

Master Charts

For every section Master Charts indicating trains run in 24 hours are prepared which show the running of each Mail, Express or passenger trains over the sections according to its scheduled running. In between the running of trains carrying passengers, paths for goods trains are worked out and plotted. They are helpful in revision of time tables and planning the running of any extra train, maintenance blocks and for guidance of section controllers. It should be displayed on boards for easy reference.

Checking of Control Charts

Control Charts have to be checked regularly to scrutinize all cases of detentions. The reasons have to be studied in detail to bring out any irregularities or constraints in working in order to identify appropriate corrective measures.

- All cases of poor controlling have to be brought out and the concerned Section controller has to be counseled or taken up appropriately.
- All cases of failures have to be reported as unsatisfactory feature and logged against the concerned department. All unsatisfactory features have to be investigated in detail by the respective departments and failure of staff, poor maintenance and any other issues have to be taken up to minimize and eliminate such failures.
- Control charts have to be checked daily by the CHC in charge and he/she must bring out the critical deficiencies and put up the checked charts to AOM on a daily basis.
- DOM / SrDOM shall do test checks and call for checked charts while analyzing bad cases.

Operational Discipline

Control orders

All orders given to the Station Masters or Running staff and lobby by Controller should be entered in the control order register by the staff. Each entry must be initialed with date & time. At the end of each turn of duty the relieved as well as the relieving Station Master or Loco Foreman must sign their name in full below the last entry in the register. When a station Master or Loco Foreman has received an order from the control has to enter it in his control register at his station.

Control orders are sacrosanct and all Station staff, Shed staff, Crew and Guards etc. must obey them, duly following the General and Subsidiary Rules. Any inconsistency felt should be immediately brought up to the CHC in charge who shall resolve the understanding or issue modified orders.

Unusual reporting

1. Any unusual occurrence has to be informed to the control by the Station Master on duty at once.
2. Station Master must promptly advise the Controller of any defects of signals, points, interlocking apparatus and line clear instruments at his/her station. Information should also be given of any defects in any other station machinery such as cranes, wagon weigh bridges, turn tables, water columns etc.

Engine Movements to and from sheds to be reported

Power Controller/Traction Loco controller must communicate to control the time at which train engine will leave from or returns to the shed. This will in no way, relieve the Station Master of the responsibility for issuing necessary all concerned messages regarding engine failures and engine trouble enroute. The Controller shall record the duration of such defects in his chart, diary and registers.

Time to be checked with control

Station Master, Loco Sheds and Lobbies must check their time with control at appointed hours every day when control gives a general ring for setting their watches. It is usually done at 1600.

Mode of using the control phone

- (a) Station Master and others must not ordinarily attempt to speak to control unless they have ascertained by lifting the receiver and listening in, that the line is free. They must then announce the name of the station/shed/ lobby or site from where they are speaking and wait for its being repeated by the controller before beginning the conversation.
- (b) When, however an urgent message has to be conveyed and the line happens to be engaged, the station name must be called out and a demand made for the telephone line to be cleared. The Controller will then discontinue all other conversations in which he had been engaged and attend to the Station making the interruption. Such 'clear line' must be made exceptionally when there is a genuine reason to do so.
- (c) Station Masters must attend 'Control Call' promptly.
- (d) Staff must obtain Station Master's permission before speaking to Controller;
- (e) The Control telephone is to be used only for transmitting official information. Private conversation is forbidden.

Accidents

Controllers and other staff should thoroughly understand and act on the guidelines contained in G&SR and Accident Manual.

Working of Trains when Control is interrupted

When the control is interrupted and no communication with the Controller is possible, Station Masters will be responsible for the working and regulation of trains, keeping in view the instructions issued by the railway administration.

The section control is the focal point of coordination for train running. In order to assist the section controller as well as to manage all the associated activities of train operations, the division control office has the following department wise control set up.

Operating Control

The operating control has the following personnel to assist the CHC in charge for carrying out the coaching and freight train operations. Chief Controller (Main Line) and Chief Controller (Stock) for Freight and Chief Controller (Punctuality) for Coaching train operations. They are assisted by train clerks and assistant staff in their duties. Its functions are to control train running and traffic operations like loading, unloading etc. The operating control is the general and over-riding control for supervision of the movement of goods and coaching traffic on the division. It is exercised by:

- (a) Collecting stock position from the different stations, marshaling and terminal yards.
- (b) Collecting information on demands registered / outstanding for freight loading at stations.
- (c) Arranging supply of wagons against pending registration
- (d) Securing optimum utilization of stock, with minimum detention.
- (e) Monitoring and coordinating working of yards, goods shed, sidings, loco-shed, C&W depots etc.
- (f) Securing maximum loads for trains.
- (g) To keep liaison with adjacent Railways and divisions for interchange commitments.

