



WORK STUDY TO REVIEW THE
TELECOM STAFF STRENGTH IN
OFC/AJJ & OFC/CGL -
CHENNAI DIVISION

SOUTHERN RAILWAY

PLANNING BRANCH

G.275/WSSR-302021/2020- 21

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TELECOM STAFF STRENGTH IN
OFC/AJJ & OFC/CGL -
CHENNAI DIVISION

STUDIED BY

WORK STUDY TEAM
OF
PLANNING BRANCH

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(i)
ACKNOWLEDGEMENT

The work-study team conveys its sincere thanks to Sr.DSTE/MAS, ADSTE/AJJ, ADSTE/TBM, SSE/OFC/AJJ, SSE/OFC/CGL and all other staff of S&T Branch - Chennai Division for their valuable guidance and co-operation in conducting and completing the study in time.

(ii)
AUTHORITY

Annual programme of work studies for the year 2020-21

(iii)
TERMS OF REFERENCE

Work study to review the Telecommunication staff strength in OFC/AJJ & OFC/CGL in Chennai Division.

(iv)
METHODOLOGY

The following methodology has been adopted while conducting the study:

1. Collection of data.
2. Discussion & interaction with Co-ordinating Officer and Supervisor.
3. Working out the requirement of staff applying Bench Mark Ratio.

(v)
SUMMARY OF RECOMMENDATION

Recommendation 1 :

For OFC/AJJ:

1 post of SSE/OFC in Level 7 (GP Rs.4600),
2 posts of Tech.I/Tele in Level 5 (GP Rs.2800) and
2 posts of Helper in Level-1 (GP Rs.1800) are found excess to the requirement may be surrendered and credited to the vacancy bank.

(5 Posts)

Recommendation for OFC/CGL : NIL

CHAPTER – I

1.0 INTRODUCTION

- 1.1 The Signal and Telecommunication Department plays a vital role in the operation of trains. The Signal Branch is responsible for the Signal work of entire Indian Railways for safe and speedy movements of trains by the operations of signals and points. The Telecommunication Branch is responsible for the communication between the controller and the way side stations for the effective operation of trains and for Inter Divisional and Intra Divisional communication with other Zonal Railways and Railway Board.

Further, the Tele-communication Department plays a vital role in Passenger Amenities by providing the information about arrival & departure of trains, reservation status, and location of coaches through coach guidance display, arrival departure boards, touch screens and Public Address System etc.

The Railways has its own in-house communication network and entire Indian Railways has been brought under communication network and the technological advancement paved way for possibility to connect nook and corner of Indian Railways.

- 1.2 Scientific development and advancement of technology in communication has impact in Railways also. Thus Railway has switched over to the new technology in par with other communication providers. The Microwave network is being slowly switched over to the advanced Optical Fiber communication except in certain areas. The RE cables are replaced with Quad cables and the entire electromechanical (Strowger) telephone exchanges are replaced by Electronic and Integrated Services Digital Network (ISDN) exchanges.

- 1.3 Based on the nature of work, the Tele communication dept can be broadly classified as

- i) Control communication. (Provides communication between controllers and way-side stations for train operations through one of the mediums like overhead lines, RE cable, OFC(Optical Fiber Cable)/QUAD cables)
- ii) Telephone Exchanges
- iii) Wireless network
- iv) Data Network

- v) Wireless Repair Centre
 - vi) Cable Gang
 - vii) Passenger reservation System Unit
 - viii) Security Surveillance system
- 1.4 An analysis is made to study the present system of working in Tele-communication wing at OFC/AJJ & OFC/CGL of S&T Department, Chennai Division. The factors like existing DETUs, technological development, further scope for advancement of technology have determination in man power utilization.
- 1.5 The requirement and elimination of man power is critically examined through the tool of bench mark in the subsequent chapters.

CHAPTER – II**2.0 PRESENT SCENARIO**

2.1 The Tele-Communication Department, MAS Division is within the overall control of Sr.DSTE/MAS, DSTE, ADSTE, Supervisors, Technician and Helpers, extend cordial co-operation for smooth functioning of the department.

2.2. The sanction and actual strength of OFC/AJJ & OFC/CGL units as on date is furnished as **Annexure-I & II** respectively.

2.3. For effective working and better administrative control, the Communication Department has been bifurcated into following section/unit viz.,

- (1) Headquarters Unit
- (2) Control Communication Unit
- (3) Exchange Unit,
- (4) Optical Fiber & Quad Cable Communication
- (5) Passenger Address System,
- (6) Data Network management Unit,
- (7) Wireless Repair Centre
- (8) Cable Gang Unit
- (9) Special Revenue Maintenance Stores Unit
- 10) Passenger reservation System Unit and
- (11) Railnet Unit.

