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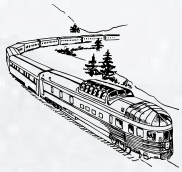
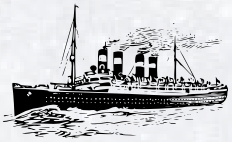
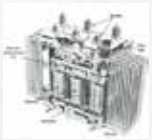
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Editor

Editorial Correspondence
EDITOR, Indian Railways,
Room No. 411, Rail Bhawan,
New Delhi-110001.
Tel. : 23383540, 23385072,
43416 (Rly.)
Email : editorindianrailways@gmail.com

Business Communications
Shri Prashant Kumar Pattnaik
Business Manager *Indian Railways,*
Room No. 310, Rail Bhawan,
New Delhi-110001.
Tel : 47845378, 45378 (Rly.).
Email : bmpr310rb@gmail.com

Editorial Assistance
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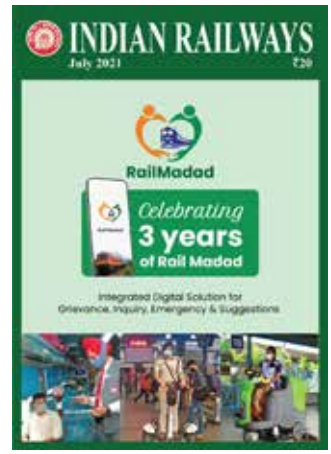
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Editorial

Indian Railways is a rare combination of the old and the new, of heritage and progress and of India's ancient culture and its modern age. In a month when the Punjab Mail has completed its 109 years of existence, a Railway application as recent as RailMadad has completed its third year. Over the long period of 109 years, Punjab Mail must have transported lakhs of passengers to their respective destinations. Similarly, the RailMadad App also must have fulfilled the various requirements of scores of passengers till date. The App has proved to be a huge success (with 75% satisfactory feedback) during this short span of time and is being showered with compliments everyday by its users on social media and other platforms. Hon'ble Minister of Railways also has congratulated the App on its completion of three years through his twitter handle. The cover story this month is the completion of 3 years by RailMadad app.

Two very important days i.e. World Environment Day (5th June) and World Yoga Day (21st June) were observed last month. Both the days were celebrated all over the Indian Railways with a lot of passion and enthusiasm. Indian Railways is committed to keep the environment clean as part of its social responsibility and a huge number of steps have been initiated in this regard in recent times. Installation of bio-toilets in a large number of trains, plantation of saplings, rain water harvesting, installation of plastic bottle crushing machines, water treatment plants and segregation of waste products before disposal are some of the measures that Zonal Railways are adopting as part of this programme. Smt Anjali Goyal, General Manager/BLW in her article has given minute details about various measures taken by BLW to protect the environment. The magazine congratulates Western Railway for having won 3 prestigious National Energy Conservation Awards (NECA) in 'Transport' and 'Building - Govt Offices' sectors for the year 2020.

Apart from the regular features like Picture Gallery, From the Archives and Central News, this Issue also contains a valuable write-up on Hindu pilgrimage, Somnath contributed by Shri Anil Saxena, Freelancer. We hope that our readers will also like the articles like 'Luckow – City of Nawabs' and 'Karnavati Express' written by Ms Meghna Pushpam and Shri Parag Purohit respectively.

A large number of players forming the Indian contingent for the forthcoming Tokyo Olympic Games are Railway employees which is a matter of immense pride for the Indian Railways. We hope all our players will do well and help India win a large number of medals in the Games. The Magazine also congratulates Western Railway for having won the prestigious Kaul Gold Cup for the record 29th time in a row which is a symbol of supremacy in sports arena of Indian Railways.

The threat of corona pandemic is not yet over and we advise our readers to continue to exercise caution and keep following government guidelines in this regard. ■

Review of Last Mile Connectivity plans for Char Dham Projects



- Final Location Survey (FLS) for new BG Rail connectivity to Char Dham i.e. Yamunotri, Gangotri, Kedarnath and Badrinath is near completion
- Shri Piyush Goyal Minister of Railways and Commerce & Industry and Consumer Affairs, Food & Public Distribution reviews last mile connectivity plans for Char Dham projects
- "Pilgrims must get fast, safe and comfortable leg connectivity beyond BG link with the Char Dhams" - Shri Piyush Goyal

"Pilgrims must get fast, safe and comfortable last leg connectivity with the Char Dhams", this was said by Shri Piyush Goyal, Minister of Railways and Commerce & Industry and Consumer Affairs, Food & Public Distribution, while reviewing the last mile connectivity plans for Char Dham projects on 27th May, 2021.

Hon'ble Minister directed concerned officials to do a detailed review of all the alternatives keeping in view the comfort and safety of citizens. He said that options of all last leg connectivity be examined along with detailed cost implications for the entire project upto completion.

Hon'ble Minister said that in order to cater to the need of tourism and to make it convenient for the pilgrims to reach the temple safely and timely, a comprehensive planning for the project needs to be done.

Final Location Survey (FLS) for new BG rail connectivity to Char Dham i.e. Yamunotri, Gangotri, Kedarnath and Badrinath is near completion.

Kedarnath and Badrinath Rail connectivity will take off from Karnaprayag station which is part of 125 km long Rishikesh-Karnaprayag new BG Rail line project under construction at full swing. Gangotri and Yamunotri Rail connectivity will take off from existing Doiwala Station. As per Char Dham BG Rail connectivity survey, the terminal



Badrinath Dham





station of new BG Rail line are Barkot, Uttarkashi, Soneprayag and Joshimath which are short of Char Dham temples due to steep terrain and limitation of BG ruling gradients.

In order to cater to the need of tourism and to make it convenient for the pilgrims to reach the temples safely and timely, Reconnaissance Engineering Survey (RES) for connecting new BG Railway terminal stations to Dhams (Temples) is being carried out with an objective to look for suitable system which is environmental friendly, safe and at the same time a tourist attraction.

A large number of pilgrims across the country flocks to Char Dhams and large number of foreign and domestic tourist are attracted to trekking & site seeing in the state of Uttarakhand. The existing road connectivity travels through fragile mountainous slopes and suffers from serious handicaps of load, capacity, safety and speed. The Rail connectivity to these Char Dhams will make the travel much safer, economical, comfortable, environment friendly and all weather. ■





Monsoon prepration of Indian Railways

Railways in India and especially Mumbai needs to be fully prepared for Monsoon - Shri Piyush Goyal

Railways in India and Mumbai needs to be fully prepared for the monsoon. This was said by Shri Piyush Goyal, Minister of Railways and Commerce & Industry and Consumer Affairs, Food & Public Distribution, while reviewing the preparations and roadmap of Mumbai Suburban Railways for rainy season on 10.06.2021.

The Minister examined current status of vulnerable areas & reviewed plans for smooth functioning of trains.

Shri Goyal said that Railways is committed to ensure that no inconvenience is caused to Mumbaikars as monsoon begins. While reviewing the preparedness of the Suburban Railways, the Minister advised the Railways to partner with Institutions like IIT Mumbai to study the efficiency of technical and civil work initiatives of Railways in handling monsoon rains.

He said Innovation and hard work must go together to ensure that Railway services continue to operate safely and in an uninterrupted manner.

Even during Covid pandemic, Railways had

undertaken a major exercise for the cleaning of muck/garbage/earth of 2,10,000 Cu Meters from suburban section by deploying 03 No 'muck specials' including specially modified EMU rakes in Mumbai.

Flooding spot of previous monsoon were identified and customized solution were devised for each spot e.g. Bandra, Andheri, Mahim, Grant road, Goregaon. In order to have real time and authentic rain data four numbers automatic rain gauge (ARG) have now been installed in association with IMD and ten numbers installed by WR independently. Number of pumps provided on track and depots including sewerage and submersible pumps have been increased by 33%. Drones were used for survey and monitoring of cleaning of nallah in Borivali Virar section and suction/de-sludging machines were used to ensure deep cleaning of culverts. Adoption of new micro tunneling method for construction of culverts was taken up to ensure that water logging is minimised.

- Shri Piyush Goyal reviews Monsoon Preparation of Railways
- Minister asks Railways to partner with Institutions like IIT Mumbai to study the efficiency of technical and civil work initiatives of Railways in handling monsoon rains
- Innovation and hard work must go together to ensure that Railway services continue to operate safely and uninterrupted - Shri Goyal
- Safety of public and commuters need to be ensured
- Challenges of Waterlogging need be tackled headlong- Shri Goyal





The meeting was attended by senior officials of Railway Board and Mumbai city.

GM CR & WR, DG-RPF witnessing Mock Drill

Shri Alok Kansal, General Manager Central and Western Railway in presence of Shri Arun Kumar, Director General, RPF, Railway Board, New Delhi briefed the press at Talao Pali Lake, Thane on monsoon preparedness of railways. He briefed about the pre-monsoon action taken over Mumbai suburban sections of Central and Western Railways like creating 7 additional waterways by micro-tunneling method at Kurla-Vidyavihar, Sandhurst Road and Masjid, Bandra, Vasai-Nallasopara; 4 additional waterways through RCC box insertion at Vadala-Ravli, Panvel-Karjat, Badlapur-Vangani and Kurla-Tilaknagar: customized solutions taken for flooding spots of previous monsoons like construction of drains along tracks, retaining walls to prevent ingress of water, about 4 lakh cubic meter muck removal, etc. He said these infrastructure upgradations have improved suburban operations in past few years.

Shri Arun Kumar, Director General RPF while addressing said that suburban railways is lifeline of Mumbai. He said our first act in such emergencies is to ensure that passengers do not panic. Hon'ble Minister of Railways Shri Piyush Goyalji while reviewing the monsoon preparations was impressed by the Railway's Flood Relief Team at Mumbai which uses boats with their force personnel. The teams are trained by NDRF for such exigencies. He also said that Railway Teams are ready for any such incidents and they are the first to reach and provide rescue and relief operations. Shri Alok Kansal and Shri Arun Kumar have released the SOP for usage of boat and outboard motor by Railway Flood Relief Team. They inspected the Mock Drill conducted by RFRT at Talaopali Lake demonstrating rescue and relief of passengers in a train held up in waterlogged area. They also interacted with the RFRT personnel and encouraged them.

Background

Railway Protection Force have formed a





Railway Flood Relief Team (RFRT) on Mumbai Division, equipped with motorized boats and trained manpower. The objective is to provide relief in case of flood in Railways, to predict and wherever possible, prevent disasters, mitigate their impact and effectively cope with the consequences by designing effective, realistic and coordinated planning and increase the overall effectiveness.

As such, 5 Motorised Inflatable Boats with all accessories and safety equipment have been procured and stationed at various vulnerable locations. These boats can be moved at any location wherever required for immediate response. Each FRT team consists of one Sub-Inspector/Assistant Sub-Inspector and 6 other staff. So far, 15 RPF staff (5 women and 10 men) have been trained by NDRF. Training is being provided to more RPF personnel.

The team is always in readiness during monsoon i.e. from June to October every year. The teams is continuously monitor the rainfall especially during the days of high tide or when heavy rain is predicted by Meteorological Department and move to the place from where flooding is reported irrespective of the fact that train is held up or not. The team maintains liaison with their counterparts in Civil Administration, GRP, Disaster Management Authorities and Control Room. In addition to this, RPF have formulated a well detailed SOP for the Railway Flood Relief Team viz.:

BLUE ALERT – when the water level reaches four inches above rail level, preparation starts for movement

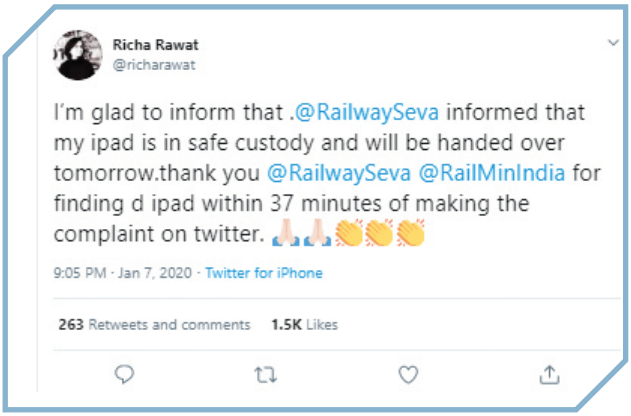
ORANGE ALERT – when the water level reaches five inches above rail level, team moves to the location

RED ALERT – when train is held up at any location relief operation starts after ensuring the water level is three feet at the location. ■



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A Persistant Effort to Serve Rail Passengers

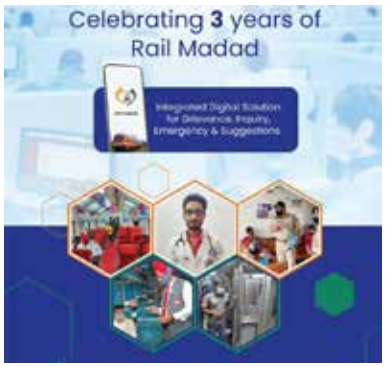


Ms Richa Rawat, Dy Editor DD News was overwhelmed with gratitude when she was informed that her lost ipad has been recovered and is in safe custody on 7th January 2020. It was all possible because of RAILMADAD.

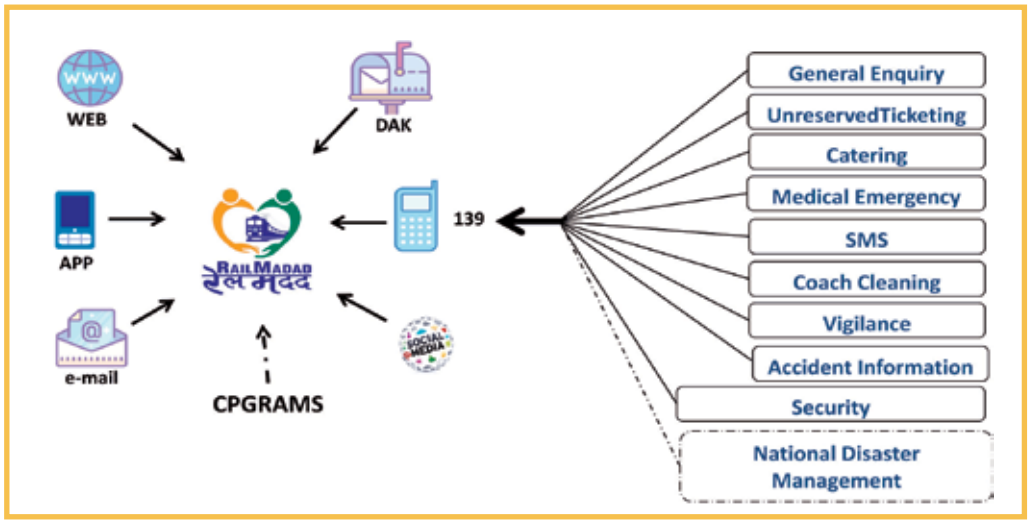
Ms Richa tweeted to Hon'ble Minister of Railways, Piyush Goyal with all her journey details and asked for help when she lost her ipad in train. With just a few clicks, her complaint was registered, received by field units and was attended and closed.

RailMadad is the grievance redressal system of Indian Railways with unprecedented reach, alacrity and efficiency. It can be accessed by **any railway user** (**passenger**, **parcel** or freight), travelling in **any class** (from Sleeper/General class to 1st AC), with **any mode** (by Web, SMS, Integrated Railway Helpline No.-139, Mobile-App, Email, Social Media or Manual Dak), **any time** (24X7), regarding any grievance with regard to service delivery by Indian Railways. Availability of smart phone or access to internet is not mandatory. It provides real-time assistance and grievance redressal to railway passengers covering 8000+ stations and 12000+ trains.

Earlier there was a distributed system for handling complaints, registered in different portals, segregated helplines, manual registers etc.



Travelling passengers were sometimes denied complaint book. Passengers felt that there is no-one to listen to their complaints. They thought it's a waste of time to give feedback because Railways is simply not interested in hearing from their users.

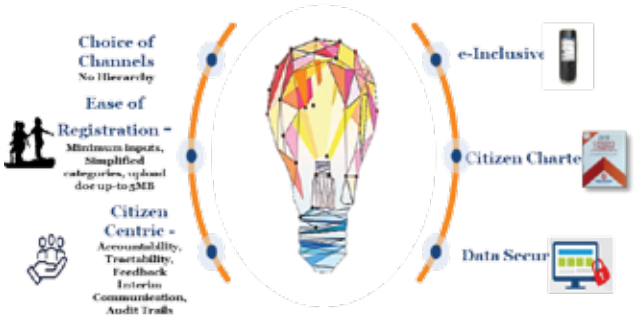


The need for a unified platform using IT & communication networks, was then felt and the idea conceptualized into RailMadad, an Integrated Solution for Grievance, Inquiry, Emergency & Suggestions. It was ensured the user need not be tech-savvy smart phone user or the one with internet access.

The Making

Initially a thorough scrutiny was done of the **bottlenecks** the old system had like the absence of real time redressal, cumbersome registration process, non-homogenous heads/sub–heads, non-existing MIS reports and many more.

Then brain-storming sessions led to formulation of the basic key concepts viz. (i) Easy Access (ii) Integration of all channels including Social Media (iii) Alerts directly to the concerned field units (iv) MIS for trend analysis & system improvements (v) Feedback on redressals (vi) Training and constant evaluation (vii) Auto escalation and SLAs. With these parameters detailed algorithm was developed at the Board level. CRIS was roped in for coding while IRCTC provided call center support. When the first version was ready, training on the model of *'train the trainers'* was organised for officials of all Divisions and Zones. Before the launch, Additional General Managers and DRMs were sensitized about the various issues by the Railway Board through a series of Video Conferences.



RailMadad is linked with National Train Enquiry System (NTES) thereby forwarding complaints directly to the concerned field unit. It provides track-and-trace facility by providing a unique CRN (Complaint Reference Number) to each registered complaint, across all the channels.

The system has an inbuilt escalation matrix which automatically escalates complaints to senior officers, if not resolved within stipulated time. It also provides a Managerial tool by providing MIS reports which are amenable to in-depth trend-analysis and root-cause analysis, on the basis of which Railway Managers can take meaningful system-improvement measures.



RailMadad also ensures quality of resolution on the basis of the feedback collected from complainant after closure of each complaint. Indian Railways proudly acclaims that it presently disposes 86% of its all complaints on RailMadad within **02 hours.** Almost **75%** of the received feedback is satisfactory.

Rail users now register complaints with photos and videos uploads. RailMadad also provides facility of closure of complaint posting back the amended photo/video. This scaled up the level of satisfaction of the complainant and brought smiles.



As an example, one can never forget the case of suspected trafficking of girls on a running train, which was reported on RailMadad App by a co-passenger. Railways immediately swung into action, detected and detained the suspected trafficker.



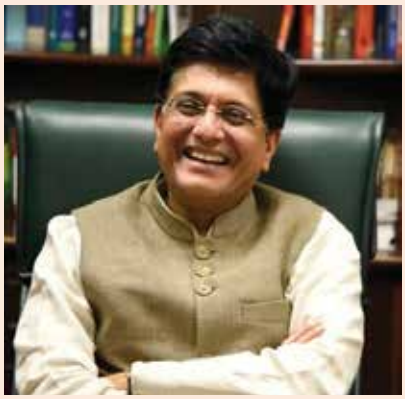
RailMadad bagged **'Silver Award'** for Excellence in providing Citizen Centric Delivery in 23rd National e-governance Conference in February 2020 AND the **'Gold Award'** in 68th SKOCKH Summit held in November 2020.

RailMadad has united the team Indian Railways to serve better. The healthy competition among Divisions/Units, wherein each unit strives to perform better, has boosted the image of Railways and the morale of its employees in a very short span of time. This year RailMadad celebrates its 3rd anniversary and is determined to scale-Up its system by De-layering and launching a customer feedback system. ■



The overwhelming feedback received on Social Media for RailMadad resolutions keep the team Indian Railways marching towards realization of more and more passenger satisfaction.





Piyush Goyal ✔ Jun 11
@PiyushGoyal·

Today marks the 3rd anniversary of the launch of Rail Madad App for providing passengers with a full 'Digital India' experience.

Two recent incidents of passenger-asistance through Rail Madad



Shri Rahul Kuswaha
Sr. Com. Clerk

Shri Rahul Kushwaha, Senior Commercial Clerk was on duty at Pali Railway Station on the night of 4th June, 2021. At about 12.30 AM, one of the passengers named Shri Praveen travelling by train No.02626, posted a complaint of stomach-ache and vomiting on Rail Madad app. The train had left Gwalior by then. But Shri Kushwaha immediately swung into action, contacted Jhansi Railway medical service and immediately arranged medical assistance for the concerned passenger as soon as the train entered Jhansi Railway Station. Dr. Samrin Khan attended the patient at Jhansi Railway Station. The passenger's medical problem was solved and the complaint was closed to his satisfaction at about 01.53 A.M. The incident brightened the image of the Indian Railways in public and the concerned passenger also profusely thanked Indian Railways for the service provided to him.



Shri Lokesh Tandon
ECRC

On the night of 9th June, 2021 a complaint was received on Rail Madad Portal from a passenger named Shri Himanshu who was travelling by train number 02963 from Hazrat Nizamuddin to Udaipur City. The complaint was regarding crowding of coach number H-1 by unreserved passengers which posed a threat to the safety and security of the bonafide passengers particularly in view of the pandemic situation prevailing in the country. **Shri Lokesh Tandon,** ECRC took immediate action, contacted the concerned passenger on his mobile number and immediately asked TNCR, Shri Nand Lal Maini to take a prompt action in this regard. On duty RPF staff were called, action was taken against the unreserved passengers of H-1 coach, all its doors were closed and RPF escort was deployed in the coach. Feedback was taken from the complainant and the complaint was closed to his satisfaction. ■

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Integration of all the 15 Kashmir Valley Railway Stations to Rail Wi-Fi Network

"It is a crucial step for Digital India mission and will go a long way in connecting the unconnected"
Shri Piyush Goyal





All 15 Kashmir Valley Railway Stations, including Srinagar, have now got integrated with 6021 Station Wi-Fi Network of Indian Railways.

Public Wi-Fi, provided under the brand name of RailWire, is now available at all the 15 stations including Srinagar in the UT of Kashmir which are spread out in four District HQs – Srinagar, Budgaon, Banihal & Qazigund. Wi-fi was already available at 15 stations in the Union Territory of Jammu -Kathua, Budhi, Chhan Arorian, Hira Nagar, Ghagwal, Samba, Vijaypur, Bari Brahman, Jammu Tawi, Bajalta, Sangar, Manwal, Ram Nagar.

RailTel was entrusted by the Ministry of Railways to provide public Wi-Fi at all the Railway stations. The vision was to convert the Railway platform into a platform for digital inclusion. Today, the Wi-Fi Network is spread over 6000+ Railway stations across the country and this is one of the largest integrated wi-fi network in the world.

In his message on this occasion, Shri Piyush Goyal, Hon'ble Minister of Railways, Commerce & Industries and Consumer Affairs, Food & Public Distribution said, "Wi-Fi plays a significant role in connecting the people, and is bridging the digital divide between rural and urban India at a rapid pace. Indian Railways, in association with its RailTel Corporation of India Ltd, is playing a key role in bringing high speed Wi-Fi to every corner of the country. Today, on World Wi-Fi Day, I am delighted to announce that Srinagar and 14 stations of the Kashmir Valley have become a part of one the largest integrated public Wi-Fi network in the world connecting 6000+ stations across the country. With this, all the stations of Valley now have public Wi-Fi. It is a crucial step for Digital India mission and will go a long way in connecting the unconnected.