Power Control/Traction Loco Control

It functions to monitor and control the locomotives. Its area of working includes...

- (a) Requisitioning engine from loco sheds for all operating requirements, i.e. Train working, Shunting and Banking;
- (b) Ensuring most economical use of engines by close supervision both in Traffic Yards and sheds;
- (c) Planning in co-ordination with DyCHC for Schedule due locos to work in direction of sheds.
- (d) Coordinating with DyCHC for moving of trains so that crew shall not exceed 9hr rule.

- (e) Balancing crew at outstation depots for smooth functioning of trains.
- (f) Ensuring all link locos are moved in time to connect Exp/Pass services.
- (g) Ensuring relief loco for any loco failures.
- (h) In the event of any unusual, when MRV/ART/140T crane are ordered, ensuring proper locomotive for it on priority.
- (i) Ensuring the return of engines to “Home Sheds” at regular intervals for servicing and maintenance.
- (j) Ensuring an even balance of engines from running sheds for meeting demands of traffic;
- (k) Ensuring that light engine kilometers is kept to the minimum and
- (l) Providing guidance to running staff for trouble shooting.

Carriage and Wagon Control

It functions include the monitoring of activities related to rolling stock – wagons and coaches. They include the following.

- (a) To ensure timely examination and fitness of all trains.
- (b) To keep a watch over the detachment of sick wagons and to arrange for their early repair and fitness, duly monitoring and ensuring availability of critical components failing frequently.
- (c) To keep a watch over placement of wagons in sick line and their release.
- (d) To monitor movement of POH due stock to workshops.
- (e) To keep account of detention of trains on C&W account and take remedial action;
- (f) To provide guidance to running staff for trouble shooting.

Commercial Control

It monitors and manages the commercial aspects of train running over the division like....

- (a) To keep a watch on detention to passenger trains on account of Alarm Chain Pulling, Parcel working etc., and take remedial measures
- (b) To ensure loading and unloading activities targeted for the day as planned by Operating control.
- (c) To ensure proper maintenance of public amenities available at stations.
- (d) Monitoring of public complaints lodged at the stations.
- (e) To ensure quick transshipment of sick wagons by arranging matching stock and labor.
- (f) To ensure relief, ex-gratia payment and assistance required during accident relief and restoration.;
- (g) To expeditiously dispose of unclaimed and unconnected wagons, loads, smalls and parcel consignments

Traction Power Control

It houses the SCADA which monitors and controls the power supply of the traction OHE over the entire division. It has critical role in...

- (a) Ensuring continuous power supply at 25KV and arranging alternative power supply in case of tripping etc., through remote control.
- (b) Arranging maintenance blocks for OHE
- (c) Monitoring OHE failures and taking remedial action.
- (d) Monitoring detention of trains on O.H.E accounts.
- (e) Guiding running / station staff in trouble shooting.
- (f) It also monitors the MD of each sub section and takes necessary action in coordination with operating control to advise changes required in CMD as well as avoid penalty as far as possible.

Engineering Control

It coordinates and monitors the aspects regarding engineering department related to train running like...

- (a) Monitors imposition and cancellation of Caution Orders.
- (b) Coordinating works during Engineering blocks.
- (c) Coordinates with Traffic Controller for movements of Track machines and material trains.
- (d) Ensures safety in work spots and sensitive locations like recording and monitoring of earth works being executed along the track in all the sections.

Security Control

It monitors the security aspects of train running like...

- (a) Law and order situations
- (b) Attending to complaints of passengers like theft, women safety etc.

Signal & Telecom Control

It monitors all the aspects of Signaling and communication across the division. It functions include...

- (a) Keeping watch over proper functioning of signals, communication equipment along with their networks.
- (b) Managing S&T failures and taking remedial action.
- (c) Ensuring setting up of emergency controls at the site of accidents.

Telecommunication Facilities in Control Office

Extensive, efficient and reliable communication network is necessary for the efficient functioning of the Control organisation. The following telecommunication network is available in control offices.

Section Control Circuits:

These are exclusive omnibus circuits connecting Control Boards, Chief Controllers, Dy. Chief Controllers and Operating Officers with Stations, Cabins, Yards, Crew Lobbies etc.