2.4. The workload Vs manpower requirement of each office/unit is dealt as under:

2.4.1. HQ / Unit / MAS :-

This unit is responsible for the preparation of daily communication position, punctuality, PCDO, GM narrative report, technical estimate, schedules, assistance in disaster management, up-dating the data circuits and control circuits. Co-ordinate with BSNL officials for new connections, leased circuits, CUG communication. Periodical Publishing of Telephone Directories. Preparation of Telecom assets, cable route plan of RE cable, OFC cable and Quad cable etc. This unit is managed with SSE Technicians and Helpers.

2.5 TELEPHONE EXCHANGE IN CHENNAI DIVISION.

2.5.1 Chennai Division has exchanges in the following locations:

MAS MS, Nungambakkam (NBK), Rostover (RSTV), Perambur (PER), Railway Hospital, Avadi (AVD), Royapuram (RPM), Tondiarpet Marshalling Yard (TNPM), Arakkonam (AJJ), Katpadi (KPD), Jolarpet (JTJ), Chengalpattu (CGL) and Tambaram (TBM). For the present study only related with two exchanges/units i.e. OFC/AJJ & OFC/CGL. The stations coming under SSE/OFC/AJJ is Kadambattur (KBT), Thiruvalangadu (TO), Arakkonam (AJJ), Melpakkam (MLPM), Chitheri (CTRE), Anavarthikanpet (AVN), Mahendrawadi (MDVE), Sholingar (SHU), Tharangai (TUG) & Wallaja Road (WJR) and under SSE/OFC/CGL is Chengalpattu (CGL), Ottivakkam (OV), Padalam (PTM), Karungkuzhi (KGZ), Melmaruvathur (MLMR), Acharapakkam (ACK), Kanchipuram (CJ), Palar (PALR), Wallajapad (WJ), Thirumalpur (TMLP), Olakkur (OLA), Madurantakam (MMK), Perani (PEI), Mailam (MTL), Tindivanam (TMV), Thozhuped (TZD), Vikravandi (VVN), Mundiampakkam (MYP) & Villupuram (VM) (Block).

Earlier the switching between called and calling subscribers was done through Strowger Exchange which is an Electro Mechanical type using relays and rotary switches. Presently all Strowger Exchanges are being replaced by the latest Electronic Exchanges having the following distinct advantages like rate of failure redactor, provision for automatic testing duly using commands through peripherals which paves way for reduction in time consumption of supervisor/technicians.

2.5.2 Being a solid state electrical equipment, requirement for adjustment and maintenance is eliminated. Consumption of less power and lower capacity free maintenance battery is sufficient to power the equipment. The capacity of the exchange can be increased easily by inserting additional cards without any major alteration. Quality of speech is also better than electro-mechanical exchanges. In addition special features like caller identity, transfer of calls, call pick-up, etc. can be extended to the subscriber.

2.5.3 The work load in Telephone Exchanges can be broadly classified as

- i) Internal (confined with maintenance of equipment, battery, battery chargers, lighting arrestors and earthlings of equipments, etc.)
- ii) External (maintenance and attending to failures of Telephone Instrument, switch board cables and underground cables).

2.5.4 The exchanges are broadly classified as Major Exchanges having capacity of more than 500 lines & situated in Chennai city and smaller exchanges having less capacity of less than 250 lines.

2.5.5 The major exchanges are being maintained round the clock and smaller exchanges are being manned during general shifts only.

2.5.6 DUTIES OF SUPERVISORS @ Exchanges:-

SSE is the over all in-charge of the exchange, responsible for staff matters, duty rosters, stores, T&P items, maintenance of files & registers, periodical inspection of cable insulation, earth resistance, up-dating cable route plan, indenting of stores, accountal of stores, imprest cash, official correspondence, Co-ordination with BSNL officials for shifting and new connection of BSNL phones, provision of phones at VIP siding during Minister/Officers visit.

2.5.7 DUTIES OF TECHNICIANS IN EXCHANGES :-

- Daily testing of all PHOD and SAG grade officers phones.
- Restoration of faulty lines and phones
- Repairs to call bell provided in the officer's room.
- Maintenance of switch board cables
- Termination, shifting and connection of new phones
- Testing of trunk Boards, 2MB connectivity
- Checking of MDF wiring
- Registering the complaints and follow-up action
- Maintenance of battery and chargers.

2.5.8 DUTIES OF HELPERS IN EXCHANGE:-

- Assisting supervisors and technicians in their day-to-day work

- Periodical cleaning of Battery charger equipments and up-keeping of the exchange and assisting technicians in carrying telephones tools and wiring.

2.5.9 **EXCHANGE AT CGL :-**

This unit is responsible for the maintenance of all phones in ADEN office, PWI office, signaling office, and Chengalpet station and staff quarters. This exchange caters for nearly 100 lines.

