ANNEXURE - III
DATES TO RECALL

1850  East India Company allowed the construction of first telegraph line between Calcutta & Diamond Harbour.
1851  The line completed and opened for East India Company’s traffic.
1853  Construction taken up of 4000 miles of telegraph lines to connect Calcutta-Peshawar, Agra-Bombay, Bombay-Madras and Ootacamand and Bangalore.
1854  The first Telegraph Act enacted.
1855  Electric Telegraph opened to public traffic
1858  The first Indo Ceylon cable laid.
1865  First Indo-European telegraph communication effected.
1873  Introduction of Duplex telegraphy between Bombay and Calcutta
1981  Licences granted to private companies to operate telephone systems at Madras, Bombay, Rangoon and Calcutta.
1882  First telephone exchange at Bombay Commissioned.
1887  Introduction of copper wire for transmission between Bombay and Madras instead of iron wire.
1888  Post office and telegraph department combined as quasi commercial departments.
1896  Introduction of phonogram at Bombay and Calcutta.
1902  First wireless telegraph station established between Saugor islands and Sandheads.
1905  Control of telegraph department transferred from PWD to Commerce and Industry Department.
1906  Introduction of Baudot system between Calcutta and Bombay and Calcutta and Rangoon.
1907  Central Battery working of telephones introduced at Kanpur.
Birth of technical branch as a separate organisation for dealing with the technical matters under electrical Engineer-in-Chief.

Introduction of circle scheme in the department and decentralization.

Amalgamation of Postal and Telegraph Departments under a single Director General. Reversion of control of P&T again to PWD.

First automatic exchange at Simla with a capacity of 700 lines commissioned.

Continuous wave transmitters for wireless telegraphy replaces the spark transmitters.

Introduction of R.A.X at Poona

Introduction of TAX at Poona for local junction.

Introduction of long distance dialing between Lahore and Lyallpur.

Accounts of the Department reconstituted on the basis of full-fledged commercial unit.

Conversion of Delhi manual system to auto system.

Radio telegraph started working between UK and India.

Radio telephone communication between India and England opened.

Introduction of use of trunk lines for broadcasting programmes.

Start of Three Channel, 8 Channel and 12 Channel carrier system.

Telegraph training centre shifted from Alipur (Calcutta) to Jabalpur.

The Bombay telegraph workshop taken over by the Department. The Jabalpur telegraph workshop started.

The Bombay, Calcutta and Madras telephone system taken over by the Dept.

Birth of O.C.S. as a department of the Ministry of Communications of Government of India on nationalisation of the Indian Radio and Cable Communication Company (IRCC).
1948  Indian telephone Industries established as a public sector undertaking to manufacture telephone equipment within the country: The late Sardar Patel launched ‘Jala-prabha’ on telephone carrier channel and wireless. Multiaddress Press Broadcast service from Delhi, on slow speed Morse.

1949  Introduction of Hindi telegrams in Devnagri script.

1949  ‘Own Your Telephone’ scheme inaugurated.

1950  ITI started introducing telephone instruments.

Mr. Rafi Ahmed Kidwai, Minister for Communications, inaugurated the India - Afghanistan Wireless Telegraph Service.

Dr. Rajendra Prasad, first President, inaugurated India - Indonesia Radio Telephone Service.

Visit of Pandit Jawaharlal Nehru, India’s First Prime Minister to OCS Beam Wireless Station, Dighi, Pune.

1951  The first Asian launching of S.S. Jalapushpa at Vishakhapatnam through telegraph circuit.

1952  Opening of India -- Iran Radio Phone Service.

Press Newscast Service from Bombay to Kathmandu.

Mr. Jagjivan Ram, Union Minister for Communications inaugurated the India -- Japan Radio Telephone Service.

1953  First automatic exchange in Calcutta

1953  Telex Service in Bombay

Union Minister for Communications inaugurated the Pilot Station at Calcutta.

Dr. Rajendra Prasad, the President of India, visited OCS, CTO, Bombay. An autographed Radiophoto of the President, sent to London, was retransmitted to Bombay.