I convey my appreciation to the team Indian Railways and RailTel. Commending Indian Railways for achieving this commendable feat, Dr. Jitendra Singh, Hon'ble MoS(IC) DONER, MoS, PMO, DOAE, DOS, Ministry of Personnel, Public Grievance & Pension said, " Today Wi-Fi is playing an important role in connecting communities & spurring innovative solutions to help bridge the digital divide. Owing to the pandemic, the need to be virtually connected is higher than ever. Indian Railways is playing a significant role in bridging the rural divide through the station Wi-Fi network created by its CPSU RailTel. I am very happy to note that 15 stations in the Kashmir Valley in Jammu & Kashmir are now live with are now live with RailWire Wi-Fi. This will be an added amenity for the people of the region and the country." Designed to offer users the best internet experience, Wi-Fi at Railway stations will be available to any user who has a smartphone with working mobile connection for KYC considerations.

Access to Wi-Fi not only connect communities but also opens up a world of opportunity for innovation and growth. This year's World Wi-Fi Day celebration stresses on the need to accelerate access to affordable Wi-Fi to bridge the Digital Divide. India has a stark Digital Divide between Urban and rural India. RailWire Wi-Fi at stations is helping to connect the unconnected as more 5000 stations of this public Wi-Fi network are located in rural India with poor connectivity.

Indian Railways is working towards transforming railway stations into digital hub by providing public Wi-Fi at railway stations across the country and 6021 stations are live with RailTel's RailWire Wi-Fi. ■

Review of NRTI functioning

"NRTI should now do research on initiatives of Railways undertaken in last 7 years like Bio Toilets, Rail Electrification, Infra upgradation etc" said Shri Piyush Goyal Minister of Railways and Commerce & Industry and Consumer Affairs, Food & Public Distribution while reviewing the progress of National Rail and Transportation Institute. The Minister said that all training institutes under Railways should come under one Management roof of NRTI. This would not only improve the quality of academic inputs but would also bring uniformity in training standards,



Shri Piyush Goyal Minister of Railways and Commerce & Industry and Consumer Affairs, Food & Public Distribution reviews the progress of National Rail & Transportation Institute. ***His views:***

- NRTI should do research on initiatives of Railways undertaken in last 7 years like Bio Toilets, Rail Electrification, Infra-upgradation etc.
- All training institutes of Railways should come under one Management roof of NRTI
- Within 3 years, NRTI has emerged as a pioneer institution of learning and all efforts should be made to enrich its academic infrastructure.

reduce costs and optimise resource utilization. The Minister said within a short span of 3 years, NRTI has emerged as a pioneer institution of learning and all efforts should be made to enrich its academic infrastructure. It may be noted that NRTI is on its way to become a world-class institution of advanced study to develop new talent through focus on higher education, cutting edge research in rail & transportation technology and management. NRTI aims to develop interdisciplinary Centres of Excellence which would be collaborative constructs to promote research and education to the transportation sector. NRTI's strategy is focussed upon sourcing the best expertise from around the world from leading global institutions through institutional partnerships for collaborating on developing curriculum, research projects and executive education programs. NRTI is running cutting edge graduate and masters program in all aspects of logistics, transportation and management. NRTI is also helping in professional development for the existing talent in railways and transportation sector. ■

KIND ATTENTION, READERS

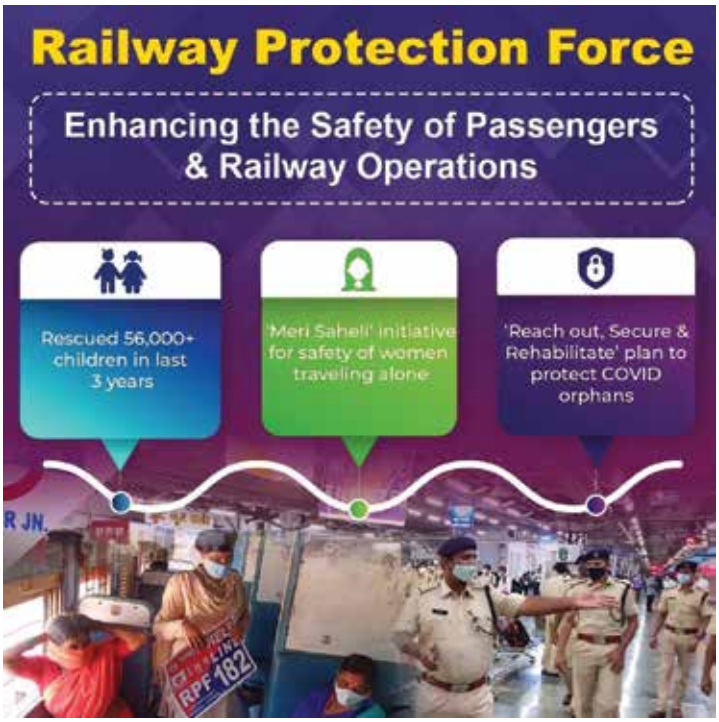
Due to some unavoidable circumstances, the Special Annual Issue of the magazine, which is usually published in the month of April, is being delayed this year. Annual issue 2021 will be published later this year.

New technologies used by Railway Protection Force (RPF) enhancing the Safety & Security of Passengers and other Railway operations

Safety and security is one of the priority areas by Indian Railways. Apart from safety and security of passengers, Railway Protection Force (RPF) has contributed in a big way during Covid-19 in Indian Railways efforts to sustain its fight against the virus. During the pandemic, RPF remained on the forefront of Indian Railway's efforts like security of parked rolling stock, providing food to the needy, escorting all Shramik Special trains, handling 45 deliveries and about 34 medical emergencies in Shramik Specials.

RPF has formulated a special plan 'Reach out, secure and rehabilitate' for protecting Covid orphans. RPF has initiated a drive to identify children in distress at station/in trains or in nearby towns/villages/hospitals orphaned due to Covid. The staff is sensitized to provide special attention to the children impacted due to the spread of pandemic COVID-19. People in the nearby areas and passengers visiting stations are sensitized regarding the services and facilities available nearby for children in distress situations. One nodal RPF personnel for each child is responsible from the time the child is secured to the time of his/her rehabilitation.

- RPF formulates a special plan for protecting Covid orphans
- RPF is the central force having highest share of women in its ranks
- The percentage of women in RPF is 9% (6242)
- RPF rescues more than 56000 children in nearly 3 years.
- 976 Children rescued by RPF from traffickers in last three years
- Total 22835 cases of left over luggage containing items valued Rs 37.13 Crores restored to rightful owners in last two years



Many incidents of RPF personnel risking their own lives while saving the precious lives at stations were reported. 9 Jeewan Raksha Medals and 01 Gallantry Medal awarded to RPF personnel by Hon'ble President of India since 2018 for saving lives.

Induction of ladies in large number in RPF gave impetus to Indian Railway's efforts to improve women security. Recruitment of 10568 vacancies in RPF was completed in 2019. After CBT, PET/PMT, Document verification, Medical examination and Police verification, recruitment was concluded. The percentage of women in RPF prior to recruitment was 3% (2312), post recruitment, it is 9% (6242). RPF is the central force having highest share of women in its ranks.

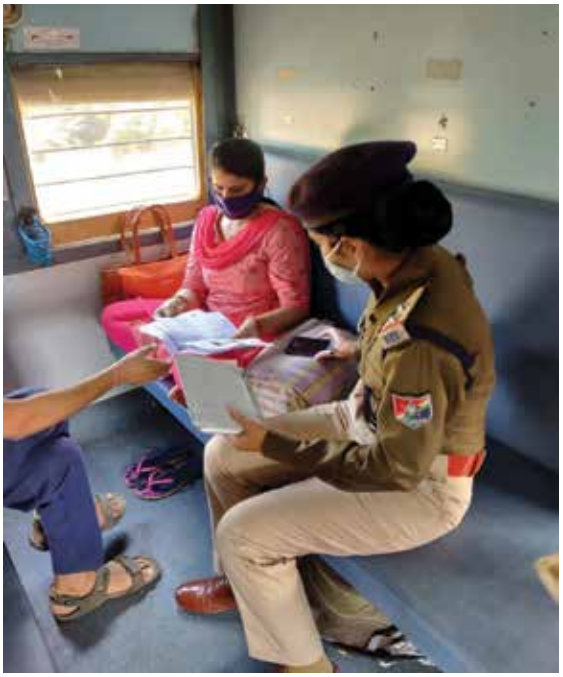
Meri Saheli initiative launched by RPF from 17th Oct. 2020 across zones has given focused attention to women travelling alone in long distance trains. A team of young lady RPF personnel interact with them at originating station, en-route till terminating station.

Security of Female passengers has been upgraded by RPF by formation of Special Lady Squads like Bhairvi, Virangna, Shakti. Escorting of all ladies special trains in metro cities and local trains by RPF is being ensured. Focused deployment during late night and early morning local trains. Gender sensitization / passenger awareness programmes are carried out regularly. Continuous drives

against offenders travelling in ladies coaches is a regular exercise by RPF personnel. About 129500 (from 2019 to 2021 up to May) male passengers traveling in ladies coaches were arrested under section 162 of Railway Act and prosecuted by RPF.

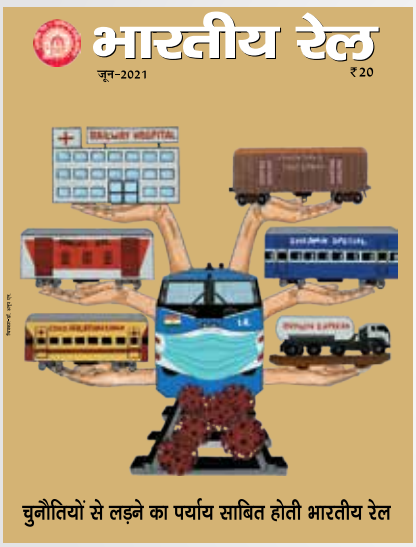
RPF has played an important role in the rescue of children. Standard Operating Procedure (SOP) finalized in consultation with Ministry of Women and Child Development (MWCD). Child Help Desks manned by nominated NGOs functional at 132 stations till 2020. Total 56318 children have been rescued from 2017 up to May2021. Total 976 Children rescued from traffickers, from 2018 up to May 2021. RPF continues to assist passengers in order to make their journey comfortable. Grievance redressal, recovery of left over luggage and security related calls are some of the key areas where RPF plays an active role.

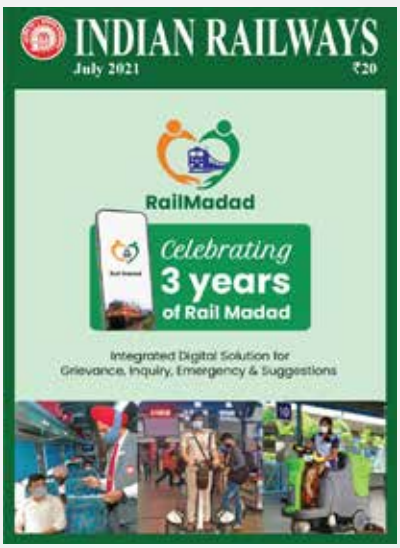
Total 22835 cases (from 2019 up to May 2021) of left over luggage containing items valued Rs 37.13 Crores restored to rightful owners. Total 37275 genuine security related calls in last two years (2019-20) received on All India Railway Security Helpline 182 and redressed. Helpline 182 was merged with 139 RailMadad w.e.f. 01.04.2021. 8258 security related 139 calls redressed in April and May 2021.Railway Flood Relief Team (RFRT)- An RPF disaster relief initiative has been launched for reaching out and providing succor to passengers stranded in trains due to flooding. The Team can



carry water, food, medicines etc. It works in close coordination with other rescue and relief agencies and on a well laid out SOP. 15 RPF men/women trained by NDRF and 75 more being trained. 05 Motorised inflatable boats with safety equipments procured and stationed at 05 vulnerable locations. It can team up with Civil Administration for such operations outside Railway also. ■

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The monthly magazines viz. *'Bhartiya Rail'* in Hindi and *'Indian Railways'* in English are now available for purchase/subscription at

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Single Copy : ₹ 20, **Special Issue** : ₹ 70

Spectrum allocation to Indian Railways and provision of more modern signalling solutions to boost all round safety in Railway operations

Signalling System enhances safety in train operations. Upgradation and replacement of equipments in use over Indian Railways is a continuous process and is undertaken based on its condition, operational needs and availability of resources.

In order to further improve safety in train operation and generate additional line capacity, modernisation of Signalling System has been taken in hand which includes -

- **Provision of Electronic Interlocking (EI) to increase Safety and Flexibility -** Electronic Interlocking are being adopted on a large scale to derive benefits of digital technologies in train operation and to enhance safety. So far 2221 stations have been provided with Electronic Interlocking upto 30th April, 2021 covering 34% of Indian Railways. A policy decision has also been taken to provide Electronic Interlocking (EI) in future. Further, 1550 EIs are planned to be provided in next 3 years. This will enhance safety and efficiency of train operations.
- **Automatic Block Signalling (ABS) to increase Line Capacity -** In order to increase line capacity to run more trains on existing High Density Routes of Indian Railways, Automatic Block Signaling is a cost effective solution. As on 30th April, 2021, Automatic Block Signaling has been provided on 3447 Route km. Indian Railways has planned roll out of automatic signalling on around 15,000 Rkm of high density and freight intensive routes. The roll out is planned to be undertaken in Mission Mode. With implementation of automatic signalling, increase in capacity will accrue resulting in more train services becoming possible.



Electronic Interlocking



Head on Generation

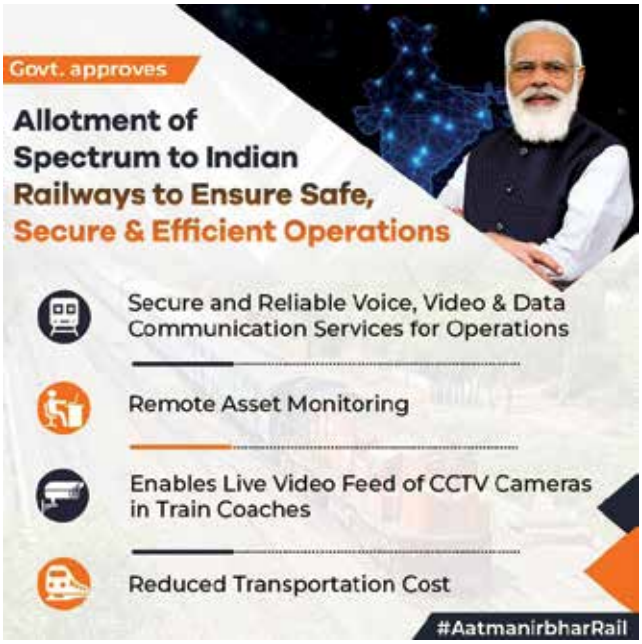


- **Safety at Level Crossing gates -** Enhancing Safety at Level Crossing Gates has been a major area of concern. Safety gets enhanced by interlocking level crossings with Signals. As on 30th April, 2021 Indian Railways have provided interlocking with Signals at 11,705 Level Crossing Gates to enhance the safety at Level Crossings.
- **Automatic Train Protection (ATP) System as an aid to Loco Pilot to prevent human error -** ATP systems are being used by advanced Railway systems in the world as an aid to the Loco Pilots. These systems prevent collisions due to any human error by Loco Pilot. In order to improve safety, a decision has now been taken to provide ATP systems on Indian Railways (IR) in a Mission Mode. So far IR was dependent on foreign technology for ATP systems. IR with

- More available signal bandwidth to help eliminate train collision due to human error and enhance speed potential; Train Collision Avoidance System approved for 37,300 RKm covering important routes in 1st phase
- Indian Railways gets a boost with Electronic Interlocking (EI) at 2221 Railway Stations so far
- Further, 1550 ELs are planned to be provided in next 3 years
- Capacity to run more trains on existing tracks gets a boost on High Density Routes; Automatic Block Signaling provided on 3447 Route km
- Automatic Signalling planned on around 15,000 Rkm of high density and freight intensive routes in Mission Mode
- To enhance the safety at Level Crossings; Indian Railways provides interlocking with Signals at 11,705 Level Crossing Gates

Indian firms has now successfully developed indigenous cost effective technology for ATP – called Train Collision Avoidance System (TCAS). It has been decided to adopt TCAS as the National ATP of India under the 'AtmaNirbhar Bharat' Mission of Hon'ble PM. TCAS has been approved for 37,300 RKm covering important routes in 1st phase. The roll out of TCAS will eliminate train collision due to human error and enhance speed potential of IR thereby reducing travel time.

It may be noted that giving a boost to 'Aatmanirbhar Bharat' Mission, Government has approved allotment of 5 MHz Spectrum in 700 MHz frequency band to Indian Railways for public safety and security services at stations and in trains. With this spectrum, Indian Railways has envisaged to



provide Long Term Evolution (LTE) based Mobile Train Radio Communication on its route. The estimated investment in the project is more than ₹25,000 Crore. The project will be completed in the next 5 years.

It brings a strategic shift in Railways' operations and maintenance regime. It will help in improving the safety and increasing the line capacity to accommodate more trains using the existing infrastructure. The modern rail network will result in reduced transportation cost and higher efficiency. Also, it will attract multinational industries to set up manufacturing units to fulfill the 'Make in India' Mission and generate employment.

The purpose of the LTE for Indian Railways is to provide secure and reliable voice, video and data communication services for operational, safety and security applications of Railways. It will be used for :

- Deployment of Modern Cab based Signalling System with Automatic Train Protection which will increased safety & throughput in train operation. Also, help during fog.
- Mission Critical Voice Communication with seamless connectivity in train operations between Driver, Guard, Station Master, Train Traffic Controller & Maintenance staff.
- Monitoring Limited Video Surveillance (Live

- Government has approved allotment of 5 MHz Spectrum in 700 MHz frequency band to Indian Railways for public safety and security services at stations and in trains
- 92% Route of the Indian Railway has been covered with OFC based system ; 62,205 RKms
- For above Modernization of Signalling and Telecommunication, Indian Railways has envisaged investment of nearly ₹55,000 Crore

Feed) through CCTV cameras in Trains to enhance passenger security.
- For IoT based Asset monitoring specially the rolling stock.
- Passenger Information Systems (PIS) in trains & at stations.

In addition to LTE initiative, other major initiatives in Railway Telecom are:

- Wi-Fi facility has been extended at 6002 stations and 101 balance feasible stations will be covered soon. Out of which 70% stations are of rural area.This facility is being used by passengers, local vendors, coolies, etc.
- To improve security CCTV System has been provided at 801 stations and balance are also planned.
- 92% Route of the Railway has been covered with OFC based system (62,205 RKms). This is being used for Railway's internal communication and spare capacity is being commercially utilized by RCIL.
- Indian Railway is deploying e-filing system on a big way. To improve administrative works, e-office has been provided at 185 Units including all Divisions, Zones, CTIs & PUs. More than 1.35 Lakh users are using this and over 15.0 Lakh e-file are created till now. Existing physical files are being converted into digital files.

For above modernization of Signalling and Telecommunication, Indian Railways has envisaged investment of nearly ₹55,000 Crore.

- Cabinet approves Allotment of 5 MHz spectrum in 700 MHz band to Indian Railways
- Enhances safety and security of train operations
- Brings strategic shift in Railways operations & safety
- Ensures seamless communication with loco pilots and guards, thereby improving safety
- Provides secure voice, video and data communication services for operational, safety and security applications
- Estimated investment of the total project is more than ₹25,000 Crore
- Project will be completed in next 5 years
- In addition, Railways has approved Train Collision Avoidance System, an indigenously developed system, which will help in avoiding train collisions thereby ensuring passenger safety

Cabinet approves allotment of 5 MHz spectrum in 700 MHz band to Indian Railways

Giving a boost to 'Aatmanirbhar Bharat' mission, the Union Cabinet, chaired by the Prime Minister Shri Narendra Modi has approved the proposal for allotment of 5 MHz Spectrum in 700 MHz frequency band to Indian Railways for public safety and security services at stations and in trains.

With this spectrum, Indian Railways has envisaged to provide LTE (Long Term Evolution) based Mobile Train Radio Communication on its route. The estimated investment in the project is more than ₹25,000 Crore. The project will be completed in the next 5 years.

In addition to this, Indian Railways has approved TCAS (Train Collision Avoidance System), an indigenously developed ATP (Automatic Train Protection) System, which will help in avoiding train collisions thereby reducing accidents and ensuring passenger safety.

It brings a strategic shift in Railways' operations and maintenance regime. It will help in improving the safety and increasing the line capacity to accommodate more trains using the existing infrastructure. The modern rail network will result in reduced transportation cost and higher efficiency. Also, it will attract multinational industries to set up manufacturing units to fulfill the 'Make in India' mission and generate employment.

The purpose of the LTE for Indian Railways is to provide secure and reliable voice, video and data communication services for operational, safety and security applications. It will be used for modern signalling and train protection systems and ensure seamless communication between loco pilots and guards. It will also enable Internet of Things (IoT) based remote asset monitoring especially of coaches, wagons & locos, and live video feed of CCTV cameras in the train coaches to ensure efficient, safer and faster train operations.

The Spectrum charges may be levied based on formula basis as prescribed by Department of Telecommunications for Royalty Charges and License Fee for Captive use as recommended by Telecom Regulatory Authority of India. ■



FREIGHT LOADING : UPSWING CONTINUES

Despite the Covid challenges, Freight figures continue to maintain the high momentum in terms of earnings and loading in the month of May 2021 for Indian Railways.

On mission mode, Indian Railways' Freight made highest ever loading for the month of May.

In May 2021 it is 114.8 MT which is 9.7% more than May 2019 (104.6 MT) for the same period.

The important items transported during May 2021 includes 54.52 million tonnes of Coal, 15.12 million tonnes of Iron Ore, 5.61 million tonnes of Foodgrains, 3.68 million tonnes of Fertilizers, 3.18 million tonnes of Mineral Oil, 5.36 million tonnes of Cement (excluding clinker) and 4.2 million tonnes of Clinker. In the month of May 2021, Indian Railways earned ₹11,604.94 crores from freight loading.

Wagon Turnaround time has seen an improvement of 26% in this month. In May, 2021, wagon turnaround time is registered at 4.81 days as compared to 6.46 in May 2019.

A number of concessions/ discounts are also being given in Indian Railways to make Railways Freight movement very attractive.

- **Railways loads the highest ever freight of 114.8 MT for the month of May**
- **Loading for May 21 is 9.7% higher than the previous best of 104.6 MT in May 2019**

Speed of freight trains has been enhanced in the existing network.