2.5.10 **EXCHANGE AT AJJ :-**

This unit is responsible for the maintenance of all phones in Electric Loco Shed, Engineering Work shop, Section engineer Signaling office, Section engineer Bridge office, Section engineer PW office, AJJ station and staff quarters. This exchange is being manned round the clock by technicians. This exchange caters around 250 lines.

2.6 **CONTROL OFFICE (Communication) UNIT :-**

This unit is responsible for all control circuits which is vital for the operation of trains over the section. The supervisor is in-charge for effective working of all HQ equipments power supply system, arranging alternative means through Radio patching in the event of any cable failures. MAS Division has more number of control working than other Divisions. This control office is manned round the clock by a Supervisor.

2.7 **TRAIN CONTROL COMMUNICATION UNIT (OFC AND QUAD CABLE).**

Till recently the train control communication was made possible through RE cabling system in Railway electrification Sections. This system has been replaced by OFC/Quad Cable for the entire MAS division.

2.8 **SSE/OFC/AJJ UNIT :-**

The jurisdiction of SSE/OFC/AJJ is TRL-WJR. He is working under the control of ADSTE/AJJ. At present this unit is headed by one SSE who is in-charge for effective working of all station platform Public Address System, Conduct periodical Inspection of passenger amenities in all stations, Train traffic control communication, Traction power control communication, PRS,UTS and FOIS (Freight Operating Information System). He will be assisted by JEs / Technicians / Helpers in all the technical and non-technical works.

2.9 SSE/OFC/CGL UNIT :-

The jurisdiction of SSE/OFC/CGL is Chengalpattu (CGL) to (Villupuram) VM (Excluding VM) and CGL to Melpakkam (MLPM). He is working under the control of ADSTE/TBM. At present this unit is headed by one SSE who is in-charge for effective working of all station platform Public Address System, Conduct periodical Inspection of passenger amenities in all stations, Train traffic control communication, Traction power control communication, PRS, UTS and FOIS. He will be assisted by JEs / Technicians / Helpers in all the technical and non-technical works.

2.10 PASSENGER RESERVATION SYSTEM MAINTENANCE UNIT :-

This unit hitherto was functional under Headquarters and it has been decentralised to Divisions. This unit is headed by SSE and assisted by JE/Technicians / Helpers.

2.11 DATA NETWORK MANAGEMENT CONTROLS:-

This unit is responsible for the maintenance of all modems, Multiplexer (MUX) in the PRS/UTS locations, maintenance of Freight Operating Information System (FOIS), Coaching Operating Information System (COIS), Networks all over Southern Railway.

The supervisor is in-charge of all PRS/UTS, FOIS, COIS circuits all over Southern Railway. Co-ordinate with BSNL officials for restoration of link failures. Arrange for spare routers, modems, Multiplexer (MUX) to the faulty locations. Co-ordination with other divisional staff for joint checks. Co-ordinate with AMC firms for repairs to defective routers, modems, etc. He is also in-charge for the Staff matters, correspondence with headquarters office, stores procurement and accountal etc.

The technicians carry out periodical checks on the working of PRS, UTS, FOIS, COIS networks. Replace the defective gadgets at locations and bring the defective one to headquarters for arranging for repairs. Khalasis are required to assist supervisors and Technicians in their daily work. Up-keep of the office, filing of official letters, carry the equipments to the locations for replacements.

2.12 RAILNET/HEADQUARTERS UNIT:-

2.12.1 This Unit is responsible for all connectivity with Railway Board, Headquarters Office and Chennai Divisional Office. This office co-ordinates with all other Railways to maintain Inter Railway Railnet Services like Web and Mail Services. This unit associates with all Divisions to up-keep railnet connectivity, monitors entire railnet activities through mail, browsing and store statistical information. It renders technical assistance for new Railnet lines and initial configuration. Total number of Railnet users in Southern Railway is more than 4500 of which Headquarters and Chennai Division alone covers more than 2500 connections. This Unit is responsible for all connectivity with Railway Board, Headquarters Office and Chennai Divisional Office.

The following important applications/services are available on Railnet, which are functional round the clock. These services are need to be maintained un-interruptedly and monitored by maintenance staff regularly.

2.12.2 This unit has to maintain the following assets, co-ordinate with AMC firms and arrange for replacement/repairs.

Internet equipment
(load balancing span arrestor/firewall)

Routers, Servers, Switches/Hubs, i/o, Local Area Network (LAN) extender, Small Form-factor pluggable (SFP), Media converter, Unshielded Twisted Pair Cable (UTP)/COAXIAL/OC, Terminal server, Statmux, Remote Access – Server, Media Converters, Data Modem, 5 KVA UPS & 1.5 KVA UPS.

2.12.3 The following important applications/services are available on Railnet, which are functional round the clock. These services are need to be maintained un-interrupted and monitored by maintenance staff regularly.

