

CYPRUS TELECOMMUNICATIONS AUTHORITY

TWENTYFOURTH ANNUAL REPORT AND ACCOUNTS

FOR THE YEAR ENDED

Sist December, 1979.

[PRICE 50 mils]

CYPRUS TELECOMMUNICATIONS AUTHORITY

Head Office, 121, Prodromos Str. Nicosia 116 Post Office Box 4929 Telex 2288, 3288 Telegrams CYTA Nicosia Telephone 021–60200 27th September, 1980.

Your excellency,

In compliance with Section 22 of the Telecommunications Service Law 1954 (Cap. 302), as amended by Laws 20/60, 34/62, 25/63 and 57/77, I have the honour and pleasure to submit, on behalf of the Board of the Cyprus Telecommunications Authority, its 24th Annual Report and Accounts for the year ended the 31st December, 1979, together with a copy of the Auditors' Report.

With each year passing, and apart from the very sad fact that about 25% of the Authority's plant of 1974 (besides other assets) was, and still is, under the control of the Turkish invaders, we are accelerating the development and modernization of our telecommunications network (both inland and with the outside world) to a level comparable with the advanced countries of the World. This may be considered as the Authority's contribution towards the overall effort of our Country for survival and progress. Under the above conditions the year 1979 was more fruitful than that of 1978; and though this assertion becomes quite obvious by what appears in detail later in this Report, yet, a reference here of the most important achievements, in a nutshell, seems to be, both, indicative and desirable:—

A. General economic results

- (1) A net surplus of C£2,643,415.— resulted from the year's operations, against C£2,203,236.— for 1978 (a sum of C£376,165.— deducted for special contributions).
- (2) The operating revenue was C£12,163,386.— against that of 1978 which was C£9,648,323.— i.e. an increase of 26%.
- (3) The net additions to fixed assets were C£5,319,233.— (against C£2,226,988.— of 1978) i.e. an increase of 139%.
- (4) The cash position at the end of the year was C£3,158,902.—against C£1,433,111.—for 1978.

B. Increase of Traffic over 1978 and connection of Cyprus with other Countries

- (1) Telephone traffic: 19% inland and 27% international. I.S.D. (Automatic telephone connection): with 62 countries. Cyprus retains its fourth position after U.K., Australia and U.S.A. (by operator with the rest of the countries).
- (2) Telex Traffic: 30% inland, 23% international. Automatic service with 104 countries; manual with the rest countries.

C. Development

- (i) The Satellite Earth Station "MAKARIOS". This Station, which will mostly handle international telecommunications direct with distant countries and television via the Atlantic Ocean Region Satellite, will be operational early in 1980, instead of in Christmas 1979, as specified, because of some unavoidable delays in U.S.A.
- (ii) The new Repeater Station at mount Kionia, connecting the Satellite Earth Station Makarios with Nicosia, will also be given to service early in 1980.
- (iii) A new Submarine Cable "APOLLO", connecting Cyprus with Greece, for which International Tenders were invited in December 1979, is expected to be operational in about September 1981; with the installation of this cable, of a capacity of about 1350 channels, the number of Telephone and Telex channels via cables will be greatly increased.
- (iv) The four-year rural development plan, which started in 1978, is expanded further by the construction this year of five additional rural telephone exchange buildings.
- (v) All preparatory work has been done during the year for the invitation of tenders for Automatic Dial Mobile Telephone Equipment, Facsimile Subscribers Apparatus and for the provision of an Instrument Landing Service at Larnaca International Airport.

Before concluding, I would like to emphasize that the Board and myself feel happy that during 1979 the excellent relations between the Authority and its staff, which existed in 1978, continued and improved; and I would like to take this opportunity to pay tribute, on behalf of the Board and myself, to the efficiency and devotion to duty of the Executive and the Staff, which contributed so much to the Authority's achievements during the year.

Yours faithfully,

His Excellency,
The Minister of Communications and Works,
Mr. George Hadjicostas,
Nicosia.

N. S. Roussos, Chairman.

TELECOMMUNICATIONS

Chairman

: N. S. Roussos, Civil Engineer,

Graduate of
Ethnicon Metsovion Polytechnion, Athens
(Former Minister of Communications and Works)

Vice-Chairman

: V. Demetriou, B.Sc. (Eng.) (Until 31.1.79)

P. C. Manglis, Ph. D. (As from 1.2.79)

Members

: C. Constantinides, Diploma in Engineering.

L. Tryfon, B. Com., B.A.,

G. P. Cacoyiannis, M.A. (Oxon)
Barrister-at-Law. (As from 1.2.79)

Th. Aristodemou, Economist. (As from 1.2.79)

A. Malaos, M.S. Development Economics. (As from 1.2.79)

H. Horomian. (Until 31.1.79)

Chemist Engineer, Graduate of the Ethnicon Metsovion Polytechnion, Athens. (Until 31.1.79) P. G. Psaras,

Pr. Papavassiliou. (Until 31.1.79)

Legal Adviser

: A. C. Hadjioannou, Degree in Law of Athens University and Barrister-at-Law of Gray's Inn.

Auditors

: Scottis & Polydorides, Chartered Accountants.

ADMINISTRATION

General Manager: A.N. Stylianides, B.Sc., M.-A.S.M.E.

Secretary	Chief Engineer	Personnel Officer	Chief Accountant	Telecommunications Officer
S.A. Kokkinides, ACIS, AMBIM, Soc. Science & Admin. Cert. L.S.E. (University of London)	G.C. Papaioannou, B.Sc. (Eng.) C. Eng. F.I.E.E.	N. Markides.	S. Modestou, F.A.I.A.	A. Ch. Kritiotis, (Assist. Telecommunications Officer) Physics and Electronics degree Athens University

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FAMAGUSTA	— Edisson Street	Tel.	031-62500
LARNACA	- 7, Lord Byron Street	Tel.	041-52279
PAPHOS	- 36, Adonis Street	Tel.	061-32148
KYRENIA	- 5A, 28th October Avenue	Tel.	081-52438
MORPHOU	- 18, 25th March Street	Tel.	071-42055
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INTRODUCTION

- 1. The Cyprus Telecommunications Authority is a Public Corporation, established by Law 1954 (Cap 302), as amended by Laws 20/60, 34/62, 25/63 and 57/77 and it is answerable to the Council of Ministers, through the Minister of Communications and Works, whose power over its activities is regulated by the Amended Service Law No. 25 of 1963, Section 3. The Authority's main responsibility is, by virtue of the aforesaid Law, the provision, maintenance and development of a comprehensive telecommunications service, both local and overseas.
- 2. During 1979 the Board of the Authority, had fifteen meetings and dealt with policy matters appertaining to the further expansion and improvement of the island's telecommunications network, as well as its telecommunication links with the outside World.
- 3. Nineteen seventy-nine was a year of progress toward fulfilment of the undermentioned planned priorities:-
 - (a) The construction of the Satellite Earth Station MAKARIOS. This station will be operational early 1980 and will handle international telecommunications and television via the Atlantic Ocean Region Satellite with countries served by the same satellite and equipped with similar facilities.*
 - (b) The construction of the new radio repeater station at mount Kionia. This station will be given to service during the first quarter of 1980.
 - (c) The further implementation of the four-year rural development plan which started in 1978. Through this plan, which involves the introduction of new rural exchanges and the expansion of the rural telephone network, full telecommunication services will be available to rural areas. During the year works started for the construction of five additional rural telephone exchange buildings.
 - (d) Specifications were prepared and international tenders were invited in December for the provision of a second submarine cable system between Cyprus and Greece. With the establishment of this new cable the number of the international telephone and telex channels via cables will be greatly increased.
- 4. All preparations were made for the invitation of tenders in 1980 for Automatic Dial Mobile Telephone Equipment, Facsimile Subscribers Apparatus and for the provision of an Instrument Landing Service at Larnaca International Airport.
- *- The Satellite Earth Station "MAKARIOS" was completed and has been operating satisfactorily since May 1980.

5. Nineteen seventy-nine was a record year for the utilization of the Authority's services.

(a) Telephone Service

7,121 Direct Exchange Lines were installed, bringing the total number of DEL to 69,409 by the end of 1979. There was an increase of inland and of international traffic by 19% and 27% respectively over that of 1978. International Subscribers Service (ISD automatic) was available with 62 countries and through the operators with the rest of the world. (Cyprus retained its fourth position of countries which are connected with other by ISD, following U.K., Australia and U.S.A.).

(b) Telex Service

253 units were added to the system, bringing the total number to 1,494. An increase of 23% and 30% on the international and inland traffic respectively was observed.

Automatic telex service was available with 104 countries and manual service with the rest of the world.

6. General

- (a) A net surplus of C£2,643,415 resulted from the year's operation against C£2,203,236 for 1978. (The sum of C£376,165 was deducted for special contributions). No special contribution has been made for 1979 by reason of accelerated capital allowances.
- (b) The operating revenue was C£12,163,386 i.e. an increase of 26% over that of 1978 which was C£9,648,323.
- (c) The net additions to fixed assets were C£5,319,233 (the 1978 figure was C£2,226,988) in the form of exchanges, line plant apparatus and the Satellite Earth Station.
- (d) The cash position at the end of the year was C£3,158,902 against C£1,433,111 for 1978.
- 7. Management/Staff relations were satisfactory and all staff matters were discussed and agreement reached at the Joint Management/Staff Committees.
- 8. The Authority did its best to serve its threefold responsibility of:
 - (a) maintaining the system to a high degree of efficiency.
 - (b) satisfying as much as possible of the current needs of the public, and
 - (c) planning for future development and improvements to cope with an ever increasing demand.

2. TECHNICAL SERVICES

A. GENERAL

During 1979 the Authority continued its intensive programme for the improvement and expansion of the existing services and its studies and plans for the provision of additional facilities and services to meet the growing demand for inland and overseas telecommunications.

Among the major projects undertaken during this period are:-

- The construction of the Satellite Earth Station Makarios; this station, which will be operational by March, 1980, will handle international telecommunications and television via the Atlantic Ocean Region Satellite with countries served by the same satellite and equipped with similar facilities.
- The construction of the new radio repeater station at Mount Kionia; this station will be given to service during the first quarter of 1980.
- 3. The further implementation of the four-year rural development plan, which started in 1978. Through this plan, which involves the introduction of new rural exchanges and the expansion of the rural telephone network, full telecommunication services will be available to rural areas.
- 4. The planning of the new submarine cable "APOLLO" between Cyprus and Greece; with the establishment of this new cable of a capacity of about 1380 channels of 4KHZ, the number of the international telephone and telex channels via cable will be greatly increased, because of the high capacity of this new cable.

B. PLANNING AND DEVELOPMENT

During the course of the year under review, a number of new studies and plans were made for the improvement and expansion of the facilities and services offered; specifications were prepared, tenders were invited and equipment was placed on order.

The main projects which were planned during 1979 are detailed below:-

I. National Communications Network

- (a) Equipment on Order
 - (i) Voice Frequency Telegraph Terminals

These terminals will provide additional channels for the inland and overseas telex service.

(ii) Telex Units

An order of 300 telex units was placed for delivery in 1980.

(iii) Data Modems

Thirty 600/1200 Bit/second and ten 1200/2400 Bit/second data modem units were placed on order for the new DATEL service to be provided by the Authority in 1980.

