



# Annual Report '98

from vision  
to  
reality



CYPRUS TELECOMMUNICATIONS AUTHORITY

## c o n t e n t s

<u>Being prepared is the key to everything</u>	<u>1</u>
<u>Message from the Chairman</u>	<u>2</u>
<u>Message from the General Manager</u>	<u>4</u>
<u>Chairman and Members of CYTA</u>	<u>6</u>
<u>Management of CYTA</u>	<u>7</u>
<u>1998 at a glance</u>	<u>8</u>
<u>Management</u>	<u>12</u>
<u>Services</u>	<u>20</u>
<u>The Network</u>	<u>32</u>
<u>European and international relations</u>	<u>44</u>
<u>Financial report</u>	<u>47</u>
<u>Auditors' report and financial statements</u>	<u>53</u>
<u>Offices</u>	<u>68</u>

being prepared  
is the key to everything

We are continuing a tradition,  
a reality which has enabled CYTA  
to become an internationally recognised  
telecommunications organisation and we remain  
true to our vision:

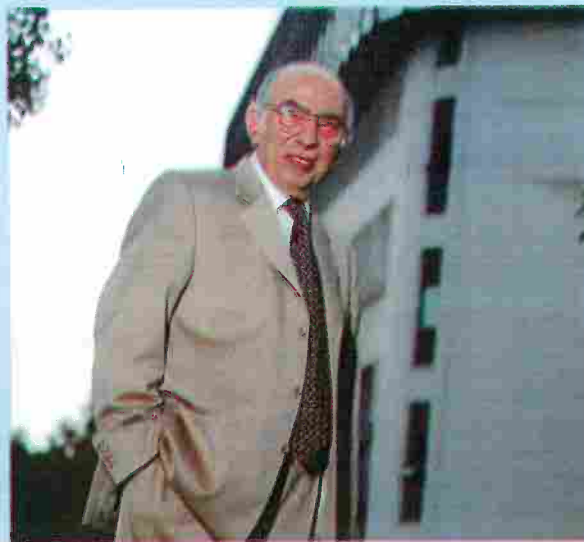
Our firm and unwavering commitment is  
to provide our customers with a complete portfolio  
of market-driven telecommunications services,  
using state-of-the-art technology and proven  
products.

Our aim is to promote CYTA as a customer-friendly  
organisation and its operations as people-oriented.  
We wish to establish Cyprus as an excellent  
telecommunications hub, attracting international  
business interest and having a substantial  
regional outreach.

1998 brought us closer to our vision.

As a new era begins  
we are **getting ready** with dynamism  
and determination to respond  
successfully to its call.





## Message from the Chairman

*"Being prepared  
is the key to  
everything."*

*With this in mind, CYTA began an  
intense preparation for a  
successful handover to the new  
environment which is being  
created in telecommunications  
both in Cyprus and internationally.  
An environment which brings many  
changes and challenges and, at  
the same time, opportunities for  
the Organisation.*

The 1998 report is characterised by significant achievements and impressive results. All were made possible thanks to the notable efforts and dedication of all the Organisation's staff, management and others whom I congratulate warmly. The intensive efforts of all these people left their mark on the past year, efforts aimed at making sure that CYTA maintains the enviable position it holds today in the international telecommunications field.

Thanks to the Authority's excellent national and international network, Cyprus' telecommunications infrastructure is one of the most modern in the Eastern Mediterranean region, which is why the services and the customer care it provides have reached very high standards. This fact is reflected in the superb financial results for 1998 and, more generally, in the Organisation's robust financial position.

Making the best of its state-of-the-art equipment, its privileged geographical location and the abilities of its personnel during 1998, CYTA proceeded to forge strategic alliances with foreign organisations and companies. In some instances this was achieved through the Authority's subsidiary company DIGIMED. These alliances have the aim, among other things, of providing services to other countries such as VSAT-type satellite communications, satellite interconnections from Cyprus and other telecommunications services. The Organisation also participates in various submarine cable systems such as the SEA-ME-WE 3, LEV and BSFOCS systems.

As part of the Organisation's preparations, a significant part of the effort concerns harmonisation with the EU's *acquis communautaire*. The Government has already committed itself in accession negotiations to full liberalisation of the telecommunications market by January 1, 2003. This renders a change in the legal and regulatory framework, which governs CYTA's operations, absolutely imperative.

One of the first measures which must be taken in this direction is the separation of operational and regulatory activities and the establishment of a regulatory body. This body will oversee the correct implementation of the law, so that the transition from a monopolistic to a competitive environment is carried out in accordance with the correct procedures and methods.

