

GOVERNMENT OF INDIA  
MINISTRY OF RAILWAYS

RAJYA SABHA  
UNSTARRED QUESTION NO. 2351  
ANSWERED ON 19.12.2025

**DELAY IN ROLLOUT OF VANDE BHARAT TRAINS AND PROGRESS OF KAVACH SYSTEM**

2351 SHRI KAPIL SIBAL:

Will the Minister of RAILWAYS be pleased to state:

- (a) whether several Vande Bharat trains scheduled for inauguration in 2025 have been delayed;
- (b) if so, the reasons therefor and the revised timelines for rollout of the remaining 100 Vande Bharat trains announced earlier; and
- (c) the total amount spent on the Kavach anti-collision system till October 2025 and the length of railway network on which Kavach has been commissioned so far ?

**ANSWER**

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

(SHRI ASHWINI VAISHNAW)

(a) to (c) Indian Railways have introduced Vande Bharat services which are semi-high speed trains and are aimed to provide better travel experience and improved safety to the passengers. These services are equipped with enhanced safety features and modern passenger amenities like-

- KAVACH system
- Faster acceleration
- Fully Sealed Gangway
- Automatic Plug Doors
- Better Ride Comfort
- Mini Pantry with provision of Hot Case
- Bottle Cooler
- Deep freezer & Hot water Boiler
- Reclining Ergonomic Seats
- Comfortable Seating with revolving seats in executive class

- Mobile charging sockets for every seat
- Special lavatory for Divyangjan passengers in Driving Trailer Car (DTC),
- CCTVs, etc.

Presently, 164 Vande Bharat train services (listed below) are operational on the various sectors of the Broad Gauge (B.G.) electrified network of Indian Railways (IR). Of these 132 Vande Bharat services have been introduced during the last 3 years i.e. 2022-23 to 2024-25 while 28 Vande Bharat services have been introduced during 2025-26 (upto 15<sup>th</sup> December, 2025):

S.No.	Train Number and Name
1	22435/22436 New Delhi - Varanasi Vande Bharat Express
2	22439/22440 New Delhi - Shri Mata Vaishno Devi Katra Vande Bharat Express
3	20901/20902 Mumbai Central - Gandhinagar Capital Vande Bharat Express
4	22447/22448 New Delhi - Amb Andaura Vande Bharat Express
5	20607/20608 MGR Chennai Central - Mysuru Vande Bharat Express
6	20825/20826 Bilaspur - Nagpur Vande Bharat Express
7	22301/22302 Howrah - New Jalpaiguri Vande Bharat Express
8	20833/20834 Visakhapatnam - Secunderabad Vande Bharat Express
9	22223/22224 Chhatrapati Shivaji Maharaj (T) - Sai Nagar Shirdi Vande Bharat Express
10	22225/22226 Chhatrapati Shivaji Maharaj (T) - Solapur jn. Vande Bharat Express
11	20171/20172 Hazrat Nizamuddin - Rani Kamlapati Vande Bharat Express
12	20977/20978 Ajmer - Chandigarh Vande Bharat Express
13	20643/20644 Chennai Central - Coimbatore Vande Bharat Express
14	20633/20634 Kasargod - Thiruvananthpuram Central Vande Bharat Express
15	20701/20702 Secunderabad - Tirupati Vande Bharat Express
16	22895/22896 Howrah - Puri Vande Bharat Express
17	22457/22458 Anand vihar - Dehradun Vande Bharat Express
18	22227/22228 New Jalpaiguri - Guwahati Vande Bharat Express
19	20911/20912 Indore - Nagpur Vande Bharat Express
20	20173/20174 Rani Kamlapati - Rewa Vande Bharat Express