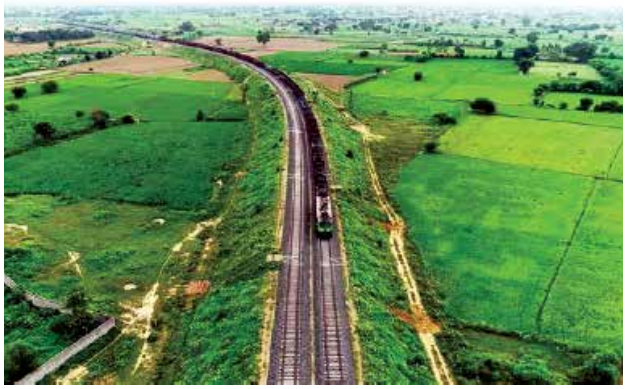
Freight speed improvement leads saving of costs for all stake holders. Freight speed has doubled over the last 18 months.

Some zones (around four zones) have registered average speed of freight trains even above 50 Kmph. Due to geographical conditions, certain sections offer good speed to freight trains. An average speed of 45.6 Kmph is registered in May 2021 for freight trains which is 26% more as compared to 36.19 Kmph for the same period.

Covid 19 has been used by Indian Railways as an opportunity to improve all round efficiencies and performances. ■



Indian Railways On Course to Become the Largest Green Railway



- Indian Railways on its way to become 'Largest Green Railways' in the world with Zero Carbon Emission
- Railways looks at helping the environment with steps ranging from massive electrification, water & paper conservation, to saving animals from being injured on Railway tracks



- 39 Workshops, 7 Production Units, 8 Loco Sheds and one Stores depot have been 'GreenCo' certified; These include 2 Platinum, 15 Gold and 18 Silver ratings
- 19 Railway Stations have also achieved Green Certification including 3 Platinum, 6 Gold and 6 Silver ratings
- 27 Railway Buildings, Offices, Campuses and other establishments are also Green certified including 15 Platinum, 9 Gold and 2 Silver ratings
- 600 Railway Stations have been certified for implementation of the Environment Management System to ISO: 14001 in the last two years

Indian Railways (IR) is working in mission mode to become the largest Green Railways in the world and is moving towards becoming a 'net zero carbon emitter' before 2030. Railways is guided by a holistic vision of being an environment friendly, efficient, cost effective, punctual and a modern carrier of passengers as well as freight in order to serve the growing needs of New India. IR is looking at helping the environment with steps ranging from massive electrification, water & paper conservation, to saving animals from being injured on Railway tracks. Railway Electrification which is environment friendly and reduces pollution, has increased nearly ten times since 2014. Capturing the economic benefits of electric traction in an accelerated manner, Railways has planned to electrify balance Broad Gauge (BG) routes by December, 2023 to achieve 100% electrification of BG routes. Head-On-Generation systems, Bio-Toilets and LED lights recreate the train itself into a travel mode that's more kind to the environment while maintaining comparable passenger comfort.IR's Dedicated Freight Corridors are being developed as a low carbon green transportation network with a long-term low carbon roadmap, which will enable it to adopt more energy efficient and carbon-friendly technologies, processes and practices. IR is implementing two Dedicated Freight Corridor projects viz. Eastern Corridor (EDFC) from Ludhiana to Dankuni (1,875 km) and Western Corridor (WDFC) from Dadri to Jawaharlal Nehru Port Trust (1,506 km). Sonnagar-Dankuni (538 km) portion of EDFC has been planned for execution on Public Private Partnership (PPP) mode.

Green Certifications and implementation of Environment Managementi System:

MoU has been signed between IR and Confederation of Indian Industry in July 2016 for facilitation of Green initiatives on IR. 39 Workshops, 7 Production Units, 8 Loco Sheds and one Stores depot have been 'GreenCo' certified. These include 2 Platinum, 15 Gold and 18 Silver ratings.

Green certification mainly covers assessment of parameters having direct bearing on the environment such as energy conservation measures, use of renewable energy, Green House Gas emission reduction, water conservation, waste management, material conservation, recycling etc. 19 Railway Stations have also achieved Green Certification including 3 Platinum, 6 Gold and 6 Silver ratings. 27 more Railway Buildings, Offices, Campuses and other establishments are also Green certified

Head on Generation (HOG)

IR has introduced Head on Generation (HOG) system, whereby electrical power is fed to the coaches, for lighting and fans, directly from the Over Head Equipment (OHE) through the Locomotive. This eliminates the need for separate power car coaches and improves efficiency. 1,280 trains have been equipped with the HOG system in Indian Railways. This will facilitate reduction in Carbon footprint by 31,88,929 Ton per annum and saving in fuel costs to the tune of ₹2,300 crore due to elimination of power cars.



New and Better Locos with Higher Energy efficiency

Indian Railways has awarded a contract for supply of 800 electric locomotives with 12,000 HP Insulated Gate Bipolar transistor based three phase propulsion technology. These locomotives are energy efficient and have digital tracking features. 106 of these have been inducted on IR to haul heavier freight trains at higher speeds. At full load, its efficiency is 87%. It has been decided to produce only 3 phase propulsion fitted electric locomotives in all three production units of Indian Railways.

Reducing Pollution by Shifting from Diesel Locos to Electric Locos

With increasing electrification, Indian Railways has stepped up the production of electric locomotives significantly in the last few years.

Particulars	2013-14	2018-19	2019-20	2020-21	2021-22 (planned)
Electric locomotives produced	264	605	784	721	905

Reduced use of diesel locomotives for train operation has resulted in increased share of electric Gross Ton Km (GTKM) (around 77%) as compared to 65.4% during 2013-14 in haulage of freight trains and huge savings in diesel consumption.



including 15 Platinum, 9 Gold and 2 Silver ratings. In addition, over 600 Railway Stations have been certified for implementation of the Environment Management System ISO : 14001 in the last two years. A total of 718 stations have been identified for ISO : 14001 certification.

Indian Railways has incorporated Climate Change features in its own risk assessments and disaster management protocols, as an organisation ready to manage the risks, and ask the right questions about its assets, routes & investments. Top management in IR's and many public sectors have been communicating with stakeholders for a shared understanding needed for long-term health and sustainability of the organisations they lead.

The Environment Sustainability Report published by IR and subsidiary units each year sets up a framework document defining strategies and focus points in the context of climate change, the issues at stake, and steps for dealing with them. It helps railways to support government commitments such as the Paris agreement on climate change, the UN Sustainable Development Goals and National Disaster Management Plans. ■



Contribution of NCR Towards Utilization of Green Energy & Efforts in Improving Energy Efficiency

North Central Railway is having the Total Broad Gauge Network of 6119.55 Track KM out of which 5642.91 Track KM are Electrified which is 92.21%. Today, around 90% of Trains in the North Central Railway are being run on Electric Traction. During the year 2020-21, around 268 Track KM of Rail Network was electrified in North Central Railway. Further, Electrification Works are in progress in the left out sections. As such, more number of Trains in future are expected to be run on Electric Traction. During the year 2020-21, Etawa-Bhandai Section and Bharatpur-Bandikui Section in Agra Division were commissioned and now Trains in these sections are being run on Electric Traction. Due to the reduced Utilization of diesel locomotives, Rs. 364.27 crore worth of savings in diesel oil was achieved during the year 2020-21.

In the North Central Railway, 11 MWp Capacity solar power plants have been provided. During the year 2020-21, 10.73 million units of electrical energy were generated through solar power plants and savings of Rs.5.13 crore was achieved. Solar power plants have been provided with total installed capacity of 2890 kWp at



Jhansi Wagon Repair Workshop, 1205 kWp at Jhansi MLR Workshop, 528 kWp at Sithouli Workshop, 3629 kWp in Prayagraj Division, 1588 kWp in Agra Division and 1179 kWp in Jhansi Division. North Central Railway observed National Energy Conservation Week from 7 to 14 December 2020 & celebrated National Energy Conservation Day on 14 December 2020. On this occasion, a webinar was organized and Energy Conservation Booklet was released. Energy conservation measures are being used throughout the North Central Railway resulting in savings of Rs. 12.71 crore during the year 2020-21.

S.Rly. : Indian Railways on GO GREEN mission: Induction of HOG systems, Electric locos gain momentum

Southern Railway on fast track to becoming energy-efficient and eco-friendly

In Southern Railway during the year 2020-21, 27 pairs of trains were taken over from other railway in electric traction which has resulted in releasing 22 diesel locos. This has reduced the transit time required for loco change from electric to diesel traction and vice versa.

New and Better Locos with Higher Energy efficiency

Indian Railways has awarded a contract for supply of 800 electric locomotives with 12,000 HP Insulated Gate Bipolar transistor based three phase propulsion technology. These locomotives are energy efficient and have digital tracking features. 106 of these have been inducted on IR to haul heavier freight trains at



higher speeds. At full load, its efficiency is 87%. It has been decided to produce only 3 phase propulsion fitted electric locomotives in all three production units of Indian Railways. ■

Indian Railways successfully completes work on the Valsad Road Over Bridge (ROB) on Dedicated Freight Corridor in a record 20 day time



Indian Railways' PSU, Dedicated Freight Corridor Corporation of India (DFCCIL) has completed work of dismantling and reconstruction (after making way for DFC tracks) of Valsad Road Over Bridge (ROB) on the Western Dedicated Freight Corridor in the state of Gujarat in a record 20 day time.

Background

Work in Western DFC's Vaitarana – Sachin section faced a bottleneck of crossing a ROB near Valsad Town in South Gujarat. The ROB work could not be started due to various limitations and track laying activities would have been adversely affected. Track laying projects using state of the art New Track Construction (NTC) machine, would have been affected.

The Solution

The project team geared up to take up this challenge. After many brainstorming sessions, an innovative solution was proposed to insert a Twin precast box of 16m x 10m size on the approach of the ROB to take the NTC forward through it. The biggest challenge in doing this work was road traffic block, as this ROB is one of the busiest passages into the city of Valsad from Mumbai-Delhi highway. The whole work is planned to be completed in 20 days road traffic block.

Extensive arrangements were made for pre-casting of these huge segments. Despite lock-downs and travel restrictions, a team of approximately 150 nos, including senior engineers toiled day and night to finish the casting works. Road traffic block was granted by the district administration of Valsad, responding favorably to the proposal.

- The biggest challenge in doing this work was road traffic block, as this ROB is one of the busiest passages into the city of Valsad from Mumbai-Delhi highway.
- Work on Freight Corridor continues despite Covid challenges

The road traffic block of 20 days commenced on 02-06-2021 and the work progressed as per the planning. Four heavy duty hydraulic cranes having capacity varying from 300 MT to 500 MT are mobilized for the installation of these segments. Another challenge that was difficult to handle was solved by innovation in local handling of the segments. The precast segments are too big & heavy to handle without causing any internal stresses during handling. The Project Team designed a special carrier using a multi-axle trailer fitted with a steel platform on it. The fabrication of the steel platform was completely done at site even during the period when the industrial oxygen supply was prohibited in the country. The team could overcome all such constraints by continuously striving for alternatives and by taping the collective wisdom & experience of the team. The work was finally completed on 22.06.2021. ■

Launch of Online Payment System for Freight Charges

Electronic Payment System is in place for collection of freight wherein all major and regular customers are covered. However, occasional customers are making payment of freight charges through conventional mode. Tremendous progress in information and communication technology has now made it feasible to introduce Online Payment System through web.

Policy guidelines regarding Online Payment System for Freight Charges have been issued on 30th April, 2021 to make the process of payment of freight charges simpler, convenient, speedier and transparent. Online Payment System will be provided through Freight Business Development (FBD) portal of FOIS via SBI's payment gateway. It will provide the facility for collection of freight and all kinds of ancillary charges e.g. Premium Charge (in case of premium indent), Wagon Registration Fee, Demurrage, Wharfage, Siding Charge, Shunting Charge, Rebooking Charge, Diversion Charge, etc. This facility will be available 24 x7 to freight customer as well as its handling agent. This facility has been launched from 2nd June, 2021. Memorandum of Understanding has been executed between Ministry of Railways and State Bank of India on 2nd June, 2021. ■



Signing of Memorandum of Understanding between Ministry of Railways and State Bank of India: Shri Barjesh Dharmani, Executive Director/Traffic Commercial (Rates), Railway Board and Shri Dharmendra Kishore, Assistant General Manager (C&I), State Bank of India.

'WHO AM I' QUIZ?

QUESTION FOR THIS MONTH

QUIZ NO. 6

Buying a Railway journey ticket sitting in the cosy comfort of your home is no big deal today. But that was something unthinkable way back in the early fifties. I am the city where Northern Railway had set up the first mobile booking office of the country way back in 1956. Who am I ?
(Need more hint? Well, Recently I had the honour of receiving a VVIP of the country who came here by a special train from Delhi.)

(You will be able to answer only if you read the whole magazine thoroughly and carefully. The answer lies hidden somewhere in its pages. Find out and mail your answer to: whoamiquizes@gmail.com)
Correct answer will be given in the next issue of the magazine

CORRECT ANSWER TO QUIZ NO 5

JAGJIVAN RAM HOSPITAL, MUMBAI

mentioned in page 52.

Till 27th June, 2021
Correct Answers were given by

1. Anil Kumar Saxena, 2. Subramanian Nagarajan, 3. Integral Ravi, 4. Sukirthan. M, 5. M. Bharathi, 6. M. Dhanyashree, 7. Murugan. N, 8. Dominic Tatpati, 9. Krishna Kumar Goswami, 10. Krishna Prasad, 11. Sreevasan Anudarsh, 12. Vijaya V.R., 13. Paruvu Daniyelu Raju, 14. Chhaturvi Sai, 15. Sanjayan K.B., 16. Priya Ramachandran, 17. B.V. Durgarao, 18. Jos Vellara, 19. Balako Thandapani, 20. Debasish Roy, 21. Sahil Sood, 22. Bijeesh. K, 23. Pukalendi. M, 24. Mohammed Yusuf Sayed, 25. M. Ezhil Arasu, 26. Sagar Mahdendru, 27. Pandimurugan. S, 28. Gaurav Nakra, 29. Anitha C.S., 30. K.R.C. Sekaran, 31. Krintan Ghosh, 32. G. Veena, 33. S. Guruprasad, 34. Mahesh Kr. Agarwal, 35. Samiran Biswas

Banaras Locomotive Works committed towards a clean environment

Anjali Goyal
GM, Banaras Locomotive Works

Banaras Locomotive Works (BLW) had entered the domestic manufacturing industry when the first BLW manufactured Diesel-electric locomotive was dedicated to the nation by Late Shri Lal Bahadur Shastri, on 03rd January, 1964. Since then, it became India's leading diesel locomotive manufacturing unit.

From 2016-17, BLW embarked upon the journey to manufacture energy efficient Electric Locomotives with Regenerative Braking and Hotel Load converter features and has not looked back ever since. Today, BLW takes its rightful place amongst the leading locomotive manufacturers of the world. It now has the capability to design and manufacture Multi-Gauge and Multi-Traction locomotives. BLW manufactured locomotives ply not only in India but over several international railway systems across Asia and Africa. Locomotives manufactured by BLW are running in Bangladesh, Sri Lanka, Myanmar, Tanzania, Sudan, Senegal, Mali, Malaysia, Vietnam, Angola and Mozambique. BLW is also supplying locomotives to various steel plants, power plants and port trusts in India.

In a bid to reduce the carbon footprint and to provide green traction, BLW has stopped manufacturing Diesel Locomotives for Indian Railways.

BLW, located in the heritage town of Varanasi, is the leading industrial unit in this area. BLW has always been conscious of its larger role with regard to its community stake holders especially towards the holy River Ganga which provides for key ecosystem like biodiversity and livelyhood to people living on the banks.

Always being a leader in environmental protection, BLW took the lead way back in late 1980s and installed two treatment plants viz. Sewage Treatment Plant (STP) of 3.4 MLD capacity for treatment of discharged human waste and Industrial Effluent Treatment Plant (IETP) of 3 MLD capacity for treating contaminated & mixed Petroleum Oil and Lubricants (POL).



Sewage Treatment Plant



Industrial Effluent Treatment Plant

These plants, besides ensuring that river Ganga remains clean, also contribute significantly to the recycling of resources. BLW takes pride in the fact that no sewage, whether treated or untreated, is discharged into the River Ganga. The digested bio-manure as sludge is dried and used as fertilizer for horticultural purposes. STP treated 1248 Million Liters water during 2020-21. IETP separated 500 litres of POL from water in 2020-21. The parameters of STP and IETP are monitored online to ensure that these remain within the laid down standards of Central Pollution Control Board.

BLW is also committed towards water harvesting by construction of more than 425 soak pits and 50 deep recharge wells to recharge ground water. Approximately 44,000 sqm roof top area has



Recharge Well & soak pits

been covered under Rain Water Harvesting.

In its endeavor towards sustainable environment, Two Water Recycling Plant (WRP), each of capacity of 0.25 Million Liters per Day, have been commissioned. This recycled water is used for horticulture and groundwater recharging thereby reducing fresh water consumption

In order to provide focus on its efforts towards maintaining various parameters of water, air, hazardous waste, exhaust emission etc. within limits at par with laid down standards, BLW went in for ISO:14001 certification for Environment Management System in 2001. With this certification, BLW has a well defined and documented policy for preservation of environment of its workshop and colony.

BLW is the first unit of Indian Railways which was awarded the status of Green Co Silver rating by CII-Godrej Green Business Centre (CII-Godrej GBC) for its initiatives towards protecting the Environment.



Stepping towards energy conservation and to tap the benefits of non-conventional energy resources, BLW has taken a giant leap towards installation of grid connected solar power plants. BLW has installed capacity of 3.86 MWp of grid connected solar power at various locations. Additional Solar Power of 2.4 MWp is planned in future. BLW achieved 17.6% increase in Solar energy generation in current financial over the previous year. Contribution of Solar energy is 23.31% in total consumption of energy at BLW in 2020-21.

BLW could achieve 22.4% saving in electrical energy consumption per Equated Unit and 26.6% saving in energy bill paid in current financial year over the previous year's bill.



Solar equipment at BLW premises

BLW boasts of being the first production unit where SCADA system in general services has been commissioned for monitoring of energy consumption and optimizing energy usage. It may be mentioned that BLW has obtained ISO:50001 certificate for better energy conservation. BLW has also completely changed from conventional to Energy efficient LED based lighting system.



Solar equipment at BLW premises





Green and Clean BLW premises

Another example of BLW's initiative towards reduction in energy consumption is the use of Motorized Gate Valve with Pump Automation. These system improvements have not only saved precious water that got wasted due to overflow but also reduced pumping requirement by 2 hours.

Under the Swachchh Bharat Mission, vigorous cleanliness drives are carried out in workshops, colonies, offices and hospitals at BLW. All the officers, employees and their family members including the members of Civil Defence, Bharat Scouts & Guides and St. John's Ambulance Brigade actively take part in these drives to keep the premises neat and clean.

BLW township area has more than 1,50,000 small & big trees. This translates into BLW having around 40% green area. In the year 2020-21, more than 2000 trees were planted at BLW. This concerted effort of 'Team BLW' for 'Clean BLW, Green BLW', has resulted in an environment which is not only green & clean all around but also the pollution levels of water, air, exhaust-emissions and hazardous wastes are well within the limits. The green campus of BLW speaks volumes about the concern and commitment of the habitants of this colony for the environment conservation at BLW. One can perceptibly feel a temperature drop of 3-4 degree Celsius, on entering BLW campus, as compared to outside area. It is the understanding and appreciation of its environment which continuously encourages BLW towards a greener and cleaner and sustainable future.

All constituents of our environment whether abiotic like Soil, Air, Water or biotic like plants and animals are interdependent on each other for sustainability. They maintain balance in the ecosystem. Failure of any one constituent leads to collapse of ecosystem.

Current pandemic has taught us the significance of healthy environment. Air pollution and environmental degradation trigger serious health issues which contribute towards severity of the pandemic. BLW, with its lush green and clean air environment is making an important contribution towards a healthy life. The BLW Community continues to strive towards environment friendly activities in all their initiatives and contribute to a cleaner, greener India. ■

Writers and Contributors

Writers are invited to contribute articles on subjects like

Short Stories, Tourism, Health, Yoga, Cinema, Gardening, Meditation, Cooking, Sports, Famous Places Abroad, Trekking etc. in 800-1000 words/poems/quiz/puzzles.

Relevant pictures along with article may be sent only on Email ID
editorindianrailways@gmail.com

Interview with LOCO PILOT
Ms. Sireesha Gajini

Indian Railways is immensely proud of its women workforce. Today our women employees are holding important posts and handling critical and even hazardous duties even under the most challenging circumstances. S W Rly Loco pilot, Ms Sireesha Gajini suddenly shot into fame when Hon'ble Prime Minister of India talked to her on 30th May in his 'Mann ki Baat' programme. Ably supported by Asstt Loco Pilot Ms Aparna, she has so far run 3 Oxygen Express trains in the month of May 2021 and ensured their timely arrival at the respective destinations. In an interview with Railway Board officer Smt Geeta Srikala, Ms Gajini thanks Indian Railways as well as her family for being supportive all through her struggle to survive in what is generally perceived to be an essentially male-dominated arena.

Tell us how did you feel when you were selected to be the lady Loco Pilot for the Oxygen Express train?

I felt proud. I took that job with responsibility because the oxygen express would save many lives who were suffering from Covid. The Railways are encouraging the working of lady loco pilots. In the Oxygen Special trains, 4 to 5 policemen are sent as escorts to ensure safety. Oxygen specials are monitored through website by higher authorities at every stage like current location of the train, how much load is being carried and how many trains have completed their journey, present running status, etc. Our responsibility is to reach with the train within the target time. We have to ensure the safety also while running the train.

When did you join the Railways and since when are you working as Loco Pilot?

Initially I joined in South Central Railway in 2013 as Assistant Loco Pilot and got promotion as Sr. ALP there. In 2018, I came to Bengaluru Division on transfer and had to join here as ALP only as per the rules. Here I got my promotion as Loco Pilot (Goods) in December 2020.

Did you face any trouble or the run of Oxygen Express was very smooth?

Railways has given Green corridor to run Oxygen Express trains. I did not face any trouble while running the train and the run was very smooth.

How much kilometers did you run this oxygen express train?

Three times I have piloted the oxygen express train covering distance 125 km within 90 minutes which was the target time.



What was your reaction and how did you feel when you learnt that Hon'ble PM would speak to you in the programme 'Mann Ki Baat'?

I had not expected that I would get the opportunity. I am thankful to the Railways that despite there being so many lady employees I got the opportunity to interact with the Hon'ble PM. In the beginning I was a little bit nervous but after that I became normal while speaking to him.

Can you tell us about the kind of support you got from your family members and officers during the pandemic for running the oxygen express?

I got a lot of support from Railways and my family. My supervisors trained me and gave many suggestions which helped me a lot, while working on Oxygen Special trains. During this pandemic,

Railways ensured that locos and Running rooms are sanitized during crew changing and temperature of every crew member is checked during sign on/off time. Our senior colleagues formed a team 'RUN CARE'. They basically monitored employees vaccinations and provided help if it was needed. And finally, without support from my family, it would have been difficult to manage both working and family life.



How many oxygen express trains you ran and from which place to which place?

I ran three oxygen express trains on 7th, 14th and 27th. I ran the train from Jolarpetti to Whitefield and from Whitefield to ICD (Inland Container Depot).

How was the reception in the office and within your family after the interaction with Hon'ble PM?

With Hon'ble PM it was a nice interaction. I got congratulatory calls and wishes from my relatives and colleagues and they felt proud. I was very happy for 3-4 days after the interaction.

Please tell us about your experience being a women loco pilot in Indian Railways.

