

GOVERNMENT OF INDIA
MINISTRY OF RAILWAYS

RAJYA SABHA
UNSTARRED QUESTION NO. 918
ANSWERED ON 06.02.2026

CASES OF SIGNAL FAILURES

918 SHRI PRAMOD TIWARI:

Will the Minister of RAILWAYS be pleased to state:

- (a) whether there are substantial cases of signal failures in Indian Railways reflecting poorly on the reliability and availability of signalling systems;
- (b) if so, the details thereof;
- (c) whether there are several instances of abnormal delays in attending to deficiencies pointed out during inspections/ joint inspections by the Safety Department;
- (d) if so, the details thereof;
- (e) whether there is a gap in the implementation of advanced technologies in signalling; and
- (f) if so, the effective maintenance mechanisms put in place to prevent these occurrences?

ANSWER

MINISTER OF RAILWAYS, INFORMATION & BROADCASTING AND
ELECTRONICS & INFORMATION TECHNOLOGY

(SHRI ASHWINI VAISHNAW)

- (a) to (f): Indian Railway is continuously modernizing current infrastructure of its signalling system as under :
1. To improve reliability, Electrical/Electronic Interlocking Systems with centralized operation points and signals in place of old mechanical signalling have been provided at 6660 stations as on 31.12.2025.
 2. Interlocking of Level Crossing (LC) Gates has been provided at 10,097 Level Crossing Gates up to 31.12.2025 for enhancing safety at LC Gates.
 3. Complete Track Circuiting of stations to enhance safety by verification of track occupancy by electrical means has been provided at 6,665 stations up to 31.12.2025.
 4. Axle counters for automatic clearance of Block Section, BPAC (Block Proving Axle Counter) are provided to ensure complete arrival of train without manual intervention before granting line clear to receive next train and to reduce human element. These systems have been provided on 6142 Block Sections up to 31.12.2025.
 5. Automatic Block Signalling (ABS) that enhances line capacity within existing track infrastructure has been provided at 6625 Route km upto 31.12.2025.

6. Other reliability enhancement measures by embedding redundancies into the various signalling systems are being incorporated viz
 - (i) provision of dual detection systems,
 - (ii) redundancy in power supplies and
 - (iii) redundancy in transmission media etc.
7. Provision of power operated lifting barriers at interlocked level crossing gates with sliding boom to enhance reliability for improvement in train operation.
8. Signalling assets maintenance are planned & under taken during Rolling Block introduced in Indian Railways (Open Lines) General Rules vide Gazette notification dated 30.11.2023, wherein work of integrated maintenance/repair/replacement of assets is planned up to 52 weeks in advance on rolling basis and executed.
9. 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.
10. System of disconnection and reconnection for S&T equipment as per protocol has been re-emphasized.
11. Regular counseling and training of staff is undertaken.

In view of the above measures, signalling failures has reduced by about 58% during last 11 years. Further, as a consequence of various safety measures taken over the years, there has been a steep decline in the number of accidents.

Number of Consequential Train Accidents has reduced as shown in the table below:-

| Year | Consequential Accidents |
|---------------------|--------------------------------|
| 2014-15 | 135 |
| 2025-26 (Till date) | 12 (90% lesser) |

Another important index showing improvement in safety in train operations is Consequential Accidents Index, the details of which are as under:-

Consequential Accident Index:-

| Year | Accident Index |
|-------------|-----------------------|
| 2014-15 | 0.11 |
| 2024-25 | 0.03 (73% lesser) |

This index measures number of consequential accidents as a ratio of total running Kilometers of all trains.

$$\text{Accident Index} = \frac{\text{No. of consequential accidents}}{\text{No. of trains X million kilometers run}}$$