Only when such measures are taken will the Authority be able to respond to competition in a rapid, flexible, dynamic and determined manner, approaching or even exceeding the achievements of private companies which provide telecommunications services. Unfortunately, the present procedures which stem from the law governing CYTA are particularly time-consuming and provide us with anything but flexibility. These restrictions must cease to act as a brake on the Authority's smooth operation, especially after liberalisation of the market. It is clear from what I have already said that the transformation of the Organisation into a public company is both essential and inevitable. All that remains is the implementation of the Council of Ministers' recent decision.

An equally important role in CYTA's preparations will be the rebalancing

of tariffs between international and local calls. The relevant proposal drawn up by the Organisation includes a number of changes to the charges for its services. The main one will lead to a drastic reduction in charges for intercity and international calls, with a parallel increase in local call charges. The speedy acceptance and approval of the proposal will help CYTA to comply with EU Directives which ban the cross-subsidisation of services, a practice still in force here.

The rebalancing of tariffs can and must be a main element in the Organisation's bid for competitiveness, by preventing any deterioration of its financial robustness by present and future competitors.

CYTA deserves to maintain its superior place in the telecommunications field and to continue to play an essential role in the economic development of Cyprus. For this reason, the excellent cooperation between the Board, Management, trade unions, the country's political leadership, the political parties and society as a whole, is imperative.

If we are all guided by the need for timely and proper preparation, there is nothing we cannot achieve.



Nicosia, July 1999



## Message from the General Manager

Society is undergoing drastic changes. The information society, or the Network Society, has become a reality.

Human activity, whether for business, social purposes, education or entertainment, has come to rely more and more on electronic communication.

The creation, transfer, processing, storage and retrieval of data have become the connecting rods and the nervous system of modern society, and telecommunications make up one of its basic infrastructures.

CYTA is fully aware of the increasingly substantial role it is being asked to play in the development of Cypriot society, the island's economy and its entry not only into the European Union but also into an increasingly more open and competitive global economy. This is an environment which is completely unknown to Cyprus and one which will have a drastic effect on the operations of our Organisation.

Within this framework, CYTA is continuing its intensive efforts to implement an ambitious development programme, and this has contributed to the further rise in the productivity indices of various services within the Organisation. Specifically, in traditional services such as analogue telephony, penetration has reached almost 61 lines per 100 of the population, exceeding the EU member states' average. At the same time, digital technology continues to expand at a fast rate in the

fixed telephony sector. This technology is gaining more and more ground, thanks also to the demand for leased digital lines at low and medium speeds.

Digital mobile telephony continued to develop steadily and in 1998 exceeded the 100,000 customer mark. In order to satisfy the needs of our Organisation's local customers as well as the thousands of visitors who use GSM mobile phones, our network expanded by about 80% compared to our achievements of the previous three and a half years.

At the same time, we began constructing the networks that will secure our future. Amongst other things, we placed orders for equipment for the installation of an Asynchronous Transfer Mode (ATM) network which will enable the provision of high speed digital services in 1999. These include links with computer networks, telemedicine, distance learning, fast access to the Internet and the provision of multimedia services.

Finally, we continued the development of Cyprus as the model telecommunications hub in the Eastern Mediterranean through our participation in the international company which laid submarine fibre optic cables between Israel, Cyprus and Italy. Our Organisation's presence in international submarine cable systems was reinforced further by our participation in a Black Sea cable system. In the satellite communications sector, we founded, in collaboration with a foreign organisation, a company for the provision of interconnections between satellite systems

of Western Europe and the Far East which will start to provide commercial services in the summer of 1999.

At the same time, we continued to implement the pioneering PROMITHEAS project for the reengineering of the Organisation's business processes, with the aim of developing CYTA's customer-friendly, people-oriented character, improving the productivity of staff and equipment and our commercial capability, and of developing and promoting new services and products.

In 1998 we completed the reengineering of mobile telecommunications services and the CYTANET customer service for which the first call centre was established with excellent results.

At the same time, the Customer Service Office network was upgraded and expanded, the first large-scale survey of customer satisfaction was carried out and an ambitious business plan was drawn up for constant upgrades in the area of customer service.

The reengineering of the basic activity of maintaining the Organisation's access network proceeded. This is one of its main sources of revenue and it employs a large number of staff. Pilot schemes were successfully completed which aim at improving customer service, staff productivity and the quality of the network. In 1999, business process reengineering will continue with particular emphasis on the decentralisation of the service aiming mainly at improving customer service.