I am passionate about my job. I knew about this type of job beforehand while entering. A 24 hours job is always difficult. We have to ensure our own safety as well as railway safety. You have to feel comfortable while doing this job. On duty you have to face whatever comes your way. You should have this type of mind-set. I am having 8 years experience and I did not face any difficulty. If I had any troubles, I would take 5 to 10 minutes to clear my thoughts.

The Loco Pilot job is basically a male dominated one. Did you feel any difficulty while adjusting with your male colleagues?

I have worked for so many years with my male colleagues and have never faced any problem with them. They have given me support by treating me like their sister. Even when I faced problem they would tell me that they would handle it.

Any words of encouragement to the women who want to join as loco pilots in Indian Railways.

When they want to join the Railways as loco pilots first they have to convince their family members because there are no fixed office hours. Railways support the ladies who are working in the organisation. If I have any problem I tell my supervisors who invariably support me. If we have any health issues they keep us away and after recovering they give us again the open line job. From the Railways side there is no problem and they give full support to us.

How was the coordination with the Stations Master and the Guard while driving the oxygen express train?

The coordination among Station Master, Loco Staff and the Guard was of high order. Through the high alertness and sharp look out of all concerned we could successfully complete the journeys in minimum possible time.

How much time is taken for handing over and taking over the charge for oxygen express train including checking of the hanging parts. What was the support given by the Assistant Loco Pilot? How promptly you were able to do the job alongwith the ALP?

We took 3 minutes for taking over charge of the Oxygen Special train including checking. The main role of the ALP is calling out signals, observing the alertness of Loco Pilot, exchanging of signals within Station Section and with passing trains, looking out formation in between sections and they did it very well in these aspects. ■

Liquid Medical Oxygen (LMO) Updates

(Position as on 30.06.2021)

Total LMO transported	- 35,000 MT
Total number of Oxygen Express run	- 477 Nos.





Hon'ble Minister of Railways, Shri Piyush Goyal and the CRB & CEO of Railway Board, Shri Suneet Sharma went to see off Hon'ble President of India who, along with his wife, went to visit his native place, Kanpur by a special train on 25.06.2021.





Hon'ble Chief Minister of Andhra Pradesh met Hon'ble Minister of Railways, Minister of Commerce and Industry and Minister of Consumer Affairs, Food and Public Distribution at Rail Bhawan on 11th June, 2021



Shri Piyush Goyal, Minister of Railways reviewed the progress made by Indian Railways towards enhancing its institutional efficiency for making it more streamlined, cohesive & better equipped in taking advantage of ongoing and future opportunities







Different views of a new-look Guntakal Railway station, South Central Railway



The first trial run of Double Stack Container train from Mundra, Gujarat to Kathuwas, Rajasthan



An amazing view of a railway bridge amidst the 'Deepor Beel' a wetland close to Guwahati.



A view of Chennai Egmore Railway Station - one of the prominent landmarks sporting Indo-sarcenic style of architecture

Do you know ?

With the recent re-naming of Chennai Central Railway station (in 2019), the station now has the longest name of all Railway Stations on Indian Railways. The new name "Puratchi Thalaivar Dr. M.G. Ramachandran Central Railway Station" has 57 letters. Earlier, "Venkatanarasimharajuvaripeta" Railway Station (Southern Railway) in Andhra Pradesh had the longest name.

"Ib" Railway station in Odisha under the jurisdiction of Bilaspur Division of Southeast Central Railway, has the shortest name. The old Station Code "MAS" has been retained for the Chennai Central Station. The Station Code for Ib Rly Station, is obviously, "IB". ■

INTERNATIONAL YOGA DAY

Yoga is considered to be an ancient practice that originated 5,000 years ago in India. Yoga was developed as a way to interconnect the mind, body and soul to step closer towards enlightenment. It became popular as an exercise and relaxation method, with claims to help the body's general well-being, alleviate physical injuries and chronic pain. The idea of International Yoga Day was first mooted by Hon'ble Prime Minister Narendra Modi on September 27, 2014, during his speech at the UN General Assembly, where a resolution to establish June 21 as International Yoga Day was introduced by India's Ambassador, Shri Asoke Kumar Mukerji. The date of June 21 was chosen as it is the Summer Solstice, the date with the longest day in a whole year. Overall, it received support from 177 nations, the highest number of co-sponsors for any UN resolution, proclaiming June 21 as the International Yoga Day. Recognizing its universal appeal, on 11 December 2014, the United Nations proclaimed 21 June as the International day of Yoga by resolution 69/131. On June 21, 2015, nearly 36,000 people, including Hon'ble Prime Minister himself and many other high-profile political figures from all around the world, performed 21 asanas (yoga postures) for 35 minutes in New Delhi in what was celebrated as the first International Yoga Day, and the day has been celebrated around the globe ever since. The 7th International Yoga day was observed on 21.06.2021 with passion and enthusiasm all over Indian Railways. ■



Western Railway



ECOR



South Western Rly.



Southern Rly.



South Central Railway



North Eastern Railway



Railway Protection Force (Western Railway)

All the best guys for TOKYO OLYMPICS !



Piyush Goyal,
@PiyushGoyal·

25 June 2021

Let us all support the #Cheer4India campaign to encourage the Indian Contingent participating in Tokyo Olympics 2020.

Click selfies at Selfie Points installed across our Railway Stations & share widely to encourage our participating athletes, & for creating a fit India.







As many as 13 Women Hockey players out of the total 16 in the Indian Hockey Women team for Tokyo Olympics 2020 are from Indian Railways.



Indian Hockey Mens Team selected for participation in Tokyo Olympics. 02 of the 16 selected players are from Indian Railways.

PROUD MOMENT FOR IR

A large number of participants in the Indian contingent for the upcoming Tokyo Olympics are from Indian Railways. The magazine conveys its best wishes not only to them but also to the entire Indian contingent for the games.





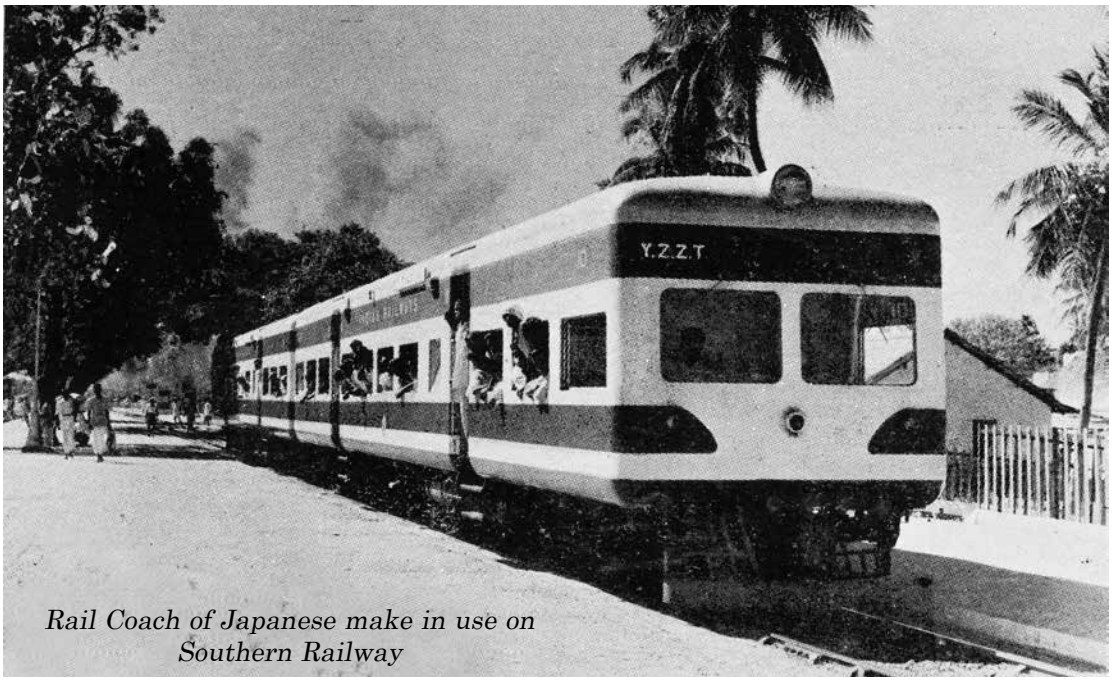
Indian Railways Boxing (Men & Women) players have brought laurels in the ASBC Asian Elite Boxing (Men & Women) championship held at Dubai, UAE :- 1. Shri Varinder Singh (ER) - Bronze 2. Ms. Monika (CLW) - Bronze 3. Ms. Anupama (ER) – Silver



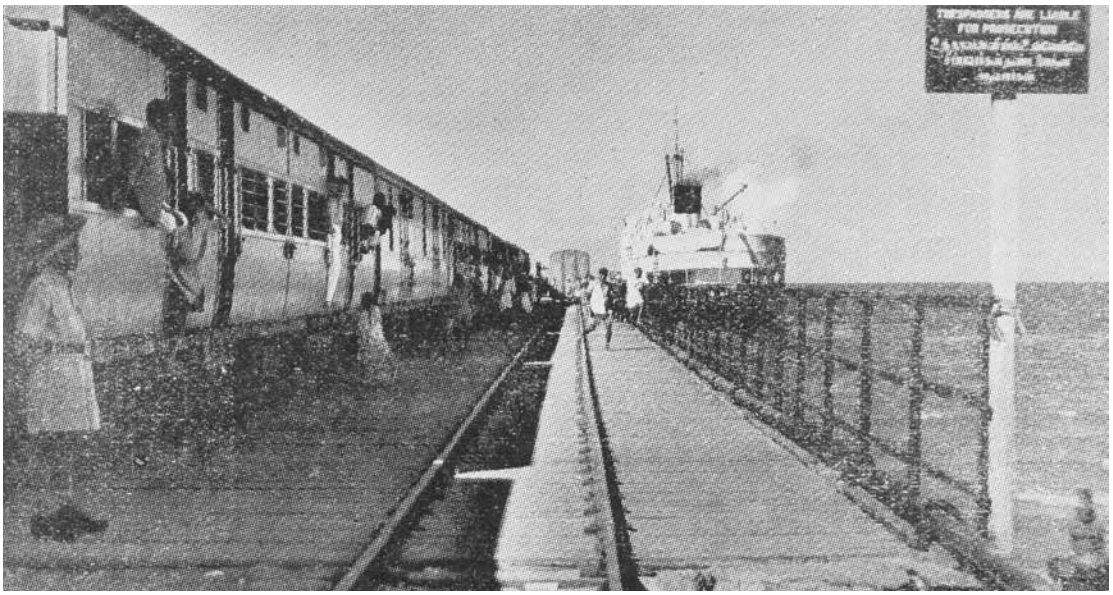
Ms. Saikhom Mirabai Chanu after securing 2nd rank in the Absolute Ranking list published by IWFnet

OUR HERITAGE

The magazine has recently completed its 65th year. On this occasion, while rummaging through the stacks of the oldest editions of the magazine, we stumbled upon some excellent heritage photos carried in the initial issues of the magazine. In fact some of the issues are so rich in content that would turn any enthusiastic archivist turn blue in envy. Some of the old photos are reprinted here below. We hope our readers would find them interesting.

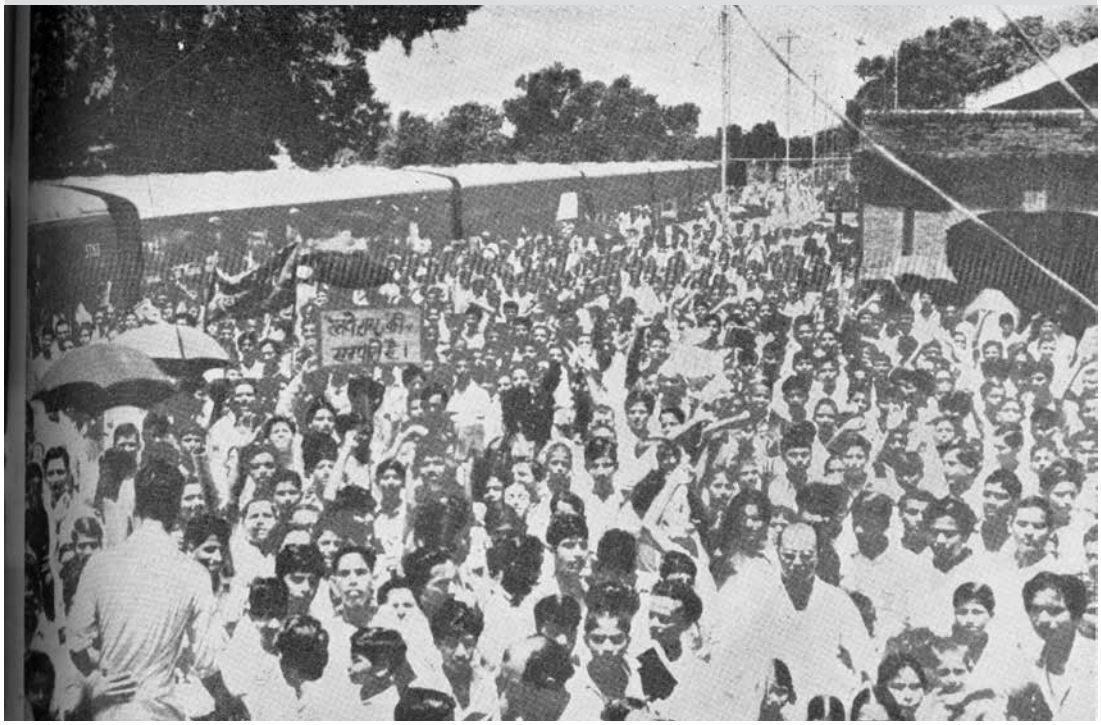


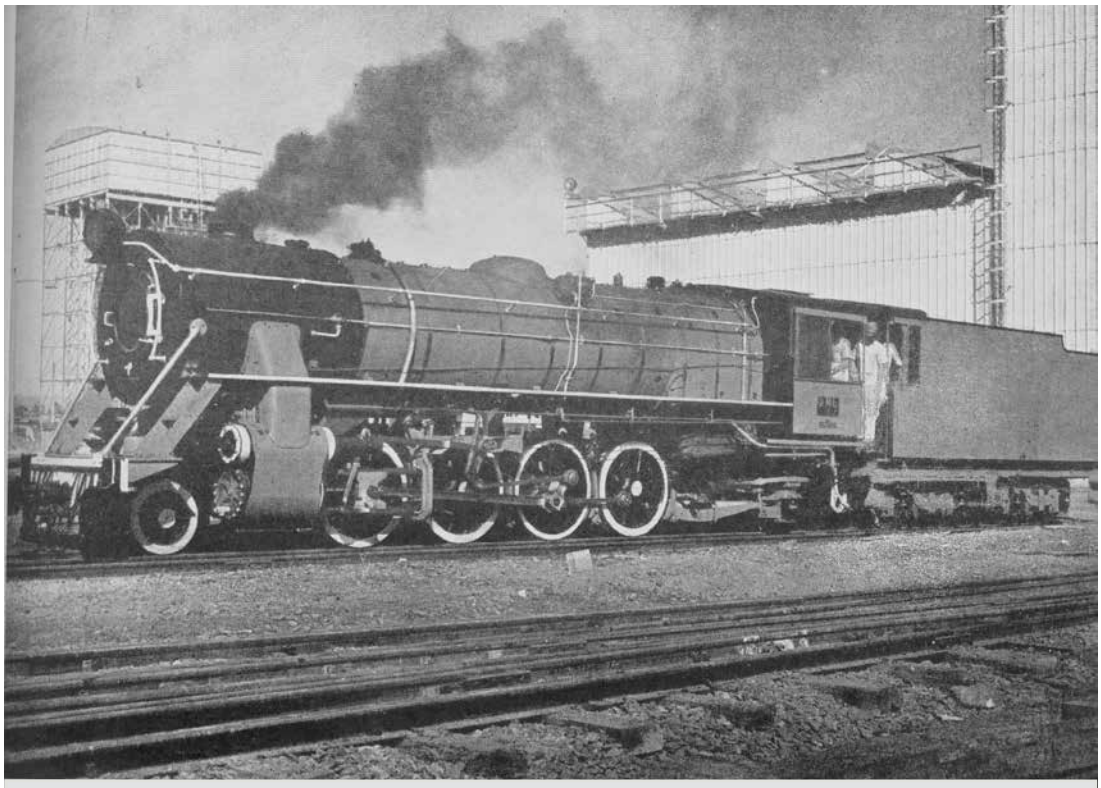
Rail Coach of Japanese make in use on Southern Railway



Southern Railway's steamer at Dhanushkodi pier. From Dhanushkodi steamers ply regularly to the Ceylon coast, carrying both passengers and goods. A committee has been asked to recommend remedial measures to deal with sea erosion here.

Students in Bihar have launched a vigorous drive against ticketless travel and unauthorised pulling of alarm chains in railway trains passing through the State. They have been taking out processions in towns and in the vicinity of railway stations shouting slogan like **bina ticket chalna pap hai, railway desh ki sampati hai** *– Photo shows students at Sagauli Railway Station shouting slogans.*





Photograph shows the 200th locomotive produced at the Tata Locomotive Co. Ltd., Jamshedpur. Over 85 per cent of the components are indigenous

Keyman runs 500 metres exhibiting danger signal and averts possible mishap of Chennai – KSR Bengaluru Special



Shri A.Vadivel
Keyman receiving award from G.M./S Rly.

The presence of mind and alertness of railway employees, especially of those working in the field, have averted possible mishaps in the past saving thousands of passengers' lives.

In one such incident that happened on 19th June 2021, **Shri A.Vadivel** working as Keyman at Kavanur railway station (Katpadi Unit/Chennai Division of Southern Railway) showcased exemplary vigilance and devotion to duty. While on regular patrol duty, he identified a weld failure on the tracks at Km 143/28-30 in Latteri –Kavanur Down line section around 09:55 hours of 19th June 2021. Train No.06079 Chennai – KSR Bengaluru Special train running at 90 Kmph was expected to approach the spot in few minutes. Shri. A. Vadivel was quick to react and ran in the direction of the approaching train for about 500 metres displaying banner flag danger signal. Loco Pilot of Chennai – KSR Bengaluru Special, on noticing the danger signal applied emergency brakes and stopped the train. The matter was immediately reported to railway authorities and the engineering team attended to the rail fracture and restored the tracks. The train safely crossed the spot at 11:33 hours.

Railways has the rich tradition of honouring these unsung heroes whose commendable work saved thousands of passengers' lives in the past. Shri John Thomas, General Manager, Southern Railway felicitated Shri A.Vadivelu and presented him a cash award and merit certification. He appreciated Shri Vadivel for displaying remarkable sense of alertness and devotion to duty. ■



Shri Arvind Kumar Yadav
Passenger Security,
Ranchi Divn.



Shri Vinod Kumar Meena
Head Constable
Posted at Ranch Post

On 20 June, 2021, as the Train no. 02453 Rajdhani Exp was departing from PF 01 of Ranchi Railway station at about 05.10 hrs, one female passenger with luggage was seen trying to board the running train. While doing so she lost her balance and slipped from the foot board. Immediately on duty staff HC/**Vinod Kumar Meena** of RPF Post, Ranchi and Ct/ **Arvind Kumar Yadav**, P S Cell, Ranchi rushed and rescued that lady from danger. Train was then stopped and the lady boarded the train safely. ■



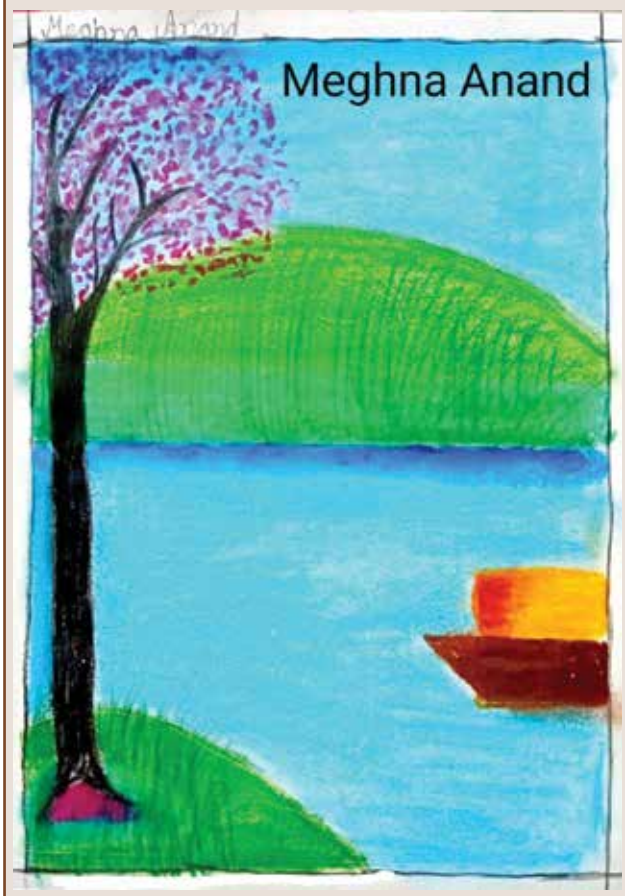
Shri Ashok Murani
Chief Commercial Clerk

On 14th June, 2021, as the 01465 Somnath-Jabalpur Special Train halted at Junagadh Railway Station, one of its passengers, got down to collect drinking water from the station platform. The train started moving and the passenger, while trying to board the moving train with bottles in his hand, lost his balance and fell down., The on-duty Chief Commercial Clerk, **Shri Ashok Murani** who happened to be present at the spot noticed the incident and immediately pulled the man out of danger. The train was stopped and he helped the passenger board the train. Thus Shri Murani, through his alertness and presence of mind, saved the life of a passenger on that day. ■





KANISHK
IIS Jaipur,
Date of Birth :
09 December, 2014





Meghna Anand
Class 4 B
Date of Birth :
09.08.2012
Oak Grove school
(Railway),
Jharipani Mussoorie,
Dehradun,
Uttarakhand

Riddles by Meghna Anand

Q.1. I am tall when I am young and I am short when I am old. What am I?
Q.2. What can you easily break but can never touch?
Q.3. What has hands but cannot clap?
Q.4. A house has 4 walls. All of the walls are facing south, and a bear is circling the house. What colour is the bear ?
Q.5. What starts with letter 't' is filled with 't' and ends in 't'?
Q.6. A girl is sitting in a house at night that has no lights on at all. There is no lamp, no candle, no torch. Yet she is reading. How?
Q.7. What has teeth but cannot eat?
Q.8. Which table does not have legs?
Q.9. What kind of dog never bites?
Q.10. What is the only word that is spelled wrong in the dictionary?

Answers:- Candle 2. Promise 3. Clock 4. White 5. Tea-pot 6. She is blind and is reading with Braille. 7. Comb 8. Vegetable 9. Hot dog 10. Wrong.