1954  Radio-Photo service between India and China was inaugurated.

1955  Inauguration of India -- Burma Radio Telephone Service.
Inauguration of Calcutta Station.
Calcutta - London Radio Telephony inauguration.
Leased services started. The first leased telegraph circuit was for BOAC from Calcutta to London.
The First OCS built Transmitter went on air, operating to Cairo (Egypt).
Mechanization of telephone revenue accounting.
1959
Trunk cable routes were commissioned between Lucknow-Kanpur, Calcutta-Asansol and Bombay-Thana.
First Multi-Channel coaxial route between Delhi-Agra commissioned.
Standard time & frequency Broadcast Services, in coordination with National Physical Laboratory (NPL) commenced from New Delhi.
First Subscriber Trunk Dialing route commissioned between Kanpur and Lucknow.
Hindustan Teleprinters Ltd., a public sector undertaking was set up to manufacture electro magnetic Teleprinters in India.
Radio Relay stations at Madras opened.
Operation of teleprinter over cable and teleprinter over radio followed by Automatic Error Correction (AEQ) operation.
1960
Introduction of India - UK Telex service.
1961
This First microwave route between Calcutta and Asansol commissioned.
India joined INTELSAT.
Introduction of SAMDIS (Semi Automatic Message Distribution System)
1965
First crossbar exchange commissioned at Madras.
India’s First satellite station at Arvi.
India’s First International Satellite earth station at Arvi inaugurated.
Meteorological Broadcast with RTT/FAX from New Delhi commenced.
1967
Cross Bar Type Intercontinental Telex Automatic Exchange (ITAX) at Bombay.
President V.V. Giri names Arvi Satellite Earth-station after the late Dr.
Vikram Sarabhai.

Cross Bar Type Intercontinental Automatic Telephone Exchange (ICAX) at Bombay commissioned.

1974
The First UHF link between Mangalore and Udupi commissioned.

1975
First PCM system between City and Andheri telephone exchange commissioned.

1975
Advanced level telecom training centre commenced training activities from Delhi to be eventually shifted to its own campus in Ghaziabad.

1976
Introduction of subscriber Trunk dialing between Bombay and London.

1976
Inauguration of ISD from Bombay to UK

1977
Installation of SPC gateway telex exchange and introduction of International Subscriber dialed telex service

New Delhi satellite Earth Station -- Inaugurated by Prime Minister Mrs. Indira Gandhi.

1977
Stored Program Controlled Gateway Telex Exchange (Gatex) Bombay commissioned for telex traffic.

1977
First Digital Microwave Calcutta Junction Cable.

1978

1978
Telecom Consultant India Ltd. was set up in the public sector to provide consultancy services in the field of telecommunication.

1979
First optic fibre system for local junction commissioned at Pune.

1979
Cross Bar Type Inter Continental Automatic Telephone Exchange (ICAX). New Delhi commissioned.

1980
First satellite station for domestic communications established at Sikandarabad.

1980
Stored Programme Controlled, Gateway Telex Exchange (GATEX) New Delhi, opened for International traffic.

1980
The first Stored Programme Controlled Message Retransmission System (MRS) commissioned for public telegram traffic.

1981
Troposcatter system link between India and U.S.S.R. -- inaugurated by the
Prime Minister Mrs. Indira Gandhi.
IOCOM Cable System inaugurated.
Indo-USSR Troposcatter link from Srinagar.

1982
First SPC electronic digital telex exchange commissioned at Bombay.
Stored Programme Controlled (SPC) Gateway Telephone Exchange (GSS) established at Bombay.
Stored Programme Controlled (SPC) Gateway Telephone Exchange (GSS) established at New Delhi.
Stored Programme controlled (SPC) Gateway Telephone Exchange (GSS) established at Madras.

1983
International Store & Forward Telex (SFT) facility introduced at Gatex/New Delhi.
Silver Jubilee celebration of India -- UK Radio Telephone link.
The first SPC analogue electronic trunk automatic exchange commissioned at Bombay

1984
Centre for Development of Telematics (C-DOT) was established as a society for development of digital switching system.
Inauguration of International Telephone Conference (INOTEL) facility at VSB Bombay.
Inauguration Bureaufax facility at VSB Bombay.