- i) Railnet is providing intranet services connecting all railway web services. Railnet facilitates the users to browse all Railway information by maintaining connectivity un-interruptedly
- ii) Railnet users (JA grade and above) are accessing internet services through Railnet network round the clock.
- iii) Tenders up loading to tenders.gov.in site by authorized staff through Railnet.

- iv) Press Releases from CPRO time to time are up-loaded to internet through Railnet.
- v) Daily Punctuality positions of departments like operating, electrical, S&T Departments are through Railnet.
- vi) All departments in headquarters, divisions are using Railnet for publishing the departmental information on Railnet through remote login round the clock.
- vii) Rail mail service is vital service used extensively by most of the offices for inter and intra departmental mail transactions. Public grievances and complaints are replied using Railnet Mail Services.
- viii) RTI correspondences from various departments are attended using Railnet.
- ix) Control Office Automation (COA)
- x) Crew Management System (CMS)
- xi) Video Conferencing and
- xii) Security Surveillance System.

2.13 **WIRELESS REPAIR CENTRE :-**

This unit is responsible for maintenance of VHF sets installed in stations, maintenance of Walkie Talkies, providing VHF communication during VIP visits, maintenance of wireless LAN modems for FOIS, COIS, Route Relay Interlocking (RRI) & RRT.

SSE is in-charge of all wireless repairs and maintenance, all special works in the Division. He has to co-ordinate with firms for repairing of defective sets and replacements for the defective sets at the respective station. Carry out inspection of all repeaters periodically. He is being assisted by JE and Technicians.

2.14 **SPECIAL REVENUE MAINTENANCE UNIT :-**

This unit is responsible for procurement of all Telecom Stores, processing COS indents, procurement and supply of stores to various units in Chennai division for revenue maintenance.

SSE is in-charge of this section for Indent placing and processing of indents in COS office, arrange for procurement of stores and distribution to various Telecom Units, conducting of technical check on the stores/equipments received. He is being assisted by Technicians and Helpers.

2.15 CABLE GANG :-

Separate cable gang is provided for maintaining the cables of all the exchanges. This unit is responsible for maintenance and for attending cable faults in all the above exchanges. The duty of the supervisor is to inspect the cables periodically, maintain the cable insulation register cable route plan, localize the faulty section, and arrange the cable gang for restoration, co-ordinate with the state Govt. for obtaining permission for road cutting. Laying of new cables, arranging spare pairs for the defective and poor insulation lines. In addition to the above he is also entrusted with all the non technical works like staff matters, maintenance of stores etc. The duty of cable joiner is to assist the supervisors in conducting megger test and make cable joints. The duty of the helper is to assist supervisors and cable jointers, carry the cables and tools to the work spot and trenching work during cable failure.

2.16 MAINTENANCE SCHEDULE:

Sl. No.	TELECOM ITEMS	System/Testing Involved	Maintenance	
			Technicians	Supervisors
1	OFC	STM 1/16	15 days	Quarterly
		MUX	15 days	Quarterly
2	QUAD CABLE	Attenuation	Monthly	Monthly
		Loop Resistance	Monthly	Monthly
		Insulation	Monthly	Monthly
3	EXCHANGES	Testing of Channels	Weekly	Monthly
4	EMC	EC Sockets	15 days	Monthly
5	LC	Magneto Phone	15 days	Monthly
6	EARTHING	OFC Room	Quarterly	Quarterly
		Exchanges	Quarterly	Quarterly
7	POWER SUPPLY	STM/MUX	Weekly	Monthly
		Exchanges	Weekly	Monthly
8	PASSENGER AMENITIES	IPIS/Clock/PA System	Weekly	Weekly
9	DATA NETWORK	RAILNET	Daily	Monthly
		FOIS/PRS/UTS	Daily	Monthly

CHAPTER- III**3.0 CRITICAL ANALYSIS**

- 3.1 The work study team has adopted bench marking methodology to arrive the man power requirement for right sizing the organisation in order to improve the efficiency coupled with productivity.
- 3.2 The sanctioned strength of OFC/AJJ is 25 and actual strength is 17. The strength is spread over to AJJ exchange and other units of Telecom Wing of TRL-WJR section of Chennai Division.
- 3.3 The sanctioned strength of OFC/CGL is 29 and actual strength is 14. The strength is spread over to CGL exchange and other units of Telecom Wing of CGL-VM (Excl.VM) & CGL-MLPM section of Chennai Division.
- 3.4 The category wise staff strength (Sanction, Actual, Vacancy and Excess statement) pertaining to OFC/Telecom Wing of OFC/AJJ & OFC/CGL of Chennai Division is placed as **Annexure – I & II**
- 3.5 Railway Board's current Bench Marking Report of March 2020 is placed as **Annexure – III** which provides Bench Marking Ratio for Telecom Wing of S&T Department.
- 3.6 Benchmark is a method to reduce the expenses on staff scientifically by right sizing the man power. The concept of Bench Marking is
- Establishing goals based on best practices in an Industry
 - It is the search for implementation of the best practice
 - It is one of the tools of Total Quality Management (TQM) to facilitate continuous improvement.