Lakshita Yadav
Class 5th
Date of Birth :
02.05.2011
Raath
International
School, Alwar
(Rajasthan)





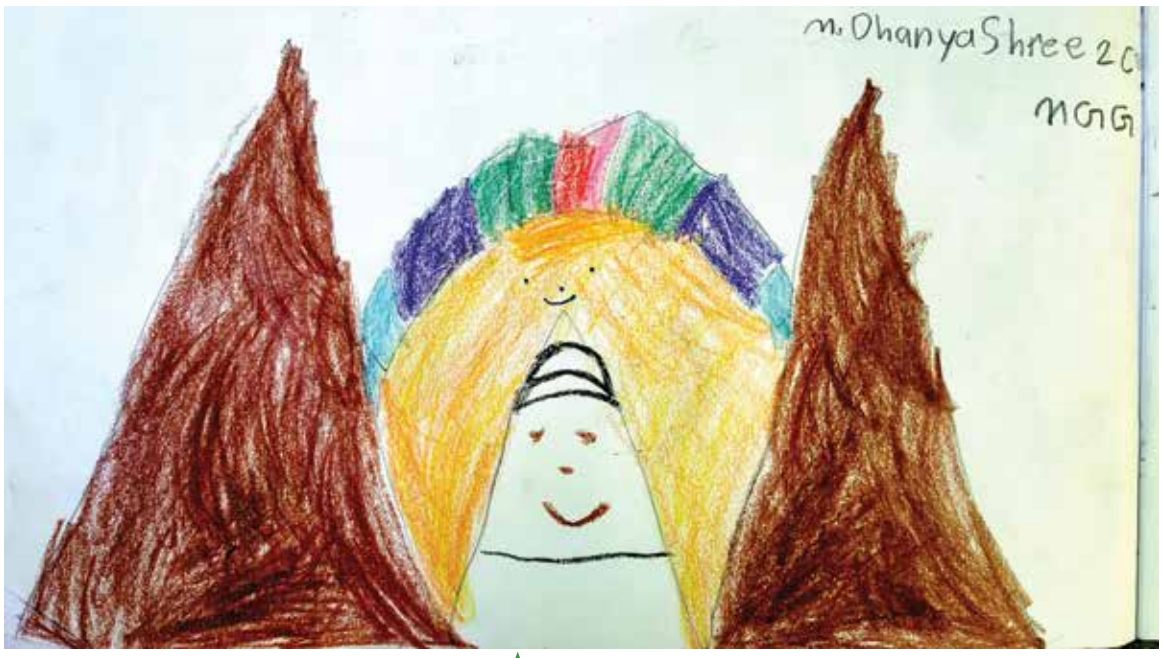
Children, also open page 53 and find a"Children's Quiz" for you.

Short stories/ Poems/drawings/ quizzes (MCQ or one-word answer type)

ARE INVITED FROM CHILDREN

Entries may be sent to

editorindianrailways@gmail.com.

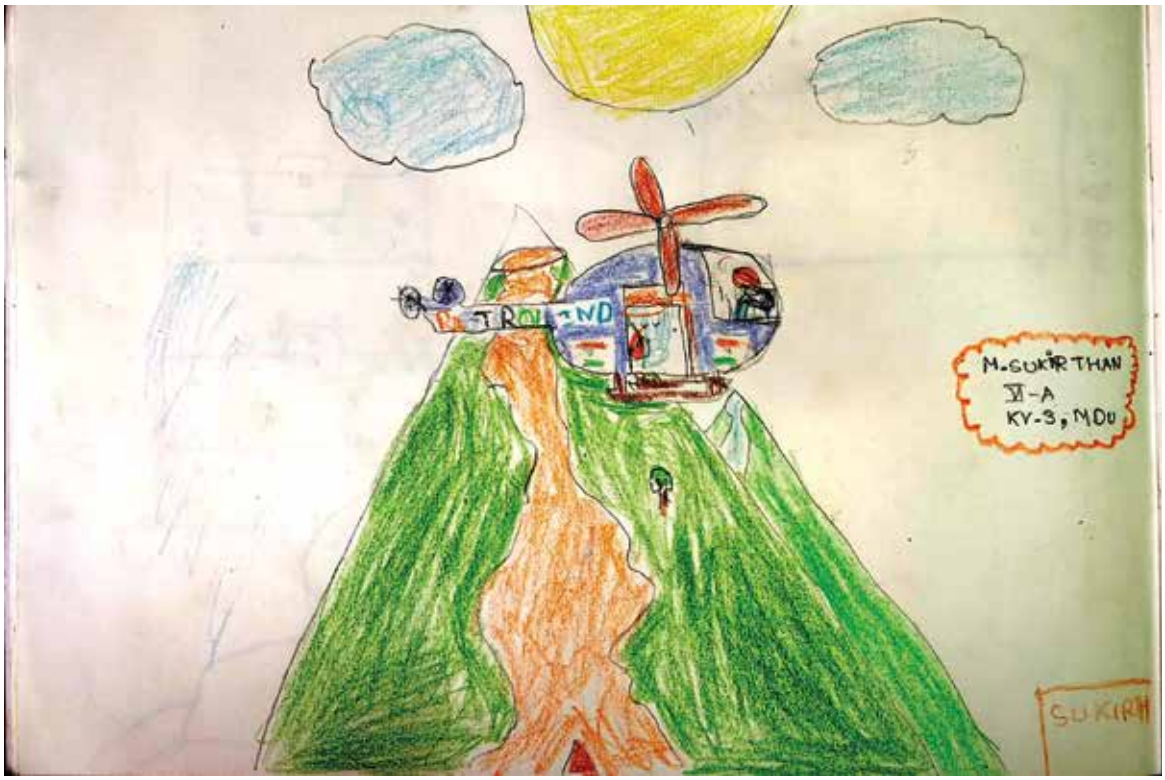




M. Dhanyashree
Class : II, Section : C
Date of Birth :
07-09-2014
Mahatma Global
Gateway (CBSE)
Schools, Madurai,
Tamilnadu (MGG)



M.Sukirthan
Class : VI, Section : A
Date of Birth :
07-03-2011
KV ITBP,
Madurai, Tamil Nadu
(KV-3, Madurai)











Pearl Kalra
Class VI A
Ryan International School,
Vasant Kunj,
New Delhi.



World Environment Day Observed on Western Railway

A Webinar Organised on the Theme of 'Ecosystem Restoration'



General Manager of Western Railway planting tree sapling in the lawns of Headquarters building

World Environment Day is observed on 5th of June every year to raise global awareness with a view to initiate positive environmental actions to protect nature. This year World Environment Day was observed over Western Railway with the theme 'Ecosystem Restoration' at Headquarters & across all six divisions. To mark this occasion, Shri Alok Kansal – General Manager of Western Railway planted a sapling in the lawns of Headquarters building by following COVID – 19 safety protocols.

In view of the prevailing COVID-19 situation, the World Environment Day was observed digitally through webinar which was presided by General Manager Shri Kansal and was attended by senior officers & representatives of recognized trade unions & associations. Addressing the webinar, Shri Alok Kansal stressed upon the need to take all possible steps in the day to day working of Railways to conserve environment & find ways to protect our Ecosystem. Taking forward this commitment, Shri Kansal launched the 'Mission Zero Leakage', a novel initiative to conserve water & plug the wastage of water. He appealed to judiciously use water. Shri Kansal stressed upon the need to save Mother Earth by restoration of ecosystem & conservation of environment. He inaugurated several environment-friendly initiatives such as Automatic Coach Washing Plant, Solid Waste Management System for Zero Waste Management, Sewage Treatment Plant & Integrated Solar Lights with Motion Sensors at various locations and dedicated the GOLD Green Building Standard Certificate to DRM Office, Ahmedabad, conferred by IGBC. An e-booklet titled 'Certifications of Work Areas to Boost Performance' was also released by him. Shri Subhajit Mukherjee, a well-known environmental enthusiast & Founder of Mission Green, Mumbai addressed the webinar on Ecosystem Restoration/Rainwater Conservation. He presented his views on Water conservation & propounded the idea of Catch the Rain to restore the depleting groundwater levels by constructing underground pits & ducts along railway tracks, etc.

With a view to encourage as well as to promote the spirit for green thumb amongst the railway units of WR, the Best Performing Units were felicitated in the fields of developing Green Patches & Water Bodies, Water Conservation & Tree Plantation and Electrical Energy Conservation. Similarly, a virtual drawing & painting competition on the themes: Save the Forests; Reverse Climate Change; Conserving our Bio-diversity; Reduce, Reuse & Recycle was also organised for the family members of the employees. Smt. Tanuja Kansal – President, WRWWO gave away the cash awards to the winners & all the participants through this virtual forum. Smt. Kansal also inaugurated the Herbal Garden at Pratapnagar railway colony, Vadodara. To create awareness amongst the passengers, jingles are being played across the public address system. Short video clips, Awareness e-posters & e-banners have been displayed on the digital screens at stations & railway premises. Also, attractive webcards have been posted on social media platforms to spread the message of restoration of Ecosystem. ■





World Environment Day observed on Central Railway

Central Railway observed World Environment Day on 5th June, 2021. The theme this year is 'Ecosystem Restoration'.



Going along with this year's theme of 'Ecosystem Restoration', Central Railway has taken various steps towards conservation of Environment. In the last four years Central Railway has taken up plantation of more than 18 lakh saplings of various kinds of trees on Railway land. A herbal garden with 120 saplings of rare spices and herbs has been set up at Chhatrapati Shivaji Maharaj Terminus, Mumbai. 15 nurseries have already been set up and developed on Central Railway. 87 Eco-smart stations, Automatic Coach Washing plant at Wadi Bunder, Mumbai, Rain Water Harvesting Units at 133 stations, IGBC Green certification of 5 buildings etc are some of the other initiatives & achievements towards greener environment in the past few years by Central Railway. Shri Alok Kansal, General Manager, Central Railway, Smt. Tanuja Kansal, President, Central Railway Women's Welfare Organisation, Shri Ravipratap Singh and Shri Subramani Iyer, Executive Directors, Bharat Petroleum Corporation Ltd. (BPCL) were also present. Shri Alok Kansal visited the Miyawaki, a fast growing dense plantation system in which about 3 to 4 saplings are planted per square metre. Central Railway for the first time took up Miyawaki plantation activity on Mumbai division under the Corporate Social Responsibility on 250 square meter area at Lokmanya Tilak Terminus. A total of 1000 saplings were planted. Shri Kansal also received the certificate for planting trees from M/s BPCL officials. ■

South Eastern Railway Observes World Environment Day

South Eastern Railway observed World Environment Day at its Headquarters, Garden Reach and its 4 Divisions viz. Kharagpur, Adra, Chakradharpur and Ranchi on 05th June, 2021. On this day, awareness is being spread globally about the environment and the need to conserve it. The theme for World Environment Day 2021 is 'Ecosystem Restoration'. Shri Anupam Sharma, Additional General Manager, South Eastern Railway planted saplings as part of observance of World Environment Day at SER Headquarters today. Other Principal Officers were also present and took part in the programme. South Eastern Railway is aiming towards adopting several environment friendly measures throughout the year ranging from usage of Solar energy to Electrification of network and so on. These measures not only help better living but also maintain a balance in our ecosystem.

Some of the SER's environment friendly initiatives:

- To avail an alternative source of energy South Eastern Railway installed N number of Roof Top Solar plants in its jurisdiction. The total generation from Roof Top Solar plant is around 2.306 MWp. In addition, 500 acres of vacant land is earmarked for installing solar plant to generate 201 MWp of solar power. Consuming solar energy as alternative source of energy, SER has saved an amount of ₹33.6 Lakhs in 2019-20 and ₹39 Lakhs in the year 2020-21 from regular energy bill.
- In SER, all railway establishments including stations are having LED light fittings which led to a savings of 13 MU of electricity during the period 2019-20 and 2020-21 as a result of low consumption of Electric power.
- In South Eastern Railway, all 3200 coaches are fitted with bio toilets. 12 stations in SER jurisdiction are also having bio toilets. Installation of bio toilets has ensured that no human waste is discharged from coaches on track.
- In South Eastern Railway 21 stations have already complied with the requisites to declare them as environment friendly stations and out of which certificates have been issued to 6 stations. The Kharagpur Workshop is having Green Certification. Green certification mainly covers assessment of parameters having direct bearing on the environment, such as energy conservation measures, use of renewable energy, Green House Gas emission reduction, water conservation, waste management, material conservation, recycling etc.
- In SER, 44 Plastic Bottle Crushing machines have been installed in 17 stations to reduce, recycle and dispose of plastic waste generated in stations in an eco-friendly manner. ■

Plantation program organised at NCR HQ

On 05th June, 2021 the World Environment Day was celebrated over North Central Railway. Various events were organized signifying this years theme 'Ecosystem Restoration with a special focus on creating a good relationship with nature'.. over the zone.



A tree plantation program was organized at North Central Railway headquarter office in the august presence of Shri Ranjan Yadav, Additional General Manager, North Central Railway. Shri Yadav along with other Principal Heads of Departments of NCR planted saplings at NCR headquarter office premises.

General Manager's message on World Environment Day was also widely delivered among employees which states "North Central Railway as an environment friendly Railway has taken many initiatives towards the betterment of environment."

On Energy management front many steps have been taken by N.C Railway. 11 MWp of solar plants have been provided over N C Railway.10.43 Million Units of renewable energy has been generated during 2020-21. 338 Stations, 265 office buildings, 02 work Shops and 26,000 Staff quarters provided with LED luminaries. ₹4.99 crores were saved in energy bill.

On Water Management front N. C. Railway has carried out Water audit at 18 major and medium category stations. 05 nos. of Water Recycling Plants of 2.6 MLD installed capacity are working at stations – Prayagraj, Agra, Jhansi, Kanpur & Gwalior. At 27 locations of Rain Water Harvesting Systems have been commissioned. 01 no. STP of 50,000 LPD capacity has been commissioned at HQ office Subedarganj. This has resulted in saving of fresh water. ETP/ STPs are being provided at Central Hospital and Running room at Prayagraj.

North Central Railway has taken steps on solid waste management and other fronts. At 24 major and medium category stations of NCR, the solid waste generated is being segregated before disposal. 30 major railway stations of N C Railway are being developed as Eco smart stations with ISO 14001 certification. DRM/AGC office Building & Divisional Hospital Agra have been certified Green with Gold rating. Total 11,42,555 nos. saplings have been planted during 2020-21. Bureau of Energy efficiency awarded (4 star rating) to GM/ NCR Office building. 03 nos. Air Quality Index Monitor have been installed and commissioned at Prayagraj station, Prayagraj HQ campus, DRM office Agra Cantt.

"North Central Railway is working with responsibility towards environmental issues and I am confident that N C Railway will be able to contribute towards the sustenance and enrichment of our ecosystem."

Similar events including plantation drives, webinars, various competitions etc were orgainsed throughout the three divisions of the zone following the due Covid protocols. ■

Northern Railway Celebrates World Environment Day

World Environment Day is celebrated annually on 5th June for encouraging awareness and action for protection of the environment. To encourage the people for protection of the environment, General Manager Northern Railway Shri Ashutosh Gangal planted saplings at Sardar Patel Marg ,New Delhi today. On the occasion, Smt. Shikha Gangal, President, NRWWO and Members of the Committee also took part in tree plantation programmes in railway colonies to save the environment and encourage railway employees to make the environment clean and green for betterment of the present and future of our next generation. ■





First time on Central Railway : Intensive Examination of freight train by Women team at Kalyan Goods Yard



Despite the Covid challenges, Railways transport essential commodities and other materials to keep the supply chain in motion. The freight trains are examined at various nominated locations after certain trips for their rail worthiness so that the momentum is not broken. First time on Central Railway, women team has been formed at Kalyan Goods Yard for intensive examination of freight/ goods rake. One such rake of 44 BOST type empty wagons meant for steel loading was examined by all women team on 8th June, 2021. The entire 10-member women team was deployed for under gear examination, air brake testing, examination of under frames, side panels and for on rake attention of defective components and other related repairs. The intensive examination of the rake was completed within 4 and half hours and was made fit for next trip. The names of the women in team: Ms. Archana Jadhav, Ms. Jyoti Damodare, Ms. Ashwani Patil, Ms. Shweta Suryavanshi, Ms. Priyanka Kholekar, Ms. Dipali, Ms. Sunita, Ms. Savita, Ms. Sujata and Ms. Kushbu. ■

File Sharing System launched on Central Railway

Shri Alok Kansal, General Manager, Central Railway launched File Sharing System on Central Railway on 1st June, 2021. The FSS is a handy tool which will facilitate 'Work from home' during the Corona pandemic and also faster, reliable and common platform for data sharing among the HQ and Divisional officers. The system implementation has been done by the telecom team in coordination with IT centre of Central Railway. Facility of shared folder is provided over Headquarter departments and in Divisions upto the level of Deputy and Branch officers respectively. Shri Alok Kansal while introducing this system, said that this will encourage data exchange and information pool where it will serve as a very effective tool in present times when work from home has become the need of the day. ■

Oxygen Plant inaugurated at Northern Railway Central Hospital

- **Having 500 litres per minute (LPM) oxygen generation capacity**
- **A big leap towards self-reliance in oxygen availability**

In order to augment the infrastructure related to oxygen in railway hospitals and to reduce the reliance on outside for oxygen and become self-reliant in oxygen availability, an oxygen plant having 500 litres per minute (LPM) oxygen generation capacity was inaugurated at the Northern Railway Central Hospital, New Delhi on 9th June, 2021 under the CSR initiative. The plant was commissioned in the presence of Sh. Ashutosh Gangal, General Manager Northern Railway and Shri Ravindra Kumar Jain MD/ DFC and Officials of Northern Railway Central Hospital. The tak of providing a 500 litres per minute (LPM) oxygen generation plant at the Northern Railway Central Hospital, New Delhi under the CSR initiative was assigned to DFCCIL. The plant was provided in a record time of less than a month from the time DFC committed and to actual installation. ■



NFR notifies new FCI siding to further improve food security of the region



Northeast Frontier Railway notified with immediate effect a new food grain handling siding of Food Corporation of India at Archipathar station of Rangiya Division on 28th May, 2021. This facility will further improve the food security in Assam and NE states. ■

'Plan BEE' device commissioned at the level crossing gate

Northeast Frontier Railway is committed towards protection of wild animals in its jurisdiction. Another device under 'Plan BEE' initiative was commissioned on 7th May, 2021 at the level crossing gate between Nizbargang & Helem stations of Rangiya Division to ward off wild elephants from the tracks. ■



Children's Quiz

From this month, we are starting a new feature called "Children's quiz." The questions are very basic and one may argue that the answers are easily available on internet. It doesn't really matter. Our aim is to grow inquisitiveness about Railways among our children and to enrich their knowledge – no matter which way.

1.> From which place to which place did the first train in India run?
2.> Who was the Governor General of India when the first train ran in India?
3.> An Indian Railway employee recently became only the second woman cricketer in the world to have accummulated more than 10,000 runs in international cricket (Women). Name her.
4.> From which African country has India recently received export orders of 3000HP Cape gauge locomotives?
5.> Netaji Subhash Chandra Bose who was under House arrest in 1941 just befuddled the British police and made good his escape from the country. First he escaped from Kolkata to Gomoh and from Gomoh Railway Station he took a train to reach Delhi. Name the train. (Hint : the train has recently been renamed to commemorate the incident).

Children may send their replies to childquizes@gmail.com alongwith a scanned copy of the proof of their date of birth.

Special train carrying Oxygen Plant to Assam

Jeevan Prakash Special carrying an Oxygen Plant for Assam was run by Railways from Delhi to Guwahati. NFR created a green corridor for faster movement of the life saving consignment on 12th May, 2021 so that it can reach its destination in minimum possible time. The train covered a distance of approximately 2100 Km from Delhi to Guwahati in just 32 Hrs at an average speed of 65 Kmph. ■



Transportation of Jackfruit from Agartala to Guwahati for export to UK

For the first time Jackfruit produced by farmers of Tripura meant for export to United Kingdom was transported by Railways from Agartala to Guwahati. It was transported to London from Guwahati by air. This will provide the farmers of Tripura access to International market and will help in increasing their income. ■



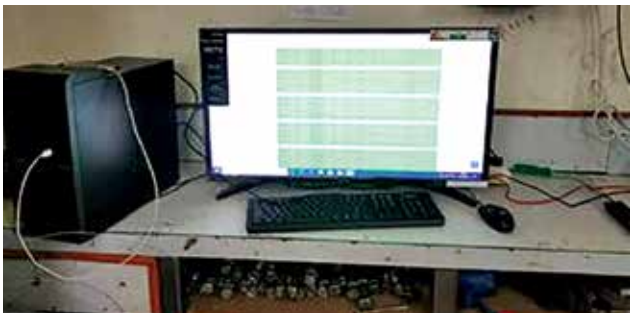
N.F. Railway observed International Tea Day

On 21st May, International Tea Day was observed at Darjeeling in association with various NGOs by holding discussion on the benefits of tea, tea industry's association with Darjeeling Himalayan Railway (DHR) in the bygone era and possibilities of promotion of Darjeeling tea in collaboration with DHR. ■



Hot Axle Detector commissioned at Rangapara North station

One 'Hot Axle Detector' was commissioned at Rangapara North station under Rangiya Division of Northeast Frontier Railway on 13th May, 2021. This state-of –the –art equipment automatically detects any defect in axle boxes and bearings of coaches and wagons, thereby improving safety in train operations. ■



FOB commissioned at Kathal Pukhuri

During the lock down N. F. Railway have added more amenities for passengers in its area of jurisdiction. A new 3 meter wide Foot Over Bridge was commissioned to provide better amenities for passengers at the Kathal Pukhuri station under the Rangiya division of NFR on 29th May, 2021. ■



Southern Railway : Baby Feeding Kiosk Set Up at Lingampalli Railway Station

Baby Feeding (Lactation) Kiosk is set up by Rotary Club with assistance of SCR

A Baby Feeding (Lactation) Kiosk to facilitate nursing mothers was inaugurated at Lingampalli Railway Station on 11th June, 2021 by Shri Abhay Kumar Gupta, Divisional Railway Manager, Secunderabad Division. Shri N.V. Hanumanth Reddy, Rotary District Governor, Hyderabad; Ms Sikki Reddy, Arjuna awardee & International Badminton player were present on the occasion. The Kiosk is located on Platform No. 1 at Lingampalli Railway Station which is an important rail hub and one of the busiest Railway station in SCR. The kiosk with the cubicles set up will immensely help the Nursing mothers duly providing privacy for lactation (breastfeeding) of their kids while undertaking rail journey.

Maternal and Childcare being one of the focus areas of passenger amenities, Railways are planning to set up more such kiosks/cubicles in various important Railways stations across Hyderabad, Secunderabad and Vijayawada Divisions with the assistance of Rotary Club for the benefit of nursing mothers. Earlier, during the year 2019 and 2021, 03 such Baby Feeding Kiosks have been set up at Begumpet, Hyderabad and Secunderabad Railway Stations by the Rotary International District. ■





Western Railway : Smt. Tanuja Kansal, President, CRWWO felicitates staff of the first all women station

Smt. Tanuja Kansal, President, Central Railway Women's Welfare Organisation (CRWWO) felicitated the staff of the first all women station at Matunga (Central Railway) on 18th June, 2021. She also gave a group award of ₹25,000 to the staff and ₹2,500 to two pointswomen who have done exemplary work. Executive Committee Members of CRWWO were also present on the occasion.