Reengineering also covered the area of personnel management where modern methods of staff selection/recruitment were introduced based on personal core competencies.

Finally, we developed a modern methodology of management which is based on the introduction of efficiency indicators related to customer satisfaction, productivity, staff and financial issues. At the same time, it is based on the business planning method which secures the healthy operation of the enterprise in the present and in the future.

It is our firm belief that the PROMITHEAS project will prepare the Organisation

internally so that it is in a position to survive in the open market. This preparation, however, is incomplete and, consequently inadequate, since it does not deal with the external aspect - a subject of concern to the State - and it does not guarantee the Organisation the necessary flexibility which will enable it to take decisions quickly in many crucial areas.

In 1998 we proceeded with a detailed study on the rebalancing of the Organisation's tariffs, based on a modern costing method.

The need to rebalance tariffs, so that they are based on the actual cost of each service and an end is put to the cross subsidising of services, is dictated both by intense international competition in the telecommunications sector and by the need to harmonise with the EU's *acquis communautaire*.

In May 1999, the Authority submitted this proposal to the Government for study and its subsequent tabling before the House of Representatives.

Very soon CYTA will be required to face an extremely competitive environment, based on the quality and cost of its services, its standard of customer service and its corporate image. International experience has shown that if the Organisation is exposed to competition under its current regime, it will be placed in great danger and only its transformation into a public company and its gradual changeover to a private enterprise will make possible an improvement in its value.

Consequently, the State needs to amend CYTA's legal and regulatory framework at the earliest opportunity, based on the European experience, since it has already been decided that by January 1, 2003, the Cypriot telecommunications services market will have been fully liberalised. The time remaining is hardly enough for the required legislative and regulatory preparations.



Nicos M. Timotheou, General Manager  
Nicosia, July 1999





## chairman and members of CYTA

### Chairman

Michailakis Zivanaris  
*Businessman*

### Vice-Chairman

Marinos Markides  
*Businessman*

### Members

Evelthon Avgousti  
*Businessman*

Andreas Demetriades  
*Economist/Businessman*

Gregoris Diacou  
*Economist*

Antonis P. Georgiades  
*Doctor*

Petros G. Kythreotis  
*Businessman*

Melita Rolandi  
*Businesswoman*

Pavlos Theodorou  
*Secretary/Manager*  
*Panepiarian Cooperative Confederation*

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### Legal Advisors

A.C. Hadjioannou & Sons

### Auditors

• KPMG Peat Marwick

• Auditor General of the Republic





## management of CYTA

### General Manager

Nicos M. Timotheou (as from 2/12/98)  
Dipl. Eng NTUA, CEng, FIEE, SMIEEE

Sparsis Modestou (until 31/12/98)  
BSc (Bus Adm)

### Deputy General Manager

Photios Savvides (as from 4/12/98)  
BSc, MScEng, CEng, MIEE, MIM

Nicos M. Timotheou (from 3/2/98 until  
1/12/98)  
Dipl. Eng NTUA, CEng, FIEE, SMIEEE

Adam Ch. Kritiotis (until 9/1/98)  
Physics Degree, Diploma in Electronics  
(Athens University)

### Assistant General Manager - Operations

Christos C. Chappas (as from 8/12/98)  
BEng, DIC, PhD

Nicos M. Timotheou (until 2/2/98)  
Dipl. Eng NTUA, CEng, FIEE, SMIEEE

### Assistant General Manager - Administration

Kyriakos Z. Christodoulides (as from 8/12/98)  
BEng (Hons), MIEE, CEng

Photios Savvides (until 3/12/98)  
BSc, MScEng, CEng, MIEE, MIM

### Manager Network Services

Christos C. Chappas (until 7/12/98)  
BEng, DIC, PhD

### Manager Business Planning in International/National Relations

Christodoulos Demetriou (until 31/12/98)  
MSc, MIEE, MIM

### Manager Telecommunications Infrastructure

Stelios Joakim  
BScEng (Hons), CEng

### Manager Information Services

Cleanthis Soleas  
BScEng (Hons), CEng, MIEE

### Manager International Commercial Services

Kyriakos Z. Christodoulides (until 7/12/98)  
BEng (Hons), MIEE, CEng

### Manager Customer Services

Michael I. Economides  
Dipl-Ing

### Manager Financial Services

George Koufaris  
ACA Chartered Accountant

### Manager Personnel Services

Antonios Chr. Pappas  
BSc (Hons), CEng, MIEE

### Secretary, Head Legal Services & Public Relations

Nicos Malecos  
Diploma in Law (Athens University)