Traction Power Control circuit:

This additional telephone circuit is available on the electrified sections connecting Traction Power Controllers with OHE sub stations, railway stations, control boards and other selected work places. The TPC can also be contacted from the emergency sockets provided over the sections by means of portable telephone. The emergency sockets are provided at every kilometer. Every OHE mast is provided with indications with arrow mark directing towards the nearest point to enable crew to identify the nearest socket.

Test Channel for S&T staff:

In order to speedy conveying of S&T failures and ensure quick rectification, every Control Board is provided with telephone connection to Test Room, which is managed by the Test Room.

FOIS and ICMS networks:

FOIS and ICMS terminals are provided in Control office to get data from field units and feed Divisional data.

Hot lines are provided between:

- (a) Headquarter and Divisions;
- (b) Adjoining Divisions and Railways;
- (c) Intercom facility to various Officers and other functionaries concerned with the control is connected with important work centres with STD or Trunk Exchanges.

Books/Documents to be kept in Divisional Control Office

1. Station Working Rules of all stations with diagrams.
2. Rake links, Crew links, Loco links etc.
3. Details of maximum moving dimensions permitted on the various section of the railway.

4. Map showing the maximum permissible axle load on all the railways with which traffic is interchanged.
5. Index sections and plans of the various sections of the jurisdiction and details of train watering, Engine fuelling etc.
6. Master charts depicting all trains indicated in the working time table in force.
7. Charts showing jurisdiction of the various officials details of:
 - (a) Maintenance branch of the Signal & Telecommunication responsible for the upkeep of control communication in good condition.
 - (b) The various departments of the railways,
 - (c) Zone and telephone numbers of Civil, Police, Military authorities.
 - (d) List of various hospitals with Telephone Numbers.
 - (e) List of stations Civil, district-wise.
 - (f) OHE Sectioning diagram.
8. Line patrol chart

Registers generally maintained in Division control

1. Control Board wise:

- (a) Sections controller's diary and HOC/TOC book.
- (b) Stock report register
- (c) Incoming and outgoing trains RD (Running Diary) (other than passenger)
- (d) Incoming and outgoing passenger Train Running Diary.
- (e) Train Advice / Train Notice
- (f) Caution order register.
- (g) Caution order message book.
- (h) Morning (6'O clock) position registers.
- (i) Interchange Register.
- (j) Control failure Register.

2. By the Chief Controller (Main line), (Stock) and (Coaching)

- (a) Yard Running Balance Register.
- (b) Dy. Chief Controller's Diary & HOC/TOC Book.
- (c) Bans and Restrictions register.
- (d) Forecast and Acceptance Book.
- (e) Train Ordering Book.
- (f) Punctuality Register.
- (g) Without brake van / guard movement register.
- (h) Accident Register.
- (i) Conference instructions Register.
- (j) Central control register.
- (k) Emergency control register.
- (l) FATO register.

- (m) DRM's Unusual Occurrence Register.
- (n) ODC Register.
- (o) Rajdhani Express (and similar trains) Caution Order Register.
- (p) Emergency and General Control Office Message Register (Outward)
- (q) Interchange Register.
- (r) Inward message book.
- (s) Outward message book.
- (t) Working order registers.
- (u) Weather warning and acknowledgement register.
- (v) Safety circular register.
- (w) Road map register.
- (x) Night order book.

Zonal Control Office

Every zonal headquarters has a zonal control office situated in the General Manager's office premises. It functions similar to the division office but to the zonal level covering all the divisions of the zone. There are no section wise control boards as such activities are not done by the zonal control office. The zonal control main function is that of coordination between divisions and be a single source of communication with Railway Board to monitor, improves the coordination between zones. All departments are also represented in the zonal control set up with their own controls.

Organization of Zonal Operating Control Office

Central Control: Central Control collects information from the Divisions, puts up the same to Officers concerned and communicates the orders of the Head Quarters to the Divisions. Central Control provides link between Head Quarters operating officers and Divisions. Chief Controller is the head of the Central Control. All the functions are done on his direct supervision. Dy.Chief Controllers (Coaching, Goods, and Stock) will assist the Chief Controller.

Following are some of the functions performed by the Central Control:

1. Prepare reports on wagons available in divisions, received and forwarding wagons, yard balances at ZERO hour and figures of wagons at 24:00 hours i.e. clearance.
2. Keeps a close watch on the relief trains.
3. Collection of figures of stabled wagons with description of vehicle / train.
4. Analysis of detention to trains.
5. Allotment and distribution of goods stock to the divisions.
6. Issue proper instructions for train working during major dislocations affecting two or more divisions.