Smt. Kansal also interacted with the staff individually and enquired about the challenges faced by them in performing their duties and encouraged them. She also said that this is the best environment for women where they can make all decisions of their own for their personal and professional well being. Matunga station is the first all women station in Indian Railways since July 2017 and it entered into Limca Book of Records in 2018. There are 35 women staff working including Station Manager, RPF, Points person, Ticket checking staff and Safai Karmacharis. ■

Meritorious Workers awarded on WR



Western Railway Women's Welfare Organization under the leadership of Smt Tanuja Kansal, President of WRWWO, felicitated 50 meritorious Group D employees of Western Railway who were adjudged to be awarded on the occasion of Labour Day. The employees were awarded with Merit Certificate and cash award of ₹2000 each. Employees working as general assistants (peons), safaiwalas, track maintainers, track women, pointsmen etc were awarded by WRWWO in appreciation of their exemplary work put in during the Covid pandemic. The cash award was given to 50 employees working in Headquarters and Divisional office to commemorate the 'Labour Day'. Smt Kansal congratulated the awardees and whole heartedly applauded their hard work in these testing times. Such awards are presented every year by WRWWO to encourage and boost the morale of the employees. The awards were given in recognition of the role and contribution of Group 'D' employees in efficiently discharging their duties. ■

WR Wins Kaul Gold Cup for the record 29th Time

Western Railway has set a new record by winning the prestigious Kaul Gold Cup for the 29th time in a row for the year 2019-2020. In the General Body meeting of Railway Sports Promotion Board (RSPB) with all zonal railways, the prestigious trophy was formally given to the Western Railway Sports Association (WRSA) and was received by Shri Alok Kansal – General Manager of Western Railway. GM Shri Kansal has congratulated all the talented sportspersons and authorities of WR for this remarkable achievement. Western Railway has been winning this cup for the last 28 years. This prestigious cup is the symbol of supremacy in sports arena in Indian Railways. ■



WR Surging Ahead Towards Digitalization

➡ Online Payment System for Freight Charges Implemented Successfully on Ahmedabad Division, First over Indian Railways

✶

Western Railway has implemented several IT facilities for the benefit of rail users, as a major boost to 'Digital India' initiative. Western Railway has added another feather to its cap by successfully implementing the Online Payment System for Freight Charges on TMS and Ahmedabad Division of WR has become the first division over the entire railways to implement this system on 2nd June, 2021. WR is fully committed to the use of IT for improving facilities for rail users. Railways had rolled out the policy guidelines regarding Online Payment System for Freight Charges in April 2021, to make the process of payment of freight charges simpler, convenient, speedier and transparent. In this direction, WR has successfully introduced the online payment facility of freight charges on TMS in Ahmedabad Division which was nominated for this pilot project. The first transaction with this new mode of payment was successfully completed and Railway Receipt (RR) was generated with the collection of ₹98,649 as freight charges from the consignor M/s. CTA LOGISTICS LTD. The online payment system will be provided through Freight Business Development (FBD) portal of FOIS via State Bank of India's payment gateway. It will provide the facility for collection of freight and all kinds of ancillary charges e.g. Premium Charge (in case of premium indent), Wagon Registration Fee, Demurrage, Wharfage, Siding Charge, etc. This facility will be available 24x7 to freight customers as well as its handling agents. A Memorandum of Understanding (MoU) has been executed between Ministry of Railways and SBI on 2nd June, 2021. ■

General Manager, Western Railway Virtually Inaugurated Multi Disciplinary Divisional Training Institute (MDDTI) at Valsad



Western Railway's Mumbai Division has set up a Multi-Disciplinary Divisional Training Institute (MDDTI) at Valsad. This training institute will impart technical training to the Group 'C' and Group 'D' employees of Mumbai Central Division in their respective professional field. General Manager of Western Railway. Shri Kansal inaugurated the MDDTI virtually on 20th May, 2021.

The institute boasts of Administrative Block, Canteen, Library, Computer Centre, Auditorium, Medical Room, Gymnasium, Entertainment Room etc. The institute at Valsad has been set up at a cost of ₹2.75 Cr. A double storey hostel is also being constructed at Valsad Institute, which is likely to be completed in September 2021 with a provision of 100 beds to accommodate the trainees.The idea to have such an institute is to have a sole core training institute providing technical courses for the employees of Mumbai Central Division. The objective of training in MDDTI is to provide skills in line with latest technological innovations and new requirements. Some of the courses at Valsad institute have already been tailored, with one such course to be started in a week. The courses will be interdisciplinary and cross functional, which will help in achieving the objectives of the training at MDDTI viz. Evolution of Transportation & Urban Transportation, Role of Indian Railways in country's economy, Information Technology, Organisation behaviour and leadership etc, It is very important that with time and technology improving, professionals will require reskilling and hence the courses are planned on these lines. The Benefits of MDDTI is to impart class room training to new recruits of Mumbai Division, refresher training to serving employees to update them with latest rules, regulation and working conditions, pre selection training to the staff eligible for promotion. At present the training imparted will be recorded and will be shared through MMCT Learning Management System, which can be assessed by the staff through online mode. An online training in Advance excel and Microsoft Power BI tool had been organised, which was attended by more than 100 officers and staff of Mumbai Central Division. The training was imparted on weekends, which received a good response. An online training is planned for frontline staff to upgrade their skills. This training institute has been set up to develop it as a Centre of Excellence for Training. The Railways are taking a lot of strategic steps in moving from current state to desired state. As per NITI Aayog, every Railway Zone should have one Zonal Training Institute – which of WR is coming up at Ujjain, every Division must have one MDDTI and Workshops should also have a Basic Training Centre. Work of Ahmedabad Institute is almost complete, whereas that of Ratlam and Bhavnagar Divisions is also 80% complete. It is planned to open up the training institutes at 5 Divisions in this year. The Basic Training Centre for workshops will be commissioned at Parel, Dahod and Pratapnagar Workshops

➡ It will provide technical training to the employees which will be inter- disciplinary and cross functional ★



Multi-Disciplinary Divisional Training Institute (MDDTI) at Valsad

The Institutes will cater to the employees of all the Departments. Shri Kansal appreciated the work done by Mumbai Division and suggested that a calendar be made of the courses being offered with a time line which would help in planning and execution of courses as well as in nomination of staff in advance. A detailed power point presentation was made about the various aspects of MDDTI, Valsad. On this occasion, Additional General Manager, Principal HODs, Divisional Railway Managers & other officers were present in the meeting virtually. ■

Western Railway wins the 1st Prize in Energy Conservation in Transportation Sector at the National Energy Conservation Awards-2020

In its continuous efforts to provide clean and green transportation to its commuters, Western Railway bagged three prestigious National Energy Conservation Awards (NECA) in 'Transport' and 'Building - Govt offices' categories for the year 2020, instituted by the Bureau of Energy Efficiency (BEE), Ministry of Power. Western Railway has been awarded the First Prize in the Transportation Category along with First and Third prize in Buildings Category for Divisional Railway Manager's offices at Bhavnagar and Rajkot respectively. This top honour has been given to Western Railway for significant improvements in energy conservation by adopting various measures including as under :-

- During 2019-20, Electrification of 664 Rkm was done in Western Railway, which is the highest in Indian Railways. The introduction of electric traction reduces the consumption of Diesel oil and improves the efficiency of transportation, reducing the carbon footprint.
- Western Railway is operating 67 regular train pairs with Head-On Generation and stopped the use of Diesel Generator Set for power supply to coaches, thus achieving a net saving of about Rs.50 Crores.
- 8.67 MWp capacity rooftop solar plants have been provided at various railway stations, office and service buildings. These plants have generated 5.47 million units of green energy resulting in a net saving of Rs.2.25 crores per annum.



- Energy-efficient 5-star rated electrical appliances are used extensively in office and service buildings.
- Energy-efficient LED lights have been installed at all the stations, service buildings and residential quarters resulting in saving of about Rs. 12 crores per annum.





- Introduction of three-phase technology and improvement in driving techniques has helped in 15% improvement in SEC, a net saving of about Rs.15 crores per annum.

In the Buildings Category, Bhavnagar and Rajkot Divisions of Western Railway received the First and Third prizes for the efforts made by these divisions to promote energy efficiency in the non-traction area. ■

Readers

are requested to send their

SUGGESTIONS / FEEDBACK to

feedbackindianrailways2021@ gmail.com

Ladies Running Room Inaugurated at Okha

Smt. Tanuja Kansal - President of Western Railway Women's Welfare Organization (WRWWO) during the official tour of Rajkot Division, appreciated the dedicated and exemplary work undertaken by the women staff of Rajkot Division, especially, the running staff who kept the wheels of freight and goods train services running throughout the lockdown period. Smt Kansal acknowledged the efforts by the Corona warriors, especially, the women employees. Smt Kansal also lauded the courage & dedication of the female employees who worked hard in such testing times. In recognition of their good work and as a salute to their grit & spirit, Smt Kansal inaugurated the



running room for women staff in the newly constructed Annexe Building at Okha Station. On this occasion, Smt. Kansal donated an automatic washing machine to the ladies running room on behalf of Western Railway Women's Welfare Organization as a token of appreciation. This would benefit the female employees who can take appropriate rest after their tiring duty hours. WRWWO has done commendable welfare works and has served the diverse and innumerable welfare requirements of Western Railway Staff. It has also been generous in times of national calamities with its financial contributions and co-ordination in providing relief materials. ■

High Speed Oscillation Trials : West Central Railway conducted 180 Kmph Trial

➡ A Remarkable Exciting Feat by WCR A Trio of Development, Safety & Mobility

✶

Indian Railways is forging ahead with the Speedy Introduction and Use of New Technology in the form of New Locomotive (Dual Traction High Power WDAP 71000 Locomotive 5000HP) , New Rolling Stock (Economy 3 Tier AC LHB Coach LWACCNE with 83 berths) so as to introduce new trains with increased speed, comfort, economy and safety intertwined with modernisation.

In order to introduce New Locomotives or Rolling Stock, Railway Board has laid specific directions/instructions in Policy Circular No. **6**. As per this policy, **Oscillation Trials** are supposed to be executed/performed in a detailed manner so as to arrive at a final **Maximum Permissible Speed** (MPS) duly recording all acceleration parameters and oscillograph results. These trials are undertaken by Research Design & Standards Organisation (RDSO) on various sections across Indian Railways depending upon the master data of section and it is pertinent to mention that for the purpose of the trials, the selected sections chosen by RDSO require high degree of maintenance of track, bridges, signalling, OHE and associated assets. WCR has been the Leading Railway for conducting Oscillation trials in 2020-21. The test stretches for conducting Oscillation trials chosen by RDSO include Kota-Nagda and Kota- Mathura Sections of Kota division and Itarsi-Bhopal and Bhopal- Bina Sections of Bhopal division. These sections have exhibited one of the best performance for conducting Oscillation Trials and Test the Design Features of the New Locomotive and Rolling Stock. West Central Railway has emphasized and implemented the best maintenance practices through mechanisation of track maintenance and adopting Modern Track, Signalling and OHE maintenance procedures. It is worth mentioning that Mathura - Kota - Nagda Section (549 Route Km) of Kota Division of WCR is the chosen section of Indian Railways for all High Speed Trials.

The High Speed Oscillation Trials have been conducted as per the above policy on Kota and Bhopal divisions. It is a remarkable achievement and a matter of pride that an astounding no. of **65** Trial Runs at High Speed in the Speed Band of **130** to **180** kmph have been conducted successfully on Bhopal and Kota divisions in 2020-21. A Total Run of **8900** Kms of Oscillation Trials has been

performed on WCR in 2020-21. It is worth mentioning that in 2020-21, **High Speed Trial at 180 kmph** has been performed for 3-tier economy coach **LWACCNE and High Speed 150 kmph Trial of WDAP-5 Loco** has also been done, which shall be greatly beneficial for introducing economical travel on Indian Railways in the near future. The Routes of WCR have once again exhibited exceptional performance in conducting these trials, which indicates the high degree of maintenance and dedication of all staff and officers of WCR.

Apart from this, **Confirmatory Oscillograph Car Runs (COCR)** have also been conducted in these sections for increase of speed of various Mail/Express trains on WCR and on Indian Railways as a whole. The two trunk routes of Delhi-Chennai (Itarsi-Bina) and Delhi-Mumbai (Mathura-Nagda) have been raised to 130 kmph and with this WCR has become the **1st** Railway to achieve this target one year before the target date i.e. in **Decemeber, 2020** against the target date of **December, 2021**. ■

Metro Railway, Kolkata : A 95-Year Old Covid Patient Treated Successfully at Tapan Sinha Memorial Hospital



Smt. Nandarani Acharya, a 95-year old female Covid patient from Madhyamgram was treated successfully at Tapan Sinha Memorial Hospital of Metro Railway. Smt Acharya, who tested COVID positive on 15th May, 2021 was admitted to Tapan Sinha Memorial Hospital on 19th May, 2021 with low oxygen saturation and mild breathlessness. Doctors, nurses and other para-medical staff attended her immediately and with proper round-the - clock medical treatment, oxygen therapy and care, she recovered from COVID-19 pneumonia after 25 days. She was discharged in a healthy condition without any oxygen support from Tapan Sinha Memorial Hospital on 12th June, 2021. Her family members thanked all the doctors, nurses and other para-medical staff of the hospital for treating and curing her from COVID.

Tapan Sinha Memorial Hospital of Metro Railway has been treating moderately and seriously ill COVID patients satisfactorily since the first wave of Covid. ■

Top Slab Casting of a Part of the Sub-Way between Bimanbandar Metro Station and Jessore Road Completed during Covid Time

In spite of covid situation and lockdown, on 12th June, 2021 installation of a 25 metre long, 11.6 metre wide and 900 mm thick top slab of the sub-way connecting the underground Bimanbandar Metro Station and Jessore Road (NH-35) has been completed successfully in spite of heavy downpour. Keeping the forecast of heavy downpour in mind, complete covering was arranged at the site to protect workers, machineries as well as newly casted concrete. A total of 275 cubic metre concrete were consumed and all COVID protocols were maintained. During monsoon, such protective covering will be arranged for all the upcoming casting works at the airport site of Metro Railway.

The construction work of this 300 metre long sub-way connecting the underground Bimanbandar Station of Noapara-Barasat via Bimanbandar Metro project and Jessore Road has been going on in full swing during this lockdown maintaining all Covid protocols. All the site workers have been vaccinated to protect them from COVID. ■



Non-Interlocking of Noapara Car shed (Kolkata Metro) completed

Metro Railway has successfully completed Non-interlocking (NI) work of Noapara Car shed on 06 June, 2021 in the lockdown. This NI work involved modification of the existing Electronic Interlocking system at Noapara which is linked to all the routes, points, signals and track sections in the Car shed. The modification done through NI will greatly improve the operational flexibility of movement of rakes to and from Noapara and Dakshineswar and thereby increase performance parameters of train running of Metro Railway. It will reduce operational bottlenecks. As a result, now Metro rakes can be directly sent to Noapara or Dakshineswar stations from Noapara Car shed. So far. this direct feeding of rakes to Noapara/ Dakshineswar from Noapara Car shed was not possible due to some infrastructural bottlenecks. Empty Metro rakes had to be sent to Dum Dum first and from Dum Dum it used they would be sent to Dakshineswar to start the commercial services. ■

Post-Covid Rehabilitation Clinic Opened at Tapan Sinha Memorial Hospital

It has been observed that some patients have been experiencing long-term complications or Post COVID symptoms even after recovering from COVID-19 infection. For treating such long-term complications of these patients, a Post - COVID Rehabilitation Clinic has been opened at the Hospital on 11.06.2021. In this clinic, Metro staff and their beneficiaries are getting the



advice and necessary treatment on every Tuesday and Friday from the physicians there. Facilities like ECG, Chest X-ray, Echo-cardiography, Chest Physiotherapy which are essential for patients having post- COVID symptoms are available in this clinic. Blood investigation and other critical health parameters check-up facilities are also available here. ■

BLW exports third Loco to Mozambique

Banaras Locomotive Works (BLW) exported the third 3000 HP (horse power) Cape Gauge locomotive to Mozambique on 11th June, 2021. Under the leadership of General Manager, Anjali Goyal, the BLW employees have shown a great team spirit registering exemplary success in production despite dealing with the high rate of Covid positive case detected in its premises as more than 20% of the officers and employees were affected by Corona during the second wave. The employees, who had taken both the doses of vaccine and after recovery from Corona, have resumed work with determination so that the BLW can be able to fulfill its export orders on time. During the most affected pandemic period of April-May last, as many as 34 electric locomotives were produced in the BLW as compared to the last year's production of eight, apart from making the third



diesel locomotive for Mozambique which was sent from this leading production unit of the Indian Railways. The fourth locomotive for Mozambique export is also almost completely ready as its testing procedures are going on and it will be sent there soon.

The BLW had received an export order of 6 state-of-the-art locomotives of 3000 HP Cape Gauge from the Government of Mozambique on March 10 last. Union Minister of Railways Shri Piyush Goyal and Minister of Transport and Communications, Mozambique, Janfar Abdulai had flagged-off two locomotives for export to Mozambique through video conferencing. The remaining two (fifth and sixth) locos will also be made soon and the export order will be completed in time, claimed that BLW officials. ■

Humour in VC

(*This writing is just an attempt to make you all laugh)*

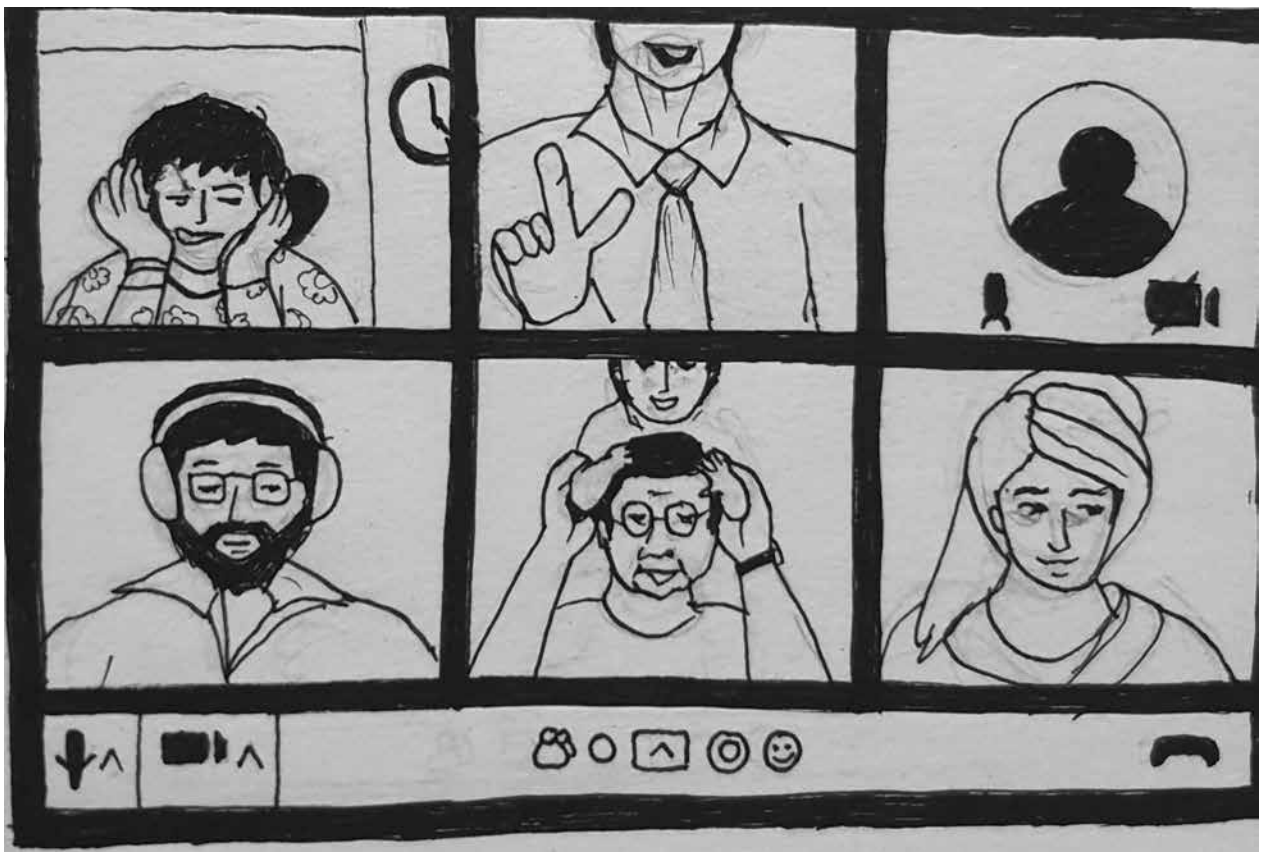
Sangeetha Ramachandran
Secretary to Addl. General Manager

Video Conferencing was first introduced by AT&T in 1964 at New York. This is knowledge gained by me from Google Baba. It is now become a major part of our life. In a span of one year, my Amma has also become a Tech Geek. She now calls her MTNL landline phone 'online'. It took me 36 minutes of that 1.55 minutes call to Amma to understand that she is referring to her MTNL landline phone.

Coming back to Video Conferencing, people were holding personal meetings very sweetly in their office Board rooms along with yummy things to eat like samosas, kachoris, sandwiches etc. Kiski nazar lag gayi! Shayad meri hi! One day Corona entered and physical meetings ended. Offices started exploring video conferences (VCs). Zoom and Webex emerged as the winners in our office. However, someone somewhere was forcing us to use Microsoft Teams. People who were finding Zoom and Webex difficult to use, found Team near to impossible. Out of 10 officials, there used to be an odd man out who would, especially during the VC would promote Team. If someone coughed during the VC, this official would say "Sir, we should use Team, this does not happen there". The cougher exits the VC.

I had become an expert of Team functioning without any use. It seemed as if I am going to get an award. I was eagerly hopping around to teach people. I was even planning to make a VC lecture on Zoom on how to use Team. But it all went Kaput! Team vanished as it came. I also did not get the award. Finally all settled for Zoom and Webex. Zoom is still considered as the Maharajah, only for top levels and Webex for people like me.

After using these VCs for two years, people still act innocent and ignorant. I want to narrate a few mishaps happening knowingly or unknowingly.



(Illustration by the author's son, Pratik)

The most common incident is to keep Audio ON when not required and all others listening to their complaints regarding the same meeting or their bosses who are also present in the meeting. Others also listen to his conversation for a while as it is interesting. Then after a while the convenor of the meeting starts requesting the fellow to shut his Audio, first a plea then starts shouting at the top of his voice. Finally, someone calls him on his mobile then he exits the meeting embarrassed. In Webex, only the host can remove a participant and our host is usually an official who is not a participant of the meeting.

Then comes strange noises we hear during the VC meetings. It has still remained a mystery as to the source of the weird noises. It sometimes seems an echo of one's own voice, sometimes noise of surroundings, sometimes noise of utensils, children, etc etc but still no one could identify. Everybody just repeats and advises each other to keep their audio OFF if not to be used during the meeting.

Then comes positioning of people's cameras. I know of one official who always shows only his bald head to all. It is much better to OFF the video rather than this. There are few who are adjusting their camera from the start of the meeting till the end, with the weird noises of shifting his camera 'tarrrr parrrr chikchak pachaak etc etc'. The best person is the one who shows the roof of his house/ office all the time of the meeting.

Have you all ogled at your boss snacking and sipping away during the meeting? Yes, I always try to guess what he is eating during the whole meeting. I have also slept and snored during the whole meeting as my role if not to note down the minutes is NOTHING. I am just smart and never switch ON the audio or video ever.

