



**REPORT OF THE  
COMPTROLLER AND AUDITOR GENERAL  
OF INDIA**

**FOR  
THE YEAR 1984-85**

**UNION GOVERNMENT (POSTS AND TELEGRAPHS)**



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## PREFATORY REMARKS

This Report has been prepared for submission to the President under Article 151 of the Constitution. It relates mainly to matters arising from the Appropriation Accounts of the Department of Posts and Department of Telecommunications for 1984-85 together with other points arising from audit of the financial transactions of the Department of Posts and Department of Telecommunications.

The cases mentioned in the Report are among those which came to notice in the course of test audit during the year 1984-85 as well as those which had come to notice in earlier years but could not be dealt with in previous Reports; matters relating to the period subsequent to 1984-85 have also been included wherever considered necessary.



## CHAPTER I

### GENERAL

#### OVERALL REVIEW

##### 1. General set up

Upto 30th December 1984, a combined Posts and Telegraphs (P&T) Department headed by Posts and Telegraphs Board was responsible for planning, development, expansion and operation and maintenance of Postal, Telegraphs, Wireless and Satellite communication services in the country. With effect from 31st December 1984, the Department has been bifurcated into (a) Department of Posts and (b) Department of Telecommunications. The Department of Posts functions through 'Postal Services Board' headed by a Chairman who is also the Secretary to the Government of India, Department of Posts. The Department of Telecommunication functions through 'Telecommunication Board' headed by a Chairman who is also the Secretary to the Government of India, Department of Telecommunications.

The Department of Telecommunications attends to services like Telephones, Telegraphs, Telex, Wireless, etc. whereas the Department of Posts maintains Postal operations and discharges agency functions of Savings Bank and other small savings schemes of the Government, Postal Life Insurance, collection of customs duty on Postal articles, disbursement of pension to Military and Railway pensioners, family pension to employees of industries covered by Provident Fund Scheme and coal mines, etc.

##### 2. Department of Telecommunications

###### 2.1 Capital outlay and major facilities

The data on capital outlay and on important facilities at the start and at the end of Sixth Five year Plan (1980—85) and on physical and financial targets for the Sixth Plan and the corresponding actuals is given below :—

TABLE 2.1

	Position at the start of Sixth Five Year Plan (1st April 1980)	Targets as per Sixth Plan (1980—85)	Actuals for Sixth Plan (1980—85)	Percentage of Plan achievements to Plan targets	Position at the end of the Sixth Plan (31st March 1985)
	1	2(a)	2(b)	2(c)	3
1. Capital outlay (Rupees in crores)	1927.41	2336.00	3068.58	131.36	4995.99
2. <i>Local Telephone systems</i>					
2.1 Switching capacity (Lakh lines)	23.36	14.80	9.71	65.60	33.07
2.2 Underground cables (Lakh pair Kms.)	117.48	78.00	58.92	75.51	176.40
2.3 Direct Exchange Lines (Lakh lines)	20.14	13.30	8.82	66.31	28.96
2.4 Subscriber Telephone stations (Lakh numbers)	26.15	17.29	11.58	67.00	37.73
2.5 Telephone exchanges (Numbers)	7430	3500	3278	93.66	10708
3. <i>Long Distance Switching systems</i>					
3.1 Trunk Automatic Exchange (TAX) (Number)	18	40	12	30	30
3.2 Trunk Automatic Exchanges capacity (Lines)	40,300	94,770	47,220	50	87,520
3.3 Subscriber Trunk Dialling Routes Point to Point (Number)	137	60	76	126.66	213
3.4 Manual Trunk Boards (Number)	7106	2500	992	39.68	8098
4. <i>Long Distance Transmission systems</i>					
4.1 Coaxial cables (New Scheme) (Route Kms.)	16641	12000	2319	19.33	18300
4.2 Microwave system (Route Kms.)	16845	16000	5969	37.30	22514
4.3 UHF system					
4.3 (a) 60 channel capacity (Route Kms.)	2712	14000	3610	25.80	6322
4.3 (b) Small capacity (Route Kms.)	Figures not available	6750	Figures not available		
4.4 Open wire channels (Number)	18059	7500	6057	80.76	24116
5. <i>Telex</i>					
5.1 Telegraph Offices (Number)	24457	20000	10794	53.97	34793
5.2 Long Distance Public Call Offices (Number)	13830	20000	11215	56.07	23136
5.3 Telex Exchanges (Number)	136	100	51	51.00	187
5.4 Telex capacity					
(a) Local lines (Number)	22015	22500	17079	75.90	39094
(b) Transit lines (Number)	..	13000	10700	82.30	10700
5.5 Telex connections (Number)	17983	18300	8270	45.20	26253
5.6 VFT Channels (Number)	17777	7000	5908	84.40	23685

Data on year-wise targets and achievements during the Sixth Plan period is given in Appendix I. Capital expenditure during the Sixth Plan period in 4 metropolitan cities was Rs. 803.96 crores (Rs. 339.09 crores in Bombay, Rs. 250.17 crores in Delhi, Rs. 126.12 crores in Calcutta and Rs. 88.58 crores in Madras) which constituted 37.15 per cent of the total capital outlay during the Plan (Rs. 3,068.58 crores).

Though the total expenditure was 130 per cent

of the approved capital outlay for the Sixth Plan, there was shortfall in achievements in respect of all the activities except in respect of point to point Subscriber Trunk Dialling Routes. Major shortfall was in the laying of coaxial cables. Factors responsible for delay are brought out in the specific cases discussed in Chapter IV of this Report and the previous Reports.

The overall utilisation of equipped capacity of the Telephone exchanges is given below (Table 2.1.1) :—

TABLE 2.1.1

Year	Equipped capacity of the Telephone exchanges at the end of the year*	No. of working connections at the end of the year*	Percentage of equipped capacity	Data of equipped capacity and working connections in Metropolitan cities							
				Bombay		Calcutta		Delhi		Madras	
				Capacity*	Working connections*	Capacity*	Working connections*	Capacity*	Working connections*	Capacity*	Working connections*
1	2	3	4	5	6	7	8	9	10	11	12
1980-81	24.72	21.49	86.93	3.29	2.80	2.06	1.74	2.22	1.90	0.86	0.81
1981-82	26.14	22.96	87.91	3.43	2.99	2.08	1.80	2.33	2.04	0.88	0.83
1982-83	28.29	24.66	87.17	3.84	3.24	2.11	1.84	2.48	2.23	0.92	0.86
1983-84	30.55	26.68	87.33	4.24	3.66	2.25	1.88	2.79	2.48	1.04	0.93
1984-85	33.07	28.98	87.63	4.71	4.11	2.33	1.96	3.11	2.73	1.12	1.02

\*Figures in lakhs

The total equipped capacity in 4 metropolitan cities (11.27 lakhs lines) was 34.08 per cent of the total equipped capacity available in the country. The number of working connections in the metropolitan cities (9.82 lakh of DELs) worked out to 33.88 per cent of the total number of working connections in

the country.

The total number of Telephone lines has been falling short of the targets year after year leading to increase in the number of applicants in the waiting list as per the following table (2.1.2) :—

TABLE 2.1.2

Year ending	Number of persons in the waiting list					
	Bombay	Calcutta	Madras	Delhi	Other Towns	Total
	(Figures in lakhs)					
1980-81	1.23	0.23	0.14	0.70	2.13	4.43
1981-82	1.53	0.90	0.21	0.27	3.04	5.94
1982-83	1.57	0.28	0.27	1.08	3.38	6.58
1983-84	1.64	0.30	0.33	1.12	3.99	7.38
1984-85	1.66	0.26	0.33	1.32	4.72	8.29

The number of persons in the waiting list in 4 metropolitan cities as on 31st March 1985 (3.57 lakh persons) worked out to 43.06 per cent of the total waiting list.

## 2.2 Revenue and working Expenses

The data on estimated and actual revenue, Working Expenses and surplus during the Sixth Plan period is given below (Table 2.2.1) :—

TABLE 2.2.1

	Revenue			Net Working Expenses			Surplus		
	Estimates	Actuals* (Percentage increase over pre- vious year)	Percentage of varia- tion	Estimates	Actuals* (Percentage increase over pre- vious year)	Percentage of variation	Estimates	Actuals* (Percentage increase over pre- vious year)	Percentage of varia- tion
	1	2	3	4	5	6	7	8	9
1980-81	676.80	631.90	(—)6.6	457.25	475.43	+ 4.0	219.55	156.47	28.7
1981-82	820.00	761.19 (20.46)	(—)7.1	532.94	555.74 (16.89)	+ 4.3	287.06	205.45 (31.30)	28.4
1982-83	922.59	912.25 (19.85)	(—)1.1	556.42	588.62 (6.11)	+ 5.8	366.17	323.63 (56.76)	11.6
1983-84	1140.79	1028.12 (12.70)	(—)9.8	708.49	681.38 (15.76)	—3.8	432.30	346.74 (7.14)	19.8
1984-85	1255.00	1191.32 (15.87)	(—)5.1	815.00	810.89 (19.00)	—0.5	440.00	380.43 (9.72)	13.5

\*Figures in crores of rupees.

The growth of receipts under main heads or receipts during five years ending with 1984-85 is given in Appendix II.

Shortfall (Table 2.2.2) in setting up Telephone facilities with reference to Plan targets and utilisation of equipped capacity as mentioned in para 2.1 above is reflected in shortfall in realisation of telephone revenue compared to the budgetary expectations.

TABLE 2.2.2

Year	Budget Estimates	Actuals	Shortfall	Percentage of short-fall
(Rupees in crores)				
1980-81	586.50	540.11	46.39	7.91
1981-82	726.30	656.93	69.37	9.55
1982-83	792.60	782.78	9.82	1.24
1983-84	980.00	860.00	120.00	12.45
1984-85	1070.00	943.04	126.96	11.87

The average annual revenue per direct exchange line (DEL) has been increasing over the years as shown below Table (2.2.3) partly on account of the upward revision in local call charges and trunk call charges from 1st July 1981 and of both rentals and call charges from 1st March 1982 as well as well as from 1st March 1983 and rental and trunk call charges from 1st June 1984.

TABLE 2.2.3

Year	Number of Direct Exchange lines at the start of the year (lakh lines)	Total revenue (Rs. in crores)	Average annual revenue per line (Rs.)
1980-81	20.16	540.11	2,679
1981-82	21.49	656.93	3,057
1982-83	22.96	782.78	3,409
1983-84	24.65	860.00	3,488
1984-85	26.68	943.04	3,535

### 2.3 Strength of establishment and set up in the field

The data on overall staff strength in various cadres as on 31st March 1985 was as below Table (2.3) :—

TABLE 2.3

Sl. No.	Particulars	At Head quarters	In the field	Total	Remarks
1.	Group 'A'				
	(a) Above Senior Administrative Grade	4	..	4	In the field the number of Officers
	(b) Senior Administrative Grade( including those with special pay)	33	80	113	of Senior Administrative Grade and above :—
	(c) Junior Administrative Grade	82	320	402	(a) Delhi—8
	(d) Others	277	2102	2379	(b) Bombay—10 (c) Calcutta—11 (d) Madras—6
2.	Group 'B'	299	6361	6660	
3.	Group 'C'	770	274069	274839	
4.	Group 'D'	171	53158	53329	
	Total :	1636	336090	337726	
	Industrial workers : 6920				

### 3. Department of Posts

#### 3.1 Capital outlay and major facilities

The data on capital outlay and on major facilities

available at the start and at the end of the Sixth Five Year Plan (1980—85) and on physical and financial targets and the corresponding actuals for the Sixth Plan is given below (Table 3.1) :—

TABLE 3.1

Particulars	Position at the start of Sixth Five Year Plan (1st April 1980)	Targets as per Sixth Plan (1980—85)	Actuals for Sixth Plan (1980—85)	Percentage of achievements to targets	Position at the end of Sixth Plan (31st March 1985)
	1	2(a)	2(b)	2(c)	3
1. Capital outlay (Rs. in crores)	104.79	120.17	124.41 (Net)	103.67	229.2
2. Opening of new post offices (Number)	1,36,999	8700	6820	78.40	143819
3. Appointment of extra Delivery Agents (Number)	75537	10000	8040	80.40	83577
4. Installation of letter boxes (Number)	484717	10000	12832	128.32	501223
5. Provision of counter facilities at village Post Offices (Number)	91677	10000	9625	96.25	70211
6. Construction of Postal Buildings (Number)	25538	690	532	77.1	3430 (as on 31-12-1985)
7. Construction of staff quarters (Number)	21223	7100	4453	62.72	17660 (as on 31-12-1985)
8. Railway Mail Service Vans	117	33	18	54.55	135
9. Mail Motor Service Vehicles (Number)	860	650	639	98.30	1016

Data on year-wise targets and achievements during the Sixth Plan period is given in Appendix III.

Though the actual total capital expenditure was 103 per cent of the approved capital outlay, there was shortfall in achievements in respect of all the

activities except in respect of installation of letter boxes. Main shortfall in achievement of the physical targets was in respect of Railway Mail Service vans (45.45 per cent), construction of staff quarters (37.28 per cent) and construction of postal buildings (22.9 per cent).

### 3.2 Revenue and Working Expenses

The data on estimates of Revenue and Working Expenses and on corresponding actuals during the various years in Sixth period was as below (Table 3.2) :—

Year	Revenue			Working Expenses			Surplus (+)/Deficit(—)		
	Estimates (Rs. in crores)	Actuals (Percentage increase over pre- vious year in bracket) (Rs. in crores)	Percentage variation	Estimates (Rs. in crores)	Actuals (Percentage increase over pre- vious year in bracket) (Rs. in crores)	Percentage variation	Estimates (Rs. in crores)	Actuals (Percentage increase over pre- vious year in bracket) (Rs. in crores)	Percentage variation
1980-81	286.50	278.11	(—)2.9	285.83	345.69	(+)20.9	(+)0.67	(—)67.58	99.09
1981-82	310.00	309.41 (11.25)	(—)0.2	340.12	397.56 (15.00)	(+)16.88	(—)30.12	(—)88.15 (30.26)	196.00
1982-83	375.37	378.01 (22.17)	(+)0.71	438.66	462.00 (15.92)	(+)5.32	(—)63.29	(—)83.99 (—)(5.79)	32.71
1983-84	440.22	434.54 (14.95)	(—)1.3	549.17	507.77 (9.91)	(—)7.54	(—)108.95	(—)78.23 (—)(12.81)	32.8
1984-85	495.00	444.41 (2.27)	(—)10.2	626.53	568.66 (11.99)	(—)9.24	(—)131.53	(—)124.25 (—)(69.67)	5.5

The growth of receipts under the main heads during the year 1980-81 to 1984-85 is given in Appendix IV.

### 3.3 Agency functions

The trend of agency functions during the various years in Sixth Plan period is as below (Table 3.3) indicating the percentage increase (+) decrease (—) over previous years in brackets.

	1980-81	1981-82	1982-83	1983-84	1984-85
1. (a) No. of S.B Accounts current at the end of the year (in lakhs)	333	379 (13.81)	399 (5.28)	392 (—)(1.75)	413 (5.36)
(b) Total balance in S.B Accounts at the end of the year (Rs. in crores)	1831.1	2044.8 (11.67)	2128.4 (4.09)	2133.5 (0.24)	2249.1 (5.42)
2. (a) Number of Postal Life Insurance Policies at the close of the year (in lakhs)	8.36	9.30 (11.24)	10.01 (8.60)	10.8 (6.93)	11.5 (6.48)
(b) Total sum assured at the close of the year (Rs. in crores)	491.8	598.7 (21.7)	685.3 (14.46)	809.4 (18.11)	942.8 (16.48)
3. (a) Number of Broadcasting Receiver and TV Licences at the end of the year (in lakhs)	195	119 (—)(39.00)	153.00 (28.57)	116 (—)(24.18)	128 (10.34)
(b) Amount collected (Rs. in lakhs)	32.79	25.00 (—)(23.76)	33.52 (34.08)	30.03 (—)(10.41)	39.43 (31.3)
4. Amount of Military Pension paid through post offices (in crores)	54.00	55.00 (1.85)	65.00 (18.18)	71.00 (9.23)	75.00 (5.63)
5. Cash Certificates and National Savings Annuity Certificates (Number of transactions in lakhs)	100	112.0 (12.0)	156.0 (39.29)	203.0 (30.13)	200.0 (—)(1.48)

### 3.4 Strength of establishment and set up in the field

The data on overall staff strength in various cadres as on 31st March 1985 to the extent available is as below (Table 3.4) :—

TABLE 3.4

Sl. No.	Particulars	At Head quarters	In field	Total	Remarks
1.	Group 'A'				
	(a) Above Senior Administrative Grade	5	—	5	In the field, the number of officers of
	(b) Senior Administrative Grade (including those with special pay)	18	32	50	Senior Administrative grade posted at—
	(c) Junior Administrative Grade	22	120	142	(a) Delhi—1.
	(d) Others	55	697	752	(b) Bombay—2
2.	Group 'B'	76	1238	1314	(c) Calcutta—2
3.	Group 'C'	685	243859	244544	(d) Madras—2
4.	Group 'D'	197	61051	61248	
	Total :	1058	306997	308055	

Extra Departmental delivery agents—3,00,851



## CHAPTER II

### APPROPRIATION AUDIT AND CONTROL OVER EXPENDITURE

#### 4. General

The summarised position of actual expenditure during 1984-85 against Grants and Appropriations relating to the Departments of Posts and Telecommunications is as below (Table 4) :—

TABLE 4

	Original Grant/ approp- riation	Supple- mentary	Total	Actual expendi- ture	Variation Saving (—) Excess (+)
	1	2	3	4	5
(Rs. in crores)					
Revenue Voted	1899.77	..	1899.77	1767.85	—131.92
Charged	8.01	..	8.01	2.07	—5.94
Capital Voted	826.31	49.00	875.31	895.54	+20.23
Charged	0.01	..	0.01	..	—0.01
Grand Total :	2734.10	49.00	2783.10	2665.46	—117.64

The broad results of Appropriation Audit are as follows :—

(i) (a) The overall saving of Rs. 117.64 crores was the net result of saving of Rs. 137.87 crores in 4 cases (Rs. 131.92 crores in 2 grants under Revenue; Rs. 5.94 crores under one charged Appropriation in Revenue; and Rs. 0.01 crore under one charged Appropriation in Capital) and excess of Rs. 20.23 crores in one voted Grant under Capital.

(b) In 19 heads of accounts, there were significant savings exceeding 10 per cent of the provision, as per details given in Appendix V.

(ii) (a) The overall supplementary Grant obtained during the year 1984-85 was 1.8 per cent of the original Grant and Appropriation.

(b) In one case, namely the Telegraph systems, the supplementary Grant of Rs. 3.50 crores was unnecessary as the actual expenditure of Rs. 21.81 crores was even less than the original provision of Rs. 27.97 crores.

2. Reasons for final saving of Rs. 131.92 crores in two voted Grants under Revenue were as follows :

(i) *Grant No. 15.*—Posts and Telegraph Working Expenses. Saving of Rs. 75.62 crores (4.7 per cent of the total Grant of Rs. 1,581.29 crores) was mainly due to 5 to 15 per cent cut in the number of posts, restrictions imposed on creation of posts and filling up of vacant posts, non-receipt/non-adjustment of debits from the DGS&D, closing of transit sections in certain Postal circles, restrictions imposed on expenditure as a measure of economy, receipt of less number of pension cases, receipt of less articles of stationery and spilling over purchase of certain items of office equipment to subsequent year.

(ii) *Grant No. 16.*—Dividend to General Revenues, Appropriation to Reserve Funds and other expenditure :—Saving of Rs. 56.30 crores (17.7 per cent of the total Grant of Rs. 318.47 crores) was mainly due to less surplus available due to shortfall in the net receipts than anticipated.

#### 5. Excess requiring regularisation

The excess of Rs. 20.23 crores in Grant No. 17—Capital outlay on Posts and Telegraphs (voted) (Provision : Rs. 8,75,31,30,000; Expenditure : Rs. 8,95,54,10,919) requires regularisation under Article 115 of the Constitution.

Significant excess of more than 10 per cent of the provision occurred under the following heads of accounts :—

TABLE 5.1

Heads of Accounts	Provision	Expenditure	Excess with percentage in bracket	Main reasons for excess
1	2	3	4	5
(Rs. in crores)				
<b>POSTAL</b>				
(i) Administrative offices	2.50	2.79	0.29 } (11.6)	Due to accelerated progress in acquisition of land and construction of buildings.
(ii) Staff quarters	10.50	14.17	3.67 } (34.9)	
(iii) Training	0.90	1.07	0.17 } (18.9)	Due to accelerated progress in construction of buildings partly off-set by slow progress in acquisition of land for training centres than anticipated.
(iv) RMS Vans	1.20	1.70	0.50 } (41.7)	Due to supply of more RMS Vans by the Railways than anticipated.
<b>TELECOMMUNICATIONS</b>				
(v) Local Telephone systems	402.71	481.69	78.98 } (19.6)	Due to rapid progress in the construction of buildings, procurement of more apparatus and plants, cables, lines and wire materials than anticipated, payment of more escalation charges and increase in labour rates.
(vi) Other land and buildings	20.00	23.71	3.71 } (18.6)	Due to rapid progress in the construction of staff quarters.

The above excess were partly offset by savings mainly under :—

TABLE 5.2

Head of Account	Provision	Expenditure	Savings with percentage in bracket	Main reasons for Savings
1	2	3	4	5
(Rs. in crores)				
<b>TELECOMMUNICATIONS</b>				
(i) Long Distance Switching systems	49.68	22.20	27.48 } (55.3)	Due to receipt of less apparatus and plant, lines and wire materials for Manual Trunk Exchanges than anticipated.
(ii) Transmission systems	181.23	156.44	24.79 } (13.7)	Due to less receipt of apparatus and plant materials for coaxial cables, other trunk cable and UHF and VHF relay system than anticipated.
(iii) Ancillary systems	33.91	18.83	15.08 } (44.5)	Due to receipt of less apparatus and plant material than anticipated and non-commencement of in-house computer system.

## CHAPTER III

### REVENUE

#### 6. Arrears of Telephone Revenue

(i) Out of the telephone bills issued up to 31st March 1985, Rs. 32.73 crores were to be collected as on 1st July 1985. Of this, Rs. 16.71 crores had been billed for between April 1984 and March 1985 and the remaining Rs. 16.02 crores before 31st March 1984. The year-wise analysis of the overdues is given below (Table 6.1) :—

TABLE 6.1

Year	Amount (Rupees in crores)
Upto 1975-76	1.18
1976-77	0.56
1977-78	0.92
1978-79	0.92
1979-80	1.14
1980-81	1.26
1981-82	1.69
1982-83	2.88
1983-84	5.47
1984-85	16.71
Total :	32.73

Cut of a total arrears of Rs. 29.93 crores pertaining to 45 Circles (except North East Circle) as on 1st April 1985, claims of Rs. 10,000 and more in

Bombay Telephone District and Rs. 5,000 and more in other Circles amounted to Rs. 9.27 crores.

Break-up of these dues according to categories of consumers is as under (Table 6.2) :—

TABLE 6.2

Category of Subscribers	In 44 Circles other than Bombay Tele- phone District (above Rs. 5,000 each)	In Bombay Telephone Dis- trict (above Rs. 10,000 each)
1	2	3
	Amount (Rs. in crores)	Amount (Rs. in crores)
1. Central Government subscribers	0.47	0.05
2. State Government Subscribers	0.97	0.01
3. Central Public Sector Undertakings	0.03	..
4. State Public Sector Undertakings	0.11	..
5. Local Bodies	0.05	..
6. Others subscribers	5.78	1.80
Total :	7.41	1.86

(ii) (a) The position of arrears, demand raised and amount collected in respect of 4 years ending March 1985 is given below (Table 6.3) :—

TABLE 6.3

Year	Arrears at the start of the year (1st July)	Demands raised dur- ing the year	Total demand	Amount collected during the year	Arrears at the close of the year (on 1st July)	Percentage of arrears to total demand (Col. 6 to Col. 4)
1	2	3	4	5	6	7
(Rs. in crores)						
1981-82	18.42	670.65	689.07	665.86	21.28	3.09
1982-83	21.28	807.50	828.78	800.41	26.06	3.14
1983-84	26.06	898.23	924.29	888.72	32.61	3.53
1984-85	32.61	1005.44	1038.05	993.15	32.73	3.15

(iii)(b) The comparative position of amounts outstanding as on 1st July following, out of demands raised upto 31st March during the 4 years ending

1984-85, in respect of 4 metropolitan cities of Delhi, Calcutta, Madras and Bombay is indicated below (Table 6.4) :—

TABLE 6.4

Name of Metropolitan Telephone District	Year	Arrears at the start of the year (1st July)	Demand raised during the year	Total demand	Amount collected during the year	Arrears at the close of the year (on 1st July)	Percentage of arrears to the total amount (Col. 7 to Col. 4)
1	2	3	4	5	6	7	8
(In crores of Rupees)							
Delhi	1980-81	9.18	66.84	76.02	67.34	8.76	13.1
	81-82	8.76	80.61	89.37	81.43	9.21	11.4
	82-83	9.21	96.14	105.35	96.76	9.32	9.7
	83-84	9.32	104.46	113.78	104.62	9.62	9.2
	84-85	9.62	122.96	132.58	122.81	7.90	6.4
Calcutta	1980-81	2.65	38.47	41.12	39.83	2.86	7.4
	81-82	2.86	43.59	46.45	43.31	3.30	7.5
	82-83	3.30	55.68	58.98	53.96	4.49	8.0
	83-84	4.49	58.71	63.20	58.03	4.82	8.2
	84-85	4.82	64.17	68.99	61.52	6.78	10.5
Bombay	1980-81	1.66	95.69	97.35	95.47	1.52	1.6
	81-82	1.52	114.90	116.42	114.17	1.56	1.3
	82-83	1.56	139.49	141.05	139.10	2.30	1.6
	83-84	2.30	158.67	160.97	154.44	4.17	2.6
	84-85	4.17	176.36	180.53	175.56	4.15	2.3
Madras	1980-81	0.38	34.70	35.08	34.70	0.40	1.1
	81-82	0.40	44.07	44.47	43.06	0.62	1.4
	82-83	0.62	42.57	43.19	43.35	0.57	1.3
	83-84	0.57	50.03	50.60	49.84	0.76	1.5
	84-85	0.76	54.96	55.72	54.45	0.84	1.5

(iii) Data in respect of 45 Circles gathered (excluding North East Circle) showed that recovery of Rs. 147.15 lakhs was under litigation on 1st July 1985. The progressive position was as below (Table 6.5) :—

TABLE 6.5

	No.	Amount involved (Rs. in lakhs)
(a) Cases under litigation as on July 1984	1268	114.08
(b) Cases in which litigation proceedings were commenced during July 1984 to June 1985	1063	64.74
(c) Cases decided during July 1984 to June 1985	320	31.67
(d) Cases decided out of (c) in favour of P&T Department	179	12.30
(e) Cases under litigation as on 1st July 1985	2011	147.15

(iv) Data gathered in respect of 45 Circles showed that Rs. 52.01 lakhs were written off during the year

1984-85. Out of this, Rs. 31.73 lakhs pertained to Delhi Telephone District alone of which Rs. 22.00 lakhs pertained to periods upto 1977-78.