1985
First mobile telephone service introduced at Delhi.
First radio paging introduced in Delhi.

1986
Mahanagar Telephone Nigam Limited and Videsh Sanchar Nigam Ltd. were established.
Inauguration of ISD to Belgium, Netherlands.
First Private message Switching System (PRIMES) circuit for State Bank of India Commissioned.
Inauguration of Videsh Sanchar Nigam Limited at VSB Bombay

1987
First digital co--axial 140 MB/s between Ahmedabad and Rajkot commissioned.
Inauguration of Gulf Cable laying operations at VSB/Bombay.

ISD to nordic countries (Denmark, Finland, Sweden and Norway).

Inauguration of ISD between India and Switzerland.

Inauguration of ISD to thirty countries. Function held in VSB/New Delhi.

ISD Telephone Service to U.A.E. inaugurated.

ISD Telephone Service extended to cover a total of 150 countries.

1988
International gateway packet switch system commissioned at Bombay.

1991
Introduction of home country direct service to eight countries in association with VSNL.

I Net exchange commissioned.

1992
Inmarsat coastal earth station at ARVI to provide maritime communication.

Voice Mail Service (VMS) introduced in Delhi.

1993
First second generation digital switch with latest ISDN facilities commissioned at Bombay.

1994
Announcement of new telecom policy.

1995
Cellular telephone service started in Calcutta and Delhi.

Internet service provided by VSNL.

1996
The “Telecom Regulatory Authority of India” bill was introduced in Lok Sabha.

ISDN service started commercially.

1997
Wireless in Local Loop (WLL) telephone system introduced in MTNL Delhi.

Global Mobile Satellite based services introduced by VSNL

International ISDN service started by VSNL.

1997
TRAI setup.

Raksol to Birganj (Indo Nepal) Optical Fiber Instalation Commissioned.
ANNEXURE - IV

FACTS AND FIGURES

<table>
<thead>
<tr>
<th>S.No.</th>
<th>Component</th>
<th>Target</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Local Switching Capacity</td>
<td>36 lakhs</td>
</tr>
<tr>
<td>2.</td>
<td>Direct Exchange Lines</td>
<td>29 lakh</td>
</tr>
<tr>
<td></td>
<td></td>
<td>lines</td>
</tr>
<tr>
<td>3.</td>
<td>Trunk Automatic Exchange</td>
<td>3.25 lakh</td>
</tr>
<tr>
<td></td>
<td></td>
<td>lines</td>
</tr>
<tr>
<td>4.</td>
<td>Long Distance Transmission</td>
<td></td>
</tr>
<tr>
<td>(I)</td>
<td>Microwave</td>
<td>18,000 Rkms</td>
</tr>
<tr>
<td>(ii)</td>
<td>Optical Fibre</td>
<td>22,000 Rkms</td>
</tr>
<tr>
<td>5.</td>
<td>Village Public Telephones</td>
<td>83,000 Nos.</td>
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</table>

Rkms : Route Kilometers
<table>
<thead>
<tr>
<th>S.No.</th>
<th>Component</th>
<th>Status as on 1.4.80</th>
<th>Achievement during 6th plan (1980-85)</th>
<th>Status as on 1.4.85</th>
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<tbody>
<tr>
<td>1</td>
<td>Local Sw. Cap.</td>
<td>Lakhs 23.36</td>
<td>9.71</td>
<td>33.07</td>
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<tr>
<td>2</td>
<td>D.E.Ls.</td>
<td>Lakhs 20.16</td>
<td>8.82</td>
<td>28.98</td>
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<tr>
<td>3</td>
<td>TAX Capacity</td>
<td>Lines 40300</td>
<td>47220</td>
<td>87520</td>
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<tr>
<td>4</td>
<td>Long Distance Transmission</td>
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<td></td>
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<tr>
<td></td>
<td>I) Coaxial</td>
<td>Rkms 16641</td>
<td>1659</td>
<td>18300</td>
</tr>
<tr>
<td></td>
<td>ii) Microwave</td>
<td>Rkms 16545</td>
<td>5969</td>
<td>22514</td>
</tr>
<tr>
<td></td>
<td>iii) U.H.F.</td>
<td>Rkms 2712</td>
<td>3610</td>
<td>6322</td>
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<tr>
<td>5</td>
<td>Village Public Telephones</td>
<td>Nos. 13830</td>
<td>11884</td>
<td>21717</td>
</tr>
<tr>
<td></td>
<td>(LDPTs)</td>
<td></td>
<td></td>
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### Achievements of Seventh Five Year Plan (1985-90)