### Internal Auditor

Ioannis Loizou  
FCCA (Chartered Certified Accountant)

# 1998 at a glance

**EMPHASIS on customer  
service**

**CYTANET: Access to the Internet  
via CD-ROM**

*Creation of a call centre  
The number of customers doubles*

**INTRODUCTION of smartcard  
payphones**

**ISDN SERVICE: 1,280 customers  
in its second year of operation**

**FIXED telephony: 60.7 lines  
per 100 of the population**

**CYTA expands beyond  
the boundaries of Cyprus**  
*Agreements with foreign companies for  
service provision*

**ONE in five people  
has a mobile phone**

The CYTAGSM service exceeds the  
100.000 customer mark

CYTA closer to its customers  
New Customer Service Offices

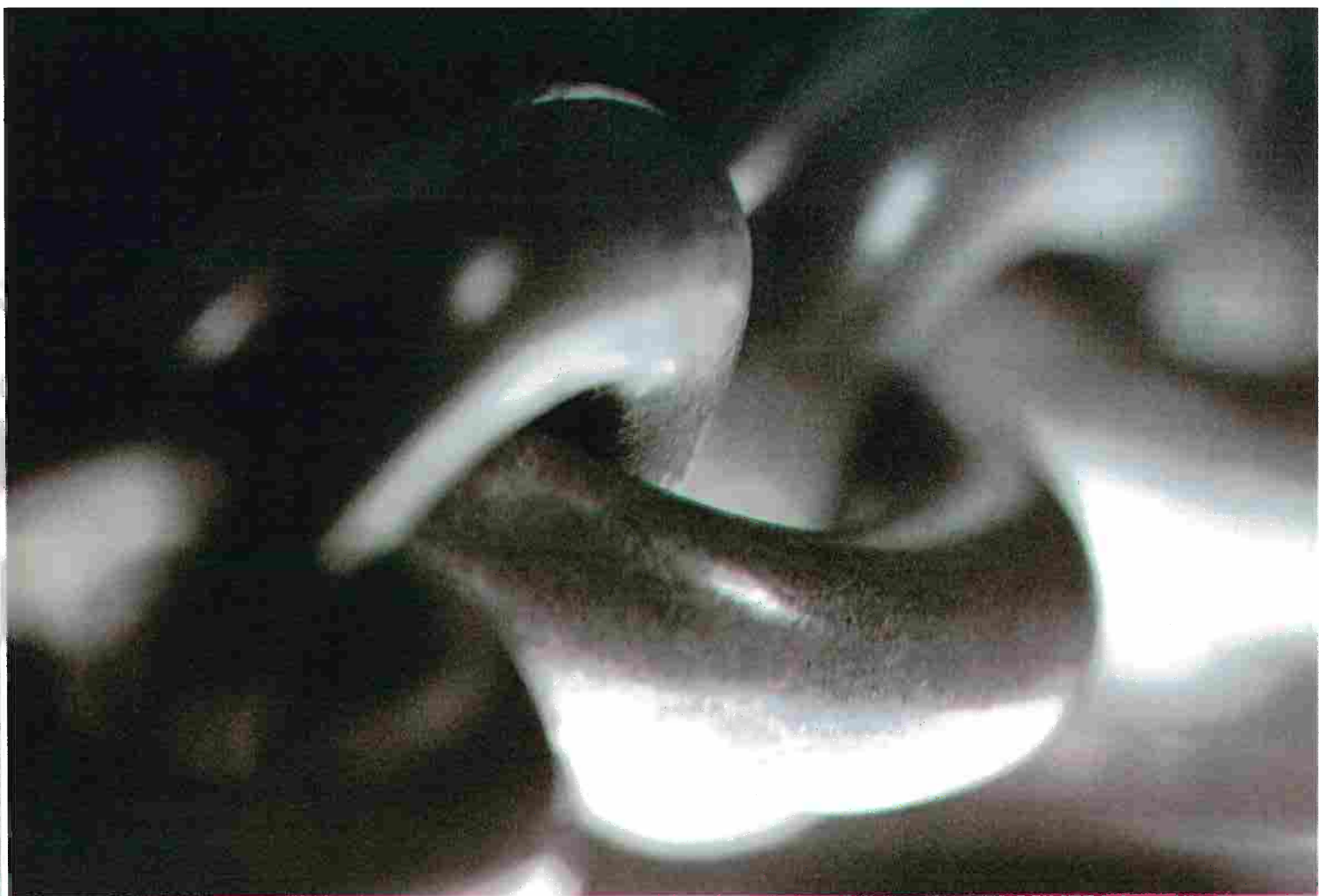
GREATER technological  
upgrading of the network  
Digitalisation: 100% of the transmission network  
88.24% of the telephone network

