of disconnection and reconnection for S&T equipment as per protocol has been re-emphasized.

7. All locomotives are equipped with Vigilance Control Devices (VCD) to ensure alertness of Loco Pilots.
8. Retro-reflective sigma boards are provided on the mast which is located two OHE masts prior to the signals in electrified territories to warn the crew about the signal ahead when visibility is low due to foggy weather.
9. A GPS based Fog Safety Device (FSD) is provided to loco pilots in fog affected areas which enables loco pilots to know the distance of the approaching landmarks like signals, level crossing gates etc.
10. Modern track structure consisting of 60kg, 90 Ultimate Tensile Strength (UTS) rails, Prestressed Concrete Sleeper (PSC) Normal/Wide base sleepers with elastic fastening, fanshaped layout turnout on PSC sleepers, Steel Channel/H-beam Sleepers on girder bridges is used while carrying out primary track renewals.
11. Mechanisation of track laying activity through use of track machines like PQRS, TRT, T-28 etc to reduce human errors.
12. Maximizing supply of 130m/260m long rail panels for increasing progress of rail renewal and avoiding welding of joints, thereby ensuring safety.
13. Laying of longer rails, minimizing the use of Alumino Thermic Welding and adoption of better welding technology for rails i.e. Flash Butt Welding.
14. Monitoring of track geometry by OMS (Oscillation Monitoring System) and TRC (Track Recording Cars).
15. Patrolling of railway tracks to look out for weld/rail fractures.
16. The use of Thick Web Switches and Weldable CMS Crossing in turnout renewal works.
17. Inspections at regular intervals are carried out to monitor and educate staff for observance of safe practices.
18. Web based online monitoring system of track assets viz. Track database and decision support system has been adopted to decide rationalized maintenance requirement and optimize inputs.
19. Detailed instructions on issues related with safety of Track e.g. integrated block, corridor block, worksite safety, monsoon precautions etc. have been issued.
20. Preventive maintenance of railway assets (Coaches & Wagons) is undertaken to ensure safe train operations and to keep a check on Rail Accidents across the country.
21. Replacement of conventional ICF design coaches with LHB design coaches is being done.
22. All unmanned level crossings (UMLCs) on Broad Gauge (BG) route have been eliminated by January 2019.

23. Safety of Railway Bridges is ensured through regular inspection of Bridges. The requirement of repair/rehabilitation of Bridges is taken up based upon the conditions assessed during these inspections.
24. Indian Railways has displayed Statutory “Fire Notices” for widespread passenger information in all coaches. Fire posters are provided in every coach so as to inform and alert passengers regarding various Do’s and Don’ts to prevent fire. These include messages regarding not carrying any inflammable material, explosives, prohibition of smoking inside the coaches, penalties etc.
25. Production Units are providing Fire detection and suppression system in newly manufactured Power Cars and Pantry Cars and Fire and Smoke detection system in newly manufactured coaches. Progressive fitment of the same in existing coaches is also underway by Zonal Railways in a phased manner.
26. Regular counselling and training of staff is undertaken.
27. Concept of Rolling Block introduced wherein work of maintenance/repair/ replacement is planned for 2 weeks in advance on rolling basis and executed as per plan.

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