(b) Tenders for new Equipment

International tenders were invited for the supply of the following equipment:-

- (i) One S.H.F. Radio System of 300-channel capacity with the associated multiplex equipment intended for the Nicosia-Kakopetria link.
- (ii) Two U.H.F. Radio Systems of 120-channel capacity each with the associated multiplex equipment for the Dhali Mt. Kionia Repeater Station link and the Nicosia-Dheftera link.
- (iii) Two U.H.F. Radio Systems of 60-channel capacity each with the associated multiplex equipment for the Larnaca-Ormidhia and the Paphos-Peyia links.
- (iv) Multiplex equipment for the needs of the Paralimni rurax.

(c) Specifications for new Equipment

Studies have been made and work has started in 1979 for the preparation of specifications leading to the invitation of international tenders, early next year, for the supply of the following equipment:—

- (i) Automatic dial mobile telephone equipment.
- (ii) Facsimile subscriber's apparatus.

II. International Communications Network

(a) Greece-Cyprus Submarine Cable System "APOLLO"

Specifications were prepared and international tenders were invited in December for the provision of a second submarine cable system between Greece and Cyprus.

III. Maritime Mobile Services

The following equipment was placed on order during 1979 for the support of the maritime mobile services:-

- (a) One 10 KW synthesized 2-30 MHz H.F. Transmitter scheduled for delivery and installation in 1980.
- (b) One synthesized H.F. Drive Unit.
- (c) One H.F. Active Loop Antenna and Multicoupler.

IV. Civil Aviation Telecommunications Services

The relevant studies commenced for the preparation of specifications leading to the invitation of tenders, early next year, for the provision of an Instrument Landing System to be installed at the Larnaca International Airport.

V. Local Telephone Exchanges

(a) Zone Main and Statellite Exchanges

The feasibility studies and the planning of various projects for the improvement and expansion of the telephone services continued this year as in previous years.

Orders were placed and installation literature was prepared for the equipment required to increase the grade of service at Limassol and Larnaca exchanges as well as for the further extension of the Limassol, Acropolis and Larnaca Exchanges.

The following table shows the planned increase in the capacity of the zone telephone exchanges:

Exchange	Existing Lines in 1979	Under Installation	Additional lines on order or in stock	Planned total lines in 1980
Nicosia	54,400		2,600	57,000
Famagusta	9,000			9,000
Larnaca	6,000		3,000	9,000
Limassol	19,000		3,600	22,600
Paphos	4,000			4,000
Morphou	1,400			1,400
Kyrenia	1,400			1,400
Total	95,200		9,200	104,400

(b) Rural Exchanges

The studies and plans for the implementation of the 4-year Rural Development Plan which started in 1978 continued.

The crossbar rural exchanges were standardized to facilitate installation, maintenance and operational work and minimize capital expenditure.

Orders were placed for three new 600-line rural exchanges and plans were prepared for the redeployment of available equipment at Chakistra and Kato Pyrgos Rural Exchanges.

The following table shows the planned increase of the rural exchanges including mobile exchanges:—

Zone	Number of Ruraxes	Existing lines in 1979	Under Installation	Additional lines on order or in stock	Planned total number of lines in 1980
Nicosia	7	1,600		600	2,200
Famagusta	5	500			500
Larnaca	6	1,150		2,600	3,750
Limassol	6	1,500		600	2,100
Paphos	5	300		1,200	1,500
Morphou	3	400			400
Kyrenia	2	350		1,200	1,550
Total	34	5,800		6,200	12,000

(c) International Telephone Exchange

Orders have been placed for additional equipment for the expansion of this exchange.

(d) International Telex Exchange

Plans have been prepared for the increase in capacity of the exchange by another 512 lines, making a total of 2,560 lines.

(e) Subscribers Telephone Apparatus

During 1979 technical and contractual specifications were prepared for the supply of Private Automatic Branch Exchanges (PABXs), Key Telephone Systems, Private Manual Branch Exchanges (PMBXs) and Telephone Instruments, leading to the invitation of international tenders and tender submission and evaluation.

All equipment supplied by third parties was tested and evaluated prior to its approval for connection on the Authority's telephone network.

VI. Line Plant Development

(a) Urban Development

Detailed studies were made and plans and estimates were prepared for the extension of the underground and overhead networks of the towns of Nicosia, Limassol, Larnaca and Paphos.

(b) Rural Development

Plans and estimates were prepared for the expansion of the telephone network in various villages in accordance with the 4-year rural development programme.

These plans involved the following villages.

(i) Nicosia Zone

Dhali, Nissou, Pera Chorio, Lythrodontas, Ayia Varvara, Mathiatis, Ergates, Potamia, Alambra, Kato Dheftera, Xeri and Lymbia.

(ii) Limassol Zone

Platres, Erimi, Agridhia, Kyperounda, Episkopi, Kandou, Kolossi, Khandria, Pissouri, Evdhimou, Paramali, Ayios Ioannis, Agros.

(iii) Larnaca Zone

Livadhia, Mosphiloti, Sha, Pyrga, Psevdas, Kornos.

(iv) Paphos Zone

Polis.

(v) Morphou Zone

Kakopetria, Evrykhou, Galata.

VII. Industrial Estates

Plans were prepared for the provision of telephone services to the Industrial Estates of Pallouriotissa and Kaimakli.

VIII. Government and Refugee Self Housing Communities.

(a) Estimates were prepared for the provision of public telephone services at the Government Communities of:-

- (i) Nicosia Zone
 Plati, Athalassa, Kokkines, Strovolos II and Strovolos III.
- (ii) Limassol Zone

 Kapsalos, Makarios III and Ayios Ioannis.
- (iii) Larnaca Zone

Zygl, Kophinou, Kamares, Makarios III and Ay. Anargyri II.

(b) Refugee Self Housing Communities

Plans were also prepared for the installation of public telephone kiosks at fourteen different self housing communities in the Nicosia Zone, sixteen in Limassol Zone, fourteen in Larnaca Zone and two in Famagusta Zone.

IX. Power Plant

(a) New Equipment on Order

Specifications were prepared, tenders were invited and orders were placed for the provision of the following:-

- (i) Standby diesel alternator sets for Limassol Exchange, Acropolis Satellite Exchange, new Latsia Satellite Exchange, Kakopetria, Dheftera, Peyia and Ormidhia Rural Exchanges.
- (ii) Battery Floating Equipment for Limassol Exchange, Acropolis Satellite Exchange, new Latsia Satellite Exchange, Kakopetria, Dheftera, Ormidhia and Peyia Rural Exchanges, the Satellite Earth Station and Mt. Kionia Repeater Station.

X. Fire Alarm Systems

Specifications were issued and an order was placed for an automatic fire extinguishing system for Mt. Kionia (unattended) Repeater Station. The whole system was delivered in September 1979 and is scheduled for installation in the first quarter of 1980.

C. CONSTRUCTION

It is the policy of the Authority to entrust the execution of certain projects to outside contractors. In line with this policy, a number of projects, like digging of holes for the erection of telephone poles, the excavation of trenches and the laying of ducts and the construction of manholes, were contracted to local firms.

However, all other construction work was carried out by the Authority's construction personnel.

The following major projects were executed by the Authority's personnel during 1979:-

I. Telephone Exchanges

(a) International Telephone Exchange

In order to cope with the increased international telephone traffic, additional equipment was installed thus increasing the number of trunks of the exchange by at least 14%.

In addition, work had started for the installation of all equipment necessary to handle the traffic which will be routed to or from the Earth Satellite Station; at least 90% of the work was completed in 1979.

(b) Towns Local Exchanges

- (1) Nicosia Exchanges
 - (i) Acropolis Satellite Exchange (Step-by-step)

The installation work for the addition of 900 lines to this exchange which started in 1978 was completed in 1979. Immediately after, a new phase of installation commenced for the addition of another 3,000 lines, which when completed in the coming year, will bring the total capacity of the exchange to 9,900 lines.

(ii) Pallouriotissa Satellite Exchange (Step-by-step)

The work for the expansion of this exchange by 2,400 lines, which started in 1978, was completed, bringing the number of lines of the exchange to 7,400.

(iii) Nicosia 'C' Exchange (Crossbar)

In order to cope with the increase of the telephone traffic between the 'C' Exchange and the International Telephone Exchange, additional interworking equipment between the two exchanges was installed.

(2) Limassol Exchange (Crossbar)

The installation work for the expansion of the Limassol Exchange by 4,000 lines which began the previous year was completed in 1979, bringing the number of lines to 19,000.

- (c) Rural Exchanges
 - (i) Dhali Exchange (Crossbar)

A new 600-line crossbar exchange replaced the old Strowger type at Dhali. The work which started in 1978 was duly completed in the summer of 1979. With this new exchange, the telephone service of the area will be greatly improved.

(ii) Dheftera Exchange

The total capacity of this exchange reached 250 lines after the installation of an additional 100 lines in 1979.

(iii) Chakistra Exchange

This is a new rural exchange of 100 lines capacity installed and commissioned in 1979, in accordance with the 4-year Rural Development Plan.

(iv) Kakopetria Exchange

An additional 50 lines were installed in this exchange in 1979 bringing the total to 250.

(v) Zygi Exchange

The capacity of the exchange was brought up to 100 lines after the addition of another 50 lines.

(vi) Pyrgos Exchange

This is another new rural exchange of 50 lines capacity which was installed and commissioned in 1979, in line with the 4-year Rural Development Plan.

(d) Subscribers Private Exchanges

During 1979, 62 Private Automatic Branch Exchanges (PABXs) were installed at various private business and government establishments all over Cyprus.

Additional common control equipment was also installed at the government centrex exchange.

The capacity in lines of the various main, rural and private exchanges for 1978 and 1979 is shown in the following table:-

	1	78	19	179
Туре	No.	Capacity	No.	Capacity
Zone Main Automatic		Assign Augustus		
Telephone Exchanges	7	73,700	7	77,700
Zone Satellite Exchanges	2	13,000	2	15,300
Rural Exchanges	29	4,440	31	5,190
Mobile Exchanges	1	600	2	700
	39	91,740	42	98,890
Private Automatic Branch			SEE ALL	
Exchanges	320	13,306	382	15,065
Private Manual Branch		Therman Th	mi boult	
Exchanges	1974	23,262	1937	26,830

II. Telex Exchange (Stored Programme Control)

The capacity of the Telex Exchange was further increased by 512 lines bringing the total number of lines to 2,048. This expansion is expected to cover the demand for telex lines for the next two years.