<table>
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<tr>
<th>S.No.</th>
<th>Component</th>
<th>Status as on 1.4.85</th>
<th>Achievement during 7th plan (1985)</th>
<th>Status as on 1.4.90</th>
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<td>1.</td>
<td>Local Sw. Cap.</td>
<td>Lakh 33.07</td>
<td>19.57</td>
<td>52.64</td>
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<td>D.E.Ls.</td>
<td>Lakh 28.98</td>
<td>16.91</td>
<td>45.89</td>
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<td>3.</td>
<td>TAX Capacity</td>
<td>Lines 87520</td>
<td>53350</td>
<td>140870</td>
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<td>4.</td>
<td>Long Distance</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Transmission</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>i) Coaxial</td>
<td>Rkms 18300</td>
<td>5936</td>
<td>24236</td>
</tr>
<tr>
<td></td>
<td>ii) Microwave</td>
<td>Rkms 22514</td>
<td>10290</td>
<td>32804</td>
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<tr>
<td></td>
<td>iii) U.H.F.</td>
<td>Rkms 6322</td>
<td>9890</td>
<td>16212</td>
</tr>
<tr>
<td></td>
<td>iv) Optical Fibre</td>
<td>Rkms --</td>
<td>2293</td>
<td>2293</td>
</tr>
<tr>
<td>5.</td>
<td>Village Public</td>
<td>Nos. 21717</td>
<td>6808</td>
<td>28525</td>
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<td></td>
<td>Telephones (LDPTs)</td>
<td></td>
<td></td>
<td></td>
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### Achievements of Eighth Five Year Plan (1992-97)

<table>
<thead>
<tr>
<th>S.No.</th>
<th>Component</th>
<th>Status as on 1.4.92</th>
<th>Achievement during 1st 4 years. of 8th plan (1992-96)</th>
<th>Status as on 1.4.96</th>
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<tr>
<td>1.</td>
<td>Local Sw. Cap.</td>
<td>Lakh 67.84</td>
<td>78.43</td>
<td>146.27</td>
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<tr>
<td>2.</td>
<td>D.E.Ls.</td>
<td>Lakh 58.1</td>
<td>61.68</td>
<td>119.78</td>
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</table>
3. TAX Capacity Lines 184900 412050 596950
4. Long Distance Transmission
   Transmission
   I) Coaxial  Rkms 27327 3641 30968
   ii) Microwave  Rkms 37769 13984 51753
   iii) U.H.F.  Rkms 23006 26295 49301
   iv) Optical Fibre  Rkms 6374 30258 36632
5. Village Public Telephones (LDPTs)
   Nos. 74404 142228 216632

EXISTING PRODUCTION CAPACITIES OF MAJOR TELECOM EQUIPMENT.

Existing production capacities of major Telecom equipment are as follows as on 1997

(I) Large exchanges equipment 4 million lines
(ii) Medium and small exchange equipment 2.14 million
(iii) Digital Microwave equipment (TX/RX) 20000
(iv) UHF (Tmls.) 12550
(v) Optical equipment (Tmls.) 10000
(vi) Optical Fibre Cable (Km.) 70000
(vii) MARR (Units) 10000
(viii) Jelly filled Cable (LC Kms.) 460
(ix) Telephone Instruments 6 million
   As on March 2000