The year-wise analysis of the amount was as under (Table 6.6) :—

TABLE 6.6

Year to which pertains	Amount written off (Lakhs of rupees)
Upto 1977-78	30.41
1978-79	4.84
1979-80	4.17
1980-81	1.90
1981-82	2.08
1982-83	2.69
1983-84	2.41
1984-85	3.51
Total :	52.01

The break-up of the amount of Rs. 52.01 lakhs pertaining to 45 Circles was as below :—

TABLE

	(Rs. in lakhs)
1. Whereabouts of the subscribers not known	37.79
2. Solvency of the subscribers not established	1.81
3. Closures of subscribers firms, concerns etc.	2.04
4. Death of subscribers	1.28
5. Relevant departmental files not available	1.63
6. Other reasons	7.46
	52.01

(v) The number of complaints received in respect of 45 Circles (except North East Circle) regarding over-billing during the year 1984-85 came to 89,555.

#### 7. Non-billing/Short-billing of Telecom bills detected in test check during 1984-85

Besides the cases mentioned in paragraphs 10 to 17 of the Audit Report a test check in Audit of Telecom Revenue Accounts of 45 Telecommunication Circles/District (out of a total of 46 Circles) conducted during 1984-85 revealed non-billing in 3642 cases involving Rs. 0.73 crore. Further, even after the lapse being pointed out by Audit, bills relating to 495 cases involving Rs. 0.16 crore were not issued as at the end of June 1985.

In addition, 4829 cases involving Rs. 1.45 crores on account of short-billing were also noticed by Audit in the test check. Bills were issued for Rs. 1.08 crores, out of which Rs. 0.98 crore (covering 1010 cases) are yet to be realised. Bills for the balance amount of Rs. 0.37 crore have not been issued till June 1985, though pointed out by Audit earlier.

#### 8. Arrears of rent of Telegraph, Telephone and Teleprinter circuits and Telex/Intelex charges

The comparative position of arrears of collections on the above accounts as at the end of March 1983, March 1984 and March 1985 in respect of bills issued upto preceding 31st December is shown as under (Table 8.1) :—

TABLE 8

Year	Arrears outstanding on 31st March in respect of bills issued upto 31st December preceding (Rs. in lakhs)	Actual collection during the year (Rs. in lakhs)	
Rent of Telegraph/ Telephone and Teleprinter circuits	1982-83	271	2289
	1983-84	367	3549
	1984-85	747	9404
Telex/Intelex charges	1982-83	109	8209
	1983-84	107	8406
	1984-85	112	9703

Year-wise analysis of the dues as on 1st April 1985 for bills issued upto December 1984 is given below (Table 8.2) :—

TABLE 8.2

Year	Rent of Telegraph, Telephone and Teleprinter circuits	Telex and Intelex charges	Total
	(Rs. in lakhs)		
Upto 1979-80	36.65	29.81	66.46
1980-81	18.28	3.05	21.33
1981-82	35.28	4.62	39.90
1982-83	38.91	14.81	53.72
1983-84	143.70	30.37	174.07
1984-85	473.74	30.09	503.83
(upto Dec. 1984)			
Total :	746.56	112.75	859.31

The classification of dues as on 1st April 1985 according to the subscribers in respect of claims exceeding Rs. 10,000 each for Bombay Telephone District and of claims exceeding Rs. 5,000 each in respect of 42 other Telecommunication Circles/Telephone Districts (out of total 46) was as below (Table 8.3). The total amount of such dues was Rs. 278.23 lakhs (Data of 3 Circles viz. Delhi, West Bengal and North East could not be gathered)

TABLE 8.3

	Rent of Telegraph, Telephone and Teleprinter circuits	Telex/Intelex charges	Total	Percentage of total dues
	(Rs. in lakhs)			
Central Government	176.07	0.87	176.94	63
State Governments	15.73	0.33	16.06	6
Autonomous Bodies	1.73	0.06	1.79	1
Press/Newspapers	35.53	1.40	36.93	13
Others	19.49	27.02	46.51	17
Total	248.55	29.68	278.23	100

#### 9. Arrears of Telegraph Revenue and Radio Telegraph charges

##### (i) Inland Press Telegrams

Registered news papers and news agencies are allowed the facility of sending inland press telegrams without prepayment. Bills for such telegrams for the first fortnight of the month are required to be issued by 25th of the same month and for the second fortnight by 10th of next month. These bills are to be paid within a week.

A test check of the bills issued by the Chief Accounts Officer, Telegraph Check Office (CAOTCO), Calcutta between August 1984 and July 1985 pertaining to the period from April 1984 to March 1985 showed that there was a time lag of 2 to 4 months in issuing the bills as shown below (Table 9.1) :—

TABLE 9.1

Sl. No.	Particulars	No. of bills	Percent-age	Amount (Rs. in lakhs)
1.	Sent in time	..	..	..
2.	Delay :			
	(a) upto one month	..	..	..
	(b) One to two months	..	..	..
	(c) Two to three months	3178	74	16.88
	(d) Three to four months	1116	26	6.81
	Total :	4294	100	23.69

Bills pertaining to the period April 1985 to July 1985 were issued during August 1985 to October

1985 and bills pertaining to the period from August 1985 onward are yet to be issued (December 1985).

Of the bills pertaining to the periods upto 31st March 1985, arrears in collection amounted to Rs. 13.77 lakhs as on 31st July 1985. The break-up of the arrears according to the various blocks of years was as under (Table 9.2) :—

(Table 8.3) :—

TABLE 9.2

Block year	Amount (Rs. in lakhs)
1968-78	0.04
1978-80	0.61
1980-84	2.61
1984-85	10.51
Total :	13.77

Details of the amount due to be recovered, actually recovered and balance outstanding in July/August each year during 1982-83 to 1984-85 was as under (Table 9.3) :—

TABLE 9.3

Year	Amount of the bills pertaining to previous years outstanding in July or August	Bills issued during the year	Total	Position of arrears in July or August next		Total
				Pertaining to previous years	Pertaining to current year	
1	2	3	4	5	6	7
						(Rs. in lakhs)
1982-83	33.20	40.41	73.61	6.79	15.59	22.38
1983-84	22.38	33.13	55.51	5.85	11.21	17.06
1984-85	17.06	23.69	40.75	3.26	10.51	13.77

It will be observed that there was steep decline in the amount of the bills issued.

#### (ii) Mobilisation Telegrams

Mobilisation Telegrams in connection with Military business are similarly accepted without prepayment. Bills are required to be preferred by the last day of the 2nd month following the month of account by the CAOTCO, Calcutta monthly against the Defence authorities who are required to make payment within 3 weeks of their receipt.

A test check of the bills issued by the CAOTCO, Calcutta between August 1984 and July 1985 and pertaining to the period from April 1984 to March 1985 showed that there was a time lag of more than

one month in issuing the bills in each case, as detailed below (Table 9.4) :—

TABLE 9.4

Sl. No.	Particulars	No. of bills	Percent-age	Amount (Rs. in lakhs)
1.	Sent in time	..	..	..
2.	(a) Delay upto one month	..	..	..
	(b) Delay of one to two months	2195	100	404.57
	Total :	2195	100	404.57

Bills for the period from April 1985 to August 1985 were issued during July 1985 to November 1985.

In respect of bills pertaining to the period upto 1984-85, arrears in collection amounted to Rs. 199.17

lakhs as on 31st July 1985. Out of this, Rs. 0.40 lakh related to the year 1982-83 and Rs. 0.48 lakh to 1983-84. Details of the amount due to be re-

covered, actually recovered and the balance outstanding in July/August each year during the period from 1982-83 to 1984-85 were as under (Table 9.5) :—

TABLE 9.5

Year	Amount of the bills pertaining to the previous years outstanding in July/August	Bills issued during the year	Total	Position of arrears in July/August		Total
				Pertaining to previous years	Pertaining to current year	
1	2	3	4	5	6	7
						(Rs. in lakhs)
1982-83	44.02	231.21	275.23	1.69	41.41	43.10
1983-84	43.10	337.67	380.77	2.87	82.24	85.11
1984-85	85.11	404.57	489.68	0.88	198.22	199.10

## (iii) Radio Telegraph charges

The CAOTCO, Calcutta, prepares monthly bills in respect of radio telegrams exchanged between the Radio Stations owned by the Telecommunications Department and ships at sea. He is required to send these bills to the companies/Administration concerned on the 15th of the third month following the month of traffic.

A test check of the bills issued by the CAOTCO, Calcutta between August 1984 and September 1985 pertaining to the period from April 1984 to March 1985, showed that there was a time lag of 1 to 3 months in issuing the bills as shown below (Table 9.6) :—

TABLE 9.6

Sl. No.	Period of delay	No. of bills	Amount (Rs. in lakhs)	Percentage
1.	Sent in time	..	..	..
2. (a)	Delay upto one month	71	3.09	8
(b)	Delay of one to two months	403	17.54	44
(c)	Delay of two to three months	483	19.21	48
Total :		957	39.84	100

In respect of bills pertaining to the period upto 31st March 1985, arrears in collection amounted to Rs. 59.86 lakhs in September 1985. Out of this, Rs. 30.60 lakhs pertained to year 1984-85 and Rs. 29.26 lakhs to years 1965-66 to 1983-84. The break-up of the arrears according to various blocks of years was as under (Table 9.7) :—

TABLE 9.7

Block year	Amount (Rs. in lakhs)
1965-70	1.89
1970-75	0.81
1975-80	11.91
1980-84	14.65
Total :	29.26

The position of outstanding bills issued and amount collected during the last 5 years is shown below (Table 9.7) :—

TABLE 9.7

Year	Amount outstanding at the beginning of the year in respect of bills pertaining to previous years	Amount of bills pertaining to the year	Total amount collectable (Col. 2+ Col. 3)	Amount collected during the year out of that shown in Col. 4	Amount outstanding at the end of the year	Amount outstanding as on 1st August of second succeeding year
1	2	3	4	5	6	7
						(Rs. in lakhs)
1980-81	82.05	40.00	122.05	30.02	92.03	29.72 (1-8-1982)
1981-82	92.03	40.50	132.53	50.86	81.67	24.34 (1-8-1983)
1982-83	81.67	45.28	126.95	57.46	69.49	25.69 (1-8-1984)
1983-84	69.49	42.52	112.01	42.25	69.76	29.26 (1-8-1985)
1984-85	69.76	39.84	109.60	42.25	67.35	

The Department while accepting the facts in January 1986 stated that good progress has been made in the recovery of outstandings relating to the year 1984-85.

#### 10. Specific major cases of under-assessment of Telecom facilities

##### 10.1 Non-recovery of rental of Rs. 60.17 lakhs in 8 cases due to non-receipt of 'Advice Notes' in respect of PABXs and extensions of PABXs

As per the departmental rules, the completed

advice notes in respect of the telephone facilities provided/shifted, etc., are to be sent to the Telephone Revenue Accounts (TRA) branch within a week of the events affecting the connections and other telephone facilities in order to enable the TRA branch to issue telephone bills to the subscribers. It was noticed in audit that there were short recoveries to the tune of Rs. 60.17 lakhs in respect of the following cases (Table 10.1) due to non-receipt of the advice notes.

TABLE 10.1

Sl. No.	Particulars of the PABX Board extendable type	Date on which pointed out by audit	Period of short-recovery	Amount of short recovery	Amount recovered with other remarks
1	2	3	4	5	6
(Rs. in lakhs)					
<i>Delhi Telephone District</i>					
1.	EPABX in replacement of 10+50 lines PBX and 10 10+100 lines (non-extendable) PABX Board provided to Hotel 'A'	April 1984	13-10-1983 to 31-5-1985	5.78	5.74 (September 1984 and January 1985) 0.04 (April 1985)
2.	Electronic Board provided to Hotel 'B'	June 1984	4-11-1983 to 30-11-1984 (Annual rent for Board) 10-11-1983 to 30-11-1984 (Rent for extensions)	15.93	15.93 (October-December 1984 and June 1985) This includes rent and installation charges in respect of facility E-105 provided to 554 extensions.
3.	Electronic PABX Hotel type provided to Hotel Corporation of India	July 1984	25-10-1983 to 31-5-1985	17.70	17.70 (September 1984 and April 1985)
4.	EPABX for International Airport Authority of India (Palam Airport)	June 1984	11-10-1983 to 10-10-1985	12.90	12.90 (September 1984 and March 1985).
5.	100 lines extendable type PABX Board provided to Bharat Electronics Ltd., with effect from 21-12-1977 with 76 extensions	March 1984	21-12-1978 to 31-5-1985	5.81	5.81 (September 1984)
6.	100 lines extendable type PABX Board installed at Mother Dairy, Patparganj with effect from 24-5-1983.	July 1984	24-5-1984 to 30-4-1985	0.37	0.37 (April 1985).
7.	Extensions and E-103 facility provided to a 50 lines PABX provided to a private company at Faridabad	April 1983	11-6-1978 to 31-5-1983	0.34	0.34 (September 1983 and October 1983).
<i>Rajasthan Circle</i>					
8.	Speech circuit provided to Western Railway from Kota to Gangapur in June 1981	July 1983	7-6-1981 to 9-1-1983	1.34	1.34 (April 1985)

The Department, while accepting the omission (in all the 8 cases above) stated (September and October 1985) that the delay in issue of the bills occurred due to non-receipt of advice notes and that action had been taken to minimise the delay in despatch of

completed copies of the advice notes to the TRA Section for timely billing of the facilities. It was further stated that action had been taken to pull up the staff responsible for the delayed submission of the advice notes and also to prevent recurrence in future.



10.2 Short recovery of Rs. 14.36 lakhs in 11 cases due to non-application of revised rates of rental in respect of PABX Boards extendable type

Prior to 1st September 1980, the rates of rent of extendable type PABX Boards (ordinary type and hotel type) of over 100 lines capacity were fixed in each case on capital cost basis. From 1st September 1980, the Director General, Posts and Telegraphs (DGPT) fixed the rent per annum of the PABX Boards of extendable ordinary type at Rs. 0.70 lakh for a 100 lines Board, Rs. 1.10 lakhs for a 200 lines

Board and Rs. 1.50 lakhs for a 300 lines Board. The annual rates of non-extendable type Boards of 100 lines were revised from Rs. 0.20 lakh to Rs. 0.30 lakh per annum (non-extendable type Boards of higher than 100 lines are not given).

In 11 cases mentioned below (Table 10.2), there was short recovery of Rs. 14.36 lakhs due to continued application of old rates of rental in 10 cases and application of rent prescribed for non-extendable type Board to extendable Board of 100 lines in one case (Serial No. 10) :—

TABLE 10.2

Sl. No.	Particulars of the PABX Board extendable type	Date on which pointed out by Audit	Period of short recovery	Amount of short recovery	Amount recovered with remarks	other
1	2	3	4	5	6	
(Rs. in lakhs)						
<i>Delhi Telephone District</i>						
1.	100 lines Board at Police Station, Shahdra	June 1983	1-6-1982 to 31-5-1983	0.58	0.58 (December 1983)	
2.	100 lines Board at Town Hall, Municipal Corporation, Delhi.	May 1984	1-9-1980 to 31-5-1985	1.90	1.90 (March 1985)	
3.	100 lines Board of Delhi Police	May 1984	1-6-1984 to 31-5-1985	0.32	0.32 (August 1984 and November 1984)	
4.	300 lines Board of Delhi University	May 1984	1-5-1984 to 30-4-1985	0.91	0.91 (July 1984)	
5.	200 lines Board of Director of Audit, Central Revenues	June 1983	1-6-1981 to 31-5-1983	1.02	1.02 (July 1983)	
6.	100 lines Board of Delhi Development Authority	June 1984	(a) 1-9-1980 to 30-4-1984 (b) May 1984 to April 1985 (Bill not issued) (c) 21-10-1977 to 31-8-1980	1.60  0.70  0.42	  Supplementary bill issued on 6-7-1984	on
7.	100 lines PABX Board provided a to private party	April 1983	1-9-1980 to 31-5-1983	0.51	0.51 (July 1983)	
8.	100 lines PABX Boards installed for Director of Public Relation and for Supdt. of Police, Karol Bagh	February 1983	1-9-1980 to 30-4-1983	2.13	2.13 (April 1983)	
9.	200 lines PABX Board installed for the D.G., Observatories, New Delhi.	March 1983	1-9-1980 to 31-8-1983	1.50 (including Rs.0.13 lakh on account of rent of extensions not billed for)	1.50 (June 1983)	
10.	100 lines PABX Board of University Grants Commission, Delhi	July 1984	June 1983 to April 1985	0.77	0.77 (July 1984)	
<i>Madhya Pradesh Circle</i>						
11.	100 lines PABX Board for Indian Air Force Authorities at Station 'A' with effect from 1st December 1962	January 1985	1-9-1980 to 31-8-1985	2.00	2.00 (October 1985)	

The Department, while accepting the lapse, stated (September and October 1985) that non-billing took place due to lack of understanding of computer procedure by the staff. It was also stated that action had been taken to educate the staff in following the correct procedure in future. In respect of the case at Serial No. 11, it was stated that General Manager, Telecommunications (GMT), MP Circle, had been asked to fix responsibility and take action against the officials at fault.

10.3 *Short-assessment of Rs. 21.41 lakhs in 17 cases due to non-application of prescribed rates in respect of external extensions/tie lines.*

In April 1978, the Director General, Posts and Telegraphs issued instructions that rent in respect of external extensions and tie lines provided to PABX/PBX Boards should be charged on the chargeable distance *i.e.* 1.25 times the point to point radial distance instead of radial distance. It was noticed in audit that due to cognizance of these orders not being taken, there was short recovery of Rs. 21.41 lakhs in 17 cases in Delhi Telephones District (Table 10.3) :—

TABLE 10.3

Sl. No.	Particulars of the PABX Board	Date on which pointed out by Audit	Period of short recovery	Amount of short recovery	Amount recovered with other remarks
1	2	3	4	5	6
					(Rs. in lakhs)
1.	PABX Board installed for DTC authorities at Scindia House, Delhi	February 1984	24-4-1978 to 31-5-1984	1.20	1.20 (April 1984)
2.	PABX Board installed for I.G. Police, Delhi at Parliament Street	February 1984	24-4-1978 to 31-5-1984	2.15	2.15 (July 1984) The short recovery of Rs. 2.15 lakhs includes (a) short recovery on account of external extensions being charged as internal extensions and (b) external extensions being charged treating it as within 1 Km.
3.	PABX Board installed for the I.G. Police Delhi at Defence Colony	April 1984	24-4-1978 to 30-4-1984	0.74	0.74 (October 1984)
4.	PABX Board installed for Jawaharlal Nehru University	November 1983	24-4-1978 to 31-5-1983	1.82	1.82 (November 1983 and May 1985). This include short recovery of (a) Rs.0.14 lakh for 7 external connections charged as internal connections for the period from 23-1-1977 to 31-5-1983 and (b) Rs. 0.79 lakh for 64 extensions charged at flat rate instead of charging on radial distance basis for the period from 23-1-1977 to 23-4-1978.
5.	PABX Board provided to Defence authorities	April 1983	24-4-1978 to 31-3-1983	0.99	0.99 (June 1983).
6.	PABX Board installed for Director of Aerodromes Communications/Inspection, Delhi Airport, New Delhi	April 1984	24-4-1978 to 30-4-1984	0.13	Supplementary bill for Rs. 0.19 lakh for the period upto April 1985 issued on 5th June, 1985. Department stated (October 1985) that the bill has been disputed by the subscriber.
7.	PABX Board installed at Signal Directorate of Army Head Quarters	April 1984	24-4-1978 to 30-4-1984.	0.11	0.11 (July 1985).
8.	PABX Board installed for Dy. Commissioner, M.G.R. Indian Air Lines, New Delhi	April 1984	24-4-1978 to 30-4-1984	0.21	Correct distance is being ascertained.

1	2	3	4	5	6
9.	PABX Board installed for Air Force authorities	April 1984	24-4-1978 to 30-4-1984	2.64	— Supplementary bill for Rs. 29,483.65 upto April 1985 issued on 5th June 1985. Department stated (October 1985) that the bill has been disputed by the subscriber.
10.	PABX Board provided to Senior Signal Officer, I.A.F., New Delhi	April 1984	24-4-1978 to 30-4-1984	1.49	1.22 (September 1985). Matter regarding remaining amount is under correspondence.
11.	PABX Board provided to DTC, Shadipur Depot	December 1984	24-4-1978 to 30-4-1984	3.63	Department stated (October 1985) that the bills issued have been disputed by the subscriber.
12.	PABX Board provided to Superintendent of Police Thana Original Road	December 1984	24-4-1978 to 30-4-1984	1.79	Department stated (October 1985) that the bills have been issued but disputed by the subscriber.
13.	PABX Board installed for Indian Agriculture Research Institute	November 1984	24-4-1978 to 30-4-1984	0.35	0.35 (September 1985).
14.	PABX Board of Delhi Transport Corporation Banda Bahadur Marg, Delhi	September 1984	24-4-1978 to 31-5-1985	0.30	0.30 (March 1985).
15.	PABX Board of Delhi Police, Kashmiri Gate	October 1984	24-4-1978 to 31-5-1985	2.20	2.20 (July 1985).
16.	PABX Board provided to Police Station Krishna Nagar	November 1984	April 1978 to April 1985	1.44	Supplementary bill issued in April 1985.
17.	PABX Board of Air Force Station, Tughlakabad	March 1984	24-4-1978 to 30-6-1984	0.22	0.22 (April 1985).

10.4 Short recovery of Rs. 42.58 lakhs in 3 cases due to non-application of revised rates of rentals for speech and teleprinter circuits

circuits were revised with effect from 1st March 1983. Due to continued application of the pre-revised rates of rental in respect of the following circuits, there was short recovery of Rs. 42.58 lakhs in the following 3 cases (Table 10.4) :—

Rates of rental of speech circuits and teleprinter

TABLE 10.4

Sl. No.	Particulars of circuits	Date on which pointed out by Audit	Period of short recovery	Amount of short recovery	Amount recovered and other remarks
1	2	3	4	5	6
(Rs. in lakhs)					
1.	Speech circuit and teleprinter circuit provided to Naval authorities between station A and B (Andhra Pradesh Circle).	July 1984	1-3-1983 to 30-6-1985	1.49 (Including arrears of rent for TP machine for the period from 1-3-1982)	1.49 (October 1984).
2.	Speech circuits provided to various authorities by District Manager, Telecommunications Lucknow.	November 1984	1-3-1983 to 30-6-1985	33.69	20.49
3.	13 speech circuits provided to various subscribers by D.E. Phones, Bareilly (U.P.)	October 1984	1-3-1983 to 30-6-1985	7.40 (In one case, period of short recovery starts from 1-5-1969).	2.75 (upto March 1985).

On being pointed out by Audit, the Department stated that efforts were being made to recover the amount and the units concerned had been directed to take remedial measures to prevent recurrence of such lapses in future.