By comparing with the best activity centres, the available man power in a particular area can be identified as less or excess. In case of less strength, the man power can be increased and in case of excess strength the post can be surrendered. Thus Bench Marking offers a scientific method to increase staff productivity.

- 3.7 An analysis is made to study the present system of working of MAS Division through bench marking as a means of cutting cost and improving productivity. It is the process of comparing the performance with the most successful competitor who is managing optimum productivity level. With the enhanced DETUs and further scope of growing technology the workload Vs requirement of the man power is critically analysed is as follows:

It can be seen that staff strength of Chennai Division with 0.49 men per 1000 DETUs whereas the IR average is 1.06 men per 1000 DETUs.

IZN of NER & SBC of SWR with 0.47 men per 1000 DETUs is the current man power ratio..

3.8 **Man power requirement:-**

For man power calculation, the Indian Railway current benchmark report of March 2020 is taken as reference for OFC/AJJ Unit.

Total No. of DETUs of OFC/AJJ in MAS Divn. :19,119 - **(Annexure-IV)**

- 3.8.1 Therefore for bench marking reference, MAS Division falls under the category of more than 120 DISTUs placed as **Annexure – III**. Current IR average bench mark is 1.06 men per thousand DETUs. Current manpower ratio is 0.47 – IZN of NER & SBC of SWR.

Manpower requirement for OFC/AJJ as per current IR Bench mark =

$$19,119 / 1000 \times 1.06 = 20.26 \text{ Say } 20 \text{ staff}$$

Therefore, the net surplus is calculated as = 25 – 20 = 5.

3.8.2 **Recommendation 1 :**

For OFC/AJJ:

One post of SSE/OFC in Level 7 (GP Rs.4600), 2 posts of Tech.I/Tele in Level 5 (GP Rs.2800) and 2 posts of Helper in Level-1 (GP Rs.1800) are found excess to the requirement may be surrendered and credited to the vacancy bank.

(5 Posts)

3.8.3 SANCTION Vs REQUIREMENT:

Sl. No.	Category	Pay Matrix Level	GP (Rs.)	San	Act	Requirement	Surplus
1	SSE/Tele	7	4600	3	2	2	1
2	JE/Tele	6	4200	2	0	2	0
3	Sr. Technician	6	4200	4	7	4	0
4	Tech.Gr.I/Tele	5	2800	8	3	6	2
5	Tech.Gr.II/Tele	4	2400	1	0	1	0
6	Tech.Gr./ III/Tele	2	1900	2	4	2	0
7	Helper	1	1800	5	1	3	2
TOTAL				25	17	20	5

3.8.4 OFC/CGL

Total No. of DETUs of OFC/CGL in MAS Divn. :30,504 - **(Annexure-V)**

Manpower requirement for **OFC/CGL** as per current IR Bench mark =
 $30,504 / 1000 \times 1.06 = 32.33$ say as 32 staff

3.8.5 SANCTION Vs REQUIREMENT:**OFC/CGL**

San	Act	Requirement	Surplus
29	14	32	0

As per current IR Bench marking March.2020, the requirement is 32 staff against the sanction of 29. Hence, the existing sanction is allowed as it is and no post is identified as surplus in OFC/CGL section by the work study team.

3.8.6 Recommendation for OFC/CGL : NIL

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CHAPTER – IV**4.0. PLANNING BRANCH'S REMARKS ON CO-ORDINATING OFFICER'S VIEWS**

The draft work study report was sent through e-office on 19.10.2020 to offer his remarks. The reminder also sent on 10.11.2020 to provide the remarks on or before 16.11.2020. Since, no reply was received from the Co-ordinating Officer till this date (28.12.2020) and also to meet the target of No. of work studies to be submitted to Railway Board, the work study is released without the remarks of the Co-ordinating Officer.