III. Radio and Multiplex Equipment

A number of new Radio and Multiplex equipment was installed and put into operation during the course of the year, in accordance with the plans of the Authority, for:-

- (a) The establishment of new radio links to rural areas.
- (b) The expansion of the existing radio routes to accommodate the increasing traffic.
- (c) The replacement of existing but aged and inefficient systems.
- (d) The following work was done during the year under review:-
 - (i) A U.H.F. radio system of 24—channel capacity and its associated multiplex equipment was installed linking Chakistra and Mt. Olympus Repeater Station.
 - (ii) A 12-channel U.H.F. radio system and its associated multiplex equipment was installed between Nicosia and Klirou to replace the existing junction lines.
 - (iii) The installation work of the 300-channel S.H.F. radio system between Limassol and Platres, including the passive reflector on Mt. Pouziaris, which is associated with the system was completed in 1979.
 - (iv) Work started for the installation of a new 300-channel S.H.F. radio link between Paphos and Kili to replace the existing valve-operated U.H.F. link. The completion of the installation is expected early in 1980.
 - (v) Work also started for the installation of new Microwave Radio Links between the new Mt. Kionia Repeater Station and the zone centres of Nicosia, Limassol and Larnaca, as well as the Satellite Earth Station.
 - This new network is intended to route the traffic between the three zone centres as well as the traffic between the Nicosia Centre and the Earth Satellite Station. The installation work is scheduled for completion early in 1980.
 - (vi) The installation of an additional microwave radio link started simultaneously, linking the Earth Satellite Station and the Cyprus Broadcasting Corporation via the Mt. Kionia Repeater

Station. This link will carry Television between these two points. The completion of this work is also scheduled for January 1980.

- (vii) New open wire carrier systems with their associated multiplex equipment were installed between:-
 - 1. Nicosia and Dheftera, of 12-channel capacity.
 - 2. Paphos and Polis, of 12-channel capacity.
 - 3. Paphos and Kato Pyrgos, of 3-channel capacity.
 - 4. Larnaca and Athienou, of 12-channel capacity, replacing the existing valve operated equipment.
- (viii) Work has also started for the installation of multiplex translating equipment at Nicosia Zone Centre and the Satellite Earth Station, which in conjunction with the new microwave radio link between these two points will handle the overseas traffic routed via satellite.
- (ix) Voice Frequency Telegraphy equipment was installed at Nicosia, Limassol and Larnaca zones to provide additional telex channels for the inland and overseas telex services, thus increasing the available number of channels by 330.

IV. Marine Mobile Radio Equipment

For the improvement of the marine mobile telephone service, two new transmitters were installed and commissioned in 1979; one of 10 KW output power, transmitting on the H.F. band and the other of 5 KW output power, transmitting on the M.F. band.

In addition, two VHF/FM transceivers were installed at Larnaca and Pissouri, to facilitate the marine radiotelephony on the VHF band.

V. Civil Aviation Telecommunication Services

For the further improvement of this service, the following equipment which was on order and delivered in 1979 was installed and put into operation:—

- (a) Air Traffic Control Consoles for the Nicosia Air Traffic Control Centre (A.T.C.C.).
- (b) One non-directional M.F. Beacon transmitter for Larnaca International Airport.
- (c) One communications recorder.

VI. Makarios Earth Station

The construction of the antenna and the installation of the equipment of the Satellite Earth Station commenced immediately after the completion of the relevant buildings, in the summer of 1979.

The completion of the work and the commissioning of the station is scheduled for the first quarter of 1980.

VII. Line Plant

During 1979, the underground cable network was further expanded.

This necessitated the building of additional manholes and the laying of ducts. Pole routes were also constructed for the expansion of the overhead line network.

The comparative tables below show the work done.

Table 1

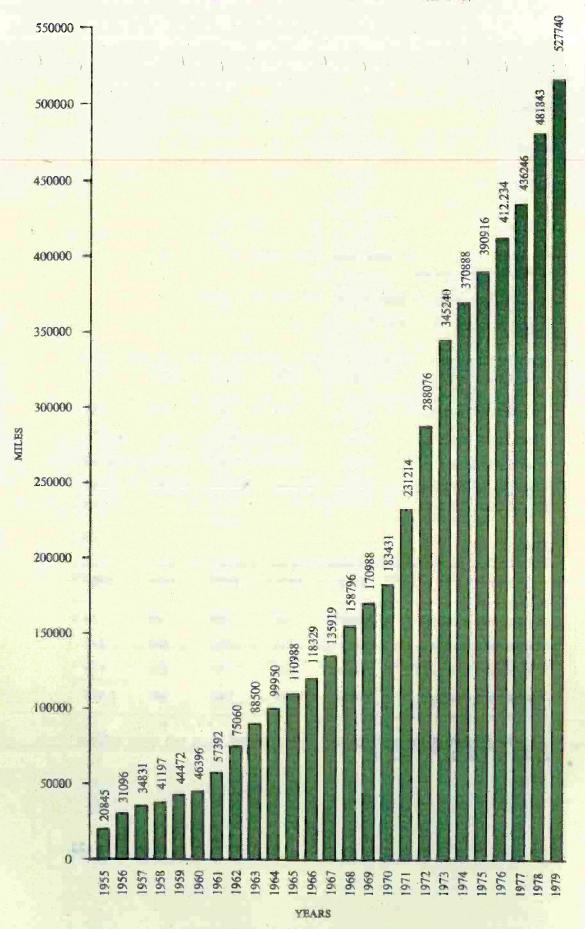
Item .	Unit	1976	1977	1978	1979
Manholes Constructed	No.	48	189	135	288
Duct lines laid	Miles	17.81	58.80	69.73	102.75
Cable laid/drawn	Miles	72.31	73.40	90.77	126.49
Above cable in single wire	Miles	21,329	24,012	45,597	45,830

Table 2

Item	Unit	1976	1977	1978	1979
Pole routes installed	Miles	16	59	42	30
Single wire installed	Miles	234	416	300	142
Pole routes overhead	Miles	136	59	134	115
Single wire overhead	Miles	3,886	940	940	2,895

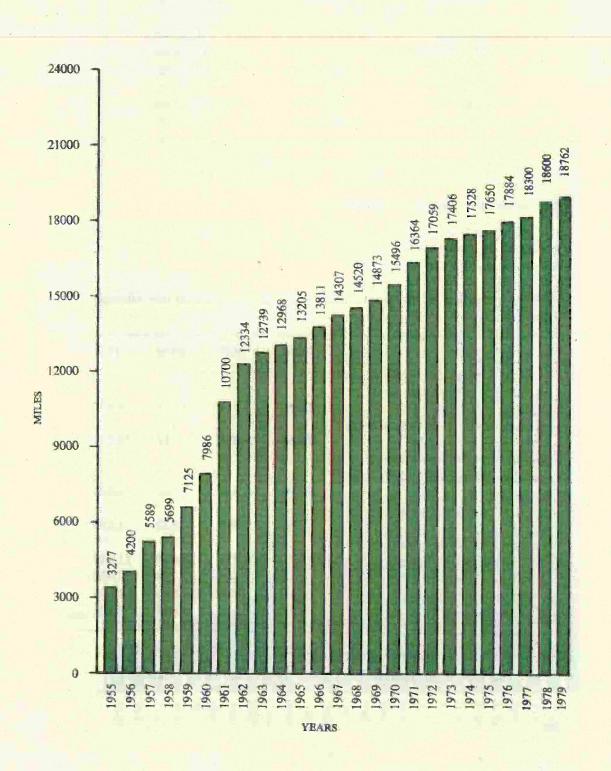
The growth of the underground and overhead wires run since 1955, is shown in Graphs 'A' and 'B'.

GRAPH "A"
UNDERGROUND CABLES SINGLE WIRE LAID



GRAPH "B"

OVERHEAD SINGLE WIRE MILEAGE INSTALLED



VIII. Communal Installations

The following list shows the new communal telephones installed and connected to the telephone network during 1979.

Village	Zone	Exchange
Strovilia	Famagusta	Paralimni
Ay. Nicolas	Famagusta	Paralimni
Chakistra	Morphou	Chakistra
Kambos	Morphou	Chakistra
Milikouri	Morphou	Chakistra
Prodromos	Morphou	Chakistra

Call offices were also installed at the Refugee Communities of Ay. Varvara, Ay. Mamas, Eylenja, Plati, Ay. Nicolas and Ay. Georgios.

IX. Subscribers Telephone Installations

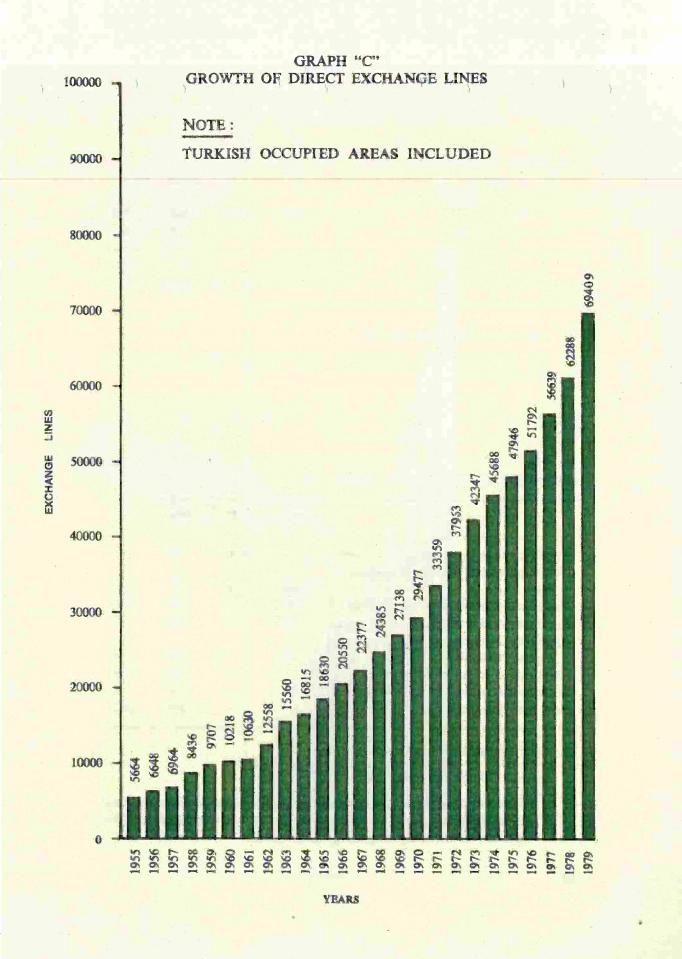
Although the aim of the Authority is to satisfy all applications received, however, in some cases, due to technical reasons, some applications had to be put on the waiting list.

An indication of the applications received and installations effected is given below:-

The same of the sa	The state of the s	the state of the s	The state of the s	4. 0. 0.
	1976	1977	1978	1979
Applications in hand as at 1st				
January	2,004	2,571	4,271	8,035
the year	8,254	8,821	11,712	13,758
Applications for new direct exchange lines released during				
the year	6,379	6,333	7,126	8,683
Applications cancelled during the	4 600	200	000	4 404
year	1,308	788	822	1,191
Applications on the waiting list				
as at the end of the year	2,571	4,271	8,035	11,919
Installation removals			2,238	2,974
Installation withdrawals			894	1,007
New Installations	· ·	-	5,649	7,121

Note: Figures for the occupied areas are not included in the above table.

The growth in the direct exchange lines is shown in Graph 'C'.



The table below shows the number of Works Orders executed at the various zones for telephone installations and associated works;—

	1975	1976	1977	1978	1979
Nicosia (including Kyrenia					
and Morphou)	9,964	7,547	8,138	8,616	10,307
Limassol (including Paphos					
and Platres)	4,211	4,420	4,547	5,368	6,278
Larnaca (including Famagusta)	1,741	1,981	1,626	2,115	2,452

As in previous years, the Authority continued to provide an efficient service to the Government, the National Guard, the United Nations Force in Cyprus and the British Sovereign Base Areas.