10.5 Non-recovery of rental charges of Rs. 58.17 lakhs in respect of 4 teleprinter, speech and tele-

graph circuits provided to Western and Central Railways

Due to non-maintenance of various records prescribed by the Department and non-observance of the prescribed procedure by Bombay Telecommunication District and Madhya Pradesh Telecommunication Circle, rental charges amounting to Rs. 58.17 lakhs were not recovered in respect of 4 circuits provided to Western and Central Railways as per details given below (Table 10.5) :—

TABLE 10.5

Sl. No.	Particulars of circuit	When detected in audit	Period of recovery	Amount of short recovery	Amount recovered
1	2	3	4	5	6
(Rs. in lakhs)					
<i>Madhya Pradesh Circle</i>					
1.	Teleprinter circuit between Kota and Ratlam working for 8 hours per day from 28th August 1980 and for 24 hours per day from 17th March 1981	September 1984	August 1980 to 31st March 1985	1.28	1.28 (April 1985)
<i>Bombay Telephone District</i>					
2.	Teleprinter circuit between Bombay and Jabalpur provided on 7th March 1975	February 1985	7th March 1975 to 31st March 1985	56.89	Supplementary bill for Rs. 48.42 lakhs issued in March 1985.
3.	Telegraph circuit between Bombay and Baroda on 11th January 1973	February 1985	11th January 1973 to 31st March 1985		Provisional bill for Rs. 5.4 lakhs issued in May 1985.
4.	Telegraph circuit between Bombay and Bhusawal on 30th November 1971	February 1985	30th November 1971 to 5th October 1977		Provisional bill for Rs. 2.98 lakhs issued in May 1985.

The Department stated (September 1985) that General Manager, Telecommunications, MP Circle had been asked to fix responsibility against the officials at fault in respect of the case at Serial No. 1. In respect of cases at Serial Nos. 2 to 4, the Department stated (September 1985) that particulars of recovery were awaited.

10.6 Short realisation of rent (Rs. 6.48 lakhs) due to non-revision of rent after the expiry of guarantee period

Departmental rules provide that in respect of Telecommunication facilities provided on rent and guarantee basis, after the initial period of guarantee, the rental should be levied on standard flat rates where such standard rates are fixed. It was noticed in Audit (November 1984 and February 1985) that necessary action to revise the rent had not been taken as per the departmental rules in respect of 3 speech and telegraph circuits mentioned below, resulting in short recovery of rent amounting to Rs. 6.48 lakhs (Table 10.6) :—

TABLE 10.6

Sl. No.	Particulars of the circuits	Period of short recovery	Amount of short recovery	Amount recovered/month of recovery
(Rupees in lakhs)				
<i>Madhya Pradesh Circle.</i>				
	Two Wireless speech circuits provided to National Mineral Development Corporation from Raipur to Bacheili and Raipur to Kirundal with effect from 26th November 1973 and 29th September 1975.	25th November 1978 to 28th February 1985 and 29th September 1980 to 28th February 1985	5.36	5.36 (April 1985 and July 1985).
<i>Bombay Telephone District</i>				
	Telegraph circuit provided to Western Railway between Bombay and Surat.	28th October 1965 to 9th October 1974	1.12	1.12 (July 1985).

In respect of 2 cases pertaining to the MP Circle, the Department stated (October 1985) that General Manager, Telecommunications, Madhya Pradesh Circle, had been asked to fix responsibility and take action against the officials at fault.

10.7 *Non-billing of Rs. 6.93 lakhs in respect of trunk circuits for Broadcasting purposes provided to All India Radio, Calcutta*

Departmental rules provide that whenever telephone trunk circuits are used by All India Radio (AIR) for broadcasting inland programme, rental charges equal to trunk call charges for the actual time taken for the broadcast and studio tests plus six minutes duration should be charged from the AIR authorities. It was noticed (August 1983) in audit that during the period from 1979-80 to 1982-83, forty four trunk telephone circuits were provided to AIR, Calcutta, by Calcutta Telephone District but rental charges amounting to Rs. 6.91 lakhs were not billed for. On being pointed out, bills in respect of 19 circuits were issued in December 1983 and 23 circuits after March 1985. Rs. 4.46 lakhs were recovered in March/April 1984. The recovery particulars for the balance amount of Rs. 2.45 lakhs are awaited (January 1986). The Department could not however, explain the billing position of 2 circuits falling under General Manager, North East Circle and General Manager, Telephones, New Delhi.

The Department stated (October 1985) that the non-billing of the circuits was due to some confusion about the billing authority in the office of the Divisional Engineer Telegraphs, Carrier. The Department further stated that the lacuna in the procedure had since been rectified.

10.8 *Short charges of rental (Rs. 1.84 lakhs) of speech circuits due to non-observance of rules*

Departmental rules provide that when a circuit is provided by utilising existing wires and channels between two stations connected through intermediate places, the rent is to be charged on the chargeable distance calculated separately for each section of the circuit joining station with the next one.

The Divisional Engineer Telephones, 'A' provided (February 1966) a speech circuit to Army from station 'A' to station 'C' through station 'B' and charged rent with reference to radial distance between station 'A' to station 'C' instead of charging rent for each section (from 'A' to 'B' and from 'B' to 'C', resulting in short realisation of rent of Rs. 1.84 lakhs from February 1966 to June 1985.

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On being pointed out by audit (January 1982) the Department accepted the facts (October 1985) and stated that a supplementary bill for Rs. 1.84 lakhs for the period from 22nd February 1966 to 30th June 1985 had been issued to the party in July 1985. The recovery was awaited (October 1985).

10.9 *Non-billing for licence fee (Rs. 1.20 lakhs) from a subscriber for the subscriber owned PABX*

In May 1983, the DGPT prescribed the rates of licence fee to be recovered from the subscribers in respect of private owned PABXs. It was noticed in audit (September 1984) that one PABX of the above category was working with the World Health Organisation with effect from 3rd April 1971 but the licence fee was not being recovered, resulting in short recovery of Rs. 0.80 lakh for the period from May 1983 to April 1985. On being pointed out by audit, the Area Manager recovered the amount of Rs. 1.20 lakhs on account of licence fee upto April 1986.

10.10 *Non-recovery of rent of PABX Board (Rs. 1.68 lakhs) due to improper system of billings*

A 200 lines PABX Board was provided to Indian Standards Institution, New Delhi, from 2nd April 1969 and rent at Rs. 40,000 per annum was recovered for the period prior to 1st September 1980. Rate of rent of the above capacity of board was revised to Rs. 1.10 lakhs per annum with effect from 1st September 1980.

It was noticed in audit (July 1984) that rent at Rs. 40,000 per annum was recovered in the first instance for the period from 1st July 1981 to April 1984 and difference at Rs. 70,000 per annum was claimed subsequently each year through supplementary bills for periods upto 30th June 1983, after which no supplementary bill was sent. Rent bill for the period from 1st May 1984 to 30th April 1985 was required to be issued in April 1984 but the same had not been issued till 4th July 1984 (Date of audit).

On being pointed out in Audit, the Area Manager, East, Delhi Telephones, intimated (July 1984) that omission to bill for the rent for the period from 1st May 1984 to 30th April 1985 was due to the fact that the computer did not have the capacity to bill for Rs. 1.10 lakhs and as such bills are split up into two parts—Rs. 20,000 and Rs. 90,000 or Rs. 30,000 and Rs. 80,000. The above reply is not tenable as no bills on account of rental for the above periods had been issued till it was pointed out by audit.

A supplementary bill for Rs. 1.68 lakhs, being the rental for the period from 1st May 1984 to 30th April 1985 (at Rs. 1.10 lakhs per annum) and from 1st July 1983 to 30th April 1984 (at Rs. 70,000 per annum) was issued by the Area Manager on 6th July 1984 and the amount was collected on 20th July 1984. The Department, while accepting the lapse, stated (October 1985) that the non-billing took place due to lack of understanding of computer procedure by the staff and that action had been taken to educate the staff in following the correct procedure in future.

#### 10.11 *Non-revision of rental and incomplete account of work*

On a firm demand received from the Army authorities in August 1968 for provision of 5 Kms. of underground cables, the Department quoted a provisional rental of Rs. 0.16 lakh per annum with a guarantee period of 10 years, on the basis of estimated cost of Rs. 0.78 lakh. The work was completed and handed over to the Army authorities in February 1973, and expenditure booked was Rs. 1.28 lakhs which included cost of 5 Kms. of cable instead of 4 Kms. utilised on the work.

The provisional rent had not been revised based on actual cost. On being pointed out by audit in October 1983, bill to the extent of Rs. 1.60 lakhs upto February 1984 was issued (January 1984), without giving credit for 1 Km. of cable issued but not utilised on the work. After allowing the necessary credit to the work for the unutilised length of cable the annual rental would be Rs. 25,159. Thus there has been short recovery of Rs. 0.92 lakh due to non-revision of rental on completion of work in 1973.

As regards the whereabouts of 1 Km. of cable, the GMT, Bihar stated (March 1985) that it was given to SDOT Munger for utilisation on Munger-Jamulpur junction. The details of transfer and the proposed debit were under verification (March 1985).

The revised estimate for the above work has not been sanctioned though the actual cost has exceeded 10 per cent of the amount of the original sanctioned estimate and completion report of the work which should have been prepared soon after completion of work and got approved by the competent authority has not been prepared.

The Department stated (December 1985) that the unit concerned had taken remedial steps to avoid recurrence of such instances in future.

#### 10.12 *Short recovery of rent (Rs. 0.42 lakh) in respect of guaranteed installations due to non-observance of the rules*

Departmental rules provide that when a demand for any service is received for which rental has to be quoted on capital cost basis, an estimate for the work should be prepared taking all foreseeable expenses into consideration based on current prices before quoting rates of rental and terms of guarantee. It was noticed (July 1981) in audit that in respect of a 200 lines PABX Board provided to a private party at Modipuram, incorrect rental was quoted to the party based on incorrect amount of cost and rates, resulting in short recovery of rental amounting to Rs. 0.42 lakh for the period from 28th July 1980 to 27th July 1982. On the lapse being pointed out, the Department recovered the amount in December 1981.

#### 10.13 *Short billing/non-billing due to general omissions/commissions*

On a review of records (subscribers record cards, local call statements, trunk call tickets etc.) of the District Manager Telephones, Calicut by audit during February/March 1984 and January/February 1985, a number of cases of non-billing/short-billing involving Rs. 1.30 lakhs during the period from January 1982 to January 1986 were noticed. Against this a sum of Rs. 0.89 lakh was recovered by the Department leaving a balance of Rs. 0.41 lakh which is yet to be recovered.

The Department stated (September 1985) that the District Manager, Telephones, Calicut has initiated action to streamline the procedure of billing to avoid recurrence of such instances in future.

10.14 *General observation*—Cases mentioned at Sl. No. 10.1 to 10.12 remained undetected by the Internal Check Organisation even though cent per cent check was required to be done in respect of the main ledger cards of the PABXs, Speech Circuits etc.

#### 11. **Non-revision of rentals consequent on crossing of equipped capacity of 10,000 lines at Calicut Telephone system**

Calicut Telephone District (CTD) comprises of Calicut city and its urban agglomerated areas comprising of Feroke, Cheruvannore, Beypore, Olovanna and Ramanuttukara. The equipped capacity of Calicut Telephone system was 10,700 lines from June 1983, i.e., 9,900 lines of Calicut city and 800 lines of Feroke. Under Section 3 of Rule 434 of Indian Telegraph Rules, 1951, when a telephone system

crosses 10,000 lines, all subscribers served by the system are liable to pay an enhanced bi-monthly rental of Rs. 150. However, the telephone authorities continued to charge rentals at the old rates of Rs. 125 bi-monthly.

When the matter was brought to the notice of the Department, the Department stated (September 1985) that though Feroke Telephone Exchange was under the administrative control of the District Manager, Calicut Telephones, it remained a separate exchange, as it was outside the Municipal limits of Calicut.

However, in similar cases in Kerala circle itself, viz., Sreekariyam telephone-exchange lying outside the Municipal limits of Trivandrum Corporation and Kalamassery and Thripumithura exchanges lying outside the Municipal limits of Ernakulam, the Department had included them in the multi-exchange systems of Trivandrum and Ernakulam telephone districts respectively and the subscribers were charged at the enhanced rate of Rs. 150 bi-monthly. The same rental has been charged in 6 exchanges pertaining to Madras Telephone District which did not fall within the limits of Madras Municipal Corporation. Non-revision of tariff rates in Calicut Telephone District has resulted in a loss of revenue of Rs. 27.86 lakhs for the period from May 1983 to March 1985 and the loss would continue till such time the rentals are revised.

## 12. Non-recovery of royalty due from State Electricity Boards

Under the Indian Telephone Act, the Posts and Telegraphs Department grants licences for installing, operating and maintaining private telephone system not worked for gain, by charging royalty at prescribed rates annually in advance and in case of default the licence is to be cancelled.

The Andhra Pradesh State Electricity Board (APSEB) is owning and operating non-exchange lines on magneto telephone systems and power lines carrier communication (PLCC) systems, whereas Karnataka State Electricity Board (KSEB) is having only PLCC system. As per departmental rules, royalty at the rate of Rs. 50 per annum is chargeable for PLCC system and for magneto system it is 20 per cent of the proforma rental as for non-exchange lines.

In Para 8 of the Audit Report for the year 1971-72, it was brought out that recoveries on account of the royalty were not paid by six Electricity Boards mentioned below upto the end of December 1972, for the period ending April 1971.

TABLE 12

Name of the Electricity Board	Period from which due	Amount (Lakhs of Rupees)
(i) Kerala State Elec. Board	December 1953	4.64
(ii) Andhra Pradesh State Elec. Board	April 1953	4.88
(iii) Orissa State Elec. Board	May 1959	3.35
(iv) Tamil Nadu State Elec. Board	July 1957	21.98
(v) Gujarat State Elec. Board	..	0.71
(vi) Mysore State Elec. Board	April 1950	2.34
Total :		37.90

In reply to the Para, the Department had stated (December 1972) that the concerned Heads of Circles were instructed in July 1972 to take up the matter with State Electricity Boards for getting the payments expedited and that further directives were issued to them in November 1972 for issuing fifteen days' notice for disconnection of non-exchange lines in case of default in payment.

At the 6th Conference of the Chairman of State Electricity Boards in May 1972, it was agreed to pay royalty at the rate of Rs. 50 per annum for both the systems from 1st April 1971 and at the old separate rates for the earlier period. The APSEB did not pay at either of the above rates the amount claimed by the P&T department. Subsequently, at the 46th meeting of the Southern Regional Electricity Boards held in August 1976, all the constituent electricity boards were advised to abide by the decision of the 6th Conference of the Chairmen of the State Electricity Boards and to clear the royalty due to the P&T Department. The APSEB accorded sanction in January 1977 for payment of royalty at a uniform rate of Rs. 50 per annum per system from 1st April 1971 on PLCC system and magneto telephone system owned and operated by them. While the arrears of the royalty due for PLCC system were cleared by the said Board, royalty claimed at the old rates for magneto systems was not paid. The Electricity Board stated in November 1983 that the matter had been referred to the Central Electricity authorities to convince the P&T Department to accept royalty at rates similar to PLCC system with effect from 1st April 1971 onwards and the arrears due would be cleared on receipt of final decision from either the Central Electricity Authority or Southern Regional Electricity Board.

A further review conducted in April 1984/January 1985 revealed that APSEB and KSEB were still not paying the royalty. The KSEB after paying Rs. 0.81

lakh in February 1979, stopped further payment and stated in March 1985 that till a decision about the amount of royalty to be paid was taken, it would not be possible to settle the claim. Upto March 1985, the total amount of unpaid royalty rose to Rs. 5.24 lakhs.

The contention of the KSEB is not borne out by facts in-as-much as it was agreed to in the 6th Conference of the State Electricity Boards in May 1972, to pay royalty due to the Department at a uniform rate of Rs. 50 per annum per system from 1st April 1971 and at the old rates for the earlier period.

The APSEB had not paid the royalty claimed for magneto system resulting in accumulation of arrears of royalty to the tune of Rs. 9.05 lakhs for the period from 1st April 1959 to March 1984. The APSEB contested that the rate of royalty for magneto boards should also be as per the rates applicable to PLCC systems. No action has been taken by the Department to cancel the licence in both the cases.

The Department stated (December 1984) that the matter had been taken up with the Central Electricity Authority for issue of suitable instructions.

### 13. Short realisation of rentals from two long distance Telex connections due to non-observance of rules

Departmental rules prescribe that the annual rental charges for a long distance Telex connection should be based on the actual length of the connection. However, in the following two cases, the rentals were charged in contravention of these rules.

(a) A long distance telex connection was provided to firm 'A' at Nagda in December 1973 from Indore Telex exchange at an annual rental of Rs. 0.51 lakh. The connection was closed at the request of the firm in December 1976, as the same was found to be uneconomical. To an enquiry made by the Central Chamber of Commerce and Industry, Ujjain, the Divisional Engineer Telegraphs, Ujjain intimated that the telex connections to Nagda could be from Ujjain and the rental would be on radial distance basis (60 Kms.) and the annual rental would be Rs. 0.175 lakh with the telex equipment and Rs. 0.151 lakh without the telex equipment. Accordingly firm 'A' applied for a new telex connection from Ujjain Telex Exchange. This connection was, however, provided (October 1980) via Indore-Ratlam by utilising the VFT channels as no direct channel was available. The actual route worked out to 190 Kms. while the Department had quoted and charged rentals for 60 Kms. only based on radial distance. This resulted in short realisation of rental to the extent of Rs. 1.55 lakhs upto March 1984. On the matter being taken

up by the General Manager, Telecommunications, (GMT) MP Circle with the DGPT in September 1983 as to how the rental should be levied, the DGPT clarified (July 1984) that the rentals should be based on actual distance. When the disconnection notice was issued to the firm due to non-payment of arrears, it went to court and obtained a stay order. The case is still pending in the court challenging the validity of the demand for arrears of enhanced rentals. The Court case has arisen due to advice given by departmental authorities in contravention of the departmental rules.

(b) A long distance telex connection was provided to firm 'B' of Jhansi in July 1977, parented to Gwalior Telex Exchange, at an annual rental of Rs. 0.31 lakh based on radial distance of 93 Kms. However, the connection was actually provided from Gwalior to Jhansi via Agra by utilising spare VFT channels, as no direct channel was available. The actual distance of the route was 333 Kms. The connection was closed on 1st May 1979 at the request of firm 'B'. On being asked by the firm for final settlement of accounts (April 1979), the GMT Bhopal sought clarification from the DGPT (June 1982) as to how the rentals should be calculated. The Directorate at first clarified (April 1983) that the rental in this case should be based on radial distance from Gwalior to Agra and Agra to Jhansi but later revised the decision in October 1983/July 1984 intimating that rental should be charged on actual length of wires. A demand for arrears of rentals of Rs. 1.30 lakhs (July 1977 to April 1979) had meanwhile been issued in April 1983 on actual length basis. The Department stated (July 1985) that the firm 'B' has expressed difficulty in making payment at such a late stage.

### 14. Extra/infructuous expenditure and loss of revenue due to delayed/faulty provision of Telecommunication facilities to All India Radio (AIR) in Madhya Pradesh at Jagdalpur and Rewa

(i) In March 1973, the All India Radio (AIR), Jagdalpur, placed a firm demand on the Posts and Telegraphs Department for certain telecommunication facilities comprising mainly underground cables for their exclusive use between their studio and transmission centre situated at a distance of 11.5 Kms. from each other. This was a priority project and was to be commissioned by September 1975.

Project estimate for Rs. 2.54 lakhs was sanctioned in January 1974 by the Post-master General, Madhya Pradesh Circle, Bhopal and the Project was expected to be completed in 4 months. Rental at Rs. 49,500 per annum with the guarantee period of ten years was



quoted to AIR authorities in December 1972, though the rental chargeable worked out to Rs. 59,854 per annum.

Cable required for the above work was received by February 1976 and was laid by December 1976. However, the loading coils (of AIR specification) received in July 1976 were not connected with the cable and the jointing of the cable was not done as an appropriately trained cable jointer was not available in the Division.

As there was urgency of handing over the cable to the AIR authorities for their inaugural function of transmitting station, the cables were offered to them in January 1977 without loading coils. As loading coils were not provided, the AIR authorities used their own stand by FM Link arrangement as an interim facility and requested the Department for immediate insertion of loading coils in the cable for efficient functioning.

The bulk of the loading coils received in July 1976 were burnt in March 1979 in a fire accident in local Store Depot and fresh coils (cost : Rs. 6,000) were procured in October 1979. The cable was loaded with requisite coils finally in November 1979.

The Department, finding no other way for immediate improvement in functioning of the cables and in view of the pressing demand for rectification of defects from the AIR, erected (January 1982) overhead lines as a stand-by arrangement at a total cost of Rs. 1.99 lakhs, but the stand-by over-head lines too were not broadcast worthy.

In view of the serious complaints regarding the transmission, detailed tests on cables were conducted by an Expert Departmental Agency in January 1984 in collaboration with the AIR authorities. Consequently it was decided in May 1984 to take up the work of rejoining of cables on the entire route, to insert loading coils afresh and to replace two Kms. of cable already laid at a total cost of Rs. 1.63 lakhs. The estimate was sanctioned in May 1984, but the work was yet to be started (January 1986). Even after the Department incurred an avoidable expenditure of Rs. 3.68 lakhs, (apart from loss of revenue of Rs. 0.30 lakh and short recovery of rental of Rs. 0.89 lakh), Non Exchange lines are still not working efficiently (September 1985).

(ii) In January 1973, the AIR Rewa placed a firm demand on the Posts and Telegraphs Department for similar telecommunication facilities at Rewa. This was also a priority project and was to be commissioned in 1974-75.

In February 1975, the Department proposed to provide 4 star/20 lbs 8 pairs type of cables with loading of 8 MH Uni-Coils (Programme type) to meet the specification of the AIR because of non-availability of 14/40 lbs cable originally requisitioned by the AIR. Annual rental was finally quoted in April 1977 as Rs. 95,221 per annum with guarantee period of 10 years. Earlier, twice in March 1976, and September 1976, the Department had quoted Rs. 48,030 and Rs. 79,350 as rent. The Department stated (January 1986) that rent had to be revised due to wrong application of percentage of overheads earlier.

Project estimate for Rs. 4.16 lakhs was sanctioned by the GMT in May 1978 and was expected to be completed within a period of 90 days after receipt of stores and no construction difficulties were anticipated. The laying of underground cable had meanwhile been commenced in January 1977 and was completed by January 1978. However, its jointing work and loading with coils was not done due to non-availability of appropriately trained cable jointer in the Division. The AIR authorities did not take over the lines due to non-jointing and non-loading of cables and continued to press the Department to complete the work speedily as their studio had been commissioned in October 1977. The cable was finally handed over to AIR authorities in March 1980 after replacement of 400 meters of cables damaged due to water seepage at a cost of Rs. 6,000. Thus, a work which was expected to be completed in 3 months was completed in more than 3 years.

Due to delay in execution of work, the Department lost revenue of Rs. 2.34 lakhs during the period from October 1977 to March 1980.

#### 15. Loss of revenue due to delayed execution of work for the Indian Air Force

In June 1971, a firm demand was placed on P&T Department by the Indian Air Force (IAF) authorities for laying 7,100 meters of 14/20 lb. underground perimeter cable at Station 'A' and Rs. 26,680 was paid by the IAF authorities in November 1971. An estimate for the work for Rs. 0.98 lakh was sanctioned by the Postmaster General, U.P., Lucknow in January 1972 and the work was expected to be completed in four months. The indents for procurement of stores were released in February 1972. As the required cable was not available, it was decided in March 1973, with the approval of IAF authorities, to lay another type of cable and the same was got allotted on priority basis. Almost all the stores (along with the cable) had been received by September 1974. The work was thereafter expected to be completed by the end of 1974-75.

By December 1974, 5,000 meters of cable had been laid but further work was suspended by the SDO due to paucity of funds because charges for cutting and re-instatement of taxi tracks (10 in number) had been provided in the estimate on the low side and no provision had been made for 2" GI pipe of approximate length of 150 meters required for carrying cable beneath the taxi tracks.

The work was restarted in December 1975 after overcoming the above difficulties but was again stopped in February 1976 after 91 per cent of the cable had been laid except a portion of 650 meters, a part of which was to be laid under the Taxi tracks and could not be laid by unskilled labour. Other reasons for slippage as given by the Department were that (a) Correct location of the building (situated in security zone) upto which cable was to be terminated was not intimated by the IAF authorities (b) the building for termination of the underground cable was made available by the IAF authorities sometime after November 1979 only (c) some more cable was required for the work and (d) cash expenditure of Rs. 0.30 lakh had been incurred against estimated cost of Rs. 0.18 lakh. Ultimately, the remaining work was got done through a private contractor who took just three weeks to complete the work under the supervision of IAF authorities and the work was completed in October 1980. After construction of a few distribution pillars thereafter the cable was handed over to the IAF authorities on 1st April 1981. Thus a work which was originally planned to take four months was completed in 6½ years.

The following points are noteworthy :

- (a) Provisional rent of Rs. 36,400 per annum based on flat rate was quoted in October 1980. Due to delay of 6½ years in execution of work the Department lost potential revenue of Rs. 2.18 lakhs.
- (b) Further, against estimated cost of Rs. 0.98 lakh, expenditure of only Rs. 14,640 was booked at the close of 1980-81. However, as per information collected by the Division in August 1985, expenditure of Rs. 1.30 lakhs had been incurred by 1980-81. Revised estimate was got sanctioned in September 1985 only. Completion report of the work has also not been released.
- (c) The work which could not be done by Posts and Telegraphs and Military Engineering Services Department was completed by a private contractor in only 3 weeks. Though the Department was aware of the fact that

the cable laying work under the taxi track was of highly skilled nature, expeditious decision was not taken to get it completed through an appropriate agency, departmental or private.