4.0 FINANCIAL SAVINGS

- 4.1 If the recommendations made in the study report are implemented, the annual recurring financial savings will be as under:

Sl. No.	Category	Pay Matrix Level	Grade Pay (Rs.)	No. of posts	Money Value (Rs.)	Annual Recurring Financial savings (Rs.)
<u>OFC/AJJ</u>						
1.	SSE/TELE	Level-7	4600	1	109571	13,14,852
2.	TECH/GR. I/TELE	Level-5	2800	2	71078	17,05,872
3.	HELPER	Level-1	1800	2	43817	10,51,608
TOTAL				5		40,72,332

Annexure – I**S.A.V.E. STATEMENT – OFC/AJJ**

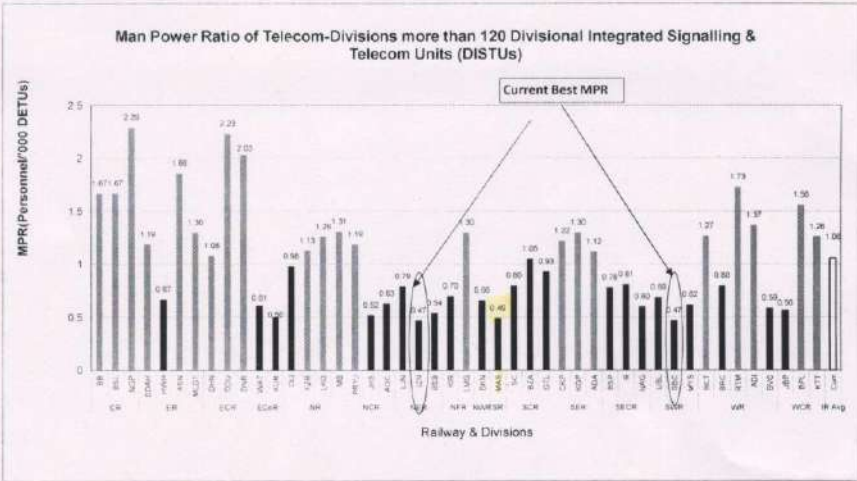
Sl. No.	Category	Pay Matrix Level	GP (Rs.)	San	Act	Vac	Excess
1	Supervisory						
	SSE/Tele	7	4600	3	2	1	0
	JE/Tele	6	4200	2	0	2	0
2	Telecom Maintainer						
	Sr. Technician	6	4200	4	7	0	3
	TCM / I	5	2800	8	3	5	0
	TCM / II	4	2400	1	0	1	0
	TCM / III	2	1900	2	4	0	2
	Helper	1	1800	5	1	4	0
TOTAL				25	17	13	5

Annexure - II**S.A.V.E. STATEMENT – OFC/CGL**

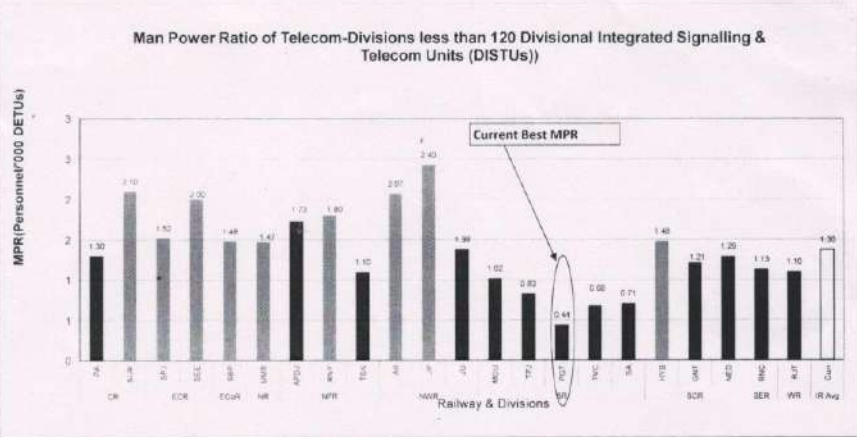
Sl. No.	Category	Pay Matrix Level	GP (Rs.)	San	Act	Vac	Excess
1	Supervisory						
	SSE/Tele	7	4600	3	2	1	0
	JE/Tele	6	4200	3	2	1	0
2	Telecom Maintainer						
	Sr. Technician	6	4200	2	4	0	2
	TECH Gr. I/TELE	5	2800	5	2	3	0
	TECH GR.II/ TELE	4	2400	2	1	1	0
	TECH GR. / III/TELE	2	1900	5	3	2	0
	Helper	1	1800	9	0	9	0
TOTAL				29	14	17	2

ANNEXURE - III

TELECOM STAFF IN DIVISIONS



CURRENT IR AVERAGE: 1.06 Men per thousand DETUs(Divisional Equated Telecom Units).
CURRENT Man Power Ratio: IZNoF NER & SBC of SWR at 0.47
EXCEEDING THE AVERAGE: 22 Divisions are above the current IR average.
FURTHER REMARKS: Vide variations can be seen.



CURRENT IR AVERAGE: 1.38 Men per thousand DETU(Divisional Equated Telecom Units).
CURRENT Man Power Ratio: PGT division of SR is at 0.44
EXCEEDING THE AVERAGE: 9 Divisions are above the current IR average.