X. Subscribers Telex Installations

The demand for telex installations continued this year at a higher rate than in the previous year.

By the end of 1979, there were 1,494 subscribers connected on the Telex Exchange (seventy seven in the Turkish occupied area, seventy three of which are not operational) (Graph 'D').

The table below gives an indication of the movement of the applications received and applicants on the Waiting List:-

	1976	1977	1978	1979
Applications in hand as at 1st January New applications received during the		130	3	27
year	329	246	297	328
Applications released during the year	187	315	263	281
Applications cancelled during the year Applications on the Waiting List as at	12	58	26	35
the end of the year	130	3	27	39
Removals of telex installations			84	106
Withdrawals of telex installations			26	38
New installations			204	253

XI. Civil Engineering Works and Buildings

(a) Mt. Kionia Repeater Station

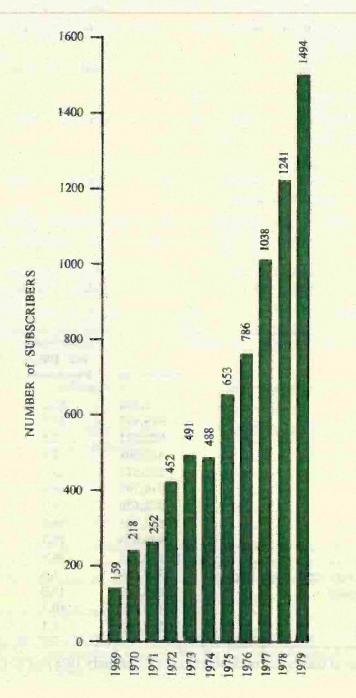
The work for the construction of this new repeater station continued, weather permitting, throughout the year and is scheduled for completion in the early menths of 1980.

GRAPH "D"

GROWTH OF TELEX SUBSCRIBERS.

NOTE: 77 IN TURKISH OCCUPIED AREAS

(INCLUDED)



YEARS

(b) Mt. Olympus Repeater Station

The extension of the building of this repeater station was completed and handed over to the Authority.

(c) Makarios Earth Station

The road leading to the Makarios Earth Station was completed in January of this year. Immediately after work started for the construction of the administration, equipment and antenna buildings of the station.

These buildings were completed before the end of the year.

(d) Telephone Exchange Buildings

During 1979, work also started for the construction of five additional rural telephone exchange buildings.

The building at Chakistra was completed during the same year whilst those at Kakopetria, Dheftera, Paralimni and Ormidhia are scheduled for completion in 1980.

In addition, the construction work for the extension of the Larnaca main exchange building is also expected to be completed in 1980.

COMPARATIVE CHART SHOWING TELEPHONES OF CYPRUS AND NEIGHBOURING COUNTRIES

As at 1.1.1978

				No. of Telephones	Telephones per 100 Population	Per Cent Automatic
CYPRUS				82,800	n.a.	99.6
Israel, State of				929,837	25.5	100.0
Tenn				828,571	2.5	91.5
Iraq, Republic of				319,591	2.6	95.8
Kuwait, State of			. (152,517	13.1	99.0
Canada de la companya				2,319,797	25.1	99.3
Turkey				1,378,620	3.3	81.3
Charles				9,527,781	26.3	95.4
Bulgaria				946,023	10.7	89.7
Italy				16,118,928	28.5	100,0
Algerian Dem. and	Pop.	Rep.		297,689	1.6	87.3
Czechoslovakia		4 7 1		2,863,307	19.0	97.5
Lineage				1,103,843	10,3	81.7
Vyvoodovia				1,555,663	7.1	98.3

Total number of telephones in the world as at 1st January 1978 was 423,082,000.

TELEPHONES IN THE PRINCIPAL CITIES OF NEIGHBOURING COUNTRIES

				No. of Telephones	Population (thousands)	Telephones per 100 Population
Nicosia (A)		e / / e		45,660	113.0	38.7
Tel-Aviv (Grea		inel. R	amat-			
Gan, Hulon,				391,892	954.1	41.1
Kuwait (A)				152,517	1,162.0	13.1
Athens (A)	* *			1,273,467	2,540.2	50.1
Ankara (B)				288,600	1,932.0	14,9
Belgrade		• •	• •	248,599	1,345.0	18.5
Sofia (A)				296,752	991.0	29.9
Madrid				1,720,789	3,870.9	44.5
Rome (A)		=		1,514,246	2,914.3	52.0
Alger				111,682	n.a.	-
Prague (A)				561,978	1,182.9	47.5
Budapest (A)				606,712	2,134.0	28.4
Tehran (A)				391,700	4,486.1	8.7
Baghdad (A)				149,779	3,036.0	4.9

Note: The above information was obtained from "the World's Telephones" which is compiled and circulated by the American and Telegraph Company. The number of Telephones shown comprises also the extensions.

Note: A - The exchange serves the entire city, and also serves beyond the city.

B - The exchange serves the entire city but not beyond it.

n.a. Data not available.

D. MAINTENANCE

L. General Maintenance

The inland and overseas telecommunication services were kept to a very good standard of maintenance due to the efforts of the staff of the Authority for the provision of an efficient and reliable service to the public.

II. Preventive Maintenance

For the maintenance of the Strowger Exchanges the recommendations of the B.P.O. are adopted whereas for the Crossbar Exchanges those of the Japanese Post Office (N.T.T.P.C.).

For the rest of the equipment the recommendations of the manufacturers are followed.

Routine maintenance was carried out systematically throughout 1979.

III. Workshops

The Authority continued to maintain its Engineering Workshops for general repair work and construction/assembly of various items. They are divided into three sections, namely the General Workshops, the Electronic/Teleprinter Workshop and the Electromechanical Workshop.

The general Workshop is repsonsible for the repair of telephone sets and their accessories, switchboards, battery eliminators and other associated miscellaneous items, the repair and construction of various metallic and wooden items and the painting and renovation of the Authority's buildings.

The main line of activities of the Electronic/Teleprinter Workshop is the testing and maintenance of the electronic coin collecting boxes, the electronic teleprinters, the push button telephones as well as other complicated electronic equipment. Research and development, by utilising modern microprocessor techniques, is also being carried out for the construction and assembly of special types of equipment required by the Authority.

The Electromechanical Workshop is engaged in the maintenance of standby power equipment, air conditioning systems, refrigerators and other miscellaneous electromechanical equipment belonging to the Authority. Bench work of many electrical appliances, as rewiring of relay coils, transformers, etc. is also being carried out by the Workshop.

IV. Transport

The Authority maintains its own fleet of 170 vehicles. Statistical data in respect of the Authority's fleet is shown in the following table:-

	1976	1977	1978	1979
Miles run Fuel Consumption (Imp.	1,026,000	1,031,000	1,104,000	1,210,570
Gallons)	58,669	62,545	61,043	64,745
Oil Consumption (kg)	3,697	3,822	3,846	4,000

The Authority runs its own garage repair service. Repairs and routine maintenance work on motor vehicles are carried out by experienced mechanics.

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E. GENERAL TELECOMMUNICATIONS FACILITIES

I. Broadcasts (Local)

The Authority's services and plant were made available to the Broad-casting Corporation for effecting outside local broadcasts (live programmes) from any point in Cyprus. Such broadcasts include church services, theatrical performances, fairs, Christmas celebrations, football matches, public speeches, voicecasts, etc. During 1979, eighty outside broadcasts were effected by using the Authority's network.

II. Overseas Voicecasts

Good quality voicecast programmes were provided throughout the year. The following table shows comparative figures of the past four years.

		1976	1977	1978	1979
Number of Voicecasts		177	483	253	193
Number of Minutes	p 10	10,173	44,336	11,919	10,533

III. Facsimile (Radio Pictures)

Although a good quality facsimile service has been maintained throughout the year, the demand for radio pictures was lower than in previous years, as the following table indicates:—

	1976	1977	1978	1979
Transmitted	266	167	137	62
Received			6	1

IV. Communication with ships at sea (Maritime Mobile Service)

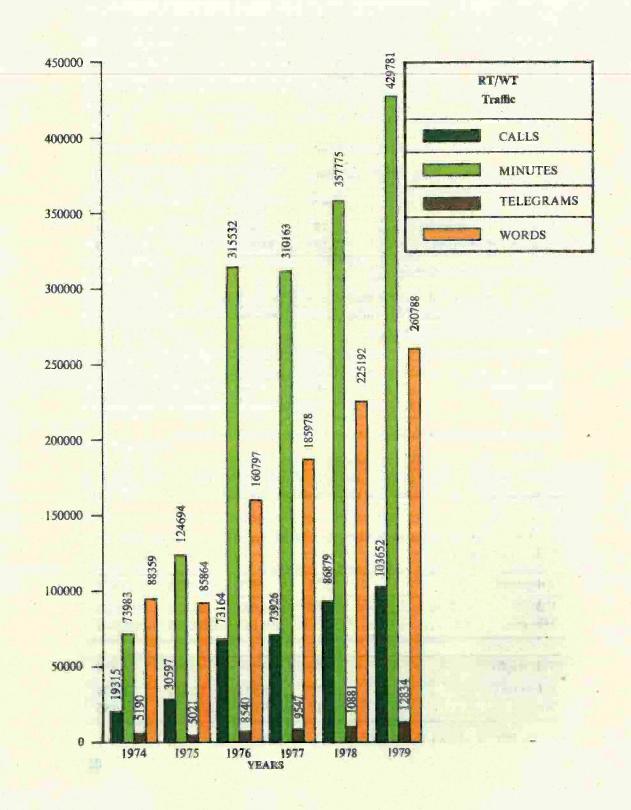
Both radiotelephony and radiotelegraphy, provided by the ship to shore service, improved substantially during the year under review, as a result of the commissioning of three new radio transmitters and two new sets of VHF transceivers.

The following tables show comparative figures of the traffic handled over the last four years:-

Telephony			1976	1977	1978	1979
Calls Minutes	••	••	73,164 315,532	73,933 310,181	86,878 357,648	103,631 429,641
Telegraphy		-M	1976	1977	1978	1979
Telegrams Words		•••	8,577 201,512	9,641 185,978	11,481 225,192	12,834 260,785

Graph 'E' shows the ship/shore RT/WT traffic since 1970.

GRAPH "E"
SHIP SHORE RT/WT TRAFFIC



V. Civil Aviation Telecommunication Services.

Good quality civil aviation communications were provided throughout the year for the Department of Civil Aviation of the Ministry of Communications and Works in accordance with the procedures and recommendations laid down by the International Civil Aviation Organization (ICAO).

The services rendered, analytically, were the following:-

- (a) Radiotelephone communication over VHF and UHF frequencies with aircraft in flight within the Cyprus Flight Information Region (F.I.R.).
- (b) Telephone communication between the Nicosia Air Traffic Control Centre (A.T.C.C.) and the Control Centres of Larnaca, Athens, Beirut, Tel-Aviv, Cairo and Akrotiri Airports.
- (c) Communication between the Larnaca Control Tower and aircraft for approach and landing purposes.
- (d) Radio Air Navigational Aids for the use of civil aircraft in the form of a VHF Omni Range System (V.O.R.), Distance Measuring Equipment (D.M.E.) and two non-directional Radio Beacons located at Dhekelia and Pervolia village. In addition to the above, a VHF Direction Finder (D.F.) equipment is available to provide bearings information to the Air Traffic Control personnel.
- (e) VOLMET service which transmits continuous weather reports from Nicosia for use by aircraft in flight within the Cyprus Flight Information Region.
- (f) Fully automatic and computerized telegraph communication within the Aeronautical Fixed Telecommunications Network (AFTN) to the airports of:

Athens (3 channels)

Tel-Aviv (1 channel) and

Beirut (2 channels).