#### 16. Short recovery of rental for 100 lines PABX (extendable) from Army Authorities

PABX facility has two distinct parts, the cable and other equipment (consisting of lines, wires, etc.). The initial guarantee period and the rental are different for both these parts. While for cable, the initial guarantee period is fixed and is 10 years, for the other equipment, it is not fixed and is arrived at by dividing the capital cost by rental. After expiry of the initial guarantee period, rental is charged on flat rate basis for both these components.

Against a firm demand placed by Army authorities in June 1969, a 100 line PABX was installed in March 1975. Based on the above formula, the rental for equipment became due for revision in March 1980 after the initial guarantee period of 5 years. The rental, however, was not revised and it continued to be charged at the old rate. Due to this non-revision, Rs. 2.04 lakhs became due from the Army authorities from March 1980 to March 1985.

While replying to the audit objections, the Department stated that though as per provision of the rules there was short realisation of rental, it was not logically correct to prescribe different periods of guarantee for various components of a single facility like PABX and that the question of amending the relevant rules was under consideration. However, neither the rules have been amended, nor the amount realised.

#### 17. Short recovery of rental and other charges

The Divisional Engineer, Telegraphs, Jodhpur received (February 1981) a demand from the Border Security Force (BSF) authorities for erection of a permanent line route between stations 'A' and 'B' (distance 17 kms.) and received advance rental for one year amounting to Rs. 48,246 in May 1981. Meanwhile, on receipt of revised demand in March 1981 for a permanent line route between stations 'A' and 'B' (distance 17 kms.) and stations 'B' and 'C' (distance 28 kms.) the DET quoted an annual rent of Rs. 1,26,630 with six years guarantee (acceptance of BSF authorities not on record). The work on permanent line route between stations 'A' and 'B' and a stretch (2 Kms.) between stations 'B' and 'C' (total distance 19 Kms.) was completed and handed over to the BSF authorities in April 1981. In

February 1982, the BSF authorities cancelled the demand for the alignment between stations 'B' and 'C' (distance 28 Kms.) which included 2 Kms. portion on which line had been constructed and even handed over.

It was noticed by Audit in June 1983 that annual rent continued to be charged at Rs. 48,246 quoted initially for the route between stations 'A' and 'B' instead of Rs. 74,181 on the basis of proportionate cost of 19 Kms. of alignment handed over in April 1981, resulting in short recovery of Rs. 0.78 lakh for the period from 25th April 1981 to 30th April 1984. Action has not been taken for recovery of compensation charges of Rs. 0.77 lakh for cancellation

of the firm demand and for interest charges of Rs. 0.13 lakh on unadjusted capital outlay. The total short recovery worked out to Rs. 1.68 lakhs. On being pointed out in Audit, the DET, Jodhpur, placed a demand (July 1983) and recovered (January 1984) Rs. 0.78 lakh on account of short recovery of rent.

Consequent upon the audit observations, the BSF asked (November 1983) the DET to erect the alignment between stations 'B' and 'C' cancelled by them in February 1982. The work was completed in May 1984 and final rent of Rs. 2.21 lakhs based on the revised capital cost for the entire route from station 'A' to station 'C' was being recovered from May 1984.

CHAPTER IV  
PROJECTS AND WORKS

**18. New Delhi-Ambala Coaxial Expansion Scheme**

In March 1978 Director General, Posts and Telegraphs (DGPT) sanctioned a project estimate for the expansion of New Delhi-Ambala Coaxial system from 4 MHz to 12 MHz and for provision of a spur route of 2.6 MHz system between Saharanpur and Dehra Dun (later changed to Muzaffarnagar-Dehra Dun) at a cost of Rs. 7.82 crores. The scheme was expected to be commissioned by the second half of 1979-80 and to earn a revenue of Rs. 10.08 crores per annum. The 12 MHz system over the main route from New Delhi to Ambala was commissioned in January 1983 while the 2.6 MHz system on the Muzaffarnagar-Dehra Dun spur route is yet to be commissioned (October 1985).

Two detailed estimates for installation of equipment and laying of cables were not sanctioned. The actual expenditure on the project upto the end of March 1985 amounted to Rs. 10.43 crores. Though the actual expenditure had exceeded the estimated cost by more than 10 per cent, the project estimate had not been revised (October 1985). The Department stated (December 1984) that sanctions for the above two detailed estimates were being expedited and that the revised project estimate was under preparation. However, there has been no further progress so far (October 1985).

The delay in commissioning of the scheme was due to the following reasons :

- (a) non-adherence of delivery schedule by the foreign suppliers in respect of 12 MHz equipment.
- (b) Piecemeal placement of orders for equipment on ITI and issue of various amendments to the purchase orders. The Department stated (October 1985) that orders were placed piecemeal on ITI as per the needs in the field.
- (c) Placement of piecemeal orders on Hindustan Cables Limited (HCL) for coaxial cable. The Department stated (October 1985) that orders for cables were placed on HCL as and when Power and Telecommunication Coordination Committee (PTCC) clearance was accorded and the order for cables placed

in November 1978 was for small lengths required for maintenance purpose and the above factors did not contribute to any delay. However, the fact remains that the cable order of November 1978 did include order for supply of cable for 3 sections of the route (*viz.*, Muzaffarnagar-Saharanpur, Saharanpur-Yamunanagar and Yamunanagar-Ambala).

The STD traffic handled in 1983-84 by the various routes after the commissioning of the system was very low (Table 18.1) when compared to the STD demands projected in the EFC Memo. The 12 MHz system had been installed only on one pair of coaxial tubes of the 4 core large coaxial cable laid between Hapur and Ambala since July 1981. Further, in the following routes, the traffic handled in 1983-84 was much less than what was projected in the EFC Memo.

TABLE 18.1

Route	Traffic fore- cast in the EFC Memo (In Erlongs)	Actual traffic handled in 1983-84 (In Erlongs)
1. New Delhi-Meerut	219.5	16.42
2. New Delhi-Muzzafarnagar	93.8	7.76
3. New Delhi-Dehra Dun	154.9	12.73
4. New Delhi-Ambala	353.8	41.96
5. Yamunanagar-Ambala	110.7	4.28

As against the anticipated annual revenue of Rs. 16.52 crores contemplated in the EFC Memo on completion of the project (anticipated in 1979-80), the revenue actually accrued on the traffic handled in 1983-84 was Rs. 3.13 crores. Further, even based on actual traffic of 1983-84, there was potential loss of revenue of Rs. 8.61 crores due to delay of 2½ years in the commissioning of the project (from end of 1979-80 to January 1983).

The Department stated (October 1985) that one section of the route (New Delhi-Hapur) was put to commercial use from July 1981 and started earning revenue for the Department. (The circuits in the concerned section which were common to 2 schemes

were reportedly planned and provided for in the other scheme which was executed simultaneously).

The Department further stated that "variations between forecasts and actuals are inherent on account of number of variables affecting the realisation of those projections like Switching capacity of the exchanges, performance of the equipment etc. The traffic during the year 1985-86 has built up substantially and is given below (Table 18.2) :—

TABLE 18.2

1. New Delhi-Meerut	39.30 Erlongs
2. New Delhi-Muzaffarnagar	22.20 ..
3. Ambala-Yamunanagar	26.36 ..
4. Ambala-New Delhi	176.19 ..
5. New Delhi-Dehra Dun	30.79 ..

However, this traffic in 1985-86 was also much less than the projections made in EFC Memo for traffic to be handled in 1980.

The following further points were noticed during the review of the project :

- (i) *Blockage of funds and non-completion of spur route on account of change from Analogue system to Digital system and digital equipment not yet ordered*

As per the project estimate, purchase orders were placed in December 1977 on the Indian Telephone Industries (ITI) for supply of Analogue line/MUX equipment for the spur route (Muzaffarnagar-Dehra Dun) which included (a) 30 underground repeater huts costing Rs. 0.30 lakh (b) 30 steel termination cabinets procured locally at a cost of Rs 0.26 lakh and (c) Multiplexing equipment costing Rs. 36.44 lakhs ordered from the ITI.

Having constructed the repeater huts suited for Analogue system and after placing orders for MUX equipment for this system it was decided to convert Muzaffarnagar-Dehra Dun spur route from Analogue to Digital system and ITI was requested in December 1981 to stop supply of MUX equipment for this route. ITI intimated in December 1982 that the MUX equipment for the above spur route had already been supplied prior to the receipt of Department's advice. The Department stated (October 1985) that some of the steel cabinets have been used in Delhi Telephones scheme and the remaining have been diverted to some other schemes and that the MUX equipments have been installed at some other stations.

Though the decision to convert the system into Digital one was taken in 1981, orders for the same are still being processed (October 1985). Consequently, the coaxial cable laid at a cost of Rs. 69 lakhs (March 1984) would remain idle till the Digital equipment is installed and the spur routes commissioned. The Department stated (December 1984) that the route was expected to be commissioned in 1985-86. But the order for Digital equipment has not been placed yet and the case was being processed in the Directorate (October 1985).

- (ii) *Non-recovery of liquidated damages etc. from foreign supplier*

A purchase order for the supply of 12 MHz line equipment was placed in March 1978 on a firm at a cost of 20,23,405 Swedish Kronas equivalent to Rs. 36.78 lakhs approximately. Supply was to commence by November 1978 and was to be completed by June 1979 equipments being despatched by sea on prepaid freight by the firm. On the request of the firm, the delivery period was extended upto 31st December 1979 reserving the right to claim liquidated damages for delayed supply beyond the original contracted date of 30th June 1979. Though supplies were completed by air-lifting the last consignment in February 1980, the Department addressed the supplier for recovery of liquidated damages amounting to Rs. 1.84 lakhs in September 1984 only. The Department stated (October 1985) that the recovery of warehouse charges and extra custom duty was being pursued with the Manager of the Warehouse and the Customs Department and as regards recovery of liquidated damages, the supplier had been intimated about the total amount of liquidated damages.

- (iii) *Procurement of indigenous equipment not required*

For supply of indigenous equipment, piecemeal orders and amendments to the orders were placed on ITI during December 1977 to August 1979 and in March 1980 directions were given to ITI for effecting the supplies after checking with the various amendments.

Orders were placed on ITI in May 1978 for supply of 70 number of repeater casings required for the line repeaters to be supplied by the foreign firm. 27 repeater casings costing Rs. 1.11 lakhs were received by October 1983. In February 1984, the Department realised that the line repeaters supplied by the foreign firm did not require these repeater casings. The Department stated (October 1985) that the repeater casings have been diverted to some other schemes.

*Summing up*

The following main points emerge :

- Two detailed estimates for (a) installation of equipment and (b) laying of cables were not sanctioned.
- Though actual expenditure of Rs. 10.43 crores incurred up to March 1985 exceeded the estimated cost by more than 10 per cent, revised project estimate has not been prepared and sanctioned.
- Main route was commissioned only in January 1983 and the spur route was yet to be commissioned (October 1985). Though the Department decided in 1981 to go in for Digital System instead of Analogue system on the spur route, orders for supply of Digital line equipments had not been placed till date (October 1985) and the coaxial cable laid (by March 1984) at a cost of Rs. 69 lakhs will remain idle till such time the Digital equipment is installed and the spur route is commissioned. The equipments for Analogue system obtained from ITI and locally at a cost of Rs. 36.70 lakhs had to be diverted to other places.
- Apart from potential loss of revenue of Rs. 8.61 crores due to delay in commissioning of the project (on the basis of traffic of 1983-84). STD traffic handled is very low compared to what was anticipated. The revenue actually accrued to traffic of 1983-84 was Rs. 3.13 crores against anticipated annual revenue of Rs. 16.52 crores on completion of the project (anticipated in 1979-80). The STD traffic in 1985-86 was much less than that anticipated for 1979-80.
- Liquidated damages amounting to Rs. 1.84 lakhs remain to be recovered from a foreign firm for which the Department took up the matter in September 1984 only.

## 19. Lucknow-Asansol-Calcutta Microwave Scheme

### 19.1. Introduction

19.1.1 A project for provision of microwave system from Lucknow to Calcutta *via*. Gorakhpur, Patna, Asansol with spur route from Patna to Katihar was sanctioned by the Director General, Posts and Telegraphs (DGPT) in September 1969 at a cost of Rs. 384.84 lakhs. Due to some changes in the

original plan, a revised project estimate was sanctioned in November 1973 at a cost of Rs. 1,030.96 lakhs. The revised project provided for a wide band 1800 channel microwave system from Lucknow to Calcutta *via*. Gorakhpur-Patna-Asansol-Kharagpur with three spur routes (a) a wide band 960 channel microwave system from Patna to Katihar (b) a wide band 960 channel microwave system from Allahabad to Patna *via*. Varanasi and Arrah and (c) a narrow band (7 GHz) microwave system from Lucknow to Rae Bareilly.

The project was expected to be completed within 60 months *i.e.* by November 1978. The scheme was considered to be remunerative, to earn a profit of Rs. 182.35 lakhs per annum which worked out to 17 per cent on the outlay.

19.1.2 While the main route from Lucknow to Calcutta was completed and commissioned during 1975-76 to 1976-77 in stages, the spur route from Patna to Katihar was completed in 1980-81, that from Lucknow to Rae Bareilly in October 1984. Though Varanasi-Allahabad section of the Patna-Varanasi-Allahabad route was commissioned in 1984-85, the Varanasi-Patna section is under testing by Acceptance testing party (October 1985).

19.1.3 The actual expenditure at the close of September 1984 was about Rs. 1,334 lakhs which works out to 29.3 per cent more than the estimated cost of the project. The Department stated (October 1985) that action to get revised sanction for the project has been initiated.

A review of the records of the project brought out the following points :

### 19.2. Causes of delay in execution of spur routes

#### (i) Patna-Varanasi-Allahabad spur route (not yet completed)

A study of causes of delay in the completion of the work targeted to be completed in 1977-78 and expected to bring an annual revenue of Rs. 55.72 lakhs after completion, brought out the following :

#### (a) Import of equipment due to delayed supplies by ITI

In December 1974, the Department placed orders on ITI for the supply of 6 GHz Radio equipment, Antenna, Wave guides etc. It was stipulated in the order that supply should be made during 1974-75. Antenna and wave-guides costing more than Rs. 18 lakhs and 80 per cent of multi-plexing equipment costing about Rs. 32.80 lakhs were received in September 1976 and August 1977, respectively. The equipment so received could not be installed till

(April 1984) due to non-supply of radio equipment by ITI.

As there was no reasonable prospect of receiving supplies of radio equipment from ITI, the Department decided in May 1982 to import the equipment under contingency plan. The radio equipment costing Rs. 62.56 lakhs was imported from Japan in August 1983, but this too had remained unutilised upto December 1984.

(b) *Inadequate assessment of requirement*

Though it was realised by the Department in 1979 itself that due to change in heights of towers and antenna heights in some stations, the length of wave-guide also required change, action in this regard was initiated only in August 1982 when a proposal was sent by Director of Microwave Projects, Patna to the P&T Directorate, reportedly based on revised survey done in 1978. Similarly, only in March 1984 it was observed that Base Band Translating bays for Arrah dropping station had not been ordered. DI 300 equipment required for Arrah station was sought to be procured only in September 1984.

(c) *Other reasons for delay in work*

Other reasons for delay have been the non-completion of buildings in which equipment had to be installed; non-replacement for certain equipments like dehydrators and pressure windows utilised in some other routes; and non-receipt of testing instruments for multiplexing equipments.

(ii) *Patna-Katihar route (expected completion in 1978; actual completion in 1980-81)*

(a) *Inadequate assessment of requirements*

The orders for supply of 6 GHz radio equipment and multiplexing equipment for this route were placed on ITI Bangalore in April 1970, but several amendments/supplementary orders were issued from time to time. In August 1973, orders were placed for spare panels, consumable spares etc. in February 1974 amendments were issued in respect of the orders issued in April 1970 and August 1973 revising the requirement of radio equipments and spare parts etc., in October 1975 supplementary orders were placed for supply of power plant for Patna-Katihar station which was not envisaged earlier and in June 1978 supplementary orders were placed for supply of dehydrators and wave guide terminations. This indicated that detailed requirements of equipment etc. were not worked out while framing the project estimate. The Department stated (October 1985) that since the system was under development, orders had to be modified according to updated version and

that the installation of the updated/improved version was decided upon in 1978 only. However, the fact remains that supplementary/modified orders were issued earlier also.

(b) In 1978, the Department decided to instal the improved version of the ITI 6 GHz equipment evaluated by it in Patna-Katihar route for field trial. The capacity of this system was 1800 channels as against 960 channels envisaged in the project estimate. The equipments were received in April 1979 but could not be installed till June 1979 for want of installation materials. It was realised in November 1979 (after installation of equipment) that there were certain problems in the system such as circuit breakers tripping frequently and also certain units and spares were required. The system was tested for acceptance in February 1980 and commissioned in 1980-81.

19.3. *Low traffic and revenue compared to capacity created*

The data of annual revenue *vis-a-vis* recurring expenditure for the entire portion of the project completed was not available. From the following data, however, it is observed that projections of the Department regarding traffic to be handled and the resultant revenue to be derived were unrealistic and on higher side leading to undue investments in capital assets.

(i) *Main route*

According to the projection/forecast normally made by the Department, the traffic handled should increase by 15 per cent annually. Thus traffic handled in this case in 1984 should have been 4 times the traffic handled in 1974. It was, however, noticed that STD traffic handled on all the routes in 1982, 1983 and 1984 was a small percentage of STD traffic expected to be handled in 1974 and in 4 out of 5 routes, the traffic handled in 1983-84 was even less than that expected to be handled in 1974 (Table 19.3(i)).

TABLE 19.3(1)

Route	STD traffic expected to be handled in 1974 (in Erlongs)	Actual traffic handled (in Erlongs)		
		1982	1983	1984
1. Kanpur-Varanasi	45	25.1 (55.7)	24.2 (53.7)	34.7 (77.1)
2. Kanpur-Patna	11	20.33 (184.8)	21.23 (194)	21.16 (192)
3. New Delhi-Patna	29	28.6 (98.6)	N.A. ..	21.07 (72.6)
4. Calcutta-Patna	50.25	31.07 (61.8)	22.53 (44.8)	25.15 (50.4)
5. Calcutta-Asansol	113	20.45 (18.1)	23.77 (21)	30.25 (26.8)

The manual trunk traffic handled by 2 of the above 5 routes in 1982 and 1983 was far less than the trunk traffic handled in 1969 as shown below (Table 19.3.2) :

TABLE 19.3.2

Route	Traffic in 1969	Traffic handled	
		in 1982 (No. of calls)	in 1983
Calcutta-Patna	822	559	606
New Delhi-Patna	436	359	448
Calcutta-Asansol	1882	361	556
Kanpur-Patna	135	155	130

The Department stated (October 1985) that though the revenue initially anticipated may not have been achieved, increase in traffic due to installation of STD was always expected and that the decrease in manual traffic was likely because of increase in STD traffic. This, however, is not borne out by facts mentioned above.

In the case of Patna-Asansol route the number of manual trunk calls in 1969 was stated to be 1154 per day. The traffic handled during 1982 and 1983 was however, 49 and 24 calls only. While the revenue anticipated in the project estimate for traffic to be handled in 1974 in respect of the above route was Rs. 51.93 lakhs per annum, the revenue that would accrue to the Department on traffic handled in 1982 and 1983 (highest in 1982 being reckoned for the purpose of revenue) was Rs. 34.77 lakhs per annum, in spite of heavy increase in tariffs.

#### (ii) Loss on Patna-Katihar spur route

The project estimate envisaged provision of 8 groups on this route (7 between Patna and Katihar and 1 between Patna and Shillong), the capacity of the radio system being 80 groups (960 channels). The capacity of the improved version of the equipment installed on this route was 1800 channels (150 groups). Thus, there was gross under utilisation of the radio equipment. The Department stated (October 1985) that due to congestion of Patna-Calcutta route, one Hyper group of 900 channel was being built up via Katihar between Patna and Calcutta and Monghyr-Bhagalpur-Katihar—300 channel system would be connected to the system for building up groups upto Patna.

The trunk call traffic expected to be handled by this route had not been indicated in the project estimate. Based on the traffic handled by this route in 1982, 1983 and 1984, the revenue that would accrue to the

Department was of the order of Rs. 42.89 lakhs per annum and the revenue attributable to this system was Rs. 21.45 lakhs (at 50 per cent). The annual recurring expenditure on the system is of the order of Rs. 40 lakhs. The Department has been incurring a loss of Rs. 18.55 lakhs per annum from the date of commissioning of this route in 1980-81.

#### (iii) Recurring loss on Lucknow-Rae Bareilly route

Based on the actual traffic handled by the system on this route during 1982, 1983 and 1984, the revenue that would accrue to the Department and attributable to this system was Rs. 7.78 lakhs per annum as against the annual recurring expenditure of Rs. 16.90 lakhs, thereby resulting in a loss of Rs. 9.12 lakhs per annum.

#### (iv) Patna-Varanasi-Allahabad route (not yet commissioned)

The project estimate envisaged provision of 6 GHz microwave equipment of 960 channels capacity on this route. It was, however, observed that the capacity of imported equipment installed was 1800 channels (i.e. 150 group) against proposed utilisation of 384 channels. This would result in major portion of the equipment remaining under-utilised on the commissioning of the route.

#### Summing up

- The project sanctioned in November 1973 was to be completed in 60 months. While the work on the main route from Lucknow to Calcutta was completed and commissioned during 1975-76 to 1976-77 in stages, the spur route from Patna to Katihar was completed in 1980-81 and that from Lucknow to Rae Bareilly in October 1984. Though Varanasi-Allahabad section of Patna-Varanasi-Allahabad route was commissioned in 1984-85, the Varanasi-Patna section was under testing by Acceptance testing party (October 1985).
- Against the estimated cost of Rs. 1030.96 lakhs, the actual expenditure at the close of September 1984 was about 1334 lakhs (29.3 per cent more than the estimated cost) necessitating revision of project estimate.
- Due to non-supply of radio equipment by ITI, Multiplexing equipment costing about Rs. 32.80 lakhs received in September 1976 and August 1977 could not be utilised till April 1984.



- Timely action to change the heights of towers and antenna in some stations and to order supply of Base Band Translating bays and DI 300 equipment for Arrah dropping station was not taken.
- There was delay in completion of buildings which resulted in delay in installation of equipment.
- Detailed requirements of equipment etc. were not worked out while framing the project estimate of Patna-Katihar route.
- Due to low handling of the traffic, the actual revenue earned by the main route was far less (Rs. 34.77 lakhs) per annum than the anticipated revenue (Rs. 51.93 lakhs) per annum inspite of heavy increase in tariffs.
- There was gross under-utilisation of Patna-Katihar spur route. The annual recurring expenditure on Patna-Katihar spur route and Lucknow-Rae Bareilly route was Rs. 56.90 lakhs whereas the annual revenue attributable to this system was Rs. 29.23 lakhs.
- Against the provision of 6 GHz microwave equipment of 960 channel capacity on Patna-Varanasi-Allahabad route (not yet commissioned) the equipment of 1800 channel capacity was installed though there was a proposal to utilise 384 channels.

## 20. Poona-Dhulia large tube coaxial cable scheme

### Introductory

In December 1974 the Posts and Telegraphs Department approved a scheme to link Dhulia with Poona (now Pune) via Aurangabad and Ahmednagar by a 4 MHz System and to provide a spur route from Ahmednagar to Srirampur (Belapur) with 2.6 MHz system superposed on it. The line equipment for the main route was to be released from Bombay-Ahmedabad route. The 2.6 MHz equipment together with the entire multiplexing equipment for both the main and spur routes was to be supplied by ITI.

The original project estimate was sanctioned for Rs. 455.16 lakhs in March 1975 and revised estimate was sanctioned in February 1981 for Rs. 748.32 lakhs and a further revised estimate for Rs. 959 lakhs has been submitted in April 1984 but it has not been sanctioned so far (October 1985). The expenditure booked

upto January 1985 was Rs. 858.76 lakhs. A break up of various estimates is given below (Table 20) :—

TABLE 20

#### (a) Capital Investment

Sl. No.	Particulars of items	As per original estimate of 1975	As per approved revised estimate of 1981	As per revised estimate of 1984 (to be approved)
(Rupees in lakhs)				
1.	Land	2.30	2.60	3.20
2.	Buildings	19.78	23.69	76.12
3.	Cables	294.17	553.79	624.49
4.	Apparatus and Plant	116.10	142.29	176.15
5.	General Administration	20.23	23.39	71.24
6.	Electrical installation	2.58	2.56	7.80
Total :		455.16	748.32	959.00

#### (b) Projection of working result

Sl. No.	Particulars	As per PE sanctioned in 1975	As per PE sanctioned in 1981	As per proposals for Revised PE submitted in 1984
(Rupees in lakhs)				
1.	Revenue	154.68	346.79	505.49
2.	Recurring Expenditure	61.80	95.17	119.76
3.	Net Profit	92.88	251.62	385.73

A review of the project brought out the following main points.