There are problems faced by my family members because of me when they are on VC. I am so dumb at such times. They come running to lock me in my room so that my voice that is so loud that it can be heard very loudly even two rooms away does not disturb their VC. I also sincerely clean around the room wearing a dirty gown. My husband's boss and colleagues might be praising my cleaning as well as my gown. I don't know why my husband fights with me after his VC every time.

Anyways, this is the new era which has to be accepted and learnt by all. It has its own advantages and disadvantages. Meeting personally in the board room over a meeting, the feeling of papers, folders and pens will of course be missed. However, in this current situation of Covid, we are able to carry on our work without a delay due to this VC. Also, personally, I am fond of it as I am still celebrating birthdays, anniversaries and being able to see and hear my parents and friends over this VC. So guys keep VCing over a cup of coffee!! ■

POETRY

Walking the Buddha's Path

A chariot steered Him away
from the moh-maya of life.
What will I need to get rid
of unwarranted attachments?
Where will I find the justification,
an excuse to let go?

Whenever I sit to whine
about this and that,
about what could be and would not
I remember Him as He cast away
what was served to Him
on a platter!



Try as they could,
His parents unable to thwart
destiny and karma
had to let Him go.
When shall I learn let go
of undying expectations?

Desires growing like creepers slowly and steadily
enter the vineyard of a superficial life.
When shall I find the straw of divine love
and climb up without feeling the loss
of hurt and hatred,
of trust and tattered emotion?

When shall I strive
to walk the path
of the Divine Soul?
When shall I connect with the God within?
Where shall I find my Bodhi tree?
Where? When? ■

Shail Raghuvanshi

Shail Raghuvanshi is a freelance journalist, editor, poet, artist and a blogger. You can share her thoughts at http://www.musenmotivation.wordpress.com.



SOMNATH

Shri Anil Saxena
Freelancer

Saurashtra : Kingdom of Somnath

Somnath temple stands at the shore of the Arabian ocean on the western corner of Indian subcontinent in Gujarat State. This pilgrimage is one of the oldest and finds its reference in the ancient texts like Skandpuran, Shreemad Bhagavat, Shivpuran etc. The hymn from Rig-Veda quoted below mention the Bhagvan Someshwar along with the great pilgrimage like Gangaji, Yamunaji and Eastward Saraswati. This signifies the ancient value of this Tirthdham.

About Place

The intricately carved honey-coloured Somnath temple on the western edge of the state is believed to be the place where the first of the twelve holy jyotirlingas emerged in India – a spot where Shiva appeared as a fiery column of light. The temples lies at the meeting of Kapila, Hiran and Sarasvati rivers and the waves of the Arabian Sea ebb and flow touching the shore on which it is constructed. The ancient temple's timeline can be traced from 649 BC but is believed to be older than that. The present form was reconstructed in 1951. Colourful dioramas of the Shiva story line the north side of the temple garden, though it's hard to see them through the hazy glass. A one-hour sound-and-light show in Amitabh Bachchan's baritone highlights the temple nightly at 7.45 pm.

Brief History

It's said that Somraj (the moon god) first built a temple in Somnath, made of gold; this was rebuilt by Ravana in silver, by Krishna in wood and by Bhimdev in stone. The current serene, symmetrical structure was built to traditional designs on the original coastal site: it's painted a creamy colour and boasts a little fine sculpture. The large, black Shiva lingam at its heart is one of the 12 most sacred Shiva shrines, known as jyotirlinga.



A description of the temple by Al-Biruni, an Arab traveller, was so glowing that it prompted a visit in 1024 by a most unwelcome tourist – the legendary looter Mahmud of Ghazni from Afghanistan. At that time, the temple was so wealthy that it had 300 musicians, 500 dancing girls and even 300 barbers. Mahmud of Ghazni took the town and temple after a two-day battle in which it's said 70,000 defenders died. Having stripped the temple of its fabulous wealth, Mahmud destroyed it. So began a pattern of destruction and rebuilding that continued for centuries. The temple was again razed in 1297, 1394 and finally in 1706 by Aurangzeb, the Mughal ruler. After that, the temple wasn't rebuilt until 1950.

Best time to visit

The best time to visit Somnath Temple is in the cooler months of October to February, though the site is open all through the year. Shivratri (usually in February or March) and Kartik Purnima (close to Diwali) are celebrated with great enthusiasm here.

Somnath is in Prabhas Patan very near to Veraval.

The Moon God is said to have been relieved from the curse of his father-in-law Daksha Prajapati by the blessings of Bhagvan Somnath. In the Shiva Purana and Nandi Upapurana, Shiva said, `I am always present everywhere but specially in 12 forms and places as the Jyotirlingas`. Somnath is one of these 12 holy places. This is the first among the twelve holy Shiva Jyotirlings.

The shore temple of Somnath is believed to have been built in 4 phases-in gold by Lord Soma, in silver by Ravi, in wood by lord Krishna and in stone by King Bhimadeva.

It has withstood the six-repeated desecration by the Muslim invaders. The very existence of this temple is symbol of reconstructive spirit and cultural unity of our society.

The seventh existing temple is built in the Kailas Mahameru Prasad style. The Iron man of India Sardar Shri Vallabhbhai Patel is the pioneer of the existing temple.

The temple is consisting of Garbhgruh, Sabhamandap and Nrityamandap. The main shikhara of this Chalukya style temple soars to 155 ft and the stone kalash atop it weights 10 tonnes. and the Dhwajdand is 27 feet tall and 1 foot in circumference. The sense of space and light is glorious. Gently cooled by ocean winds, the temple is well kept inspite of the hundred of pigeons who have found convenient homes in the many crevices of its embellished towers. The floral alankara of the huge shivaling is particularly noteworthy. Visitors must participate in the 'aarti', more than once if possible. Drums, cymbals and bells combine to orchestrate a half-hour symphony of music that rises to an inspiring crescendo. It is among the most beautiful and enjoyable temple rituals I have ever encountered. After darshan, make time for a leisurely circumambulation of the outer prakara, which overlooks the sea. Beaches facing the vast expanse of water have been provided and the prakara of the temple, one realises, is at a height, with the sea about two storeys below. It is here that pilgrims will see the arrow pointing to the Antarctic.



The temple is situated at such a place that there is no land in a straight line between Somnath seashore until Antarctica, such an inscription in Sanskrit is found on the Bāṇ astambha (Sanskrit: बाणस्तम्भ, lit. arrow pillar) erected on the sea-protection wall. The Bāṇ astambha mentions that it stands at a point on the Indian landmass that is the first point on land in the north to the

South Pole at that particular longitude However, this claim is veritably false on evidence that a line from the 'Bāṇastambha' to the South Pole intersects the French Southern and Antarctic Islands. This is due to the fact that whole temple complex (that contains pillar) is in within 70°24' E longitude whereas the French Southern and Antarctic Islands spans 68°38' E - 70°33' E.

The later sources of history account for several desecrations by Muslims invaders during eleventh to eighteen century A.D. The temple was rebuilt every time with the reconstructive spirit of the people. The modern temple was reconstructed with the resolve of Sardar Patel who visited the ruins of Somnath temple on 13th November, 1947. Then President of India, Dr. Rajendra Prasad, did the Pran-Pratistha at the existing temple on 11th May, 1951.

Other spots in the temple are Shri Kapardi Vinayak and Shri Hanuman Temple in addition to Vallabhghat. Vallabhghat is a beautiful sunset point. The temple is illuminated every evening. Similarly, the Sound & Light Show 'Jay Somnath' is also displayed every night during 8.00 to 9.00, which allows the pilgrims an ethereal experience in the backdrop of grand Somnath temple and the holy wave sounds of the Ocean.

The Somnath Temple also known as Shiva Temple, Somnath Mandir, Shiv Mandir. It located in the Prabhas Patan near the port of Veraval in Saurashtra on the west coast of Gujarat. This temple is considered to be the first of the 12 jyotirlinga temples of Lord Shiva in India. It is an important pilgrimage and tourist destination of Gujarat. The ancient Hindu temple rebuilt in the Chalukya style of architecture after repeated demolition of this temple in ancient times by several Muslim invaders and the Portuguese. Somnath means 'Lord of the Gods', which considered a part of Lord Shiva.

History of Somnath Temple - Shiva Temple

It is believed that Somnath Temple was built by Chandradev Somraj himself. It is mentioned in the Rigveda. Historians believe that the glory of the Somnath temple in Veraval port of Gujarat spread far and wide. The Arab traveler Al Baruni mentioned it in his travelogue, so that Mahmud Ghaznavi attacked the Somnath temple with his five thousand soldiers in 1024 and completely destroyed the temple by looting its property. During that time, about fifty thousand people were worshiping inside the Somnath temple, Ghaznavi got all the people murdered and ran away with the looted property. Somnath Temple is also called Shiva Temple.

After this, Raja Bhima of Gujarat and King Bhoj of Malwa rebuilt it. Shiva Temple was demolished for the fifth time when the Delhi Sultanate took over Gujarat in 1297. Mughal emperor Aurangzeb ordered in 1702 that if Hindus worship again in the Somnath temple, it would be completely demolished. Eventually he again demolished the Shiva Temple in 1706. The Shiva Temple as it stands at present was built by the Home Minister of India, Sardar Vallabhbhai Patel and dedicated to the nation by the President of India, Shankar Dayal Sharma on December 1, 1995.

Interesting Facts About Somnath Temple

Generally, all tourist places and mandir have some kind of special feature, due to which people go to see it. Somnath mandir also has its own specialty. Let us know what are some interesting facts about this temple.

You will be surprised to know that the Shivalinga located in Somnath mandir has radioactive properties which helps in maintaining balance above ground. It took five years to build this temple.

There is a confluence of three rivers Deer, Kapila and Saraswati and people come to bathe in this Triveni. The mandir spread over 10 kilometers of the city and has 42 temples.

The Somnath Mandir was also initially known as Prabhaskshetra and it was here that Lord Krishna committed his killing.

It is believed that the Devdwar housed in Agra belongs to the Somnath mandir, which Mahmud Ghaznavi had looted and taken with him.

Situated on the summit of the temple, the Kalash weighs 10 tons and its flag is 27 feet high.

It is the first Jyotirlinga of the 12 Jyotirlingas of India, So after its establishment, the next Jyotirlinga was established in Varanasi, Rameswaram and Dwarka. For this reason it is considered a great place of worship for Shiva devotees.

The Somnath mandir is open for tourists and devotees from 6 am to 9 pm. So Aarti is performed three times in the temple. A large number of devotees gather to witness this amazing aarti. Light and sound show runs in the Somnath mandir complex from 7:30 pm to 8.30pm. Most tourists also come to see the architecture of Somnath mandir.

How To Reach Somnath Temple

Somnath is definitely a tourist destination but does not have its own railway station or airport. So after reaching the stations and airports of other nearby cities, Somnath can be reached by local transport.

- **By plane**

The nearest airport to Somnath is Diu Airport which is about 63 km from Somnath. From Diu, Somnath can be reached by regular buses, luxury buses or commuter buses. Porbandar Airport is 120 km from Somnath and Rajkot Airport is 160 km away. so Flights from different cities are possible for these airports.

- **By Road**

Buses are the best way to get to Somnath, as there are many options available. Somnath is surrounded by many small towns which are well connected by both bus services, non-AC as well as luxury AC buses. Somnath can also be reached by bus from other nearby places like Rajkot, Porbandar and Ahmedabad. Apart from this, services of private buses are also available.

- **By Train**

Somnath is well connected to other major cities of the country via regular trains. Railway Station(s): Somnath (SMNH)

Nearby places to visit

Bhalka Tirth

Bhalka Tirtha (Bhalka Pilgrimage) located in the Prabhas Patan near Veraval in Saurashtra on the western coast of Gujarat, India, is the place where Krishna was hit by an arrow shot by a hunter named Jara, after which he is said to have left the earth for the heavenly abode, an act referred to in the Puranas as Shri Krishn Neejdham Prasthan Leela.



Triveni Sangam

Refurbished into a corniche-style area for visitors, the Triveni Sangam marks the confluence of rivers Hiran, Kapila and the Saraswati, where they meet the Arabian Sea on the west coast. Triveni Sangam is said to be a place where Hindus can attain 'moksha' or release from the cycle of life and death. One can see a number of people praying or just taking in the spiritual atmosphere from the steps. The fervour is often upstaged by hundreds of gulls that flock at the stepped ghats.



Brief History: The significance of the Triveni Sangam goes back thousands of years ago when the rivers Hiran, Kapila and the Saraswati met here.

Best time to visit: The best time to visit is between the cooler months of November to February; festive occasions like the Kumbh Mela that is hosted once in twelve years or the Magh Mela in January fall during the period. ■

Kind Attention

AUTHORS

Authors/writers contributing articles for the magazine are requested to restrict their articles to a reasonable size. Ideally an article should not exceed 1000 words. In view of the space constraints of the magazine, sometimes it becomes difficult to include longer articles. All are requested to appreciate our problem and co-operate.

Karnavati Express

Shri Parag Purohit
Freelance Writer



Karnavati Express is connecting states of Maharashtra and Gujarat. She runs daily since 1st July, 1991 between capital cities of both the states Mumbai and Ahmedabad respectively. She is one of the popular trains on Mumbai-Ahmedabad route. This year Karnavati Express is completing 30 years of her service.

I travelled by this train for the first time in June 2005. Till then I had only seen this train in photographs and heard about her service from my relatives who had been travelling in this train. Finally, that day came. I reached Mumbai Central and went straight on the platform, where Karnavati was standing. I was so excited to see this train for the first time and also excited about the journey. Another reason behind my excitement was that I was going to travel on my most favourite rail route. Valsad's WCAM-2P painted in LHB Rajdhani Express livery was our work horse. All ICF-designed coaches were painted in Karnavati special livery. As usual Karnavati left Mumbai Central on time and arrived Ahmedabad 10 minutes before time. I deboarded from the train with happy mind and since then became a fan of the Karnavati. In later years I have travelled by this train many times.

In last 30 years Karnavati has changed a lot, from rake to livery and from power to speed. Since 24th September 2014 Karnavati is running with state-of-the-art LHB coaches. Her rake now consists of 21 coaches including 4 AC Chair Cars, 1 AC Hot Buffet Car, 12 Second Class Chair Cars, 2 Unreserved coaches and 2 Generator cum Guards Vans. Nowadays Karnavati has become more environment friendly. State-of- the-art Head On Generation (HOG) technology has been introduced in this train in 2018. Hence the required electricity for lighting, fans, air-conditioning equipment in train coaches is directly supplied from Overhead Equipment via Locomotive. Nowadays only HOG enabled loco is hauling Karnavati Express. All coaches have now been equipped with bio-toilets.

Earlier Valsad shed's WCAM-1 locomotive was regular work-horse of this train for many years. After completion of the conversion of power supply system from DC to AC Karnavati also started running with purely AC locomotives.

Karnavati Express runs daily and departs Ahmedabad Jn (station cade – ADI) as 12934 at 04:55 and reaches Mumbai Central (station code – MMCT) at 12:35. In return direction she departs Mumbai Central at 13:40 and arrives at Ahmedabad 21:25. Business persons, workers, students are regular passengers of this train. Karnavati is low cost, comfortable and fast travel option for them. In her journey Karnavati crosses major and wide river systems like Narmada, Tapti, Daman Ganga, Vaitarana and Ulhas (Vasai Creek).

Pantry service of this train is really good. Passengers can enjoy variety of food items prepared on board. We can taste regional food like Khaman Dhokala, Bharuch special peanuts. Food items like Idli Chatani, Bread cultet, paneer pakoda, bread-omlette, Samosa, Tomato Soup, cheese sandwich are also available and as usual hot beverages and cold drinks, Kurkure, biscuits, chocolates too. Poha and Upma are also available in breakfast while travelling from Ahmedabad. Masala Dudh is one of

famous cold beverage here. All of these food items are available at reasonable prices. During journey I always take some of these food items and keep enjoying the both – the journey and the food, by looking outside from the window, curiously watching crossing stations and trains.

The region through which Karnavati runs is highly industrialized and commercialized. Many cities in this region are important commercial and trading centres since historical times. All of the cities, where Karnavati takes halts enroute, are heavily industrialized and are important commercial cities. As a result, all railway stations, where Karnavati takes halt, handle large number of passengers yearly. Hence these stations are falling under Indian Railways' either 'A1' or 'A' category of stations.

Mumbai is financial, commercial and entertainment capital of India and is India's second most populous city. In terms of global financial flow, it is also one of the world's top ten centres of commerce. Vapi is known as the city of chemicals. This city is surrounded by the Union territory of Dadra and Nagar Haveli and Daman and Diu. Valsad is also industrial city and there are many chemical, textile, paper and pulp industries around it. These sectors are attracting large investments and generating many employment opportunities there. Surat is situated near the mouth of the river Tapti. It is world's largest diamond manufacturing center. It is also known as the silk city and the green city. The city of Bharuch is situated on the banks of the river Narmada. It has many industries of fertilizers, paints, dyes, cotton, textile and dairy products in and around it. In Vadodara there are large industries of petroleum, fertilizers and chemicals and other heavy industries. Anand is known as the Milk Capital of India. The city of Nadiad is the birthplace of 'Iron Man of India' Sardar Vallabhbhai Patel. And Ahmedabad is the largest city of Gujarat and fifth most populous city of India. It is situated on the banks of Sabarmati river. It is also known as Karnavati. This city is second largest cotton producer of India. Like Mumbai it is also a major commercial, educational and research Centre of India.

In the last 30 years many new train services have been introduced on Mumbai-Ahmedabad Route, but still, Karnavati is one of the preferred choices of the passengers travelling regularly on this route. Hence Karnavati always receives high patronage. She runs 492 kilometres in each direction in a day. All the route is now equipped with Automatic Block Signaling system. In future, Karnavati Express will remain one of the popular trains on this route, no doubt in it! ■

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Honking: Is It a Pleasuring Task?

Shri Subir Danda[1], Shri Soumya Sarkar[2], Shri Bikash Bepari[3], Shri Kalyanbrata Saha[4] and Shri Balendra Nath Lahiri[5]

ABSTRACT

Introduction – Indian Railways is the lifeline of Indian economy. The prime segment of this transportation system is loco pilots. But they are prone to WMSDs due to working posture and working environment.

Objective – The objectives of the present study is to evaluate the body posture during honking activity and exposure of noise dose during same.

Methodology – A total of 26 numbers male electric loco pilots and WAG_7 old variant (OV) locomotives of Indian Railways was used for data collection. Both noise dose of whistles and postural data during honking were recorded. RULA was used to analyse the postural data.

Results – Result shows that 80% of drivers' population is exposed to the noise level beyond 75 dB(A), and situation is quite harsh/uncomfortable during application of horn. The RULA score indicates either changes are required in body posture, or in the horn lever design.

Discussion – All kinds of audible sounds and vibration related noise produced from mechanical devices have adverse effect on human health. The study shows that majority of loco pilots are exposed to noise levels that exceeds 75 dB(A). The situation becomes worse with superimposition of the horn and the surroundings, which may cause short term and then permanent hearing impairment. The RULA score suggests that during application of horn, total population except one belong to action level of '2', the elaboration of which indicates that the problem is associated with the upper limb. Therefore, proper training and few design modification is suggested.

Conclusion – The loco pilots are continuously exposed to a high level of noise, also the honking posture need some improvement. In view of the above, few design modifications have been suggested to make the driving a pleasant and enjoyable task.

Introduction

Indian Railways is a national asset, connects far corners of the country, and acts as a lifeline for Indian economy. This government owned railways network adds score to the India's Gross Domestic Product (web/railnews.in, 30th August, 2019). This has only been possible due to efforts of millions of workforce working round the clock (web/indianrailways.gov.in, 06th September, 2019), which includes loco pilot, the prime segments for this transportation system.

The train driving is directly linked with design of the vehicle and its environment. To assure safety and comfort in driving, proper design of control's layout is essential, also management of noise exposures need to be controlled in appropriate manner (Žnidarič et al. 2011). As there is no fixed schedule for goods train operation in Indian Railways, therefore, prolonged duty-hours is quite common for loco pilots (Ranjan et al. 2014). As the main contributing factor of noise dose is location of movable devices and year of manufacturing (Zannin 2006), the prolonged exposure to working ambiance in the cab room and long exposure to noise can lead to strain and fatigue on them (Ranjan et al. 2013). Exposure to noise level for bus drivers exceeds its threshold value (Mukherjee et al. 2003) and audiometric threshold levels were predominant for bus drivers having more than 10 years of experience (Majumder et al. 2009). It had been noticed that prolonged duty hours with less physical activities were the main cause of WMSDs among the drivers (Abledu et al. 2014). Longer reach of operating panel also causes WMSDs (Safitri et al. 2016). The physical demand of driving, exposure to noise causes WMSDs on drivers (Bulduk et al. 2014).

In various documentaries on Indian Railways, it has been noticed that, honking is a favorite activity for all non-railway personnel. But basically the train drivers are indeed exposed to very harsh conditions and there is a need for a detailed systematic assessment of the working posture and working environment. In view of the above the objectives of the present research study have been

[1] *Student (PhD), Jadavpur University, Kolkata,* [2] *Professor, Jadavpur University, Kolkata*
[3] *Professor, Haldia Institute of Technology, Haldia,* [4] *Ex-CMS, South Eastern Railway, Adra*
[5] *Ex-Professor, Jadavpur University, Kolkata*

framed as follows –

- To study and evaluate the body posture during honking activity by body indexing method to identify the risk associated with it.
- To carry out in-depth study of the cabin's working ambience, especially during blowing horn.
- To propose suitable modification(s) to assure safety and pleasure at work.

Methodology

The present field work was carried out at Kharagpur Division of South Eastern Railway. Presently four types of broad gauge locomotives are used for hauling goods train in Indian Railways, on which WAG_7 old variant (OV) locomotives was considered for data collection. The cab room of these type of locomotive has some space constraint. The honking levers are placed on the left hand side of the circular notch wheel, and it is situated approximately in the same height of the driving desk.

A total of 26 numbers male electric loco pilots with mean age of 41.34 and SD $\pm$ 5.19 years, head quartered at Kharagpur or Santragachi were considered as the subjects. For selecting loco pilots, first, the purpose of the study was explained to each and every participant, the participation was voluntary, and the field survey was conducted later on.

To understand the running working ambience of the workstation, including noise dose, a sound level meter was used, which simultaneously records actual noise level of running train and during honking. Both the low tone and high tone of the whistles are captured video-graphically. A compact digital camera was used to record the same.

To understand the elementary activities performed by the loco pilots during actual driving and to collect the raw postural data in situ, the author accompanied the loco pilots during their duty hours. Quite a good number of physical tasks are being performed by the drivers during their action of driving, which include application of horn. Basically it is an additional activity required for smooth running of the train. Application of horn is performed by the left hand in general. It is basically a safety device, required to draw attention of others nearby about changing location of the moving giant. The loco pilots blow horn in some mandatory areas and when required.

For the present study, the working postures of loco pilots are evaluated by using Rapid Upper Limb Assessment (RULA) (McAtamney et al. 1993) method aiming to identify the probability of musculoskeletal disorders in loco pilots. RULA method provides an easy and convenient rating of musculoskeletal loads on various body segments. It is used to assess the posture, force, and movement associated with sedentary work. The risk is calculated by a score ranging from 1 (low) to 7 (high), which are grouped into four action levels with an indication of time frame for expected risk control initiation.