Apart from the above overseas circuits, seven local telegraph circuits were also provided through the AMSC for communicating with:-

Nicosia Area Control Centre

Nicosia Civil Aviation Department Offices

Larnaca Airport Civil Operations

Larnaca Airport Control Tower

Larnaca Airport Meteorological Office

Akrotiri Airport

Nicosia Automated Data Interchange Systems Panel (ADISP)

The volume of traffic recorded on this service reached a new peak as the following comparative figures of the aggregate of received and transmitted messages show:—

	1976	1977	1978	1979
Number of Messages	746,270	1,639,218	2,119,642	2,272,605

VI. Meteorological Service

A reliable and continuous Mufax (reception of weather charts) service and four teleprinter circuits for the reception of meteorological bulletins were provided by the Authority for the Ministry of Agriculture and Natural Resources.

3. INTERNATIONAL NETWORK AND SERVICES OPERATION

I. GENERAL

During the year under review, the International Network including all the circuits with foreign countries has continued its expansion to cope with the increasing demand for all services (Telephony, Telex and Telegraphy). New routes, more circuits and further automatic mode of operation for all services were the main objects, so that the provision of secured and smooth flow of traffic with the rest of the world, as well as high quality of service were achieved.

II. INTERNATIONAL NETWORK

With the International Services operating most satisfactorily, the target was how to achieve high quality of service to the best possible degree.

During 1979 there were four traffic outlets from Cyprus to the rest of the world. The first and the main one was the submarine cable "Aphrodite", linking Cyprus with Greece. The second was the Tropospheric Scatter between Cyprus and Greece, which has become of less importance being superseded by new media. The third, was the submarine cable "Adonis" linking Cyprus with Lebanon, which was intended to be of major importance for the traffic to the Middle East, except that the situation in Lebanon delayed this plan. Finally, the fourth outlet was the UHF link of Cyprus-Israel.

The completion of the "MAKARIOS" Earth Station in 1980 will provide an additional direct route to European, African and American countries. Furthermore the decision taken to lay a new submarine cable of high capacity, "APOLLON", will expand the link of Cyprus with Greece and beyond.

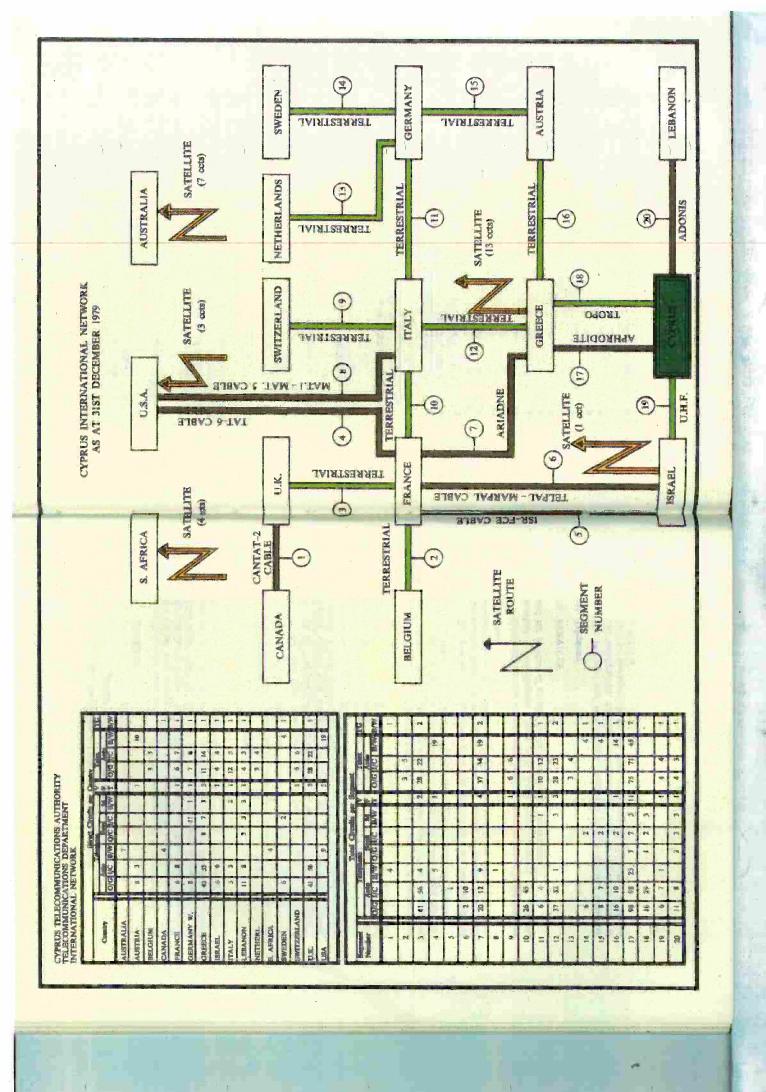
The extension of the direct links was effected through the purchase of Indefeasible Rights of Use (IRU's) and the leasing of circuits from other administrations, thus enabling the establishment of direct routes with other countries.

Schematic analysis of the International Network is shown in the diagram overleaf. This diagram shows each direct route, segment by segment, and the number of circuits for each service on the segment.

III. SERVICES

(a) Telephony

The National and International Telephone Service operated efficiently and satisfactorily, resulting to an increase over the previous year of 19% for the Inland traffic and 27% of the International traffic, as shown in Table A.



The considerable traffic increase observed was the result of the continued economic growth in Cyprus, the increase in the number of International circuits, (TABLE B), the establishment of new direct routes and the introduction of International Subscriber Dialling (ISD) with more countries.

Analytically, ISD service was available with 62 countries and through the Operator for the rest of the world (TABLE C).

Direct Telephone Service was established with two more countries i.e. South Africa and Libya, bringing the total number of countries directly connected with Cyprus to 14, by the end of 1979. Furthermore the number of International Telephone circuits has increased from 308 to 339 or, 10% during the year under review.

TABLE A

TR	- 40	700	1 ESP. 4	
- H - H-C	- CA	100	100	

SERVICE	1977	1978	1979	1979/80 Growth %
INTERNATIONAL (Outgoing)				
ISD Calls (Minutes)	6,036,190	7,803,418	9,915,682	the state of the s
Through Operator (Minutes)	739,601	598,313	697,050	16.50
INLAND				
Dialled Calls (Units)	195,761,874	238,214,942	282,672,548	18.66
Through Operator (Calls)	348,444	142,166	25,912	-81.77

TABLE B

INTERNATIONAL TELEPHONE CIRCUITS

COUNTRY			Manufactures aloss		1977	1978	1979
GREECE		* *			104	112	114
U.K.					77	88	97
LEBANON	• •				28	28	28
GERMANY F.I	R.			 	11	15	20
FRANCE				 	12	14	14
ISRAEL					8	12	12
AUSTRIA				 		9	11
ITALY					10	10	10
U.S.A.					4	8	9
SWEDEN						6	- 8.
AUSTRALIA						2	7
CANADA					4	4	4
SOUTH AFRIC			٧				4
LIBYA							1
					258	308	339

TABLE C
CYPRUS ON THE GLOBAL TELEPHONE NETWORK

			NUN	MBER O	F COUN	TRIES		
SERVICE		O O	UTGOIN	G	IN	INCOMING		
		1977	1978	1979	1977	1978	1979	
ISD		54	61	62	15	27	30	
Semi-Automatic	La sa	11	9	10	28	16	23	
Manual		76	72	70	98	99	89	
TOTAL		141	142	142	141	142	142	

(b) DATEL Service

The initial plan was that the operation of DATEL Service would commence in 1979 but it was postponed because of the delay in the procurement of the necessary equipment.

Data transmission requirements continued to be satisfied through leased services.

(c) TELEX Service

The upward trend experienced during the last few years continued during the year 1979, for both, traffic and circuits. The traffic increase (in minutes) was 23% for the International and 30% for the Inland TELEX Service. On the other hand the number of International circuits increased by 16%.

Automatic TELEX service was available with 104 countries and manual service with the rest of the world, through the 13 direct routes connected on the Nicosia computerized international TELEX exchange.

TABLE A

TRAFFIC								
SERVICE			1977	1978	1979	1979/78 Growth %		
INTERNAT	IONA	L						
(Outgoing)								
Calls			518,844	639,237	822,475	28.66		
Minutes			1,577,411	1,970,572	2,422,807	22.95		
INLAND								
Calls		. a to - d i	181,918	221,856	274,586	23.77		
Minutes			435,037	540,311	702,346	29,99		

TABLE B
INTERNATIONAL TELEX CIRCUITS

COUNTRY					1977	1978	1979
AUSTRIA					5	7	10
BELGIUM					_	6	8
FRANCE			n e		11	13	13
GERMANY F.	R.				11	11	15
GREECE				1	25	25	25
ISRAEL					6	8	8
ITALY					12	13	17
LEBANON					7	7	7
NETHERLANI	OS					6	7
SWEDEN					3	3	4
SWITZERLAN	D			1000	12	12	12
U.K.					43	43	50
U.S.A. (ITT)					4	4	6
U.S.A. (RCA)					4	4	6
U.S.A. (WUI)			•		5	6	7
TOTAL				••	148	168	195

(d) Telegraphy

International telegraph service was provided to all parts of the world through the nine direct routes connected on the Nicosia Automatic Message Switching Centre (AMSC).

The international telegraph traffic has been in regression over the past few years as indicated in the table below, due to the rapid expansion of the Telephone and Telex services.

TABLE A
TELEGRAPH TRAFFIC

SERVICE			1977	1978	1979	1979/78 Growth %
INTERNATIO	NAI	.				
(Outgoing)						
Telegrams			77,450	70,864	67,292	-5.0
Words	•		1,966,661	1,863,147	1,703,325	-8.6
INLAND						
Telegrams			74,848	73,743	82,969	12.5
Words			1,326,350	1,348,465	1,456,998	8.0

4. ADMINISTRATION AND STAFF

I. TRADE UNIONS - STAFF RELATIONS AND JOINT COMMITTEES

Industrial peace, close co-operation of Management and staff and the carrying into effect of the Authority's extensive development plans and the introduction of improved methods, resulted in the provision of improved service to wider sections of the public.

The Collective Agreement between the Authority and the Unions expires on 31st December, 1979 and new claims have been submitted by the Union on 14th November, 1979, relating to the conditions of employment and salary scales of the staff.

It is hoped that a sense of responsibility from each side will prevail again and that a new agreement will be reached and signed, so that the Authority unencumbered may continue the general development of telecommunications so as to cope with the ever increasing demand.