21	20661/20662 KSR Bengaluru - Dharwad Vande Bharat Express
22	22349/22350 Patna - Ranchi Vande Bharat Express
23	22229/22230 Chhatrapati Shivaji Maharaj (T) - Madgaon Vande Bharat Express
24	12461/12462 Jodhpur - Sabarmati Vande Bharat Express
25	22549/22550 Gorakhpur - Prayagraj Vande Bharat Express
26	20835/20836 Rourkela - Puri Vande Bharat Express
27	20665/20666 Chennai Egmore - Triunelveli Vande Bharat Express
28	20631/20632 Mangaluru - Thiruvananthpuram Vande Bharat Express
29	20677/20678 MGR Chennai - Vijayawada jn. Vande Bharat Express
30	20979/20980 Udaipur - Jaipur Vande Bharat Express
31	20703/20704 Kacheguda - Yesvantpur Vande Bharat Express
32	20897/20898 Howrah - Ranchi Vande Bharat Express
33	22347/22348 Howrah - Patna Vande Bharat Express
34	22487/22488 Amritsar jn. - Delhi Vande Bharat Express
35	20646/20645 Mangalore central - Madgaon Vande Bharat Express
36	20705/20706 Huzur Sahib Nanded - Chhatrapati Shivaji Maharaj (T) Vande Bharat Express
37	20642/20641 Coimbatore Jn. - Bengaluru Cantt. Vande Bharat Express
38	22426/22425 Anand Vihar(T) - Ayodhya Cantt. Vande Bharat Express
39	22415/22416 Varanasi - New Delhi Vande Bharat Express
40	22477/22478 Shri Mata Vaishno Devi Katra - New Delhi Vande Bharat Express
41	22961/22962 Ahmedabad - Mumbai Central Vande Bharat Express
42	20707/20708 Secunderabad - Visakhapatnam Vande Bharat Express
43	20663/20664 Mysuru - MGR Chennai Vande Bharat Express
44	22345/22346 Patna - Gomtinagar Vande Bharat Express
45	22233/22234 New Jalpaiguri - Patna Vande Bharat Express
46	20841/20842 Bhubaneshwar - Visakhapatnam Vande Bharat Express
47	22545/22546 Lucknow - Dehradun Vande Bharat Express

48	22231/22232 Kalaburagi - SMVT Bengaluru Vande Bharat Express
49	22470/22469 Hazrat Nizamuddin - Khajuraho Vande Bharat Express
50	20887/20888 Ranchi - Varanasi Vande Bharat Express
51	22925/22926 Ahmedabad - Okha Vande Bharat Express
52	20627/20628 Chennai Egmore - Nagercoil jn. Vande Bharat Express
53	20671/20672 Madurai - Bengaluru Cantt. Vande Bharat Express
54	22489/22490 Varanasi - Meerut City Vande Bharat Express
55	20101/20102 Nagpur - Secunderabad Vande Bharat Express
56	22499/22500 Varanasi - Deoghar Vande Bharat Express
57	20893/20894 Tatanagar - Patna Vande Bharat Express
58	22303/22304 Howrah - Gaya Vande Bharat Express
59	21893/21894 Tatanagar - Patna Vande Bharat Express
60	21895/21896 Tatanagar - Patna Vande Bharat Express
61	20981/20982 Udaipur City - Agra cantt. Vande Bharat Express
62	20891/20892 Tatanagar - Brahmapur Vande Bharat Express
63	20871/20872 Howrah - Rourkela Vande Bharat Express
64	20829/20830 Durg - Visakhapatnam Vande Bharat Express
65	20175/20176 Banaras - Agra Cantt. Vande Bharat Express
66	20669/20670 Hubballi - Pune jn. Vande Bharat Express
67	20673/20674 Kolhapur SCSM Terminus - Pune jn. Vande Bharat Express
68	22309/22310 Howrah - Jamalpur Vande Bharat Express
69	26901/26902 Sabarmati - Veraval Vande Bharat Express
70	26401/26402 Shri Mata Vaishno Devi Katra - Srinagar Vande Bharat Express
71	26403/26404 Shri Mata Vaishno Devi Katra - Srinagar Vande Bharat Express
72	26501/26502 Gorakhpur - Patliputra Vande Bharat Express
73	26101/26102 Pune - Ajni (Nagpur) Vande Bharat Express
74	26751/26752 Belagavi - Bengaluru Vande Bharat Express

75	26405/26406 Amritsar - Shri Mata Vaishno Devi Katra Vande Bharat Express
76	26301/26302 Jocabani - Danapur Vande Bharat Express
77	26503/26504 Saharanpur - Gomtinagar Vande Bharat Express
78	26481/26482 Jodhpur - Delhi Cantt. Vande Bharat Express
79	26471/26472 Bikaner - Delhi Cantt. Vande Bharat Express
80	26651/26652 Bengaluru - Ernakulam Vande Bharat Express
81	26461/26462 Delhi - Firozpur cantt. Vande Bharat Express
82	26506 / 26505 Banaras - Khajuraho Vande Bharat Express

Indian Railways production units have manufactured 94 Vande Bharat Chair Car Rakes till November, 2025. Further to cater to long and medium distance overnight travel, the Sleeper variant of Vande Bharat train has been indigenously designed. Two such rakes have been manufactured and are under trial/ commissioning.