#### 20.1 Delay in commissioning of project

The 4 MHz system on the main route was commissioned in stages, Aurangabad-Dhulia section in August 1980; Pune-Ahmednagar section in August 1982 and Ahmednagar-Aurangabad section in August 1983. The spur route on 2.6 MHz Ahmednagar-Srirampur was commissioned in July 1983.

Slippage of over 5 years in the commissioning of the system was ascribed by the Department mainly to (a) hold up in cable laying work due to road diversion in some sections, (b) the equipment installed on the main route being the one recovered from Bombay-Ahmedabad route requiring overhauling considerably to remove the existing faults, and (c) spares of imported equipments not being available for replacing

the worn out parts. The Department was aware that the equipment was a recovered one and should have therefore, taken proper necessary action in time.

In the case of Ahmednagar-Srirampur section, it was observed that there was delay in acquisition of land at Srirampur for coaxial building and staff quarters necessitating installation of equipment in a rented building and there was delay in ordering 'proving in' of one section, Pune-Ahmednagar, as mentioned in Sub Paras (a) and (b) below.

Slippage of targets in the commissioning of the system resulted in a loss of potential revenue to the Department to the tune of Rs. 809.18 lakhs (at the rate of Rs. 346.79 lakhs per annum) during the period from April 1978 to July 1980, the date of commissioning the first section—Dhulia-Aurangabad.

(a) *Delay in acquiring of land and building at Srirampur*

The case for acquisition of about 4000 sq. ft. land for coaxial building and staff quarters at Srirampur adjacent to the land proposed to be acquired for the building for Post Office and Telephone Exchange was initiated by the Department in March 1975. Though advance possession of the plot for coaxial station was taken in December 1978, due to unauthorised hutments and temporary structures in the plot, vacant possession could be taken only in November 1980.

Survey plan of the site was prepared late due to unauthorised occupants in the plot not allowing the Junior Engineer to take measurements. However, even after the survey site plan was forwarded to Senior Architect (at Bombay) in May 1980, the preliminary drawings for the Telephone Exchange and coaxial station were forwarded by the latter only in January 1981 and approval for the same was given in September 1981.

Administrative approval and expenditure sanction for construction of coaxial building for Rs 7.26 lakhs (against provision of Rs. 2.61 lakhs in EFC Memo sanctioned in 1974) was issued only in May 1982; after which detailed drawings for the building were released by the Senior Architect in September 1983. The tenders for the work were called for in March 1984 and finalised in October 1984 for targeted completion by July 1985. The progress report (January 1985) of the work by the Executive Engineer showed the percentage of work completed as nil.

Meanwhile, anticipating delay in acquisition of land for construction of coaxial building, the project organisation took a building in 1979 on a rental of Rs. 700 per month from 1st November 1979 (total

rent upto March 1985 Rs. 0.46 lakh) and fresh cable about 0.8 Km. valuing Rs. 0.23 lakh has to be laid to connect the coaxial cable already laid to the new terminal building. After the completion of the departmental building, the coaxial equipments would have to be shifted and installed in the new premises, entailing extra expenditure. The Department stated (October 1985) that the building is expected to be completed by the middle of 1986 and Rs. 0.50 lakh was likely to be spent for shifting the equipments to the new premises.

(b) *Delay in proving in and commissioning of various sections*

As stated, the line equipments for the main route were to be released from Bombay-Ahmedabad route and the line equipment for the spur route Ahmednagar-Srirampur and the multiplexing equipments for the main and spur routes were to be supplied by ITI, Bangalore, on which an order was placed in March 1975. Order for testing equipment was not placed till July 1978 when omission in processing this item was noticed. The supplies from ITI commenced in March 1975 and 83 per cent equipment worth Rs. 83.90 lakhs was supplied by the end of 1977-78 and 95 per cent of equipment was received by 1983. The equipment recovered from Bombay-Ahmedabad route was released in stages commencing from October 1977 and by January 1979 all the equipment required for Pune-Dhulia route had been released. However, after installation and testing of the equipment there was delay in 'proving in' (which normally takes three months) and commissioning of various sections except Ahmednagar-Aurangabad, as shown below (Table 20.1) :—

TABLE 20.1

Name of the Section	Date of testing after installation	Date of commencement of proving in
<i>Main route</i>		
1. Dhulia-Aurangabad	July 1979	February 1980
2. Pune-Ahmednagar	August 1980	May 1982
3. Ahmednagar-Aurangabad	January/ March 1983	April 1983
<i>Spur route</i>		
Ahmednagar-Srirampur	June 1982	March 1983

The delay resulted in potential loss of revenue.

20.2 *Large shortfall in realisation of anticipated traffic/revenue*

20.2.1 According to the Project estimate sanctioned in March 1975, the number of groups planned to be

provided on commissioning in 1977-78 on the main route was 59 as against the optimum of 80 groups (960 channels) which could be provided on a 4 MHz system. However, only 43 groups had been commissioned by March 1985. The Department stated in October 1985 that 47 groups had been commissioned.

20.2.2 The data on manual and STD traffic expected to be handled in 1979 by the various routes on this system as given in the EFC Memo/Project estimate and the traffic actually handled in 1982, 1983 and 1984 is given in Appendix VI. It would be observed that in most of the cases, the traffic actually handled was only about 25 per cent of the traffic anticipated for 1979. As against the annual revenue of Rs. 446.33 lakhs expected from the anticipated manual and STD traffic which would flow on some of these routes, the revenue that actually accrued to the Department taking into account the highest traffic actually handled in the last 3 years (1982 to 1984) was Rs. 131.96 lakhs only at the latest tariff, resulting in a shortfall of revenue of Rs. 314.37 lakhs per annum. The cumulative effect of this shortfall of revenue from August 1983 (date of commissioning of the entire system) to March 1985 was Rs. 5.24 crores.

### 20.3 Other points of interest

#### 20.3.1 Procurement of Winding Transformers of wrong specification and commissioning of route without their use

The Power and Telecommunication Coordination Committee (PTCC) while giving the *ex-post facto* approval in August 1980 to Pune-Ahmednagar section of Pune-Dhulia cable route recommended that winding transformers should be installed on the route to neutralise power induction/power parallelism and the Telecommunication Research Centre of the Department also approved this recommendation. Orders for supply of 24 winding transformers of wrong specification were placed on the ITI in November 1980 for immediate supply of which 19 transformers (cost : Rs. 4,000) were supplied in March 1981. The mistake in specification was detected by the field staff in March 1981 and therefore, they could not be made use of nor could they be returned to the ITI. The P&T Directorate in April 1981 insisted that without installation of winding transformers the 'proving in' order for the section would not be given. The winding transformers have not been installed so far (October 1985) though the 'proving in' of the system was however, ordered to be taken up by DGPT in May 1982 and the system has been commissioned in August 1982 without winding transformers, which were considered essential for 'proving in'. The Department has stated (October 1985) that the transformers

are expected to be received from ITI and installed during the course of this year.

#### 20.3.2 Extra expenditure of Rs. 5.46 lakhs on screening of cables after laying

Of the total route length of 470 Kms, provision was made in the original project estimate for screening of cables (involving laying of additional copper wires along cables) for a route length of 140 Kms, only to cover Dhulia-Aurangabad section as it was very near 30-40 thunder density zone and cable laying work was completed accordingly. In March 1982, the Project organisation intimated the P&T Directorate that as ascertained by them from the Meteorological Department, Pune, the area between Pune and Ahmednagar was very much prone to lightning with the average number of thunder days as high as 40 per year and also that in the previous two/three monsoons there had been 6 to 7 lightning faults in that section and, therefore, screening of cables in that section was absolutely necessary. The approval of the P&T Directorate to the above proposal was communicated in April 1982. The work of screening the cables in Ahmednagar-Pune section (length 115 Kms) was commenced in October 1982 and completed in November 1984. The cost of screening the cables on this section was estimated as Rs. 11.90 lakhs which included an amount of Rs. 4.35 lakhs to be paid towards labour charges for redigging and reinstatement of the trenches. Besides this, the increase in the cost of copper wires laid for screening amounted to Rs. 1.11 lakhs. The Department stated (October 1985) that at the time of planning of the scheme it was not anticipated that Pune-Ahmednagar section was also prone to lightning strikes. The basis on which this anticipation was made for a portion of the route while screening was done on the other portion of the route could not be ascertained. The Department could have consulted the Meteorological Department to ascertain the actual position at the time of planning which would have resulted in saving of extra expenditure.

#### 20.3.3 Premature investment of Rs. 2.54 lakhs in construction of additional repeater huts on main route

The project estimate provided for construction of 43 repeater huts at a spacing of 9 Kms, on the main route. In September 1975 the Department decided to construct repeater huts at 4.5 Kms, spacing in order to provide for installation of 12 MHz equipment on the main route at a future date. Consequently 85 repeater huts were constructed instead of 43 as provided in the project estimate involving an extra expenditure of Rs. 2.54 lakhs. The present system of 4 MHz is highly under-utilised as only 47 groups have been commissioned so far as against 59 groups

planned to be used out of the ultimate capacity of the system of 80 groups. As such installation of 42 extra repeater huts for possible use on introduction of 12 MHz system in future is too premature.

The Department stated (October 1985) that it was decided in early seventies that all large coaxial cables which have no alternate route available should have repeaters at 4.5 Kms, initially itself so that conversion from 4 to 12 MHz does not cause heavy disruption and loss of revenue. But the fact remains that the present scheme sanctioned in March 1975 provided for repeater huts at 9 Kms. only.

#### 20.3.4 Extra expenditure of Rs. 0.23 lakh on cable termination boxes

28 boxes of Termination materials of 'Esbind' make supplied by Hindustan Cables Limited (HCL) during March 1976 and May 1976 against Directorate's order dated 16th January 1975 were found defective and were returned by the Department to HCL in December 1977 for replacement. HCL refused to supply free replacement on the plea that the Department had not mentioned about these defects earlier either to M/s. Esbind or to HCL and had sent them without any prior intimation. Ultimately, the Department placed an additional order for 28 boxes costing Rs. 0.23 lakh to replace the defective ones.

#### (iii) Payment of demurrage charges to Railways

The Department had to pay heavy demurrage charges to the tune of Rs. 1.50 lakhs to the Railways for not clearing in time the consignments of cable drums despatched by HCL. The payment of demurrage charges could have been avoided had the departmental officials taken timely action for getting the cable drums delivered in time. The Department stated (October 1985) that of the total demurrage charges of Rs. 1.50 lakhs paid to the Railways, the Railways had agreed to refund Rs. 0.45 lakh and rejected the claims amounting to Rs. 0.72 lakh and that claims for the balance of Rs. 0.35 lakh were pending with the Railways.

#### Summing up

- The Project for linking Dhulia with Pune via Ahmednagar and Aurangabad by a 4 MHz system (recovered from another route) working on 4/375 cable and to provide a spur route from Ahmednagar to Srirampur on small tube with 2.6 MHz system (to be supplied by the ITI) superposed on it was sanctioned in March 1975 for Rs. 4.55 crores, revised in February 1981 to Rs. 7.48 crores and further revised to Rs. 9.59 crores (yet to be sanctioned) in April 1984. The actual expenditure upto January 1985 was Rs. 8.59 crores, with 3

sections on main route commissioned in stages in August 1980, August 1982 and August 1983 and spur route commissioned in July 1983.

- Slippage of 5 years in the commissioning of the system due to various reasons resulted in potential loss of revenue of Rs. 8.09 crores (at Rs. 3.47 crores per annum) during April 1978 to July 1980.
- Against optimum of 80 groups which could be provided on a 4 MHz system and 59 groups planned to be provided, only 47 groups have been commissioned so far on the main route and Manual and STD traffic handled by various routes has in most cases been only about 25 per cent of the traffic anticipated for 1979, with the result that against expected annual revenue of Rs. 4.46 crores, the actual revenue to the Department taking into account the highest traffic density during 1982 to 1984 was Rs. 1.32 crores only at the latest tariff, cumulative shortfall during August 1983 (date of commissioning of the entire system) to March 1985 being Rs. 5.24 crores.
- 19 numbers of winding transformers (value Rs. 4,000) of incorrect specification ordered from ITI were received in March 1981 and could not be utilised on Pune-Ahmednagar section one which 'proving in' has been done without such transformers contrary to earlier decision of the Directorate. In the same section, extra expenditure of Rs. 5.46 lakhs was incurred for providing screening of cable laid without such screening initially.
- Against provision of 43 intermediate repeater huts provided in the original project estimate, additional 42 huts at a cost of Rs. 2.54 lakhs were constructed for use during installation of 12 MHz equipment on the main route at a future date. The existing system however, continued to be highly under-utilised, making the investment premature.

## 21. Review on working of Calcutta Telephones

### 21.1. Introductory

Calcutta Telephones system is the third largest telephone system in the country (after Bombay and Delhi) and is headed by a General Manager (GM) who controls the operations and maintenance and is also responsible for formulation, execution and monitoring of planned programmes.

### 21.2. Growth in demand and satisfaction

21.2.1 The Calcutta Telephones had an equipped capacity of 2.01 lakh lines as on 1st April 1980 and

the Department targeted a further addition of 0.41 lakh lines during 1980-85. However, it could instal only 0.32 lakh of lines during the above period as indicated below (Table 21.2.1), showing an overall shortfall of 22 per cent in achieving the targets.

TABLE 21.2.1

Year	Equipped Capacity targeted	Equipped Capacity installed
	(No. of lines)	
1980-81	2000	5050
1981-82	10000	1900
1982-83	16000	2500
1983-84	7000	9550
1984-85	6000	13100
	41000	32100

The Department stated (November 1985) that the production of cables and equipment as available in the

country had not been sufficient to meet the demand fully and steps were being taken to augment the production capacities in Public and joint sectors through imports to match the requirements.

### 21.3 Operating performance

21.3.1 The Department has prescribed certain norms like (i) utilisation of equipped capacity, (ii) percentage of effective calls, (iii) complaints/faults per 100 stations and average duration of faults, etc., to assess the performance. A review of the performances is detailed below :—

#### (i) Under-utilisation of equipped capacity

According to departmental instructions, exchange capacity should be utilised to the extent of 90 per cent soon after expansion/installation and in any case not later than 6 months of such expansion and to the extent of 94 per cent about 6 months before due date of commissioning of the next expansion. However, this was not achieved inspite of the waiting list, resulting in loss of potential revenue of Rs. 24.76 crores during 5 years ending March 1985 (Table 21.3.1) \*—

TABLE 21.3.1

Year	Equipped capacity	Connectable capacity	Working connections	Spare capacity (Waiting list)	Net spare capacity	Average revenue per line per annum	Potential loss of revenue due to non-utilisation of spare capacity
1	2	3	4	5	6	7	8
	(Lines in lakhs)					(Rs. in crores)	
As on 31-3-1981	2.06	1.91	1.74	16955 (22782)	16955	2217	3.76
As on 31-3-1982	2.08	1.94	1.80	13370 (26992)	13370	2563	3.43
As on 31-3-1983	2.11	1.97	1.84	12676 (17858)	12676	3159	4.00
As on 31-3-1984	2.20	2.04	1.85	18314 (29718)	18314	3250	5.95
As on 31-3-1985	2.33	2.17	1.96	21091 (29550)	21091	3612	7.62
						Total :	24.76

Under-utilisation of capacity was ascribed to insufficiency of external net work. The Department stated (November 1985) that loading could not be achieved within the stipulated time due to various constraints like timely availability of cables, other line stores and difficulty in obtaining road cutting permission from S/16 C&AG/85—6

Municipal Corporation besides normal restriction during monsoons. Also Metro Railway construction in Calcutta required repeated shifting of cables which called for resources diversion to a large extent, affecting programme of giving new lines. It was seen in audit that non-utilisation of the equipped capacity was

also due to belated execution of work orders for giving new connections. The norm fixed for giving new connections is 15 days while that for new PBXs and shifts is 25 days. Test check of 28 per cent on an average of the work orders issued (total work orders checked : 1426 out of 5044) during the period 1980-84, relating to exchanges revealed that only 46 work orders (3.3 per cent) were executed within one month. 889 work orders (62.3 per cent) were executed after a delay of one month to eleven months and 491 work orders (34.4 per cent) were executed after one year. The delay in execution of work orders was ascribed to non-availability of cable pairs. The Department stated (November 1985) that most of the cable jointers were engaged in the task of repairing damaged and stolen cables and few were available to make pairs available for new connections by opening cabinet/pillar joints and new distribution points on account of which there was delay in completing work orders.

The following Table (Table 21.3.2) shows that in Calcutta, percentage fulfilment of service demands

mostly relating to new connections (a) went down from 63.8 in 1980-81 to zero in 1982-83, 1.6 in 1983-84 and 2.2 in 1984-85 and (b) was the lowest among all metropolitan cities since 1981-82.

TABLE 21.3.2

Telephone District	Percentage satisfaction of service demand				
	1980-81	1981-82	1982-83	1983-84	1984-85
Group Target	90-60	90	71	71	72.1
Group Control	..	80	64	64	64.9
Calcutta	63.8	18.9	Nil	1.6	2.2
Bombay	19.3	23.1	32.6	28.3	23.1
Delhi	48.8	54.4	63.5	71.1	67.7
Madras	66.8	69.8	70.8	63.4	56.1

(ii) *Fault, Repair service and complaints*

(a) The permissible number of complaints/faults per 100 stations per month fixed for the years 1980-85 and actual performance were as under (Table 21.3.3) :—

TABLE 21.3.3

Year	Maximum permissible limit		Actuals		Excess over permissible limits	
	Complaints	Faults	Complaints	Faults	Complaints	Faults
1980-81	70	32	58.9 (150712)	23.7 (60643)	..	..
1981-82	30	20	44.6 (118372)	26.5 (71129)	14.6 (38750)	6.5 (17252)
1982-83	31.5	22	35.7 (96180)	25.9 (69778)	4.2 (11315)	3.9 (10507)
1983-84	31.5	22	42.6 (116497)	26.7 (73016)	11.1 (30855)	4.7 (12853)
1984-85	31.5	22	42.7 (121257)	22.6 (64178)	11.2 (31805)	0.6 (1704)
Average Complaints			(120604)		(28056)	
Average Faults				(67749)		(10579)

Note : Figures in brackets indicate the number of telephones.

The above data will indicate that on an average 1,20,604 telephones were having complaints per month and 67,749 remained faulty per month. Even after allowing the permissible limits of complaints/faults fixed by the Department, 28,056 telephones were having complaints in a month and 10,579 telephones remained faulty in a month.

(b) The following Table (Table 21.3.4) shows that the average duration of fault per month compared with the permissible limit of average duration was very high

in all the years 1980-85 and was the highest amongst all metropolitan districts.

TABLE 21.3.4

Telephone District	1980-81	1981-82	1982-83	1983-84	1984-85
Group Target	3 to 10	4	10.2	10.2	8.5
Group Control limit	NA	6	11.2	11.2	9.4
(Average duration of faults in hours).					
Calcutta	22.9	67.4	54.5	46.2	41.2
Bombay	16.2	14.9	20.8	28.8	28.9
Delhi	5.7	4.8	4.7	8.4	7.8
Madras	5.4	5.6	6.6	6.6	10.3

The average duration of faults was in excess of the prescribed limits of the Department ranging from 129 per cent to 338 per cent during 1980-81 to 1984-85.

(iii) *High percentage of ineffective calls*

(a) *Trunk calls*

The Department fixes a target every year for the percentage of effective trunk calls, after making allowances for the working conditions, including the existing constraints on the maintenance and operation of the system. Data in the following Table (21.3.5) for 5 years shows (a) non-achievement of the targets of effective calls by 2.8 per cent in 1981-82 to 11.3 per cent in 1984-85 and consequential loss of revenue totalling to Rs. 5.85 crores in 5 years only, (b) high incidence of ineffective calls due to departmental failure where incidence had risen from 30 per cent in 1981-82 to 37.09 per cent in 1983-84.

TABLE 21.3.5  
*Position of ineffective trunk calls*

	1980-81	1981-82	1982-83	1983-84	1984-85
	1	2	3	4	5
1. No. of calls booked (in lakhs)	34.29	33.62	35.34	29.39	26.48
2. (a) Effective calls (in lakhs)	19.43	20.91	20.66	16.05	14.23
(b) Percentage of effective calls (against target of 65)	56.7	62.2	58.5	54.6	53.7
(c) Percentage shortfall in effective calls	8.3	2.8	6.5	10.4	11.3
(d) Loss due to low percentage of effective calls (Rs. in lakhs)	125.89	38.97	96.09	187.09	136.86
3. (a) No. of ineffective calls (Item 1-2(9) (in lakhs)	14.86	12.71	14.68	13.34	12.25
(b) Percentage of ineffective calls	43.3	37.8	41.5	45.4	46.3
(c) No. of calls cancelled due to departmental failure (in lakhs)	12.72	10.13	11.55	10.90	7.38
(d) Percentage of calls cancelled due to departmental failure	37.0	30.0	32.6	37.09	27.9

(b) Targets prescribed for percentage failure of 'O' level (National trunk dialling code) STD calls varied from 90 in 1980-81 to 30 in 1981-82, 58 in 1982-83, and 40 in 1983-84 and 1984-85. Data in the following table (21.3.6) shows that the STD failure in Calcutta (a) was constantly high varying from 91.6 to 92.5 and (b) was the highest in metropolitan cities.

TABLE 21.3.6

*Percentage failure of STD calls per month on level 'O' (Sample)*

Telephone District	Sample average				
	1980-81	1981-82	1982-83	1983-84	1984-85
Permissible percentage	90	30	58	40	40
Calcutta	92.2	92.5	91.8	91.9	91.6
Bombay	77.8	68.9	73.9	71.2	75.5
Delhi	76.5	90.3	75.0	76.4	55.3
Madras	52.0	50.7	56.7	49.9	50.5

(c) *Inter exchange (Junction) and local calls*

The efficiency of local net work is indicated by failure of local calls. The following data of percentage failure of junction calls and local exchange calls per month for 5 years 1980-85 shows that performance of Calcutta Telephones in regard to both inter exchange calls and local exchange calls (a) was far above the control limit for metropolitan group and (b) was the worst amongst the metropolitan group.

(i) *Percentage failure of Inter Exchange calls (junction) per month (Sample)*

Telephone District	1980-81	1981-82	1982-83	1983-84	1984-85
Group Target	15	4.00	12.4	4.0	4.0
Group Control	(Not prescribed)	7.00	13.6	4.4	4.4
Calcutta	30.9	27.8	25.2	39.2	42.3
Bombay	7.0	7.0	8.1	7.4	7.7
Delhi	17.7	13.6	13.7	25.1	23.3
Madras	3.9	4.9	5.4	10.5	16.0

The percentage of failure of inter exchange calls was also the highest in Calcutta Telephones and was 861 per cent above the prescribed targets.

(ii) *Percentage failure of local exchange calls per month.*

Telephone District	1980-81	1981-82	1982-83	1983-84	1984-85
Group Target	5	2.0	1.7	1.7	1.3
Group Control	(Not prescribed)	3.5	1.9	1.9	1.3
Calcutta	9.8	9.2	8.6	14.6	12.5
Bombay	2.9	2.2	2.3	1.4	1.6
Delhi	1.8	1.8	1.6	2.1	1.7
Madras	0.6	0.7	0.6	1.1	1.6

GMT, Calcutta while accepting the poor performance of the exchanges and high percentage of failures attributed (December 1984) the same to the following reasons :—

- (a) Ageing strowger exchanges, unsatisfactory performance of Penta Conta cross bar exchanges and PC TAX;

- (b) Local inter junction outage was high because of constant digging by various developmental agencies;
- (c) The number of cabinets and pillars in the cable net work was much less as a result of which localisation of faults became time consuming;
- (d) Theft of cables, distribution point boxes; and
- (e) Poor performance of long distance media in the Eastern Region.

The Department further clarified (November 1985) that a scheme for duct construction had already been taken up to protect the cables against digging by other agencies and a large number of schemes viz. introduction of Digital systems, Microwave Link PCM system were under scrutiny which would enable better performance of junction circuits.

(iii) *Tardy progress in improving external net work programme*

While replying to the List of Points raised by the Public Accounts Committee (PAC) on Para 13 of Audit Report (P&T) for the year 1980-81, the Department stated that a special task force under the charge of an Additional General Manager was set up in March 1981 for upgrading the outdoor telephone network by executing various programmes like pressurisation of cables, laying cables in ducts, replacement of fault-prone cables etc., so that there would be fewer faults and optimum utilisation of exchange capacities. The above targets were stated to have been achieved by the Department by July 1985. However, the fact remains that the promise given to PAC, regarding provision of improved service to subscribers has not been kept up as the incidence of complaints/faults continued to be on the higher side, exceeding the prescribed limits for this purpose by the Department as brought out in Para 21.3.1(ii) above. The progress of these protective works as on 31st March 1985 vis-a-vis the targets is given below :—

Sl. No.	Type of work	Target	Progress as on 31-3-1985	Percentage
1.	Pressurisation of cables.	1405 Kms.	1124.30 Kms.	80
2.	Laying of cables in ducts	66.81 Kms.	50.315 Kms.	75.31
3.	Replacement of old cables	31.59 Kms.	22.141 Kms.	70.08
4.	Cabinets and pillars	779 Nos.	441.00 Nos.	56.81

The Department further stated that the slippage was mainly due to non-availability of adequate quanti-

ties of shells and CT boxes and that CT boxes had since been imported and the work was in progress. However, the Department was well aware of these facts while fixing the targets.