II. JOINT CONSULTATIONS

As a result of mutual interest in staff matters, Joint Management/Staff Committees worked satisfactorily as hereunder:-

1. Staff Safety and Welfare

(a) Safety

The Safety Committee continued its efforts during the year towards the prevention of accidents and to this effect the following action was taken.

- (i) The "Safety Notice Boards" were properly maintained by the exhibition of Safety Posters.
- (ii) The first aid boxes provided by the Authority were properly maintained with prescribed contents.
- (iii) The Authority's offices and other places of work were regularly inspected and the fire precautions equipment installed in the Authority's premises was properly maintained.
- (iv) All accidents reported during the year were promptly investigated and every effort was made for their reduction.

Accidents reported during the year and comparison with the previous year:

	1978	1979
Accidents which did not necessitate sick leave	6(1)*	7
Accidents necessitated 1-3 days sick leave	6(2)*	6(1)*
Accidents necessitated 4-30 days sick leave	10(1)*	17(1)*
Accidents necessitated over 30 days sick leave	5(2)*	3
Fatal Accidents		
	27	33

- (* Figures in parenthesis Traffic Accidents to employees proceeding from their residence to the place of work or vise versa).
 - (b) Welfare

The Joint Management/Staff Welfare Committee continued its efforts during the year for the promotion of the welfare of the staff.

- (i) As it was mentioned in the previous report, the construction of the Holiday Centre at Pedhoulas, which was postponed, will be considered in due course.
- (ii) Christmas presents generously donated by OTE (Greek Telecommunications Organization) were distributed to the children of the employees.
- (iii) Christmas Parties were organized for all employees of the Authority.
- (iv) Government Savings Bonds were distributed to the children of all displaced employees of the Authority and the Fund rendered financial assistance to a number of deserving cases amongst the staff and to families of deceased employees.

All the expenses incurred during the year were paid by the Authority.

2. Establishment - Promotions - Advancement of staff

The Authority in order to give effect to its personnel policy has proceeded with the implementation of the existing agreement governing the

promotions, confirmations and the advancement of staff and to this effect the adhoc committee, which was appointed in accordance with the provisions of the staff rules and regulations completed its work most satisfactorily.

The implementation of the agreement referred to above resulted in 101 promotions and transfers to other scales.

Comparison of staff strength for the year 1978-1979

					1978	1979
Administration & Acc	ounts	0.0			260	261
Engineering					1,100	1,087
Telegraph Operating					138	138
Telephone Operating		**	• •		171	159
					1,669	1,645
Monthly Paid	• •				1,547	1,525
Weekly Paid				• •	122	120
					1,669	1,645
Less:						
Turkish employees not	attend	ing to	duty		255	255
					1,414	1,390

3. Pension and Provident Funds

The Authority's Pension and Provident Funds mentioned hereunder were satisfactorily administered by their respective committees:—

- (a) CYTA Permanent Monthly Paid employees Superannuation Fund.
- (b) CYTA Permanent Monthly Paid employees Provident Fund.
- (c) Weekly Paid employees Provident Fund.

4. Training

The Authority bears always in mind the fact that the progress of technology is rapid and that its staff should be familiar with new trends, equipment and methods, if they are to cope successfully with the incessant expansion and modernization of its services.

Therefore, the Authority, in its desire to provide opportunities for proper training to its personnel, ensures training in its own Training Centre in Nicosia training on the site, training via correspondence courses and finally training abroad either in institutions or suppliers establishments.

The Authority's expenses for Training during 1979 amounted to £144,503.— (£79,666.— were spent in 1978) and included the following:—

(i) Training in CYTA's Training Centre

(2) Training on Crossbar Exchanges	42	Employees
_(t) Training on Air Control Equipment	9	99
(0) Training on Coin Collecting Boxes	80	• • • • • • • • • • • • • • • • • • • •
(6) Training on Telex Machines	1	•
(e	Training on GTE Transceivers Type CTR-145	7	**
(f	Training on Telephone Exchanges Type C23S	13	•
(g) Training on Satellite Earth Station	15	69
(ł	Training on GTE Multiplex Equipment Type MP25	28	
(i	Training on GTE Radio Equipment Type CTR 141 & CTR 147 S	41	

(ii) Training Abroad

(a)	Training in United States of America for the Earth Station Power Sub-system	3	Employees
(b)	Training for Radio & Multiplex Equipment in Milan – Italy	-5	••

(iii) Scholarships

One employee of the Authority's Administrative staff was awarded a scholarship for acquiring the University degree in Business Administration at the New York Institute of Technology.

(iv) Payment of Tuition and Examination Fees

All employees who had attended course relative to their work and passed the prescribed examinations were refunded their tuition and examination fees.

5. Medical Funds - Medical Treatment - Sick Leave

(a) Monthly Paid Personnel

All monthly paid employees of the Authority are members of the existing CYTA Medical Fund, which provides medical aid to members at approved rates, in accordance with the rules of the Fund.

The Administration of the Fund is carried out by a committee and it is financed jointly by its members and the Authority the employees contributing 1% of their basic salary and COLA and the Authority 2%. In addition a special financial assistance in the amount of £8,000.— was granted for this year to the Fund by the Authority through the Welfare Fund.

(b) Weekly Paid Personnel

All the regular weekly paid employees are members of the Government Social Security Scheme and enjoy sick leave and medical treatment in accordance with the rules of the scheme.

The membership to the Fund provides a contribution of 1% of the wages of each member and equal amount of contributions by the Authority.

(c) Man-days of Sick leave granted to the Monthly Paid Employees

					1978	1979
Clerical Staff	-			•	1,064	904
Telephone Operating Staff	* •	• •			1,015	784
Telegraph Operating Staff		(* *	• •	• •	459	178
Technical Operating Staff					92	80
Technical Staff				• •	680	1,148
Skilled Staff			•		2,446	2,535
Messengers & Watchmen	•	.		• •	266	147
					6,022	5,776

(d) Sick leave granted to Weekly Paid employees

The man-days lost in respect of the sick leave granted to Weekly Paid employees during the year 1979 were 247 (385 in 1978).

The cost of the man-days lost (except the first day of each period of sick leave granted to employees) are re-imbursed to the Authority by the Government Social Security-Scheme and the total amount re-imbursed was £1,024.—

6. Amount leave all staff

Table showing the leave entitlement:

	No. of	working days
	1978	1979
Balance brought forward from previous year	8,331	9,275
Leave entitlement for the year	39,895	40,129
	48,226	49,404
Leave granted during the year	38,951	39,389
Balance due to employees	9,275	10,015
		AND ADDRESS OF THE PARTY OF THE

7. Leave without pay to employees securing employment abroad

As mentioned in the previous reports, among the decisions taken by the Authority in its efforts to face the redundancy and ensure the best – under the circumstances – utilization of the services of the redundant personnel was the granting of leave without pay to employees securing employment abroad.

To this effect 3 employees were on leave without pay as at 31st December 1978. One of them returned to his duty and one resigned from the Authority's services. Therefore only one employee is now on leave for reasons explained above and the Authority is reluctant to consider similar applications for leave, as no redundancy exists any more.

8. Retirements, Resignations, Dismissals etc.

- (a) 20 Employees retired from the Authority's service.
- (b) 3 Employees resigned from the Authority's service.
- (c) 3 Employees dismissed from the Authority's service (Termination of services).
- (d) 3 Employees passed away.

9. Recruitments

5 employees (1 Messenger, 3 Workmon and 1 Charwoman) were recruited during 1979.

10. Missing Employees

6 employees are still missing as a result of the Turkish invasion.

5. COMMONWEALTH TELECOMMUNICATIONS ORGANIZATION (C.T.O.)

The Chairman of the Authority, Mr. N.S. Roussos, continued to represent the Government of the Republic of Cyprus as the appointed Representative on the Commonwealth Telecommunications Council for the seventh consecutive year.

The Authority continued also to be represented on the Specialist Groups of the Commonwealth Telecommunications Council by the Chief Engineer, Mr. G.C. Papaioannou (Specialist Groups on System Development and on Network Operation), by the Chief Accountant, Mr. S. Modestou (Specialist Group on Accounting Arrangements) and by the Assistant Telecommunications Officer, Mr. A. Char. Kritiotis (Specialist Group on Marketing and Tarrifs).

The Commonwealth Telecommunications Council (CTC) held its 18th Meeting in Montreal, Canada during July 12-20, 1979 under the Chairman-ship of the Representative for Canada Mr. Jean Claude Delorme. The Honourable David S.H. MacDonald, Minister of Communications, Canada, addressed the meeting which was attended by Representatives from twenty-two Commonwealth Countries and the British Territories and Associated States. Cyprus was represented by the Chairman of the Authority, Mr. N.S. Roussos, accompanied by his Adviser, Mr. A. Char. Kritiotis.

The C.T. Council, during its 18th meeting, examined the reports of its Specialist Groups and Working Parties, exchanged views on new developments in the international telecommunications field and discussed the various outstanding issues before it, mainly concerning the Financial Arrangements (CTFA) and the organization of the C.T. Bureau. Decisions were also taken for the organization of certain Seminars and training courses on the basis of Collaboration and Information Exchange.

The activities of the Authority within the Commonwealth Telecommunications Organization, during the year under review, included the invitation to host the 7th annual meeting of the Specialist Group on Network Operation which was held at Hilton Hotel, Nicosia from 10 to 23 October 1979 and it was addressed and declared officially open by the Chairman of the Authority, Mr. N.S. Roussos. The meeting was attended by thirty-two participants from fourteen Commonwealth Countries including Cyprus which was represented by the Chief Engineer of the Authority, Mr. G.C. Papaioannou, member of the Specialist Group for Cyprus. The Agenda of the meeting included items of network utilization, short-term network plans, network criteria and network management.

6. FINANCIAL REPORT

NET SURPLUS

The year under review has been another year of growth and progress in telecommunications. The net surplus for the year prior to Special Contribution was £2,643,415 as against £2,579,401 of previous year.

Analytically the results were as follows:-

OPERATING REVENUE

The Operating Revenue by service was:-

	1978	1979	Increase
	£	£	%
Telephone Services	8,041,378	10,122,094	25.9
Telegraph Services	361,514	372,218	2.9
Telex Services	983,376	1,379,771	40.3
Other Services	262,055	289,303	10.4
	9,648,323	12,163,386	26

The overall increase in the Operating Revenue of 1979 over 1978 was 26% and this resulted mainly from the Telephone Service which is the largest source of revenue. The main contribution came from the Inland Calls (1979 £3,720,487 vs 1978 £3,127,995) and the Overseas Calls (1979 £4,997,132 vs 1978 £3,638,183) due to the increase in traffic volumes and additional subscribers.

Telegraph and Other Services recorded a small increase but Telex Services had a remarkable increase of 40.3% attributed mainly to the overseas calls (1979 £1,032,668 vs 1978 £701,148).

During the year there has been a net addition of 7,121 telephone and 253 telex subscribers.

OPERATING EXPENSES

The Operating Expenses were as follows:-

		1978	1979	Increase
		£	£	%
System Operational:-				
Telephone Services		3,987,087	4,993,659	25.2
Telegraph Services	4.	639,775	671,721	5.0
Telex Services		383,671	466,649	21.6
Other Services		260,929	339,528	30.1
Establishment		218,635	267,289	22.3
Administration		879,321	1,103,595	25.5
		6,369,418	7,842,441	23

There has not been any abnormal increase in the Operating Expenses and of the 23% overall increase 10.6% is attributable to the Staff Costs, 2.4% to the Depreciation due to increase in the fixed assets and 10% to the balance of the items.