Besides, introduction of new train services, which is an on-going process, depends on various factors which include-

- Capacity of that section
- Availability of path
- Availability of required rolling stock
- Availability of matching infrastructure for rolling stock
- Maintenance requirement of railway tracks and other assets

### **Kavach - Automatic Train Protection (ATP) system**

1. Kavach is an indigenously developed Automatic Train Protection (ATP) system. Kavach is a highly technology intensive system, which requires safety certification of highest order (SIL-4).
2. Kavach aids the Loco Pilot in running of trains within specified speed limits by automatic application of brakes in case Loco Pilot fails to do so and also helps the trains to run safely during inclement weather.
3. The first field trials on the passenger trains were started in February 2016. Based on the experience gained and Independent Safety Assessment of the system by Independent Safety Assessor (ISA), three firms were approved in 2018-19, for supply of Kavach Ver. 3.2.
4. Kavach was adopted as National ATP system in July 2020.
5. Implementation of Kavach System involves following Key Activities:

- i. Installation of Station Kavach at each and every station, block section.
- ii. Installation of RFID Tags throughout the track length.
- iii. Installation of telecom Towers throughout the section.
- iv. Laying of Optical Fibre Cable along the track.
- v. Provision of Loco Kavach on each and every Locomotive running on Indian Railways.

6. Based on deployment of Kavach version 3.2 on 1465 RKm on South Central Railway and experience gained, further improvements were made. Finally, Kavach specification version 4.0 was approved by RDSO on 16.07.2024.

7. Kavach version 4.0 covers all the major features required for the diverse railway network. This is a significant milestone in safety for Indian Railways. Within a short period, IR has developed, tested and started deploying Automatic Train Protection System.

8. Major improvement in Version 4.0 includes increased Location Accuracy, Improved Information of Signal Aspects in bigger yards, Station to Station Kavach interface on OFC and Direct Interface to existing Electronic Interlocking System. With these improvements, Kavach Ver.4.0. is planned for large scale deployment over Indian Railways.

9. After extensive and elaborate trials, Kavach Version 4.0 has been successfully commissioned on 738 Route km on Palwal – Mathura- Nagda section (633 Rkm) on Delhi – Mumbai route and Howrah–Bardhaman section (105 Rkm) Delhi – Howrah route. Kavach implementation has been taken up in balance sections of Delhi – Mumbai & Delhi – Howrah corridors.

10. Progress of key items of Kavach on High density routes including Delhi– Mumbai & Delhi– Howrah corridors are as under:

SN	Item	Progress
i	Laying of Optical Fibre Cable	7129 Km
ii	Installation of Telecom Towers	860 nos
iii	Station Data Centre	767 Stns
iv	Installation of Track side equipment	5672 RKm
v	Provision of Kavach on Locos	4,154

11. Further, track side Kavach implementation work has been taken up on 15,512 RKm covering all GQ, GD, HDN and identified sections of Indian Railways.

12. Bids have been invited for equipping another 9,069 locomotives with Kavach version 4.0. Kavach is being provided progressively in a phased manner in locomotives.

13. Specialized training programmes on Kavach are being conducted at centralized training institutes of Indian Railways to impart training to all concerned officials. By now more than 40,000 technicians, operators and engineers have been trained on Kavach technology. This includes 33,000 Loco Pilots & Assistant Loco Pilots. Courses have been designed in collaboration with IRISSET.
14. The funds utilized on Kavach works so far up to Oct' 25 is Rs. 2,354.36 Crores. The allocation of funds during the year 2025-26 is Rs. 1673.19 Crores. Requisite funds are made available as per the progress of works.

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