21.3.2 *Average revenue per DEL per month*

Average earnings per DEL per month (Local + STD + Trunk Revenue) were far below the targets fixed for Calcutta as shown below (Table 21.3.7) :—

TABLE 21.3.7

Year	Group target (per DEL)	Actual earnings (per DEL)	Short-fall per DEL per month	Average No. of DELs	Short-fall
	Rs.	Rs.	Rs.	(Rs. in crores)	
1981-82	280	196	84	1,77,150	17.86
1982-83	330	275	55	1,82,144	12.02
1983-84	290	271	19	1,86,180	4.24
1984-85	305	301	4	1,92,030	0.92
					35.04

Following Table showing comparison of actual revenue earned per DEL per month with other metropolitan telephone districts indicated that the actual earning per DEL in Calcutta was the lowest during the years 1980—85.

TABLE 21.3.8

Telephone District	1980-81	1981-82	1982-83	1983-84	1984-85
	(Revenue earned per DEL per month in rupees)				
Calcutta	186.8	196	275	271	301
Bombay	292.8	325	388	352	393
Delhi	310.3	313	355	365	391
Madras	348.8	445	404	480	471

This was apparently due to high rate of call failure on various accounts mentioned in para 21.3.1 above.

21.3.3 *High ratio of local operating expenses to local operating revenue*

The data in the following Table (21.3.9) for 5 years 1980—85 shows that the operating ratio—an indicator for overall economic operation of a unit—was the highest for Calcutta amongst the metropolitan group except during 1984-85 :—

TABLE 21.3.9

Telephone District	1980-81	1981-82	1982-83	1983-84	1984-85
Calcutta	53.7	61.9	40.6	39.8	35.7
Bombay	22.9	24.4	23.2	24.5	28.5
Delhi	21.7	22.7	22.7	23.8	23.5
Madras	33.9	21.6	28.1	36.4	41.8

The Department stated (November 1985) that the higher percentage of local operating expenses to local



operating revenue was due to sluggish economic growth in the whole of Eastern Region including Calcutta and also higher maintenance cost.

#### 21.3.4 High incidence of cancellation of bills due to spurt in meters

Departmental rules prescribe that complaints pertaining to excess local charges should be investigated, disputed bills should be checked and revised bills issued wherever necessary. It was noticed in Audit that the percentage of such cancelled amounts varied between 10.52 and 12.98 during the years 1981-84 as detailed below :—

Year	Amount of bills issued	Amount of bills cancelled	Percentage
	(Rs. in lakhs)		
1980-81	3777.36	449.73	11.91
1981-82	4382.51	569.90	12.98
1982-83	5568.30	586.06	10.52
1983-84	5871.12	720.43	12.27

A test check of cancelled bills by audit revealed that they were due to (i) spurt in the meters (ii) incorrect meter readings and (iii) wrong punching by data processing section.

Cancellation of bills arises on the basis of complaints regarding excess billing. Since complaints from the subscribers are not expected to originate for any under-charge, short charge in the bills due to low metering, wrong punching etc., is likely to remain undetected causing leakage of revenue.

The Department stated (November 1985) that as regards short charge, meters are tested for their correct functioning in every cycle period for which 10 calls are allowed free to the subscribers. As regards wrong punching, it was stated that to ensure correctness of billing, provision already exists for hundred per cent verification of all punched cards by separate set of verifiers.

The fact remains that inspite of the above safeguards the incidence of cancellation of bills is still high.

#### 21.4 Measures for expansion; upgradation and maintenance of the system

##### 21.4.1 Targets/works undertaken for expansion of Telephone lines

Based on the anticipated demand for new telephone connections, six major projects costing over Rs. one crore each were sanctioned at an estimated cost of Rs. 24.31 crores as per details below (Table 21.4.1). In addition 12 smaller projects costing less than Rs. one crore each were also sanctioned at an estimated cost of Rs. 6.77 crores.

A review of 5 major projects by audit showed that 4 of the five major projects (estimated cost : Rs. 14.56 crores for 18600 additional lines) were commissioned with delays ranging from 5 to 46 months and excess expenditure over estimated cost in 3 cases was Rs. 456.04 lakhs, the excess ranging from 32 per cent to 93 per cent as per details below :—

TABLE 21.4.1

Sl. No.	Name of the project	Year of sanction	Estimated cost (Rupees in lakhs)	Target date of commissioning	Actual date of commissioning	Delay in months	Actual Expenditure upto December 1984 (Rupees in lakhs)	Excess expenditure	Percentage of excess
1	2	3	4	5	6	7	8	9	10
1.	Avenue II (Code 31) Installation of 3600 lines.	May 1972	153.59	March 1977	January 1981	46	296.14	142.55	93
2.	Panihati (Code 58) Expansion by 2000 lines.	February 1977	167.70	March 1981	February 1981 (400 lines) March 1982 (1600 lines).	12	133.96	—	—
3.	Alipore (Code 49) Installation of 3000 lines.	April 1980	253.95	March 1982	October 1982 (2000 lines)	7	353.22	99.27	39
4.	Tiretta Bazar (Code 25) imported equipment.	August 1980	669.37	March 1983	April 1983	1	883.59	214.22	32
5.	Central III (Code 29) imported equipment 10000 lines	August 1980	880.93	October 1983	March 1984	5	762.88	—	—
			TOTAL	2125.54				456.04	

The delay in commissioning of the projects was ascribed by the Department to (a) non-receipt/diversion of equipment (b) shortage of installation staff (c) frequent load shedding and (d) unsatisfactory civil works.

#### 21.4.2 *Old Strowger exchanges*

Strowger exchanges represent the oldest system of telecommunication adopted in India. According to departmental standards, normal life of a telephone exchange is 25 years. Out of 27 strowger exchanges in Calcutta Telephones as many as 14 exchanges have completed life varying from 27 to 32 years. The Department stated (November 1985) that the implementation of the replacement programme is already under process. 4000 lines of '24' exchange had already been replaced by '29' exchange and equipment had already been received for replacement of 4 more exchanges which were expected to be completed during early part of 7th Plan.

#### 21.4.3 *Upgradation of Penta Conta Cross-bar exchanges*

As per Government decision taken in 1962 to adopt the Penta Conta cross-bar system manufactured by a foreign firm of Belgium, many Penta Conta cross-bar exchanges with indigenously manufactured equipment (by the ITI Bangalore) and imported equipment, were added to the net work. By the end of 1983-84 there were 15 Penta Conta type exchanges. As the performance of these cross-bar exchanges was found to be extremely poor and fault rates were very high, and as even the collaborators could not solve these problems, the Department set up a task force to identify the problems and suggest solutions. The task force detected many defects and suggested upgradation and modification of circuits which were progressively incorporated in the ITI production schedule during 1972-73 to 1974-75. A crash upgradation programme was started in the light of decision taken in a meeting held in September 1975 and the Department again issued instructions in July 1976 that all exchanges commissioned after 31st March 1976 should be upgraded before their commissioning. In Calcutta Telephones, 14 ITI supplied cross-bar exchanges were commissioned during December 1971 to January 1981. The upgradation of old exchanges was completed by December 1978. A test check in audit revealed that the call failures continued to be high even after upgradation.

#### 21.4.4 *Slow progress in installation of PCM and inadequate results*

In order to minimise junction faults and improve the quality of service in inter-exchange calls, it was

decided after conducting a study that physical cables would be used extensively in case of route distance being less than 10 Kms., and cable based PCM system and microwave PCM system in cases where the route distance was about 10 Kms. or more. According to annual targets fixed during 5 years from 1979-80 to 1983-84, PCM cables and microwave PCM were to be laid on 168 systems and 121 systems respectively. However, only 74 cables based PCM system were installed till March 1984. The shortfall was attributed to non-supply of equipment and defects in equipment supplied by ITI.

A review of faults in junction cables (overall) in eight routes before and after introduction of PCM system, however, revealed that the percentage PCM faults ranging between 13 to 53 were not less than the overall junction faults which ranged between 5 and 46 per cent. The Department stated that the shortfall in meeting the targets was due to non-receipt of equipment from indigenous/foreign sources.

#### 21.4.6 *Defective construction of cable ducts*

To improve the performance of cable network, the Department decided that junction cables and primary cables be laid in ducts. For this purpose, 25 schemes of cable ducting covering route length of 66.81 Kms. were approved in 1976. The estimated cost of 24 schemes out of 25 schemes was Rs. 615.89 lakhs. The estimated cost of one project was not available. As on 31st March 1985, 18 schemes covering a total of 45.29 Kms. were completed (involving expenditure of Rs. 484.61 lakhs excluding the cost of pipe for one scheme which was not available against the estimated cost of Rs. 425.16 lakhs) and 4 schemes covering 9.54 Kms. were in progress (March 1985). The work on the remaining 3 schemes is yet to be taken up. The Department accepted that the ducts constructed were defective in many cases and water was flowing inside the chambers causing blockage of ducts, rendering the existing cable liable to be damaged and laying new ones impossible. Apart from the very purpose of constructing cable ducts having been defeated, defective construction would lead to blockage of ducts necessitating considerable expenditure on maintenance. The Department stated that seepage of water was not uncommon even in foreign countries and water in ducts did not affect the cables in any way.

In course of Acceptance testing of cables for the completed schemes, it was noticed by the Department that water was dropping from almost all the pipes. This was attributed by the Department to the pipes having not been laid with due pressure and proper method of joining. Rectificatory action was required

to be taken to set right these lapses. The Department's reply is silent on the measures taken to rectify the above lapses.

#### 21.5 Other topics of interest—Inadequate control over utilisation of blank trunk call tickets

Departmental rules provide that the officer-in-charge of the exchange should verify that all the blank trunk call books mentioned in the invoice are received, checked regarding the continuity of serial Nos. in each book and then fill in the certificate portion on both copies of the invoice and return one copy of it to the Divisional Officer. It was, however, noticed that in Calcutta Telephones this check was exercised only when the blank tickets were handed over to switch room daily. A list of missing tickets was prepared in respect of the tickets not found in the pads/bundles handed over. This count did not indicate the particulars of tickets received from the general section on a particular date to which the missing tickets thus detected actually relate, leaving the blank trunk call tickets remaining unreconciled. This defeated the very purpose of monitoring the blank tickets. Further, the risk of any missing bundle/bundles as a whole remaining undetected and consequential chances of fraudulent use of trunk call tickets could not be ruled out. A test check by audit revealed that the trunk tickets reported as missing during the period April 1983 to February 1984 were 11698 at the time of initial handing over, but the number of missing used-up-Trunk-tickets reported by the trunk exchange at the time of valuation was 1162 during the same period. No action to reconcile the missing trunk tickets from exchange was taken for this period and for other periods. The Department stated (November 1985) that steps had been taken since July 1985 to maintain separate stock registers and necessary checks were being applied before the blank tickets are sent to switch room which would reduce/eliminate the scope of non-reconciliation.

#### Summing up

- The Department planned for increasing the equipped capacity of Calcutta Telephones by 41000 lines during 1980—85, but could achieve only 32100 lines increase by the end of 1984-85.
- Even out of the installed capacity there was a shortfall in providing new connections to subscribers as per departmental standards resulting in potential loss of Rs. 24.76 crores during the 5 years ending March 1985.
- The performance of the Calcutta Telephones was found to be the lowest in giving new connections among the metropolitan cities.

The percentage of fulfilment of service demands dwindled from 63.8 per cent to nil in 1982-83 and to 2.2 per cent in 1984-85.

- The operating efficiency of Calcutta Telephones was much below the target and the lowest amongst the metropolitan cities. On an average 1.21 lakhs telephones were having complaints per month and 0.68 lakh telephones were found faulty per month. The average duration of faults was in excess of prescribed limits ranging from 129 per cent to 338 per cent during 1980-81 to 1984-85.
- Department lost revenue of Rs. 5.85 crores due to ineffective trunk calls during the five years ending 1985.
- The percentage of failure on STD calls per month in the National trunk dialling service ('O' level) was the highest in Calcutta amongst metropolitan cities and the percentage of failure during 1984-85 was 91.6 against 40 prescribed by the Department.
- The percentage of failure of inter-exchange calls was also the highest in Calcutta Telephones and was 861 per cent above the prescribed targets.
- The average earnings per DEL was less than the targets fixed and continued to be the lowest amongst metropolitan telephone districts during the last 4 years resulting in shortfall of revenue of Rs. 35.04 crores.
- The ratio of local operating expenses to local operating revenue was the highest for Calcutta amongst metropolitan group, due to higher maintenance cost.
- Slippages ranged from 5 to 46 months in the execution of 4 projects out of 5 projects reviewed by Audit, while the percentage of excess over the sanctioned cost varied between 32 and 93 per cent.
- Percentage of call failures continued to be high even after upgradation of Penta Conta cross-bar exchanges.
- Out of 27 strowger exchanges of Calcutta Telephones 14 exchanges have outlived their lives.

#### 22. Under utilisation of Delhi Trunk Tandem Exchange

With a view to cope with the traffic forecast for 1975, the Director General, Posts and Telegraphs

(DGPT) sanctioned (May 1973) a Project to instal a 3,000 lines trunk tandem exchange comprising 1,800 lines outgoing and 1,200 incoming trunk lines at an estimated cost of Rs. 101.69 lakhs. The Project was expected to be commissioned during 1976-77. The 1,200 lines incoming trunk tandem was commissioned in February 1979. The 1,800 outgoing trunk tandem was commissioned in different phases and the exchange was fully commissioned in April 1982 but even after a lapse of three and half years 620 outgoing lines only have been utilised upto October 1985.

The Department stated in August 1985 that the outgoing trunk tandem exchange was expanded from 1,800 lines to 3,000 lines in June 1984 and that there was acute shortage of multiplexing equipment in the country and action to import some quantities of multiplexing equipment had been taken. The Delhi Trunk Tandem was expected to be utilised to a greater extent when adequate quantity of multiplexing equipment was available from indigenous sources. However, a review by audit in October 1985 brought out that initially in the year 1974, a project estimate was sanctioned for expanding the above exchange by 3,000 lines (1,800 incoming and 1,200 outgoing) at a cost of Rs. 96.22 lakhs. A further review conducted by the Department in October 1977 indicated that the expansion could not be accommodated in the existing building for want of space and the expansion was reduced to 470 lines incoming and 1,200 lines outgoing trunk tandem. The work was to be completed in a year's time after the receipt of stores. The departmental records showed that the supply of equipment was completed on 2nd November 1979 for the incoming trunk tandem exchange and on 4th October 1980, for the outgoing trunk tandem exchange. Accordingly, the work relating to incoming trunk tandem exchange should have been completed in November 1980 and the outgoing trunk tandem exchange in October 1981. However, the installation work relating to incoming trunk tandem was completed and the exchange commissioned in March 1981 and the outgoing trunk tandem was commissioned on 30th June 1984 (cost : Rs. 1.59 crores). The delay was due to the slow progress of installation work and delayed supply of equipment by ITI. Since only 620 lines of the initial capacity of 1,800 lines of the outgoing trunk tandem exchange were utilised upto October 1985, further expansion by 1,200 lines commissioned in June 1984 (proportionate cost : Rs. 1.14 crores) lacks justification.

At the time of sanctioning the first estimate of 3,000 lines trunk tandem exchange in May 1973 it was anticipated that the total revenue from the traffic

to be handled would be Rs. 52.30 lakhs per annum. Due to delay in installation and under utilisation of the exchange, the Department suffered potential loss of revenue of Rs. 282.03 lakhs from March 1979 to October 1985 and it would continue to lose the revenue at the rate of Rs. 21.75 lakhs per annum (calculated at the rates adopted in the Project estimate) till the remaining junctions are utilised in respect of the outgoing trunk tandem exchange. Further, the capital investment of Rs. 1.14 crores for commissioning the expansion of 1,200 lines in June 1984 will remain blocked till the outgoing trunk tandem exchange is usefully utilised.

### 23. Installation of Trunk Automatic Exchange at Nagpur

#### (i) Under-utilisation of capacity installed

To integrate Nagpur with National Auto Trunk net work, a project for installation of 2000 lines Trunk Automatic Exchange (TAX) at Nagpur was sanctioned by the Director General, Posts and Telegraphs (DGPT) in December 1973 at an estimated cost of Rs. 151.67 lakhs. The project was expected to be commissioned during 1976-77 and accordingly the supply of equipment was included in the manufacturing programme of ITI for 1973-74. However, due to limited manufacturing capacity of ITI it was decided in December 1975 to allot the equipment in two phases of 1000 lines each. According to the revised programme, first phase of the TAX was expected to be commissioned during 1978-79 and the second phase in 1979-80 but subsequently changed to 1979-80 and 1980-81 respectively. The first phase was commissioned in June 1980 and the second phase in January 1983. The actual expenditure incurred was Rs. 280.71 lakhs (December 1984) against the estimated cost of Rs. 151.67 lakhs. The excess expenditure was mainly under 'Apparatus and Plants' under which actual expenditure was Rs. 244.77 lakhs against the estimated provision of Rs. 93.36 lakhs.

While the work of installation of first phase of 1000 lines was in progress, another project estimate for further expansion from 2000 to 3000 lines was sanctioned in November 1979 by the DGPT at an estimated cost of Rs. 84.73 lakhs. The supply of the equipment was included in the manufacturing programme of ITI during 1979-80 and the expansion was expected to be commissioned by September 1983 but the same has not been commissioned so far. The expenditure incurred on expansion was Rs. 143.53 lakhs upto July 1985.

Out of 24 routes to be connected to Nagpur TAX, only 14 routes were connected by the end of

December 1984, besides two more routes (Aurangabad and Saugar) which were not originally contemplated; and of these 16 routes, 9 routes were commissioned after periods of delay ranging from 4 to 44 months.

Out of 1000 lines commissioned in June 1980, only 461 lines were utilised by 31st March 1982 and after commissioning of another 1000 lines in January 1983 (total commissioned: 2000 lines), only 1133 lines (56.7 per cent) were utilised by 31st December 1984. Non-utilisation of 867 lines (43.3 per cent) commissioned, has resulted in blockage of substantial capital invested in initial project, besides investment in expansion project.

Under-utilisation of installed capacity was mainly due to delayed/non-commissioning of routes and traffic not developing as anticipated on commissioning routes as mentioned below :

The delay in commissioning was ascribed to belated allocation of circuits, faulty junction and group selection failures, degradation of equipment, test result being not satisfactory, incomplete local wiring etc. Non-commissioning of routes was due to non-availability of transmission media, want of equipment and delinking of routes, etc.

(ii) *Substandard performance of Nagpur TAX*

A review of STD calls recorded in total call meters and total effective call meters of two local exchanges in Nagpur showed that during November 1983 to December 1984, the percentage of effective calls ranged from 6.67 to 12.8 except in the months of May and June 1984 when it was 21.28 and 26.06 respectively. The actual percentage was much below the prescribed standard of 66 per cent.

The Department stated (October 1985) that low percentage of call completion rate was *inter alia*, due to false traffic which was again due to route failures, failure of calls in builtup routes, non-availability of called number, and called numbers being faulty, etc.

**24. Installation and utilisation of Trunk Automatic Exchange at Jammu**

A project estimate for installation of 800 lines Trunk Automatic Exchange (TAX) at Jammu at an estimated cost of Rs. 35.32 lakhs was sanctioned by the Director General, Posts and Telegraphs (DGPT) in March 1972. The equipments were included in the manufacturing programme of Indian Telephone Industries (ITI) for the year 1971-72 and the supply position was considered favourable in October 1973 for taking up initial installation work. The exchange

was scheduled to be commissioned by December 1975 and was expected to earn a net profit of Rs. 4.89 lakhs per annum. Subsequently, in May 1976, the DGPT changed the date of commissioning as September 1976.

In July 1974, in a high level meeting, the Department decided about the quantum of modification to be done to the cross-bar TAXs manufactured by ITI, which were in various stages of installation. For the purpose of modification, the TAXs under installation were divided into three groups. In respect of TAXs falling in group I, 50 per cent of the equipment was to be commissioned without modification and in respect of TAXs falling in group II and III the entire equipment was to be modified before commissioning. Jammu TAX was initially put in group II but was brought under group I in October 1974.

Since 50 per cent capacity of TAXs in hand similar to Jammu TAX was lying unutilised due to upgradation, the DGPT stressed the need for expediting the upgrading work in January 1979. The target date for commissioning of 800 lines Jammu TAX in full was refixed as March 1980, but upgradation (of 50 per cent required) was completed in October 1980. The TAX was fully commissioned in March 1982 by which time some further upgradation was done. Since March 1982, no further upgradation work has been taken up (November 1985). This was stated to be due to shortage of staff. The expenditure incurred on the project upto March 1985 was Rs. 80.66 lakhs. The revised project estimate of Rs. 86.44 lakhs has not been sanctioned so far (November 1985).

A review of the project brought out the following further points :—

- (a) The TAX was commissioned in stages starting with 30 circuits in February 1978. Out of the capacity of 800 lines fully commissioned in March 1982, only 282 lines (35.25 per cent) were utilised by the end of April 1983, 309 lines (38.6 per cent) by April 1984 and 340 lines (42.5 per cent) by the end of October 1985. Non-utilisation of 460 lines (57.5 per cent) has resulted in blockade of substantial capital investment since March 1982.

The Department stated (November 1985) that under utilisation of TAX was mainly due to non-availability of transmission links and traffic growth not materializing as anticipated.

- (b) Operational efficiency of Jammu TAX for the month of April during 4 years has been as under :—

TABLE 24

Year	Total STD calls as per traffic meters (day reading in busy hours)	Total calls as per effective call meters	Percentage of efficiency	Norms prescribed for the year
April 1982	17630	6431	36.5	42
April 1983	17916	7641	42.5	60
April 1984	18262	9420	51.6	60
April 1985	20726	17440	84.1	60

The increase in efficiency in 1985 is stated to be due to conducting of special man to man testing on two hourly basis (as against once a day prescribed) to make the transmission media and connecting equipment at distant stations stable. The Department of Telecommunications stated (November 1985) that utilisation of inter-TAX junctions is expected to improve when new trunk automatic exchanges are commissioned in the 7th Five Year Plan.

#### 25. Installation and expansion of Trunk Automatic Exchange at Aurangabad

##### (i) Under-utilisation of capacity installed

A project estimate for installation of 800 lines Trunk Automatic Exchange (TAX) at Aurangabad at an estimated cost of Rs. 103.79 lakhs was sanctioned by the Director General, Posts and Telegraphs (DGPT) in January 1979. The exchange was scheduled to be commissioned during 1981-82 and was expected to earn a net profit of Rs. 54.64 lakhs per annum. The equipments were included in the supply programme of Indian Telephone Industries (ITI) for 1978-79. The equipments were supplied between March 1979 and March 1983. The TAX was commissioned partially (for 300 lines) in March 1983 and fully in March 1984. Expenditure incurred upto May 1985 on the project was Rs. 155.69 lakhs including Rs. 142.60 lakhs being the cost of apparatus and plant.

While 800 lines Aurangabad TAX was under installation, the DGPT sanctioned its expansion to 1500 lines in February 1981 at an estimated cost of Rs. 72.28 lakhs with the target set for the 3rd quarter of 1983-84. The work was in progress (October 1985) and is expected to be completed before the end of 1985-86. Expenditure on the expansion project by the end of August 1984 amounted to Rs. 72.80 lakhs.

Out of the capacity of 800 lines fully commissioned in March 1984, only 401 lines (50 per cent) were utilised by the end of September 1985. Expansion to 1500 lines and expenditure incurred thereon (Rs. 72.80 lakhs upto August 1984) reflected unrealistic assessment of future demands.

Based on the highest busy hour traffic during March 1983 to August 1984, revenue allocable to Aurangabad TAX—first phase of 800 lines, worked out to Rs. 25 lakhs per annum while annual revenue expenditure computed in the prescribed manner amounted to Rs. 29.06 lakhs; excess of expenditure over revenue being Rs. 4.06 lakhs per annum as against anticipated surplus of Rs. 54.64 lakhs per annum.

Under-utilisation of TAX was due to (a) non-availability of media (b) non-automatisation of exchanges to be connected to Aurangabad TAX (c) non-acceptance of completion tests (d) slow growth of traffic in commissioned routes and (e) low efficiency of TAX, mentioned below.

##### (ii) Sub-standard performance of lines utilised

(a) A review of the STD calls recorded in total call meters and effective call meters of two local exchanges at Aurangabad and Chikalhana connected to Aurangabad TAX after its partial commissioning in March 1983, showed that during April 1983 to August 1984 the percentage of effective calls ranged between 3.7 and 20.6 for Aurangabad exchange and 2.1 and 20.2 for Chikalhana exchange, against the prescribed standard of 60 per cent.

(b) Data in the following Table for the period March 1983 to August 1984 in respect of traffic handled by Inter Tax routes shows that apart from excess provision of circuits, the circuits commissioned were not utilised fully as per departmental standards of traffic matrix.

TABLE 25

Route	No. of circuits provided from Aurangabad TAX	No. of circuits required for handling the actual maximum traffic as per standards	No. of circuits allotted and commissioned	Excess circuits provided
	1	2	3	4
Aurangabad-Bombay	170	85	74	Nil.
Aurangabad-Nagpur	50	20	50	30
Aurangabad-Indore	24	15	20	5

The Department stated (October 1985) that the under-utilisation of the commissioned circuits was due

to non-automatisation of Dhule exchange in Maharashtra circle and non-availability of media between Jalna-Aurangabad and Nanded-Aurangabad.