Results

Noise Dose

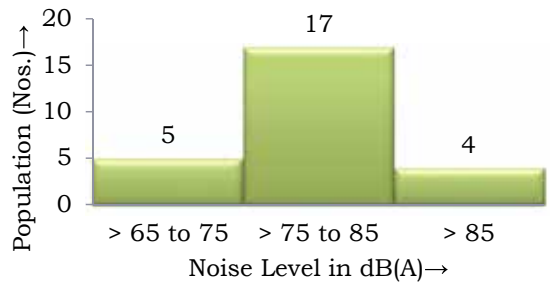
Vehicular horns have deleterious effects on human health and psychology. Allowable ambient air quality standards in respect of recommended noise in industrial area is 75 dB(A) at Day Time and 70 dB(A) at Night Time (web/cpcbenvis.nic.in, 11th September, 2019).

The normal noise level during running of WAG_7 OV locomotive is provided in Table 1 and graphically represented in Fig. 1. For measuring the same, the sound meter (or noise level meter) is placed at a height equivalent to driver's ear.

Table: 1. Normal Noise Level during Running of WAG_7 (OV) Locomotive

Normal Sound Level in dB(A)	Population Exposed to (Nos.)
> 65 to 75	5
> 75 to 85	17
> 85	4

Fig. 1. Normal Noise Level during Running of WAG_7 (OV) Locomotive



Only about 20% of drivers' population is exposed to the noise level upto 75 dB(A) during normal running of the train, it means that the remaining 80% are exposed to noise level exceeding the recommended levels.

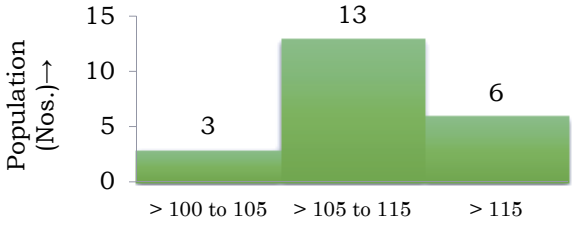
Loco drivers are also exposed to the low-tone and high-tone whistle sound levels. Generally low-tone is having high frequencies than high-tone. But in present case the lever which is marked as 'LT' was considered as low-tone-valve and the remaining one, which was indicated as 'HT', was considered

as high-tone-lever. The exposure to low-tone sound levels is presented in Table 2 and Fig. 2. It is to be noted that on four occasions the loco pilots never used the low-tone whistling lever during the study.

Table: 2. Low Tone Whistling Sound Level in WAG_7 (OV) Locomotive

Low Tone Sound Level in dB(A)	Population Exposed to (Nos.)
> 100 to 105	3
> 105 to 115	13
>115	6

Fig. 2. Exposure to loco drivers to low-tone Sound Levels in WAG_7 (OV) Locomotive



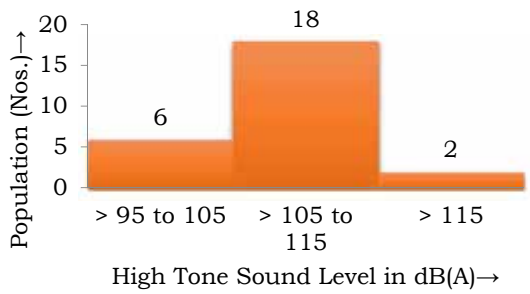
Results reveal that all the low tone whistling sound level always exceeds 100 dB(A).

The exposure to high-tone sound levels due to whistling noise is presented in Table 3 and Fig. 3.

Table: 3. High Tone Whistling Sound Level in WAG_7 (OV) Locomotive

High Tone Sound Level in dB(A)	Population Exposed to (Nos.)
> 95 to 105	6
> 105 to 115	18
> 115	2

Fig. 3. Exposure to loco drivers to high-tone Sound Levels in WAG_7 (OV) Locomotive



Results revealed that all the high tone whistling sound level are beyond 95 dB(A).

Honking Posture

The details of RULA scoring during application of horn in WAG_7 (OV) Locomotive and suggested action level are listed in Table 4 and Fig. 4 to 5.

Table 4. RULA Scores during Application of Horn in WAG_7 (OV) Locomotive

Score	Posture Score A	Wrist & Arm Score	Posture Score B	Neck, Trunk & Leg Score	Rula Score (Nos.)	Action Level	Total Population (Nos.)
1	0	0	19	19	0	1	1
2	2	2	2	2	1		
3	14	14	5	5	25	2	25
4	10	10	0	0	0		
Mode	3	3	1	1	3	–	2

Fig. 4. Graphical representation of RULA Score during Application of Horn in WAG_7 (OV) Locomotive

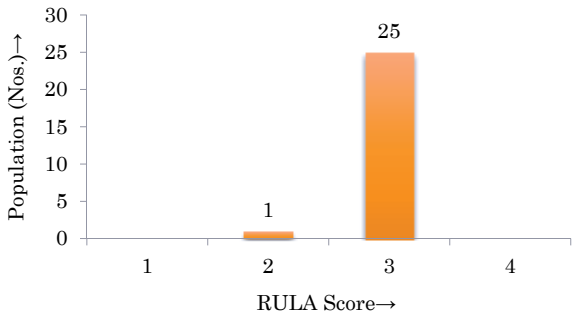
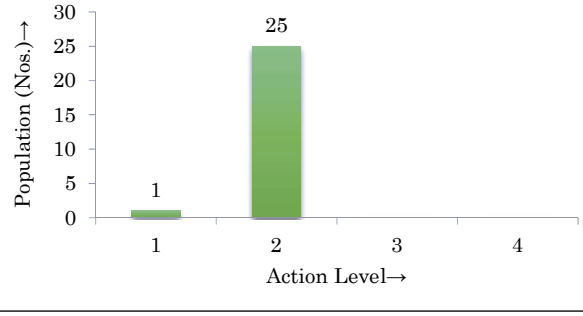
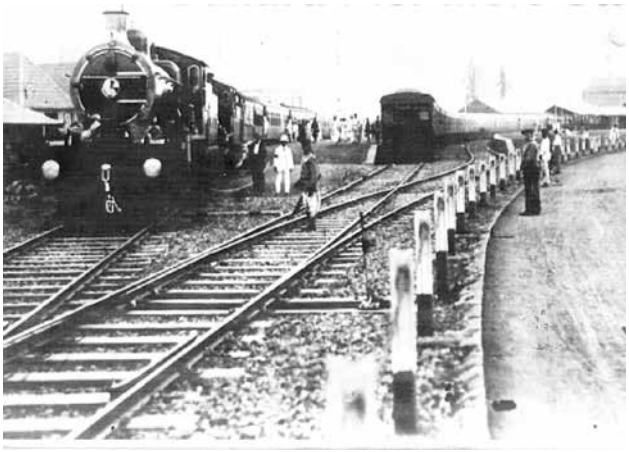


Fig. 5. Graphical representation of Priority for Change as suggested by RULA



To be continued ...





Punjab Mail colour scheme

Punjab Mail completes 109 years - Oldest train of India on LHB coaches

Punjab Mail, the oldest train in Indian Railways completes 109 years and steps into 110th year on 1st June, 2021. Though passenger train services were suspended during the Covid-19 lockdown from 22nd March, 2020, gradually the services were reintroduced as special trains after unlock from 1st May, 2020. However, Punjab Mail special began its journey with LHB coaches from 1st December, 2020. The LHB coaches give more safety and pleasant travelling experience to the passengers.

Background

The origins of the Bombay to Peshawar Punjab Mail are rather unclear. Based on a Cost Estimate paper circa 1911 and a complaint by an irate passenger circa 12th October, 1912 about the 'late arrival of the train by a few minutes at Delhi', it has been more or less inferred that the Punjab Mail made her maiden run out of Ballard Pier Mole station on 1st June, 1912.

Punjab Mail is over 16 years older than the more glamorous Frontier Mail. Ballard Pier Mole station was actually a hub for GIPR services. The Punjab Mail, or Punjab Limited as she was then called, finally steamed out on 1 June 1912. To begin with, there were the P & O steamers bringing in the mail, and the Officers of the Raj, along with their wives, on their first posting in Colonial India. The steamer voyage between Southampton and Bombay lasted thirteen days. As the British officials held combined tickets both for their voyage to Bombay, as well as their inland journey by train to their place of posting, they would, after disembarking, simply board one of the trains bound for either Madras, Calcutta or Delhi.

The Punjab Limited used to run on fixed mail days from Bombay's Ballard Pier Mole station all the way to Peshawar, via the GIP route, covering the distance of 2,496 km in about 47 hrs. The train comprised of six cars: three for passengers, and three for postal goods and mail. The three passenger carrying cars had a capacity of 96 passengers only. The sparkling cars were all corridor cars, and were made up of first class, dual berth compartments. Catering as they were to the upper-class gentry, the cars were pretty well appointed, offering lavatories, bathrooms, a restaurant car, and a compartment for luggage and the servants of the white sahibs.

During the pre-partition period, the Punjab Limited was the fastest train in British India. The Punjab Limited's route ran over GIP track for the large part, and passed through Itarsi, Agra, Delhi and Lahore, before terminating at Peshawar Cantonment. The train started originating and terminating at Bombay VT (now Chhatrapati Shivaji Maharaj Terminus Mumbai) from 1914. The train then loosely came to be known as the Punjab Mail, rather than Punjab Limited, and became a daily service.

From a service meant primarily for the upper-class white sahibs, the Punjab Mail soon started catering to the lower classes too. Third class cars started appearing on the Punjab Mail by the mid-1930s. In 1914, the GIP route from Bombay to Delhi was some 1,541 km. which the train used to cover in 29 hr. 30 min.

In the early 1920s, this transit time was further reduced to 27 hr. 10 min., despite as many as eighteen intermediate stops. In 1972, the transit time was again pushed up to 29 hr. In 2011, the



Punjab Mail has as many as 55 intermediate stops. The Punjab Mail got an air-conditioned car in 1945. From 1.5.1976, Punjab Mail was to run with diesel locomotive. (fully dieselized).

After electrification of the Thul Ghats, the train has been electric hauled from Bombay VT to Manmad, from where WP class steam engines took over. The train was WP hauled from Manmad all the way till Firozpur. In 1968, the train was dieselized upto Jhansi, and its loading increased from 12 to 15 cars. Dieselization was later extended from Jhansi till New Delhi, then by 1976, onwards till Firozpur. The number of coaches was increased to 18, with two coaches getting added on at Jhansi. In the late 1970/early 1980s, WCAM/1 dual current locomotive to run the Punjab Mail on electric traction right upto Bhusaval, with the changeover from DC to AC traction at Igatpuri.

The Punjab Mail takes 34 hrs and 15 minutes to cover the 1,930 km between Mumbai and Firozpur Cantonment. The train is electric hauled. The restaurant car has been replaced by a pantry car.

Presently, Punjab Mail Special has one AC First Class cum AC2 Tier, Two AC2 Tier, Six AC3 Tier, 6 Sleeper Class, one pantry car, 5 general second class coaches and one generator van. ■



Lucknow: City of Nawabs

Meghna Pushpam
Student of Journalism

I joined Indian Institute of Mass Communication, an institution of its own fame and a reputed faculty Dr Anand Pradhan told me on very first day, Meghna, you belong to Lucknow. Everybody knows that Lucknow is one of the best historical cities in the world.In the next lecture, we will discuss about.

Just then I decided to move to Lucknow because I had not travelled Lucknow.Booked a Tatkal Ticket by Shatabdi Express, reached to Lucknow . Told my driver to be ready to show me Lucknow's historical places.What I saw in Lucknow are the best places and everyone will say, wow! What a marvelous city Lucknow is.

Bara Imambara and its history

Growing up in the 'City of Nawabs: Lucknow' was all about gazing at historical buildings and munching on Tundey's kebabs. The city that has a culture of keeping others before self and *'Pehle aap* (you first)' is a commonly used phrase. The Bara Imambara, a magnificent monument in the northern Indian city of Lucknow was built in 1784 by Asaf-ud-Daula, the fourth Nawab of Awadh, as a major famine relief project. The great central imambara hall (also refered as the Shia Muslim meeting hall) is considered to be the largest hall in the world built without any kind of external support from wooden, metal or stone beams.

The trick that helps in keeping the ceiling at its place and away from crashing in on visitors is also the imambara's most prominent architectural feature, the bhulbhulaiya, a labyrinthine network that has nearly a thousand interconnected passageways. These passageways are built directly above the chambers, thereby reducing the ceiling's weight as it makes it hollow. Loosely translated as 'maze' in Hindi, the bhulbhulaiya is nearly impossible for its visitors to find their way out without a guide.

In addition to the hall and the maze, the Bara Imambara complex also contains a large freestanding mosque known as the Asafi Mosque, large courtyards, beautifully carved gates, and a baoli or stepwell. The magnificent gate is the Rumi Darwaza with its scalloped arch, which serves as the western entrance to the complex and the city's past portal.

During Mughal rule in India, the nawabs were appointed by the emperors, or viceroys, to take over the administration of various provinces within their territory. Awadh was one such province and the Awadh nawabs, from Nishapur in Iran, left an indelible mark on the town of Lucknow, the administrative capital, with their art, culture, architecture and elaborate religious traditions. When a famine hit the area in the late 18th century







(Photos By- Meghna Pushpam)

and lasted for ten years, nawab Asaf-ud-Daula embarked on a marble construction project to provide work to several construction workers who were not educated enough to work elsewhere.

It is neither a mosque nor a mausoleum, the imambara is a monument used by Shia Muslims for religious purposes during the month of Muharram. Muharram marks the mourning ritual performed by the third imam and grandson of Muhammad Hussain who was martyred at the Battle of Karbala in 680 AD. Unmatched in its architectural beauty, Bara Imambara, also known as Asfi Imambara after its founder, is alive during the Muharram festival when believers gather and take the movable shrine or the taziya.

Rumi Darwaza opens a large courtyard that ends at a three-dimensional gate, leading to the main yard where there is the great mambara. The outer part of the imambara is very large and gives a view of the town of Lucknow from many levels. Watch out for the fish facing engraved on the squinches at the gates, part of the royal symbol of the Awadhi nawabs.

The central imambara hall, which measures 165 meters long and 53 meters wide, is a marvel of architecture thanks to its sloping roof that stands 50 feet without pillars or supporting beams. Its walls are painted with a cool combination of blue and white plumbing and crystals hanging from the ceiling, a large hall containing the tombs of nawab and his talented artist from Delhi, Kifayat-ullah, their graves nearby.

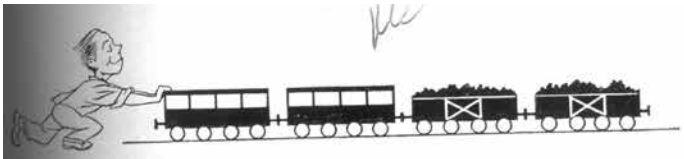
The entire imambara building is divided into nine rooms or chambers, with eight smaller chambers around the main hall. The space above the chambers was reclaimed from the labyrinthine network of interconnected corridors, accessed by a total of 489 identical doors and a composite structure known as the 'bulbhulaiya.' It is a major tourist attraction in the city as several people come to visit the historical monument not just for the beauty but also for the experience of finding one's way out of the identical doorways.

Many numbers of hotels are available as the Taj Mahal,Piccadily, Hotel Clarks etc for a comfortable and luxurious stay.

Lucknow is closely connected by air and rail with every corner of India so there is no problem to reach Lucknow.

A popular legend is that there are many underground passages which lead to the cities of Delhi, Faizabad and Allahabad. There is also a passage which leads to the Gomti river. However, all these are sealed from a long time and no one knows whether they actually exist.

I think ,it's the best city to travel. ■



Rs. 46-crore railway workshop expansion programme

by S. L. SAKSENA
Director, Mechanical Engineering,
Railway Board

RAILWAY rolling stock consists mainly of locomotives, coaches and goods wagons. Their day to day maintenance, routine checking and servicing is attended to in locomotive running sheds, at carriage and wagon depots and in sick lines. They are, however, given overhaul repairs in mechanical workshops after a scheduled mileage or at a fixed time interval which is laid down for different types of stock used on various services on the basis of practical experience.

As part of these overhauls, locomotives and other rolling stock are stripped completely, their moving and other components are carefully examined and the boiler is given a thorough inspection. The parts are then repaired or renewed as necessary, tested and re-assembled. In addition to repairs to rolling stock, the mechanical workshops undertake repairs to pumps, cranes, machinery and plant. The production side of these workshops manufactures the spare parts required for repairs undertaken in shops, running sheds and carriage and wagon depots.

The locomotives or coaches thus repaired are sent for trial runs. When everything is found satisfactory, they are made over to the Operating side for use.

Existing Workshops

Each Railway has its own workshops to meet its repair requirements. Given below are details of the major workshops on the different Railways and the work on which they are mainly engaged :

NORTHERN RAILWAY

Carriage & Wagon Shops, Jagadhari — for repairs to broad gauge carriage and wagons ; Loco Shops, Charbagh (Lucknow) — for repairs to broad gauge locomotives ; Carriage and Wagon Shops, Alambagh (Lucknow) — for repairs to broad gauge carriages and wagons ; Loco Carriage and Wagon shops at Jodhpur and Bikaner — for repairs to metre gauge locomotives, carriages and wagons.

EASTERN RAILWAY

Loco Shops, Jamalpur — for repairs to broad gauge locomotives. These workshops have a re-rolling mill section and a permanent way foundry is an additional feature ; Carriage and Wagon Shops, Lillooah — for repairs to broad gauge carriages and wagons ; Loco Shops, Kanchrapara — for repairs to broad gauge locomotives ; and Carriage and Wagon Shops, Kanchrapara — for repairs to broad gauge carriages and wagons.

SOUTH-EASTERN RAILWAY

Loco, Carriage and Wagon Shops, Kharagpur — for repairs to broad gauge locomotives, carriages and wagons.

SOUTHERN RAILWAY

Loco Shops, Perambur — for repairs to broad gauge locomotives ; Carriage and Wagon Shops, Perambur — for repairs to broad gauge carriages and wagons; Loco, Carriage and Wagon Shops, Golden Rock — for repairs to broad and metre gauge locomotives, carriages and wagons and manufacture of spare parts for running sheds and carriage and wagon depots ; Loco, Carriage and Wagon Shops, Hubli and Mysore — for repairs to metre gauge locomotives, carriages and wagons.

CENTRAL RAILWAY

Locomotive Shops, Parel — for repairs to broad gauge locomotives ; Carriage and Wagon Shops, Matunga — for repairs to broad gauge carriages and wagons ; Loco, Carriage and Wagon Shops, Lallaguda — for repairs to broad and metre gauge locomotives, carriages and wagons ; and Carriage and Wagon Shops, Jhansi — for repairs to broad gauge carriages and wagons.

WESTERN RAILWAY

Loco Shops, Dohad — for repairs to broad gauge locomotives ; Carriage and Wagon Shops, Mahalakshmi — for repairs to broad gauge carriages and wagons ; Loco Shops, Ajmer — for repairs to metre gauge carriages and wagons.

NORTH-EASTERN RAILWAY

Loco, Carriage and Wagon Shops at Gorakhpur, Izatnagar and Dibrugarh for repairs to metre gauge locomotives, carriages and wagons.

Compared to the position at the end of March 1955, the Indian Railways' holdings of rolling stock by the end of March 1961 are expected to increase by nearly 1,550 locomotives, over 5,800 passenger coaches and about 99,000 goods wagons. Increase in rolling stock has already brought heavy pressure on Railway workshops engaged in repair and overhaul work. The Railway Board has in hand schemes estimated to cost Rs. 46,00,00,000 for the expansion of existing workshops and the setting up of new ones.

* * *

Most of the Railway workshops were built many years ago and were designed to meet the requirements of the Railways in those days. The rolling stock on each Railway has been increasing gradually. It is expected to increase very much during the second Plan period as indicated by the following figures of rolling stock holdings on various dates :

		on 31-3-51	on 31-3-55	on 31-3-61
Locomotives	B.G.	5416	5463	6380
,,	M.G.	2494	2800	3428
Coaches (in units)	B.G.	10818	12081	14484
,,	M.G.	7380	9400	12834
Wagons (4-wheelers)	B.G.	160564	169646	243394
,,	M.G.	53779	71559	96677

The rolling stock is expected to increase further after 1960-61. Even with the increase in rolling stock that has already taken place, railway workshops have been working under great pressure. It has, therefore, been found necessary to expand the existing workshops to the maximum extent possible, without making them too unwieldly. Some new workshops will also have to be built to meet the future requirements in full with provision for futher expansion.

Proposed Working Expansion

A detailed survey has accordingly been made as a result of which it is proposed to undertake major expansion of the Gorakhpur and Izatnagar workshops on the North Eastern ; Jagadhri workshops on the Northern ; Perambur and Hubli workshops on the Southern ; Ajmer and Mahalakshmi workshops on the Western ; Jhansi workshops on the Central and Kanchrapara workshops on the Eastern Railways.

Arrangements have been made to take over the Amritsar workshop from the Punjab Government and to develop it for loco repairs. The Western, South Eastern, and probably the Southern Railway will need a new wagon shop each, and the North Eastern Railway will need a new carriage and wagon shop.

In addition, it is proposed to set up two new workshops for manufacturing spare parts of new types of locomotvies — one to feed the Eastern, North Eastern, Northern and metre gauge portions of the Western Railways, and the other to feed the South Eastern, Southern, Central and the broad gauge portion of the Western Railways.

These production units, fitted with modern production machinery and equipment, will relieve pressure on the existing workshops which are being expanded mainly to cope with the increased repair load.

The other repair workshops will undergo minor expansions and also such bottlenecks as now exist will be removed by the introduction of balancing facilities as found necessary.

Detailed Planning

The expansion of the existing workshops and the setting up of new workshops mentioned above involves a great deal of planning, as these expansions have to be so arranged that the out-turn from shops does not suffer, and calls for structural buildings, provision of additional machinery and plant including cranage etc. designed and phased to obtain correct sequence in manufacture and repair operations, to deal satisfactorily with the repair load as envisaged during the second Five-Year Plan. Some work in this connection with these expansions has already been finalised and sanctioned, while in regard to others, plans and estimates are under preparation.

The estimated cost of the expansion and of the setting up of new units mentioned above is about Rs. 46 crores.



★

MOBILE RAILWAY BOOKING OFFICE

The Northern Railway has introduced mobile booking office for the convenience of travelling public at Kanpur. This novel experiment has already proved a success, and a large number of people are daily buying their tickets virtually at their door step.

ORDNANCE FACTORIES TO PRODUCE RAILWAY STORES

The spare capacity of ordnance factories in India is to be utilised for the manufacture of certain items of locomotives, carriage and wagon compartments for the Indian Railways.

The ordnance factories will be used particularly for the manufacture of items which cannot be produced in requisite quantities in railway workshops, and for which capacity elsewhere is not readily available.

The ordnance factories will also tackle items which have hitherto been imported but the manufacture of which can be developed within the country.

This article of the then Director/Mechanical Engineering, Railway Board, Late S.L. Saxena was published in April, 1956

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