ANNEXURE-IV

DIVISIONAL EQUATED TELECOM UNITS (DETU) AS on 31.8.2020

Sl.no	Description of the Assets	unit	AJJ	
			No	DETUS
1	STM16	600	10	6000
2	Primary digital multiplexer	40	10	400
3	waystation equipment	8	40	320
4	TC Control circuit	8	18	144
5	TPC Control circuit	8	22	176
6	RC	8	7	56
7	EMC	5	74	370
8	Portable control Telephone	1	4	4
9	Datalogger	75	9	675
10	Immersat satellite phone	10	1	10
11	48V Transformer/SMPs	10	12	120
12	Battery bank 48V DC& 400/300V AH	150	5	750
13	Battery bank 48V DC& 120 AH	150	9	1350
14	6 QUAD CBALE	36	63	2268
15	PIJF cable 100p&50p	50	5	250
16	PIJF cable 20pair and 10 pair	10	5	50
17	Magneto telephone at LC gate	10	22	220
18	Magneto telephone Between station	2	10	20
19	Hotline	1	20	20
20	PA system Amplifier 100-500W	50	10	500
21	Loud speakers	1	95	95
22	PC based Announcement system	5	7	35
23	GPS clock	16	13	208
24	UPS 0.5/1KVA	10	8	80
25	Mega phone	50	1	50
26	VHF 25W base Sets	10	11	110
27	VHF walkie Talkie	5	2	10
28	Surveillance server	250	1	250
29	Digital ISDN Exchnage	3	1	3

(P.T.O)

30	Man Machine console	5	1	5
31	Telepone circuit	1	275	275
32	Railtel 2MB channel for EX PRI	20	2	40
33	2MB V.35/G.703 Modem	75	42	3150
34	Cameras	10	25	250
35	BSNL 2MB channel for Ex PRI	10	1	10
36	Media converter	10	2	20
37	Railtel 2MB channel for Telemedicine	20	1	20
38	WiFi Router	5	2	10
39	Coach Guidance display	8	90	720
40	NMS	50	1	50
41	WiFi Router	5	2	10
42	LED plasma TV	3	5	15
43	Flap/LED Single line	8	0	0
44	Flap/LED Five line	40	0	0
45	48 port unmanaeble switch	0	1	0
46	24 Port unmanageble swich	0	24	0
47	16 Port unmanageble swich	0	16	0
48	8 Port unmanageble swich	0	8	0
49	WiFi Router	0	4	0
50	LAN Extender	0	20	0
51	Router	0	13	0
52	Converter 4w/2w	0	6	0
53	3 KVA UPS	0	1	0
54	RF Modulator	0	1	0
55	Voltage stablizer	0	5	0
56	Coach Guidance display	0	90	0
57	24" monitor	0	1	0
58	NVR	0	1	0
59	POE Switch	0	1	0
60	2way couter communication	0	6	0
61	Contactless ticket checking	0	1	0
62	IPMPLS	0	2	0

(P.T.O)

63	RTU	0	94	0
64	Nirbhaya CCTV Surveillance system to provided at 10 location	0	3	0
65	Railtel 2mb PRS	0	4	0
66	Railtel 2MB for UTS	0	24	0
67	For E Office railnet connectivity for all supervisors of SSE/S&T, IOW, P-way Electrical(GENERAL), OHE, TI and SMR, SM	0	10	0
68	EI interface between distributed architecture is connected over OFC	0		0
69	Railnet connectivity for ELS, EWS & Flash butt welded/ghed	0	30	0
70	Railnet connectivity for Officers/AJ and quarters	0	6	0
71	Railnet connectivity for remote monitoring and run the application such as COA, TSR	0	5	0
TOTAL			19119	

Signature
 SECTION ENGINEER / TELE / REPAIRER
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- * In recent times, new items are included in telecon side. Item no. 45 to 71 not having DETV unit.
- * Maintaining RTU and EI ofc media requires much more effort and we are going towards self-reliance in EI, we need good workforce for EI rectification.
- * As the part of office implementation & providing higher speed, duties of telecon is increased very much.
- * Due to these reasons, I request to increase the sanction staff strength to 25.