## 26. Installation of Auto exchange of Tirunelveli

Installation of 2100 lines single MAX I (Strowger) Auto exchange at Tirunelveli at an additional cost of Rs. 51.51 lakhs, to replace the existing CBM exchange, was initially approved by the DGPT in December 1970 with completion of installation work expected in 1976.

The project sanction for the building component (cost : Rs. 34.43 lakhs) was issued in July 1976 only by the DGPT in advance of the sanction of main project. The final sanction for the main project (3000 lines) at a cost of Rs. 75.24 lakhs (including the existing assets of Rs. 143.08 lakhs) was conveyed in September 1977. The scheme on completion was expected to yield a net profit of Rs. 7.74 lakhs and was entrusted to Genreal Managr Projects, South (Madras) for execution within 2 years after receipt of full stores.

The building work was completed in August 1979 but the supply of equipment, included in 1974-75 programme of Indian Telephone Industries (ITI), was shifted to 1979-80 and further carried over to 1980-81. The auto exchange with 2700 lines was commissioned in March 1983. The remaining 300 lines were commissioned in October 1983. Thus the exchange was commissioned after a delay of four years after the completion of the building, though usually 18 to 24 months are sufficient in such cases.

The total expenditure incurred upto March 1984 was Rs. 215 lakhs as against the sanctioned cost of Rs. 109.67 lakhs, the expenditure being 196 per cent of the sanctioned cost. The revised estimate has not yet been prepared and sanctioned (November 1985).

The annual recurring expenditure on the system (based on the capital expenditure upto March 1984) would come to Rs. 54.30 lakhs whereas the actual revenue for 1983-84 was Rs. 59.27 lakhs, of which Rs. 7.26 lakhs was realised on account of revised tariff. The system is thus yielding a low return of 2 per cent (as against 7 per cent envisaged) on the capital cost even after taking into account the enhanced tariffs.

The following further points were noticed during a scrutiny of the project :

### (i) Additional works of Rs. 40 lakhs not provided for in project estimate

A number of additional works costing Rs. 40 lakhs (36.47 per cent of the sanctioned estimate) not contemplated in the EFC Memo or in the project estimate were carried out for commissioning of the system. All these works were sanctioned either at divisional or circle level. The GMT, Tamil Nadu Circle, stated (April 1985) that the expenditure on these items of work would be included in the revised project estimate under preparation.

A review of the expenditure brought out the following points :—

The additional expenditure includes an amount of Rs. 27.25 lakhs as cost of transferring the working connections of Palaymkottai exchange to Tirunelveli Auto Exchange for which a separate project estimate for laying cable at an estimated cost of Rs. 33.26 lakhs was sanctioned by GM, Telecom, Madras, in September 1982 outside the main project estimate on the plea that the provision made in the main project estimate could not accommodate sanctioning of this component under the head cable. With the execution of this work, the length of total cable laid in Tirunelveli system increased to 35,660 cable Kms. (CKM) at the time of commissioning of the Auto exchange (March/October 1983), with the result that actual average CKM per line would be 13 as against the departmental standard of 8 CKM per line for single exchange area.

### (ii) Undue investment (Rs. 10.74 lakhs) in Tuticorin-Tirunelveli point to point STD

In November 1976, the DGPT approved a project specification for introduction of point to point STD on Tuticorin-Tirunelveli route at it was expected that Tirunelveli would be converted into auto Exchange before commissioning of Madurai TAX. However, as the Madurai TAX was commissioned in November 1980, the Tirunelveli exchange on commissioning (March—October 1983) was connected to Madurai TAX providing STD service to all stations including Tuticorin via Madurai on National Trunk Route. However, equipment valuing Rs. 10.74 lakhs had been received from the ITI by March 1979 for use on the earlier contemplated direct STD route between Tirunelveli and Tuticorin. In order to utilise the equipment which was lying idle from March 1979, the Department introduced direct STD route also between Tirunelveli and Tuticorin in March 1984, one year after Tirunelveli exchange was converted into Auto. The investment in direct STD route lacked justification.

(iii) *Idle STD circuits due to delay in automation of Tirunelveli exchange*

As per project estimate of Madurai TAX, annual STD revenue from Tirunelveli centre was estimated at Rs. 8.60 lakhs. Because of the delay in conversion of Manual into Auto (which materialised only in March 1983), the Department could not make use of all the available coaxial cable circuits from Madurai TAX, resulting in potential loss of revenue amounting to Rs. 20.05 lakhs for the period from November 1980 (date of commissioning of Madurai TAX) to March 1983.

(iv) *Connections beyond the local area*

The Manual exchanges at Tirunelveli and Palayamkottai, situated at a distance of 4 Kms. from each other, had separate local areas. On commissioning of Auto exchange at Tirunelveli with effect from March 1983, all the working connections of Palayamkottai exchange were transferred to Tirunelveli Auto exchange and the latter exchange was closed.

Departmental instructions (February 1974) define local area of a single exchange telephone system as comprising of all localities within a radial distance of 5 Kms. from the exchange. If the town has a Municipality/Corporation with well defined limits, the areas served by the municipality/Corporation beyond 5 Kms. would also be included in the local area.

Thus, all connections provided beyond 5 Kms. of radial distance from Tirunelveli exchange and falling outside the municipal limits of Tirunelveli were to be treated as long distance connections and charged accordingly from the date of commissioning of the exchange. However, no action was taken to revise the rentals in respect of 186 connections (transferred from Palayamkottai exchange to Tirunelveli), that fell outside the 5 Kms. radius. Due to non-revision of rentals in respect of these connections, the Department has been losing revenue of Rs. 1.67 lakhs per annum since March 1983.

The Department stated (October 1985) that GMT Madras had been asked to check up whether all the connections mentioned above fall within the municipal limits of Tirunelveli and to take action to recover additional rentals, if any, in respect of those connections which fall outside the municipal limits of Tirunelveli.

In the present case, Palayamkottai and Tirunelveli were two different Municipalities with separate telephone exchanges. But the exchange at Palayamkottai was closed on commissioning of Auto Telephone exchange at Tirunelveli and the telephone connections

(situated beyond radial distance of 5 Kms. of Tirunelveli exchange) of Palayamkottai exchange transferred to Tirunelveli exchange continued to be charged as falling within the local area of Tirunelveli exchange in contravention of the departmental instructions. The General Manager, Telephones, Madras has now requested the Directorate (September 1985) for re-defining the local area of Tirunelveli telephone system.

**27. Non-operation of interstice system on Bombay-Nagpur Coaxial system**

Bombay-Nagpur 12 MHz Coaxial Cable Project which was commissioned in January 1973 had interstice conductors suitable for 12 channel carrier system. On the basis of traffic of 1977, the General Manager, Projects, Bombay (GMP) sanctioned (May/June 1977) 4 projects, at an estimated cost of Rs. 9.43 lakhs for commissioning of 12 channel carrier systems between Bombay-Malkapur, Bombay-Khamgaon, Bombay-Amalner and Nagpur-Malkapur for providing long distance connections at intermediary stations. These projects when commissioned were expected to yield a revenue of Rs. 7.90 lakhs per annum.

Purchase orders for the equipments were placed with Indian Telephone Industries during August/September 1977 with delivery scheduled in 1978-79 and they were received during November 1979 to July 1980 and the actual expenditure was Rs. 14.71 lakhs. The equipments for Bombay-Malkapur section received in July 1980 were installed in 1981, but these could be commissioned in July 1985 only due to technical reasons and the equipments for the 3 other sections were diverted to 3 other priority routes (sanctioned during January 1983 to March 1984, and were commissioned between June and December 1984).

The GMP stated (May 1985) that delay in commissioning interstice system on Bombay-Nagpur coaxial system was due to technical difficulties in economically repairing coaxial cable on account of its deterioration with age. The Department however, further pointed out (October 1985) that with continuous efforts on rectifying the faults in the media, the Bombay-Amalner and Bombay-Malkapur sections have been commissioned in June-July 1985, that Nagpur-Malkapur sections was expected to be commissioned by December 1985 and that Bombay-Khamgaon section has been dropped (May 1985) as Khamgaon was converted into a dropping station. Thus the Bombay-Nagpur coaxial system commissioned in January 1973 had not been able to provide the required communication services through its interstice conductors even after 8 years of its installation.



Non-utilisation of the equipment for more than four years resulted in loss of revenue amounting to Rs. 32.34 lakhs, besides blockade of capital of Rs. 14.71 lakhs.

**28. Unfruitful expenditure on laying of faulty cable between Kalyan and Dombivli**

To meet the existing demand between Kalyan and Dombivli exchanges 150 pairs of cables were provided in 1977. By March 1979, 45 out of these were found defective and not in working condition. In August 1979, provision for another 100 pairs of cables at a cost of Rs. 3.99 lakhs was approved to meet the future demands of traffic between these two exchanges. The work of laying these cables was completed in April 1980 at a cost of Rs. 4.16 lakhs. Out of the 100 pairs of cables, majority were found defective even at the time of laying and some got damaged later on account of corrosion and sparking from high tension electric wires by the side of the cables.

As on April 1984, only 125 out of the original 150 and 46 out of the later 100 pairs were working. Thus non-utilisation of 54 pairs of cable out of 100 pair cable laid in April 1980 resulted in unfruitful expenditure of Rs. 2.25 lakhs (on proportionate basis) and the cable laid has lost 5 years of its working life (40 years). In the meantime, the waiting list continued to grow and the subscribers were not provided the required services. The Department stated (October 1985) that the subscribers could not be provided with the necessary services for want of connected works like provision of carrier channels to Bombay and local cables in Bombay and Dombivli and that the needs of the subscribers would be met progressively.

**29. Delay in connecting Telephone Exchange Gwalior to Trunk Automatic Exchange, Agra**

General Manager, Telecommunications, Bhopal, sanctioned a project estimate in December 1978 at a total cost of Rs. 16.05 lakhs for connecting Gwalior Telephone exchange to Agra Trunk Automatic Exchange (TAX). The project was expected to earn a net profit of Rs. 9.42 lakhs per annum. Supply order for requisite equipments was placed on Indian Telephone Industries, in February 1979 to supply the stores during 1978-79 under traffic relief. Supply programme was subsequently rescheduled to 1980-81. Supply of equipments costing Rs. 10.47 lakhs, commenced in March 1979 and was completed by July 1981. Installation of the equipment was completed and duly tested in September 1982.

Separately, junction cables and allied materials required for connecting local telephone exchange at

Gwalior at a cost of Rs. 8.37 lakhs were received by March 1981. Laying of cables and its acceptance and testing had been completed in November 1981. The total expenditure incurred on equipments and cables alone was Rs. 18.84 lakhs.

Meanwhile, in February 1981, the Director General, Posts and Telegraphs decided to parent the Gwalior Exchange to Delhi Penta Conta TAX till such time the Agra TAX was commissioned. While taking this decision, the Department had overlooked the aspect whether sufficient space for installation of the channelling equipment was available in Delhi TAX. As space was not available, the Gwalior Exchange was ultimately connected to a newly commissioned Delhi Stored Programme Controlled Trunk Auto Exchange in July 1984.

Inordinate delay in utilisation of equipment installed at Gwalior (September 1982) at a cost of Rs. 18.84 lakhs not only resulted in blockade of funds, but also loss of potential revenue of Rs. 17.27 lakhs for the period from September 1982 to June 1984.

While conveying acceptance of the facts as above, the Department of Telecommunications stated (October 1985) that efforts were made to commission Gwalior-Delhi TAX route as quickly as possible, but due to various problems and difficulties as also technical problems for channelling requirements which could not be anticipated earlier, there was inevitable delay in the utilisation of equipment at Gwalior and parenting the same to Delhi TAX.

**30. Avoidable expenditure in the construction of annexe to the Head Post Office building at Hospet**

Based on estimate sanctioned in September 1981 and tender enquiry issued in October 1981, the work of construction of annexe to the Head Post Office building at Hospet, was awarded (January 1982) by the Executive Engineer, Civil Division, Bangalore to the lowest tenderer at a cost of Rs. 10.58 lakhs, for completion by March 1983.

As per departmental rules, the Senior Architect, the Superintending Engineer and the Executive Engineer were required to furnish the necessary drawings to the local Municipal authorities for approval, prior to commencement of work. Despite codal provisions and instructions issued (October 1980) by the Superintending Engineer to the Assistant Architect, Bangalore, to ensure the receipt of 'No Objection Certificate' (NOC) from the Municipal authorities before calling the tenders, the later took no action in this regard. When the work was in progress, the Municipal authorities stopped the work in March 1982. Thereupon, the Architect sent the drawings to the Municipal

authorities (March 1982) and the 'NOC' was finally issued in June 1983.

Due to inordinate delay of 16 months after the award of the work, the contractor refused (June 1983) to carry out the work at the originally quoted rates and demanded higher rates. The Department rescinded the contract in April 1984 and got the balance work done through another contractor at the risk and cost of the first contractor.

The expenditure initially incurred on this work was Rs. 1.64 lakhs. The balance work was awarded in September 1984 at a cost of Rs. 13.73 lakhs, bringing the total cost of the works to Rs. 15.37 lakhs against the original tendered amount of Rs. 10.58 lakhs, resulting in avoidable extra expenditure of Rs. 4.79 lakhs (including Rs. 60,000 for additional item of work).

The Department of Posts stated (October 1985) that there was procedural lapse in the Assistant Architect not submitting the drawings in time to the Municipal authorities. Suitable instructions are now being issued to all the field officers with a view to guard against such lapses in future. The Department has also stated that it is unlikely that the extra cost involved in getting the balance work completed can be legally recovered from the first contractor because of the delays which occurred.

### 31. Loss of copper wire from junction lines

Telecommunication facilities of one junction line each to their PBXs at Balimela and Chittrakonda from Jeypore (K) departmental Exchange were provided to Balimela Project authorities in 1967. For providing the facility, 27220 Kgs. of 200 lbs. copper wire was received from December 1966 to September 1967 and both the junction lines were constructed originally with 23397.7 Kgs. of 200 lbs. copper wire. The whereabouts of the balance quantity of 3822.3 Kgs. of copper wire costing Rs. 1.13 lakhs are not known to the Department. From the above alignment 1515.03 Kgs. Cu. wire was recovered by replacement by iron wire in 1974-75.

The junction lines did not work since 1975 due to power inductions and the lines were kept disconnected from Jeypore (K) Exchange from 1976 onwards. The Central Power Telecommunications Coordination Committee Team conducted a thorough investigation, during November 1976 and concluded that the lines were not workable in this area due to thefts of copper wires, inaccessible ghats, jungles, induction from high tension electric lines, etc. Though the junction lines remained out of service and maintenance efforts were kept suspended from 1976 onwards, the Department

instead of taking immediate steps for its dismantlement, allowed the mostly materials like copper wire and other line materials to remain in the dead alignment for about 4 years. The matter regarding dismantlement was under correspondence between the SDOT Jeypore (K), DET Berhampur and the circle office from March 1977 to June 1980. The decision for dismantlement was taken in June 1980, but the final dismantlement orders of the circle office were issued in January 1981. In the meanwhile, the actual dismantlement was carried out between November 1980 and March 1981. The delay in dismantlement was avoidable.

On actual dismantlement of the lines, the Department recovered only 15614 Kgs. of copper wire from the said alignment. Taking into account 1515.03 Kgs. of copper wire recovered by replacement by iron wire earlier in 1974-75 from the alignment, the unaccounted/lost copper wire worked out to 10,090.97 Kgs. valuing Rs. 2.97 lakhs.

The Department of Telecommunications, while accepting the facts stated (July 1985) that the loss on account of unaccounted copper wire of 4661.84 Kgs. worked out to Rs. 1.37 lakhs only. They did not take into account (a) 3822.3 Kgs. of copper wire valuing Rs. 1.13 lakhs received at the commencement of work but not utilised and the whereabouts of which were not available with the Department and (b) the reported loss by theft of copper wire of 1606.83 Kgs. valuing Rs. 0.47 lakh.

### 32. Delay in execution of replacement/dismantlement works and short recovery/non-accountal of copper wire and other stores

In two cases of works involving dismantlement sanctioned by the General Manager, Telecommunications, North Eastern Circle, Shillong, inordinate delay in execution of works and short recovery/non-recovery of copper, iron and other material valued at Rs. 1.90 lakhs were noticed, as below :—

I. A project estimate for dismantlement of Diphu-Dimapur Jn. I line, which contained a credit provision of Rs. 1.33 lakhs on account of expected recovery of stores in the form of copper wire weighing 5525 Kgs. valued at Rs. 1.22 lakhs and other stores valued at Rs. 0.11 lakh, was sanctioned in December 1975. However, the actual dismantlement was carried out after about 3½ years during September/October 1979. Copper wire weighing only 2000 Kgs. valued at Rs. 0.44 lakh was recovered, showing short recovery of copper wire of 3525 Kgs. valued at Rs. 0.78 lakh. The recovered copper wire has not yet (October 1985) been sent to Stores Depot for want of storage facility there. The Department also has not accounted

for recoveries of other stores of estimated value of Rs. 0.11 lakh.

The reason advanced by General Manager (September 1984) for the delay in execution of the work was that the line was being used as a maintenance order wire (MOW) pair to provide stable/reliable communications in different parts of the disturbed State of Nagaland. However, there were reports of frequent thefts of wire during this period and the consequent snapping of line would have made stable/reliable communications difficult, if not impossible.

II. A project estimate for replacement of Mariani-Dimapur PCO trunk with 300 lbs/mile Galvanised iron wire to work as Railway omnibus circuit at a total estimated cost of Rs. 1.03 lakhs, with a credit provision of Rs. 1.60 lakhs on account of expected recovery of stores comprising of 6490 Kgs. of copper wire valued at Rs. 1.43 lakhs and 8720 Kgs. of iron wire valuing Rs. 0.17 lakh, was sanctioned in March 1976. The replacement work was executed after 2 years during July 1978 to November 1978 and only 2665 Kgs. of copper wire valuing Rs. 0.59 lakh was recovered, resulting in short recovery of copper wire 3825 Kgs. valuing Rs. 0.84 lakh as compared to the provision in the estimate. There was no accounting of recovery of any iron wire.

The GMT stated (September 1984) that delay in the execution of works was due to delayed receipt of stores. It is, however, observed that the indents for stores for this work were placed in March 1976, December 1977 and May 1978 and the main stores were received in July 1982. However, the dismantlement work had been completed in November 1978 by diversion of stores received for other works. Thus the delay cannot be attributed to delayed supplies of stores.

The Department further stated (October 1985) that :—

- (a) Some recovered stores were reported to have been found unserviceable. Some of these

were used for maintenance wherever possible and others were left as scrap. GMT was being instructed to regularise the transactions; and

- (b) The replacement work was also delayed due to the dangers posed to the working parties on account of continued disturbed law and order conditions in the difficult terrains of the areas, which prevented them from carrying out the works at a stretch.

### 33. Loss due to non-renewal of lease of a rented building

The General Manager, Telecommunications (GMT), Lucknow rented on lease ground and first floor of a building measuring 4976 sq. ft. (Carpet area) for 5 years from 5th February 1979 at the rate of Rs. 2 per sq. ft. The lease, *inter alia*, provided that the lessee shall have the option of renewing the lease for a further term of one year on giving notice of such intention to the lessor at least three months before the expiry of the lease. The GMT failed to take advantage of this clause for extension of the lease (from February 1984 to February 1985).

In February 1984, the lessor served on the GMT, Lucknow a notice for vacation of the premises. The Department requested the lessor in April 1984 to extend the period of lease by one year beyond the original period of five years on existing rent. This was not accepted by the lessor.

Based on the recommendations of the Fair Rent Assessment Committee, the Department accepted a rate of Rs. 3.40 per sq. ft. for further lease of 3 years from February 1984 and finalised the lease deed with the lessor.

The Department thus incurred avoidable extra expenditure of Rs. 0.88 lakh due to failure to avail of the option given in the original lease for extension of lease by one year on old rates.

## CHAPTER V

### STORES PURCHASE AND CONTROL

#### 34. Avoidable expenditure on import of copper coated Steel Wire

While placing a purchase order for supply of 1000 MTs of copper coated steel wire on a foreign firm in April 1981 the Department used the nomenclature of "copper coated steel wire" in the purchase order and a different nomenclature of "copper weld wire" while applying for import clearance certificate.

In respect of the consignment received at Bombay Port (in March 1982) the Customs authorities refused to clear the goods due to different nomenclatures given in purchase order and in the import licence. The matter remained under correspondence with Director General, Technical Development and Chief Controller of Imports and Exports (CCIE) from March 1982 to January 1983. In January 1983, the CCIE directed the Customs authorities at Bombay to allow clearance of the consignments and the same were cleared thereafter.

Use of different nomenclatures in the Purchase Order and in the application for import clearance and subsequent delay in sorting out the discrepancy resulted in avoidable expenditure of Rs. 2.27 lakhs on account of demurrage, wharfage and transportation charges paid to Bombay Port Trust.

The Department stated (July 1985) that all offices concerned had been instructed to be very meticulous in addressing such important letters and all efforts would be made to avoid such delays in future.

#### 35. Delay in placing of order for testing instruments under INTELSAT scheme

Global tenders for testing instruments including SHF Signal Generators, required for maintenance of Earth Stations equipment under INTELSAT scheme, were received on 15th September 1979. The price quoted was to remain valid for acceptance for a period of 3-4 months after the last date for submission of the tender including any extension thereof. However, the Department took one year in finalising the tender. The time taken in finalisation of the Technical Evaluation Committee report (from September 1979 to March 1980) was mainly responsible for delay in placing the letter of intent.

The letter of intent for supply of 9 Nos. of SHF Signal Generators was placed on 29th September 1980

on firm 'A' at the quoted rate of US \$ 2,12,724. While acknowledging the letter of intent in January 1981, the firm declined to supply the equipment at the old rate and quoted their revised price US \$ 2,44,632.60 which was accepted by the Department and a detailed purchase order on the firm, at their revised price, was issued in April 1981. Departmental failure to finalise the tender in time led to avoidable extra expenditure of US \$ 31,908.60 equivalent to Rs. 2.64 lakhs in procurement of instruments.

The Department of Telecommunications stated (July 1985) that as the offer of firm 'A' was the lowest technically accepted offer, the Department had no alternative but to purchase the required item from them at the enhanced rates. They further stated that the delay in the finalisation of the offers, was due to getting the confirmation from the suppliers regarding humidity clause, workability on AC mains and providing of BNC type connectors of attenuators as recommended by the Tender Evaluation Committee (TEC). However, a perusal by Audit of the recommendations of the TEC, indicated that no such conditions were put by TEC for procuring SHF Signal Generators.

#### 36. Avoidable extra expenditure on the purchase of documentation relating to equipment for the Indian National Satellite System (INSAT-I)

As per the specification (clause 14.1 & 14.4) released with the tender enquiry for purchase of equipment for microwave end links under the Indian National Satellite System, the supplier firm 'A' was required to supply free of cost the required number of sets of the necessary documentation/manuals. Further as per clause 5.2 of the commercial condition of the tender enquiry the suppliers were also required to honour the repeat orders for similar equipment (for a period of 5 years after completion of the supply of the first order).

While placing the first purchase order with firm 'A' in October 1980 the Department rightly sought free supply of documentation/manuals and these were also supplied by the firm. However, while placing two repeat orders (December 1982 and February 1983 respectively) the Department also included the cost of the literature in the purchase order amounting to Rs. 0.90 lakh though it was to be supplied free of cost. In the third repeat order (November 1983) the

Department did not make any mention of supply of documentation/literature at all. When the supplies against the third repeat order were received (June 1974) by the various consignees, it was pointed out by them that there was no literature/documentation available for operating the equipment. At this stage the Department took up with the supplier the question of supplying the necessary documentation against the third repeat order free of cost and refund of the cost of documentation/literature paid to the supplier against the first two repeat orders. The supplier did not agree to supply the documentation free of cost against the repeat orders and stated that the necessary documentation was supplied free of cost against the first purchase order as a special case. The firm, however, agreed to supply the documentation free of cost against subsequent two repeat orders in September 1985 issued in continuation of first purchase order. The Department stated (July 1985) that the matter has already been taken up with the firm in an attempt to get the refund of payments made for supply of documents in the repeat orders and that the case is still under correspondence.

An avoidable payment of Rs. 0.90 lakh by way of cost of the literature against first two repeat orders apart from the extra liability of purchasing necessary documentation/literature against the third repeat order has been/made incurred by the Department.

### 37. Loss due to short receipt of BP Hard Coke in Telecom Factory, Calcutta

Bituminous processed (BP) Hard Coke used in the Telecom Factory, Alipore, Calcutta is procured from the Durgapur Project Ltd., through Rail transport on monthly indent basis and payment therefor is made against the challaned quantity supported by the Railway receipts. The stores despatched by the supplier are first received at the Calcutta Port Trust (CPT) dump and thereafter, shifted to the Telecom Factory site through private transporting agencies on rate contract basis. The quantum of Hard Coke transported from the CPT dump is weighed by the transporters at the dump site and the weight is recorded in the delivery memos which again is reweighed at the Telecom factory site. The entries in the delivery memos thus represent the actual quantities of coke received at the Telecom Factory.