Operating Staff Costs £4,510,974 were by £673,654 higher than those of 1978 (£3,837,320) mainly as a result of the 7% salary revision as from 1.1.1979 the increase in the Cost of Living Allowance (3% on 1.1.1979 and 6% on 1.7.1979) and the normal increments.

FINANCIAL EXPENSES

These were £2,003,525 compared to £848,678 of previous year.

This year's expenses include £103,414 loss on exchange, £403,401 provision for possible loss of materials in stores in the occupied areas and £658,935 being the 50% balance of the deficiency of the Superannuation Fund in respect of past service retirement benefits; the balance will be written off in 1980.

DEVELOPMENT

The net additions to the fixed assets during the year were £5,319,233 and is arrived at as follows:-

CAL.	And the second of the second o	ions Installations:-	
(i)	The first in management read to rest	TORRER TRANSPORTING	
4.00	I DIDICIPIENTATION (II	74 197 7 7 7 7 1 1 1 1 1 1 1 1 1 1 1 1 1 1	
- T	TOPPOUR STREET	10110	

Telephone Exchanges, Line Plant a	ınd	
Apparatus		£2,872,294
Telex Exchanges and Apparatus		584,361
Telegraph Plant and Apparatus		17,221
Radio and Repeater Stations		183,411
Satellite Earth Station		1,446,279
Purchases of Circuits in Sub-marin	e	
Cable Systems of Foreign Adminis	tra-	
tions		105,129

5,208,695

(ii) Other Expenditure

Motor Vehicles 31	111
	REE
Furniture and Office Equipment 40	147
Tools 120	083

840,153

6,048,848

Les	SS :		
Ins	tallation and Removal Fees	213,263	
Dis	sposals	516,352	
			729,615
			5,319,233
he dev	elopment was financed from:-		
(a)	Internal sources (revenue and		
	depreciation)		£3,071,541
(b)	External sources (credit facility		
	from overseas Suppliers)		2,977,307
	from overseas Suppliers)		2,977,307

CASH POSITION

The cash at Banks on 31st December, 1979 was £3,158,902 compared to £1,433,111 of 31st December, 1978. This improvement in the cash position will enable the Authority to meet its existing and future commitments in respect of the purchase of equipment for development and also repay the Government Loans.

LONG-TERM LIABILITIES

These consist of:-

(a) £5,332,864 due to suppliers for equipment and services and are repayable over a period between 2 and 10 years at rates of interest ranging between 5.5% and 9% per annum.

The substantial increase over the 1978 figure of £3,006,711 is mainly due to the credit obtained for the Satellite Earth Station Project.

(b) £1,564,358 representing the Authority's liability to the Staff Superannuation and Provident Funds; £25,892 of this amount will be repaid over a period of 2 years and the balance of £1,538,466, which is the balance of the deficiency in the Superannuation Fund, will be repaid over the next 30 years by equal annual instalments at 5% interest per annum.

RESERVE FUND

The Reserve Fund as at 31st December, 1979 amounted to £11,982,813 as against £9,200,443 of 31st December, 1978.

CONTRACTUAL COMMITMENTS

The contractual commitments as at 31st December, 1979 amounted to £3,131,000 (1978 £5,152,000). They represent mainly outstanding orders of plant and equipment for development.

N.	S. ROUSSO	S
	Chairman	

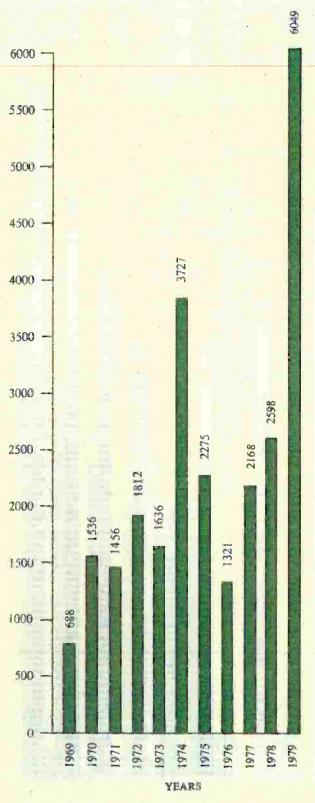
A. N. STYLIANIDES General Manager

S. KOKKINIDES
Secretary

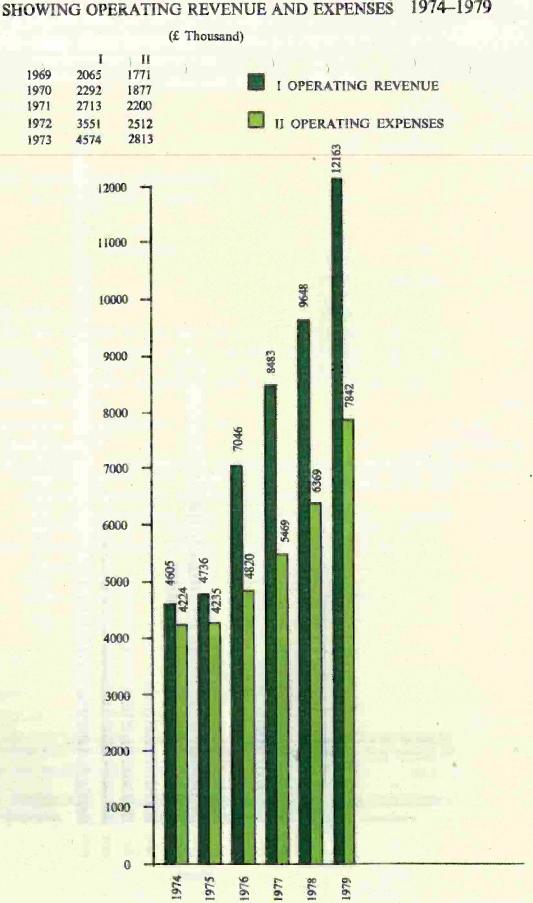
£6,048,848

CYPRUS TELECOMMUNICATIONS AUTHORITY TABLE SHOWING CAPITAL EXPENDITURE 1969–1979





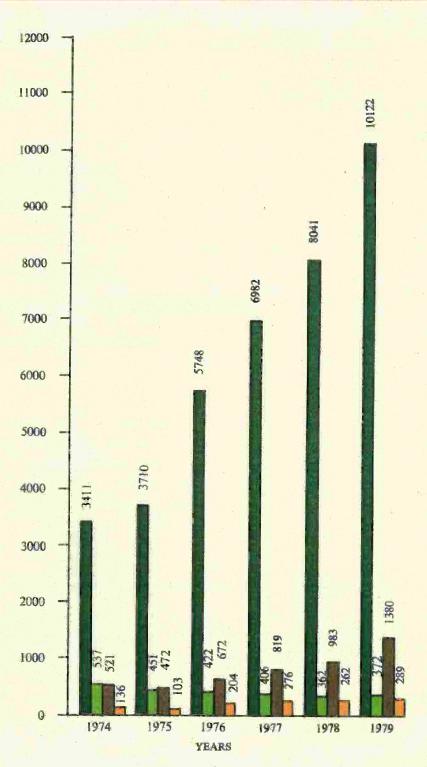
CYPRUS TELECOMMUNICATIONS AUTHORITY TABLE SHOWING OPERATING REVENUE AND EXPENSES 1974–1979



YEARS

TABLE SHOWING OPERATING REVENUE 1974–1979

(£ thousand) **1V** I TELEPHONE REVENUE Ш II TELEGRAPH REVENUE III TELEX REVENUE IV OTHER REVENUE



ANNUAL ACCOUNTS 1979

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Report of the Auditors	59
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Revenue Account	61
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Statement of Source and Application of Funds	70
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REPORT OF THE AUDITORS

We have audited the annexed Balance Sheet, Revenue Account and the Notes thereon of the Cyprus Telecommunications Authority and have obtained all the information and explanations we considered necessary. In our opinion the Authority has kept proper books of account and the Balance Sheet and Revenue Account are in agreement therewith.

Subject to the reservations contained in Notes 2 and 18, in our opinion the said Accounts, which have been prepared under the historical cost convention, give a true and fair view of the state of affairs of the Authority at 31st December, 1979 and of the surplus for the year ended on that date.

Scottis & Polydorides
Chartered Accountants

"Pantheon" Building, 40, Byagoras Avenue, NICOSIA.

21st June, 1980.

BALANCE SHEET 31st DECEMBER, 1979

	1979	1978
	2	8
Assets		
Fixed Assets (Notes 1 (b), 2, 3)	15,561,065	11,854,037
Investments (Note 4)	897,821	731,122
Long Term Debtors (Note 5)	307,285	247,14
Current Assets (Note 6)	8,359,199	6,262,519
Deferred Debits (Note 7)	1,947,098	2,342,580
	£27,072,468	£21,437,403
Liabilities and Reserve Fund		
Loans and other long term liabilities		
Government loans (Note 8)	3,090,838	3,126,80
Debenture stocks (secured) (Note 9)	1,250,000	1,250,00
Other long term liabilities (Note 10)	6,897,222	4,620,47
	11,238,060	8,997,27
Current liabilities (Note 11)	3,303,936	2,827,01
Deferre credits (Note 12)	547,659	412,67
Total liabilities	15,089,655	12,236,96
Reserve fund (Note 13)	11,982,813	9,200,44

The notes on the Accounts form an integral part of these Accounts.

N. S. Roussos Chairman A. N. Stylianides General Manager S. Modestou Chief Accountant

REVENUE ACCOUNT FOR THE YEAR ENDED 31st DECEMBER, 1979

	1979	1978
	£ .	2
Operating Revenue (Note 14)	12,163,386	9,648,323
Deduct:		
Operating Expenses (Note 15)	7,842,441	6,369,418
Net operating revenue	4,320,945	3,278,905
Add:		
Investment and other income	325,995	149,174
	4,646,940	3,428,079
Deduct:		
Financial and other expenses (Note 16)	2,003,525	848,678
Special contribution (Note 17)		376,165
	2,003,525	1,224,843
Revenue surplus for the year	£2,643,415	£2.203,236

The notes on the Accounts form an integral part of these Accounts.

NOTES ON THE ACCOUNTS FOR THE YEAR ENDED 31st DECEMBER, 1979

1. Accounting Policies

(a) Basis of accounting

The accounts are prepared under the historical cost convention.

(b) Fixed assets

Amortisation of leasehold properties is provided so as to write off the cost of these properties by equal annual instalments over the period of the lease. Depreciation on other assets is calculated on a straight line basis at annual rates estimated to write off each asset within its normal useful life. Freehold land is not depreciated.

In respect of additions to fixed assets during a financial period, a full year's depreciation charge is applied and in the case of disposal of fixed assets during a financial period no depreciation charge is applied in that period.

Capital work projects undertaken by the Authority are valued individually at material cost plus an addition for direct labour and other appropriate expenses.

Interest payable on the suppliers' extended credit on the purchase of plant and equipment is not included in the capital cost of the respective asset but is written off to revenue as it arises.