Signature
 ADSTE/AJ/S.R.V

DETUS - CGL

ANNEXURE

Telephone Exchanges.				
S.No	Description of Assets	Unit	SSE/CGL	
			Nos	Detus
1	STM 16	600	1	600
2	STM 4	600		0
3	PDH/STM 1	300	19	5700
4	Primary Digital Multiplexer	40	35	1400
5	HQ/ Way Station Control Equipment	8	59	472
6	TC Control Circuit	8	25	200
7	TPC Control Circuit	8	34	272
8	TLC Control Circuit	8	0	0
9	RC	8	12	96
10	EMC	5	169	845
11	Voice Logger	250	0	0
12	Portable control Telephones	1	12	12
13	Data Logger	75	16	1200
14	Immersat Satellite Phone	10	0	0
15	FAX, SPTMs as per printing units	10	0	0
16	Network Management System (NMS)	50	2	100
17	48V Transformer/SMPS Charger	10	24	240
18	Battery Bank 48V DC & 400/300 AH	150	2	300
19	Battery Bank 48V DC & 120/100 /2V 80AH	150	22	3300
20	4/6 Quad Cable & RE cable	36	224	8064
21	PIJF Cable 100P&50P	50	1.4	70
22	PIJF Cable 20P &10P	10	8	80
23	Magneto Telephones at LC gates	10	124	1240
24	Magneto Telephones between stations	2	12	24
25	Hotline	1	34	34
26	PA System/Amplifier above 500W	100	0	0
27	PA System/Amplifier 100-500W	50	8	400
28	Loud Speakers	1	79	79
29	PA System Battery 2V/200AH	150	0	0
30	Paging and Talkback System Set		0	0
31	Flap/LED display single line	8	0	0
32	Flap / LEDdisplay three line	24	0	0
33	Flap / LEDdisplay five line		0	
34	Flap /LED display ten line	80	0	0
35	At-a-glance		1	0
36	LED/Plasma tv	3	4	12
37	Server	250	0	0
38	Coach Guidance System	8	121	968
39	Centralised Announcement System		0	0
40	Master Clocks	2	0	0
41	GPS clock		6	60
42	Slave Clocks	1	0	0
43	Drum Clocks	1	0	0
44	UPS 2/3/5 KVA	25	2	50
45	UPS 0.5/1 KVA	10	11	110
46	Mega Phone	50	2	100
47	VHF 25W Base Sets	10	20	200
48	VHF Walkie Talkie	5	5	25
49	Server	250		

50	DVR	10	0	0
51	Cameras	10	0	0
52	Touch Screen	5	0	0
53	IP Exchange		0	
54	Digital ISDN Exchanges WIRED PORT	3	512	1536
55	Man Machine Console - Exchange Config	5	1	5
56	Telephone Circuit (Rly)	1	140	140
57	Telephone Circuit (Rly) Parallel	1	10	10
58	Auto Telephone Circuit (BSNL)	1	20	20
59	Railtel 2MB Channel for EX PRI	20	1	20
60	BSNL 2MB Channel for Ex PRI	10	0	0
61	CO/E&M	5	0	0
62	Trunk Operator Telephone Console	5	0	0
63	IP DSLAM Wired Ports	3	0	0
64	IP DSLAM	10	0	0
65	Railtel 2MB Channel for T/Medi	20	0	0
66	2MB V.35/G703 Modem	75	30	2250
67	Media Converters	10	20	200
68	Wireless Link/ Wi-Fi Routers	5	0	0
69	Wireless Links Radio	10	0	0
70	Nurse Calling System/Points	0.5	0	0
71	Railnet at Hqrs Video Conferencing		0	0
72	Conference system at GM Meeting Hall		0	0
73	Integrated access TDM		7	70
74	BPAC Circuits		33	0
75	Control Office Application Data Circuits		1	0
76	Power Pack 12V/7AH for Control		38	0
77	Multi Channel Equipment		0	0
78	Paging and Talkback System Set		0	0
79	Talkback Speaker		0	0
80	Voice Over IP		0	0
81	Tele Medicine		0	0
82	Conferencing Eqmt		0	0
83	DIAS		0	0
84	OFC Media Converters		7	0
85	LAN Extenders		0	0
86	Wireless Links Radio		0	0
87	DIAS		4	0
88	FOIS		4	0
89	Router		2	0
90	Switch/Hub		0	0
91	2MB V.35/G703 Modem		4	0
92	64 Kbps V.35/G703 Modem		0	0
93	LAN Extenders		0	0
94	Wireless Links		5	0
95	PRS		16	0
96	UTS		0	0
97	STM1		5	0
98	Railtel 2MB Channel for PRS		4	0
99	Railtel 2MB Channel for UTS		0	0
100	BSNL 2MB Channel for PRS		4	0
101	BSNL 64 Kbps Channel for PRS		16	0
102	Router			

103	Switch		16	0
104	Terminal Servers		5	0
105	Statistical Multiplexer		0	0
106	2MB E1 Converters		0	0
107	2MB V.35/G703 Modem		0	0
108	64 Kbps V.35/G703 Modem		0	0
109	Low Speed Modem / Modem		6	0
110	LAN Extenders		0	0
111	Nurse Calling System/Points		0	0
112	Railnet at Hqrs Video Conferencing		0	0
113	Server		0	0
114	Gateway Tools		0	0
115	Monitoring Unit		0	0
116	UPS		0	0
117	Router		0	0
118	Switches		0	0
119	RAS		0	0
120	RPS		0	0
121	Media Converters		0	0
122	E1/Ethernet Link		0	0
123	Video Phone		4	0
124	Computerised Announcement system		8	0
125	Piber switches			
	TOTAL			30504