During 1981-82 to 1983-84 the total quantity shown despatched in the Railway receipts was 6648 MTs. and the quantity shown received in delivery memos was 5198 MTs. Audit pointed out a shortage of 1450 MTs. The Department considers transit loss of 6 per cent as reasonable though it could not produce any authority for allowing such transit

loss. Even after making an allowance for transit loss there was a net shortage of 1071 MTs (including 339 MTs of Coke loaded in 14 wagons which did not reach the CPT siding at all valuing Rs. 10.04 lakhs at the rate of Rs. 937 per MT. Claims were stated to have been lodged with Railway authorities and are still pending.

It was also observed that the stock records show quantities of coke received as per Railway receipts and not the actual quantity received. The Department stated (September 1985) that action is being taken to prepare stock adjustment vouchers and to write off the loss due to short receipt of stores.

Departmental rules require progressive stock taking during the course of each financial year by the Officer In-charge of the stores but the same was not carried out during the years 1981-82 to 1983-84. The Department stated that this could not be done due to shortage of staff.

The Department has further stated (September 1985) that a certain quantity of Coke was transported by road in January/February 1985 by incurring extra expenditure of 7 per cent over and above the cost of transportation by Rail. Keeping in view the loss of 17.6 per cent incurred in transportation by open Railway Wagons, the Department is considering transportation by road on regular basis.

### 38. Loss due to printing of forms locally

The departmental forms required by the Posts and Telegraphs Department are normally obtained from the Postal Stores, Forms and Seals (PSFS), Aligarh. Heads of Circles are, however, permitted to resort to local printing of "essential forms" at prescribed rates only when PSFS is unable to supply the forms and the stock is below 25 per cent of the authorised stock. Non-essential forms can be printed locally by the Heads of circles within their financial powers.

It was noticed in audit (January 1984) that the Director, Telecommunications, Mangalore area resorted to local printing of 20 different forms (essential and non-essential) between March 1982 and June 1983 under the plea of emergent conditions. The Director instead of inviting open competitive tenders as required under the rules, resorted to limited tenders on three occasion in February 1982, June 1982 and October 1982. The rates accepted by the Director were excessive, ranging from 2 to 28 times as compared to the Schedule of Rates, resulting in excess expenditure of Rs. 3.10 lakhs in local printing of 11 out of 20 forms test checked. Further, the orders were placed piecemeal (77 numbers) each upto Rs. 5,000, to keep the amount within the financial powers of the Director in violation of the provisions laid down in delegation of financial powers.

It was further noticed in audit that the same forms were also contemporarily got printed by the Postal Store Depot (PSD), Bangalore, General Manager, Telecommunications (GMT) Circle and by General Manager, Telephones, Bangalore by inviting open tenders. The rates at which these were got done at Bangalore compared favourably with the Schedule of Rates of the Department.

Department of Telecommunications stated in July 1985 that local printing of forms should normally have been done at Postal Store Depot, Bangalore or by GMT, Bangalore to meet the requirements of the entire Karnataka Telecom Circle. The Department agreed that rates approved by the Area Manager, Mangalore were largely in excess of the rates on which the jobs were executed by PSD, Bangalore and GMT, Bangalore. It was also stated that the Area Manager, Mangalore had committed irregularities in getting the forms locally printed. As a remedial measure, the Department asked PSD, Bangalore to attend to printing activity of the essential and non-essential forms since August 1983.

### **39. Non-accountal of stores due to excess indenting and non-maintenance of records**

A project estimate for reconstruction and retransposition of alignment between Bolangir and Titliagarh under NCJ scheme (a type of carrier system) was sanctioned by the Director General, Posts and Telegraphs in May 1971 at a cost of Rs. 3.05 lakhs (Cash : Rs. 0.15 lakh, Stores : Rs. 2.90 lakhs) with credit for recovery of stores of value Rs. 0.71 lakh. Detailed estimate was sanctioned (June 1971) and indents for stores were issued between June 1971 and November 1973. The work was stated to have been completed in 1976. The expenditure incurred on this work was Rs. 0.46 lakh under cash and Rs. 5.49 lakhs under stores, which was above the sanctioned

cost by 300 per cent under cash and 189 per cent under stores.

To an enquiry made by the Chief Accounts Officer, Orissa Circle (June 1978) the Divisional Engineer, Telegraphs (DET), Sambalpur stated (June 1978) that excess expenditure under stores was due to excess indenting of stores to the extent of Rs. 2.32 lakhs which were not required for this work and not provided for in the estimate. He had also stated that the reasons for excess indenting of stores and their disposal were not known since records relating thereto were not maintained.

As against recovery of stores of Rs. 0.71 lakh provided in the estimate, it was reported by the Sub-Divisional Officer, Telephones, Titliagarh, (March 1978) that 1238 Kgs. of copper wire were recovered but corresponding credit particulars were not available in the accounts and no credit was afforded to the work. The possibility of locating the stores received and the chances of their accountal would be very remote in view of the fact that the DET felt as far back as in June 1978 that the above task had become difficult as 200 works in Sambalpur Division had been executed without sanction of the estimates and apprehended that the stores might have been used against the unsanctioned works.

Thus, non-observance of the departmental procedures for ordering stores and non-maintenance of accounts records resulted in excess indenting and receipt of stores worth Rs. 2.32 lakhs, the final utilisation of which could not be established, besides the non-accountal of stores actually recovered from the work.

The inability of the DET to sort out matters as back as in June 1978 is a further reflection on the system of the Department in executing the works/diverting the stores without proper sanction of such works/estimates.

## CHAPTER VI

### OTHER TOPICS

#### 40. Irregular issue of National Savings Certificates

As per National Savings Certificates Rules NSCs are to be issued to an adult for himself or on behalf of a minor or to a minor in their individual capacities only and these certificates are not to be issued in the names of any institutions, firms, local bodies etc. However, corporate bodies like co-operative societies, co-operative banks, scheduled banks and offices of corporations etc., were entitled to purchase the NSCs on behalf of their members, clients etc., but the certificates were not to be issued in the names of corporate bodies. As per rules, no interest is payable on any holding in contravention of the rules. Interest already paid on such holdings should be refunded to the Government forthwith failing which the amount was to be recovered from any money payable to the Investor or as an arrear of land revenue.

A test check of the 7-year certificates IV, V Issues and 6-year certificates VI Issue, conducted between June 1983 to August 1984 in some selected post offices in 13 Circles showed that 10113 certificates valuing Rs. 80.07 lakhs were issued irregularly in the names of firms, banks, cooperative societies, housing boards etc., as per details in the Appendix VII and interest to the extent of Rs. 9.15 lakhs had also been paid on the certificates already discharged.

The Department stated (November 1985 and January 1986) that remedial measures such as recovery of interest paid/encashment with interest at Savings Bank rates/conversion of NSCs in other issues etc., have been initiated to rectify the irregularities in the issue of NSCs and to take action against staff responsible for irregular issue of NSCs.

#### 41. Non-verification of Savings Bank Binder Balances

Transactions in each Savings Bank Account are recorded in a book called binder maintained in the Head Post Office. The Savings Bank Control Organisation (SBCO) functioning in each Head Post Office is required to reconcile these binders once in two months with its SB register, entries wherein are made direct from the daily list of transactions received from each Post Office. This procedure has been

prescribed to eliminate fraudulent or incorrect withdrawals from or deposits into SB accounts and to find out mistakes if any, occurring in the transaction of accounts. A test check of these binder balances in certain selected Head Post Offices in 9 Circles for 1981-82 and 1982-83 showed that this work was in arrears in respect of 53069 binders at the close of 1981-82 and 59374 binders at the close of 1982-83. Unless the accounts are reconciled, there is no assurance that all the transactions have been properly accounted for.

Certain instances of fraud that came to light during verification of binder balances are given below (Table 41.1) :—

TABLE 41.1

Name of the circle	Name of Post Office	Period of fraud	Amount involved Rs.
1. Maharashtra	Palghar	August 1981 to May 1982	6,675
2. Andhra Pradesh	Chodavaram	August 1983 to January 1984	6,357
3. Bihar	Chapra	July 1980 to February 1981	21,000

In addition, certain instances of fraud which should have come to light early, had the binder verification been done in time, but were detected otherwise much later, are also given below :—

TABLE 41.2

Name of the Circle	Name of Post Office	Period of fraud	Amount involved Rs.
1. Andhra Pradesh	Guntakal	July 1979 to September 1981	3,24,638
2. Maharashtra	Akola	December 1981 to July 1985	22,36,703
3. Gujarat	Himmatnagar	April 1982 to January 1984	1,11,550
4. Bihar	Katihar	October 1981 to April 1983	88,000

The Department stated (October 1985) that keeping in view the large pendency in verification of

balances and heavy expenditure running into over Rs. one crore, if the agreement work was got completed at the prescribed rate of honorarium per binder, the department took a decision in December 1983

that the balance as on 31st March 1983 in SB account may be taken as provisional balances, holding in abeyance the verification of binders and agreements in respect of binder balances prior to this date.



(R. KUMAR)

*Director of Audit  
Posts and Telegraphs*

New Delhi  
The

**125 APR 1986**

Countersigned

*T. N. Chaturvedi*

(T. N. CHATURVEDI)  
*Comptroller & Auditor  
General of India*

New Delhi  
The

**26 APR 1986**



**APPENDIX I**  
**TELECUMMCNICATION SERVICES**

*Year-wise details of targets for Sixth Plan and achievements (Referred to in Paragraph 2 at page 2)*

Sl. No.	Description	Targets for the sixth plan	1980-81		1981-82		1982-83		1983-84		1984-85		Total achievements during Sixth Plan	Percentage of plan achievements to plan targets for sixth Plan
			Target	Achievements	Target	Achievements	Target	Achievements	Target	Achievements	Target	Achievements		
1	2	3	4(a)	4(b)	5(a)	5(b)	6(a)	6(b)	7(a)	7(b)	8(a)	8(b)	9	10
1.	Capital outlay (in crores of rupees).	2336.00	445.38	335.56	491.86	544.95	522.61	615.06	580.67	712.34	797.64	860.59	3068.58	131.3
2.	<i>Local Telephone Systems</i>													
2.1	Switching capacity (lakh lines)	14.80	1.75	1.33	2.25	1.43	3.00	2.15	3.80	2.27	4.00	2.53	9.71	65.60
2.2	Underground cable (lakh pair Kms.)	78.00	10.00	8.23	11.80	7.98	15.20	12.11	17.90	11.27	18.00	19.33	58.92	75.51
2.3	Direct exchange lines (lakh lines).	13.30	1.70	1.33	2.00	1.47	2.60	1.69	3.40	2.02	3.40	2.31	8.82	66.31
2.4	Subscriber Telephone Stations (lakh numbers).	17.29	2.21	1.70	2.60	1.91	3.38	2.19	4.50	2.50	4.50	3.28	11.58	67.00
2.5	Telephone Exchanges (number).	3500	385	441	510	650	685	767	700	690	700	730	3278	93.66
3.	<i>Long Distance Switching Systems</i>													
3.1	Trunk Automatic Exchanges (TAX) (number).	40	4	3	2	1	5	2	2	4	4	2	12	30.00
3.2	Trunk Automatic Exchanges capacity (lines).	94,770	5,770	6,270	5,700	3,800	24,100	4,150	21,400	26,100	12,200	6,900	47,220	50.00
3.3	Subscriber Trunk Dialling routes. Point to point (numbers).	60	18	13½	14	18½	10	20½	10	11	10	12½	76	126.66
3.4	Manual Trunk Boards (numbers).	2,500	530	204	500	200	250	254	250	233	200	101	992	39.68
4.	<i>Long Distance Switching Systems</i>													
4.1	(a) Coaxial cables (New schemes) (Route Kms.).	12,000	1,050	755	2,245	349	1,513	796	1,192	175	3,300	214	2,319	1,933
4.1	(b) Micro wave (Route Kms.)	16,000	1,665	1,015	3,500	965	4,258	661	3,785	1,968	4,000	1,360	5,969	37.30
4.2	<i>UHF System</i>													
4.2	(a) 60 channel capacity (Route Kms.).	14,000	2,835	165	2,686	1,046	1,555	580	3,445	717	3,000	1,102	3,610	25.80
4.2	(b) Small capacity (Route Kms.).	6,750	..	..	..	..	..	..	..	..	2,000	..	..	..
4.3	Open wire channels (Route Kms.).	7,500	2,500	1,448	1,250	1,398	1,250	1,197	1,250	975	1,250	1,034	6,057	80.76

1	2	3	4(a)	4(b)	5(a)	5(b)	6(a)	6(b)	7(a)	7(b)	8(a)	8(b)	9	10
5.	<i>Telex</i>													
5.1	Telegraph offices (numbers)	20,000	3,000	2,298	2,800	2,191	2,300	1,813 (Net)	1,500	1,996	3,000	2,072	10,794	53.97
5.2	Long distance public call offices (gross) (numbers).	20,000	3,000	2,251	2,800	1,584	2,300	1,672 (Net)	1,500	1,987	3,000	2,150	11,215	56.07
5.3	Telex Exchanges (numbers)	100	36	11	20	10	20	13	26	6	19	11	51	51.00
5.4	<i>Telex capacity (lines)</i>													
	(a) Local . . . . .	22,500	1,850	750	1,200	1,162	5,660	2,173	12,334	4,244	5,700	9,250	17,079	75.90
	(b) Trunk . . . . .	13,000	..	..	55,00	..	5,300	3,000	5,800	6,500	3,200	1,200	10,700	82.30
5.5	Telex connections (numbers)	18,300	1,800	1,349	1,200	1,088	5,000	1,076	9,500	1,031	4,600	3,726	8,270	45.20
5.6	VFT channels (numbers)	7,000	3,000	1,087	1,400	1,003	1,400	1,146	1,400	1,448	1,400	1,224	5,908	84.40

## APPENDIX-II

*Growth of Telecom Revenue under the various heads during Sixth Plan showing percentage growth over previous years in brackets (due to increase in traffic and periodical revision of tariff)*

(Referred to in paragraph 2 at page 3)

Sl. No.	Main Heads of Revenue Receipts	1980-81	1981-82	1982-83	1983-84	1984-85
		(Rs. in Crores)				
1.	Telegrams	46.38	58.61 (26.37)	74.99 (28.93)	85.12 (13.51)	93.84 (10.24)
2.	Telex	60.02	70.96 (18.23)	82.09 (15.68)	84.06 (2.40)	97.03 (15.43)
3.	Rent of wires, circuits and instruments leased to Railways, Canals, etc.	20.54	19.44 (-5.35)	22.89 (17.75)	35.49 (55.04)	94.03 (164.95)
4.	Telephone Revenue on account of rentals and Trunk call fees, etc.	540.11	656.93 (21.63)	803.68 (22.34)	860.00 (7.00)	943.04 (9.65)
5.	Net results of other receipts and refunds	(-)35.15	(-)44.75 (27.31)	(-)71.40 (59.55)	(-)36.55 (48.81)	(-)36.62 (0.19)
	Total	631.90	761.19 (20.46)	912.25 (19.84)	1028.12 (12.70)	1191.32 (15.87)

## APPENDIX-III

Yearwise details of the targets for Sixth Plan and achievements

(Referred to in paragraph 3 at page 4)

Sl. No.	Description	Targets	1980-81		1981-82		1982-83		1983-84		1984-85		Total	Percentage and Plan achievements to Plan targets
			Targets	Achievements	Targets	Achievements	Targets	Achievements	Targets	Achievements	Targets	Achievements		
1	2	3	4(a)	4(b)	5(a)	5(b)	6(a)	6(b)	7(a)	7(b)	8(a)	8(b)	9	10
1.	Capital outlay (Rs. in crores)	172.00 (including revenue portion)	15.65	15.53	19.27	18.70	24.39	23.58	28.68	31.81	32.18	34.96	124.58	103.67 (in respect of capital portion)
2.	Opening of new Post Offices (Number)	8700	1600	1889	1600	1601	1000	1000	2500	2268	2000	62	6820	78.40
3.	Appointment of Extra Delivery Agents (Number)	10000	3000	3494	2000	2000	1000	1000	1750	1546	1000	..	8040	80.40
4.	Installation of letter boxes (Number)	10000	6000	9326	1000	1013	1000	1000	875	928	825	565	12832	128.32
5.	Provision of counter facilities at village Post Offices (Number)	10000	2000	2601	2000	1999	2000	2003	1750	1680	1647	1342	9625	96.25
6.	Construction of Postal Buildings (Number)	690	106	126	178	129	155	96	51	96	100	85	532	77.00
7.	Construction of staff quarters (Number)	7100	700	508	1200	1019	1200	969	1800	707	2200	1250	4453	62.72
8.	Railway Mail Motor Service Vans (Number)	33	..	..	9	..	6	..	15	..	18	18	18	54.55
9.	Mail Motor Services Vehicles (Number)	650	130	124	92	137	130	131	130	131	130	116	639	98.30

**APPENDIX-IV**

*Growth of revenue of Postal Services under the various heads during the Sixth Five Year Plan indicating the increase(+) decrease (—) and the percentage increase over previous years in brackets*

(Referred to in paragraph 3 at page 5)

Main Heads of Revenue Receipt	1980-81	1981-82	1982-83	1983-84	1984-85
		(Rs. in Crores)			
(i) Sale of ordinary stamps	155.49	171.73 (10.4)	201.85 (17.54)	227.50 (12.7)	229.31 (0.08)
(ii) Sale of Service Stamps	25.35	27.40 (8.09)	29.18 (6.5)	32.68 (12.0)	33.11 (1.3)
(iii) Postage realised in cash	40.37	48.54 (20.2)	66.78 (37.6)	72.68 (8.8)	77.55 (6.7)
(iv) Receipt on account of Money Orders and Postal Orders including forfeited Money Orders	31.41	35.68 (13.6)	44.04 (23.4)	49.03 (11.3)	54.77 (11.7)
(v) Other receipts	25.49	26.06 (2.2)	36.16 (38.8)	52.65 (45.6)	49.67 (—)(5.7)
<b>Total :</b>	<b>* 278.11</b>	<b>309.41 (11.25)</b>	<b>378.01 (22.17)</b>	<b>434.54 (14.95)</b>	<b>444.41 (2.27)</b>

**APPENDIX—V**

(Vide Paragraph 4 at page 7)

*Details of savings under various grants/heads of accounts.*

The saving of Rs. 75.62 crores under Grant No. 15 Posts and Telegraphs Working Expenses was mainly due to less expenditure under the following heads :

Head of Account	Total Grant	Actual expenditure	Saving	Percentage of Saving
1	2	3	4	5
			(Rs. in crores)	
<b>POSTAL</b>				
(i) Mail sorting	90.54	75.15	15.39	17.0
(ii) Training	1.98	1.35	0.63	31.7
(iii) Mechanisation and Modernisation	0.13	0.02	0.11	84.6
(iv) Accounts	15.30	13.63	1.67	10.9
(v) Commuted value of Pension	9.20	6.19	3.01	32.7
(vi) Compassionate Allowances	0.09	0.03	0.06	66.7
(vii) Gratuities	8.60	6.28	2.32	27.0
(viii) Family Pension	5.67	5.00	0.67	11.6
(ix) Stationery and Forms Printing & Storage and Distribution	15.78	10.67	5.11	32.
(x) Other expenses-Depreciation	2.55	2.20	0.35	13.7
(xi) Stationery and Printing Post cards, Stamps, Envelops, etc.	24.21	18.05	6.16	25.4
<b>TELECOMMUNICATIONS</b>				
(xii) Radios	3.57	3.19	0.38	10.7
(xiii) Technical and Development circle	4.30	3.62	0.68	15.8
(xiv) Petty works	50.00	31.77	18.23	36.5
(xv) Stationery and Forms Printing	9.99	7.29	2.70	27.0
(xvi) Commuted value of Pension	7.50	6.08	1.42	18.9
(xvii) Compassionate Allowances	0.1	0.03	0.07	70.0
(xviii) Gratuities	7.00	6.02	0.98	13.9
(xix) Family Pension	5.50	4.89	0.61	11.1

APPENDIX—VI

(Referred to in Para 20.2.2 at Page 33)

Particulars showing traffic anticipated and traffic actually handled and the revenue anticipated and actually accrued therefrom

Sl. No.	Routes	Traffic projected for 1979 in Erlongs	Anticipated traffic (No. of calls) in 1979	Rate for 1979	Daily revenue as per traffic projected for 1979	Traffic Actually handled			Actual traffic handled (highest in 3 years)	Rate per call (as per latest tariff)	Daily revenue as per actual traffic handled
						1982	1983	1984			
1	2	3	4	5	6	7	8	9	10	11	12
1.	Aurangabad-Ahmednagar	31.27	2502	4	10008	194	206	225	225	8	1800
2.	Aurangabad-Poona	28.08	2246	10	22460	310	404	237	404	12	4848
3.	Aurangabad-Nagpur	28.21	2257	16 × 3/8	13542	63	110	65	110	16 × 3/8	660
4.	Aurangabad-Dhulia	14.67	1174	6	7044	60	106	129	129	8	1032
5.	Aurangabad-Nasik	28.99	2319	6 × 2/3	9276	88	116	110	116	8 × 2/3	619
6.	Aurangabad-Belapur	2.34	187	4	748	57	76	93	93	4	372
7.	Ahmednagar-Poona	7.59	607	4	2428	833	535	577	833	8	6664
8.	Ahmednagar-Dhulia	2.90	232	6	1392	33	43	59	59	12	703
9.	Ahmednagar-Belapur	22.43	1794	2	3588	342	392	338	392	4	1568
10.	Ahmednagar-Nasik	19.85	1588	6 × 2/3	6352	121	128	159	159	8 × 2/3	848
11.	Belapur-Poona	5.59	447	10	4470	181	182	189	189	8	1512
12.	Belapur-Bombay	6.21	497	6 × 2/3	1988	163	181	193	193	8 × 2/3	1030
Total daily revenue					83,296						21,661

- Total annual revenue (anticipated)  $83296 \times 1.5 \times 300 = \text{Rs. } 3,74,83,200$ .
- Total annual revenue (as per traffic actually handled)  $= 21661 \times 1.5 \times 300 = \text{Rs. } 97,47,450$ .

STD Traffic (As projected for 1979)		STD Traffic (Actual—1984)	
Ahmednagar-Poona	—41.41 Erlongs	(A) Ahmednagar-Poona	—13.08 Erlongs
Total Traffic (No. of calls)	—41.41 × 480 = 19877	Total traffic (No. of calls)	—13.08 × 480 = 6278
50% effective calls	— 9938	50% Effective calls =	3139
Full rate calls —75% of 9938 = 7452 Say 7450		Full rate calls —75% of 3139 = 2354	
Half rate calls —25% of 9938 = 2484 Say 2480		Half rate calls —25% of 3139 = 785	
Daily revenue = $7450 \times 40/100 + 7450 \times 60 \times 40$		Daily revenue = $2354 \times 40/100 + 2354 \times 60 \times 40$	
	<u>12 × 100</u>		<u>12 × 100</u>
	+ $2480 \times 40/100 + 2480 \times 60 \times 40$		+ $785 \times 40/100 + 785 \times 60 \times 40$
	<u>12 × 100</u>		<u>24 × 100</u>
	= 2980 + 14900 + 992 + 4960		= 942 + 4708 + 314 + 785 = 6749
	= 23832	Annual revenue =	6749 × 300 = Rs. 20,24,700
Annual revenue =	23832 × 300 = Rs. 71,49,600	(B) Aurangabad-Nagpur	—3.5 Erlongs
		Total traffic (No. of calls)	—3.5 × 480 = 1680
		50% effective calls =	840
		Full rate calls —75% of 840 = 630	
		Half rate calls —25% of 840 = 210	
		Daily revenue = $630 \times 40/100 + 630 \times 60 \times 40$	
			<u>4 × 100</u>
			+ $210 \times 40/100 + 210 \times 60 \times 40$
			<u>8 × 100</u>
			= 252 + 3780 + 84 + 630 = 4746
		Annual revenue =	4746 × 300 = Rs. 14,23,800
		Total Annual revenue (A + B) =	Rs. 34,48,500
Annual revenue (anticipated)	—Manual STD		3,74,83,200
			<u>71,49,600</u>
Annual revenue (actual)	—Manual STD		Rs. 4,46,32,800
			97,47,450
			<u>34,48,500</u>
			Rs. 1,31,95,950
			<u>Rs. 3,14,36,850</u>
	Shortfall in revenue		

APPENDIX—VII

*Irregular issue of 7 year National Savings Certificates IV, V Issues and 6 years NSC VI Issue*  
(Referred to in Para 40 at Page 53)

Sl. No.	Name of the Circle	Total No. of certificates irregularly issued	Face value	Interest paid
			(Rupees in lakhs)	
1.	Madhya Pradesh	1159	9.20	0.51
2.	Kerala	120	1.29	0.22
3.	Tamilnadu	111	0.64	0.01
4.	Uttar Pradesh	1848	5.83	5.15
5.	Orissa	56	2.04	..
6.	Andhra Pradesh	618	10.26	0.17
7.	North West	261	38.12	0.82
8.	Rajasthan	558	2.15	0.71
9.	Bihar	555	1.37	..
10.	Maharashtra and	4692	2.50	1.56
11.	Gujarat			
12.	West Bengal	33	1.65	..
13.	North East	102	5.02	..
		10113	80.07	9.15