(c) Debtors

Known bad debts are written off and specific provision is made for any considered to be doubtful of collection.

(d) Stores

Stores, which include plant and equipment for current development, are physically verified by continuous stock takings carried out throughout the year; they are valued at cost less provisions for obsolescence and for other possible losses referred to in Note 2.

(e) Retirement benefits

Liabilities for pension and other retirement benefits are provided by payments to the respective funds which operate independently from the finances of the Authority. Liabilities which relate to past service are being paid, with interest, over a period of years.

(f) Repairs and renewals

Expenditure on repairs and renewals is written off in the year in which it is incurred.

(g) Balances and transactions in foreign currency

Foreign currency balances are translated into Cyprus pounds at the rates of exchange ruling at the end of the financial year. Exchange differences on such translation are dealt with through the reserve fund.

Exchange differences attributable to the purchase of fixed assets for specific projects are capitalised until the completion of the project. Otherwise, exchange differences are dealt with through the Revenue Account only in so far as they are realised.

(h) Changes in accounting policies

As from the current year the expenditure on excavations for the line plant is written off in the year in which it is incurred instead of being written off by equal instalments over a period of three years as hitherto. Also, the write off of the deficiency in respect of past service retirement benefits has been accelerated so as to be written off in the years 1979 and 1980. As a result of the above changes the revenue surplus for the year has been reduced by £931,506.

2. Assets in occupied areas

Certain fixed assets and other equipment and materials in stores are situate in the territory occupied by the Turkish invasion forces or in areas to which the Authority, due to present conditions, has no access. Full provision has been made in these Accounts in respect of the equipment and materials in stores for any possible loss of or damage thereto, but no such provision has been made for the fixed assets the value of which cannot, in view of the particular circumstances, be reasonably ascertained; however, on the fixed assets a full year's depreciation is being provided.

The Authority is unable to express an opinion as to the present state of the aforesaid fixed assets which in the Balance Sheet are reflected at book values.

3. Fixed assets				Writte	n down value
		Cost	Depreciation	1979	1978
				£	
Freehold land and buildings		1,501,486	269,903	1,231,583	1,015,727
Leasehold buildings		66,471	30,008	36,463	34,030
Exchanges, telegraph and line					
plant and apparatus		17,109,486	9,699,558	7,409,928	7,009,533
Radio stations		1,355,147	927,711	427,436	390,930
Sub-marine cables		2,304,055	501,121	1,802,934	2,013,370
Vehicles, tools and equipment		539,368	396,189	143,179	66,421
Office furniture and equipment		253,129	158,666	94,463	72,579
		23,129,142	11,983,156	11,145,986	10,602,590
Assets under construction		4,415,079		4,415,079	1,251,447
		£27,544,221	£11,983,156	£15,561,065	£11,854,037
	1978:	£22,224,988	£10,370,951	£11,854,037	
	1978:	23,129,142 4,415,079 £27,544,221	11,983,156	11,145,986 4,415,079 415,561,068	10,602,

The depreciation of fixed assets for the year ended 31st December, 1979, amounted to £1,802,615 (1978: £1,649,061) and is reflected in the operating expenses.

4. Investments

At cost, unquoted:

Trade £105,283. This represents the Authority's investment share in the International Telecommunications Satellite Organisation ("Intelsat"). Under the terms of allotment the Authority is required to make capital contributions, proportionate to its investment share, towards future development projects undertaken by Intelsat.

Other £792, 538. Under the terms of issue of the 7½% Guaranteed debenture stock 1980/82 and 1981/83 the Authority is required to set aside to a sinking fund amounts in order to provide for the redemption thereof. The management of the said sinking fund is vested in the Central Bank of Cyprus.

In the opinion of the Authority the value of the investments is not less than the amount at which they are stated in the Balance Sheet.

5. Long term debtors

These are repayable by equal annual instalments till 1987 with interest ranging between 6-8% per annum.

6. Current assets

o. Current assets		
	1979	1978
	1	
Stores (Notes 1 (d), 2)	2,427,673	2,444,422
Debtors and other accounts less provisions		
(Note 1 (c))	2,772,624	2,384,986
Bank balances and cash in hand	3,158,902	1,433,111
	£8,359,199	£6,262,519
7. Deferred debits		
A A A A A A A A A A A A A A A A A A A	1979	1978
	2	
Interest attributable to subsequent years	1,130,803	648,255
Deficiency in respect of past service retirement		
benefits less amounts written off (Note 1 (h))	658,935	1,318,955
Expenditure on excavations for the line plant less		
amounts written off (Note 1 (h))		186,024
Other expenses	157,360	189,346
	£1,947,098	22,342,580
8. Government loans		
	1979	1978
52% Government loan 1969/83	66,863	81,365
52% Government loan 1970/84	67,975	79,435
5% Government loan 1973/87	2,956,000	2,966,000
	£3,090,838	23,126,800
	Control was in	

9. Debenture stocks

	£1,250,000	£1,259,000
7½% Guaranteed debenture stock 1980/82 7½% Guaranteed debenture stock 1981/83	650,000	650,000
		1978
	1979	1079

The $7\frac{1}{2}\%$ Guaranteed debenture stock 1980/82 is repayable at par on 30th November, 1982 or at the option of the Authority at par at any time between 30th November, 1980 and 30th November, 1982.

The $7\frac{1}{2}\%$ Guaranteed debenture stock 1981/83 is repayable at par on 31st March, 1983 or at the option of the Authority at par at any time between 31st March, 1981 and 31st March, 1983.

10. Other long term liabilities

	1979	1978
Suppliers and other credits	5,332,864	3,006,711
Liabilities in respect of past service retirement		
benefits (Note 1 (e))	1,564,358	1,613,761
	£6,397,222	14,520,472
11. Current liabilities	1979	1978
	***	2
Creditors and other accounts	£3,303,936	£2,827,012
12. Deferred credits		
	1979	1978
	£	
Rentals and installation fees relating to subsequent		
years	211,239	178,714
Deposits for recoverable works	284,449	188,350
Interest receivable relating to subsequent years	51,971	45,612
	£547,659	\$412,676

13. Reserve fund

AS. ACCOUNTS IMMA		
The state of the s	1979	1978
Balance 1st January, 1979	9,200,443	7,102,964
Profit on sale of fixed assets	72,996	7,550
Revenue surplus for year	2,643,415	2,203,236
	and the same of th	
	11,916,854	9,313,750
Net exchange differences on translation of foreign	200	
currency balances (Note 1 (g))	65,959	(113,307)
	£11,982,813	£9,200,443
14. Operating revenue		
The second second	1979	1978
		'n
Telephone services	10,122,094	8,041,378
Telegraph services	372,218	361,514
Telex services	1,379,771	983,376
Other services	289,303	262,055
	£12,163,386	£9,648,323
15. Operating expenses		
	1979	1978
System operational:		
Telephone services	4,993,659	3,987,087
Telegraph services	671,721	639,775
Telex services	466,649	383,671
Other services	339,528	260,929
	6,471,557	5,271,462
Establishment	267,289	218,635
Administrative	1,103,595	879,321
	£7,842,441	£6,369,418
		-41

The staff costs for the year amounted to £4,969,914 (1978: £4,201,438) of which £411,303 (1978: £329,604) have been charged to capital expenditure and £47,637 (1978: £34,514) to recoverable works. The balance of £4,510,974 (1978: £3,837,320) is reflected in the operating expenses.

16. Financial and other expenses

Ref. and an artist of the second seco	1979	1978
		27.0
Interest on Government loans and debenture stocks	250,842	252,792
Interest on suppliers' credit	269,813	261,109
Loss on exchange	103,414	
Interest on liabilities in respect of past service		
retirement benefits (Note 1 (e))	84,863	88,508
Other interest	41,957	16,415
Authority's Members emoluments and expenses	4,635	4,820
Amount written off the deficiency in respect of past service retirement benefits (Note 1 (h))	658,935	43,965
Contribution to Archbishop Makarios III Pund		100,000
Provision for possible loss of or damage to equipment and materials in stores situate in the		
occupied areas (Note 2)	403,401	- 2 -
Other	185,665	81,069
	£2,003,525	£848,678

17. Special contribution

Under special legislation enacted after the Turkish invasion of Cyprus, corporate bodies are liable to make quarterly contributions to the Special Fund for the Relief of Displaced Persons, computed by reference to the profit made in the respective quarter.

No charge for special contribution on the quarterly profits of the year has been made by reason of accelerated capital allowances.

18. Taxation

No amounts are being set aside to provide for income tax on the annual net revenues as the position of the Authority's liability to income tax has not yet been determined.

19. Contractual commitments

Contractual commitments in respect of capital expenditure as at 31st December, 1979, not provided for in these Accounts, amounted to approximately £3,131,000 (1978: £5,152,000) of which £1,429,000 is payable in foreign currency. Amounts in foreign currency have been converted into Cyprus pounds at the rates of exchange ruling as at 31st December, 1979.

20. Contingent liabilities

(a) Claims

Contingent liabilities in respect of claims against the Authority amounted to approximately £111,000 at 31st December, 1979 (1978: £5,700). No provisions have been made in these Accounts in respect thereof.

(b) Staff superannuation fund

Under the regulations of the contributory staff superannuation fund, the Authority is liable to make good deficiencies which may be revealed on periodic actuarial valuations of the fund. The last actuarial valuation was made in 1976.

STATEMENT OF SOURCE AND APPLICATION OF FUNDS

	1979	1978
	£	£
SOURCE OF FUNDS		
Revenue surplus	2,643,415	2,203,236
Depreciation	1,802,615	1,649,061
Funds generated from operations	4,446,030	3,852,297
Proceeds from sale of fixed assets (net)	279,623	37,915
Decrease in stores	16,749	260,554
Deferred accounts and exchange differences	596,424	67,930
Increase in creditors	2,753,674	(817,361)
Funds from other sources	3,646,470	(450,962)
	£8,092,500	£3,401,335
APPLICATION OF FUNDS		
Additions to fixed assets	6,048,848	2,598,466
Deduct: Residual value of fixed assets displaced	119,315	63,476
Installation fees recovered	213,263	166,106
grant to the same of the same	332,578	229,582
	5,716,270	2,368,884
Repayments towards Government loans	35,962	34,551
Increase in bank balances and cash in hand	1,725,791	509,638
Increase in investments	166,699	153,543
Increase in debtors	447,778	334,719
	£8,092,500	£3,401,335

RETURN ON CAPITAL EMPLOYED

		Financial ye	l years	years ended	31st December		
	1979	1978	1977	1976	1975	1974	1973
	£000	£000	£000	£000	£0003	€000	£000
Capital employed:	23,317	20,004	18,584	17,377	15,930	13,159	10,753
Annual earnings/ (losses):	2,643	2,203	2,240	1,382	(158)	(215)	1,391
Percentage of annual earnings/(losses) on	## 2 92	44 mah	·	-6.2			
capital employed:	11.3%	11.01%	12.1%	7.9%	(1.0%)	(1.6%)	12.9%

Notes:

- 1. Capital employed represents the average of the opening and year-end reserve funds and liabilities. The liabilities have been adjusted to exclude interest attributable to subsequent years.
- 2. Annual earnings/(losses) are stated after the deduction of interest and, for the years 1976-1978, after the deduction of the special contribution.