Cyprus, a modern  
telecommunications hub  
Laying of the LEV submarine  
cable system  
Emphasis on satellite telecommunications

CYTA on the road to harmonisation  
with Europe

Total turnover: £146.5m  
Surplus: £50m





p r e p a r i n g



Our staff are a major part of our strength.  
We are bound by a common goal, a common  
vision, a common commitment to success. We  
are preparing with continuous modernisation  
and training, always dedicated to  
improvement...

*Like a tightly-knit human chain.*

t o  
succeed



# management

In 1998, here at the Cyprus Telecommunications Authority, we continued to implement our people-oriented policy and customer-friendly approach, and we intensified our efforts towards a more dynamic communications policy.

At the same time, we placed emphasis on personnel training, particularly in the area of customer service, and on enhancing and expanding the information infrastructure which supports the complete range of our activities. Our staff, with modern communication methods and state-of-the-art technology at their disposal, represent a substantial element in the Organisation's success in the competitive environment which is being created in the telecommunications sector.

CYTA's preparations  
are taking human form...



## A communications policy for the new millennium

With the aim of formulating a total communications strategy, we continued to collaborate with external consultants in 1998. The basic requirements for an increase in our competitiveness and productivity are the implementation of a modern internal and external communications policy, combined with a strategy for improving the staff's professional culture. By maintaining these basic prerequisites, we shall enter the new millennium and face the coming challenges successfully.

In 1998 we continued to upgrade our corporate image. To this end, we successfully organised a number of international conferences, exhibitions, meetings and other events.

We also organised high level training seminars for staff, on the subjects of internal communications and public relations, while at the same time we gradually began to apply modern communication methods for the promotion of a range of issues concerning internal and external communications.

As part of the continuous upgrading of communications and particularly of relations between our Organisation and the media, with a view to bringing timely and reliable information to our customers and to the general public, press releases were issued, interviews were given and press conferences were held, in addition to publicity campaigns with special brochures and

educational programmes. Through such activities, not only are CYTA's positions and views publicised, but the public is kept informed about new services and other topics of interest.

In 1998 our Organisation participated in various exhibitions in Cyprus and abroad. Our presence, with our own pavilion, was particularly noteworthy at the Cyprus International Fair, the "CyServ" Services Exhibition, the "Telecom Israel" International Exhibition in Israel and the "Posidonia" Maritime Exhibition in Greece.

In the middle of the year, we revived our regular internal newsletter. This full-colour newsletter, entitled "Telecommunications Street", is now published monthly and makes a considerable contribution to encouraging



the expression of views and improving communication within the Organisation's staff. It is distributed all over the island to all our employees and pensioners, as well as to the media, government and other services, semi-government organisations and many others.

With the purpose of achieving a more complete communication with the public, and at the same time making a contribution to the island's cultural life, we proceeded with the creation of an exhibition hall of high telecommunications specifications. Here, visitors will be able to learn about the history of telecommunications, both in Cyprus and internationally, and to have a hands-on experience about their development from the



distant past to the present and into the future, through exhibits and the use of interactive multimedia. In 1998 we carried out maintenance work on the Organisation's old telecommunications equipment which will form part of the exhibition, while at the same time we created an archive of significant information about these display items.

Our Organisation's Internet web pages have been upgraded considerably, with greater emphasis on the services we provide, making use of the enormous possibilities that the Internet offers for providing information.

Within our Organisation, we continued to operate our own intranet, offering a fast and reliable means of internal communication and exchange of information among members of staff. This internal network contributes to the timely and immediate acquisition of



information by the staff, especially on controversial issues, and, as a result, improves their productivity.

### Personnel issues

The spirit of understanding and cooperation which prevailed between Management and staff assisted in the smooth operation of our Organisation and the quality of this relationship created a climate of excellent industrial relations. In such a climate discussions were held with the trade unions

on problems arising from demands submitted in connection with the renewal of the collective agreement which expired on December 31, 1997 as well as on the proposal/study for adjustments to staff rankings and salaries.

Our aim and purpose has always been to make the very best use of personnel and bring about a continuous improvement in productivity, both of which are achieved by making sure that members of staff feel satisfaction with the job they are doing.

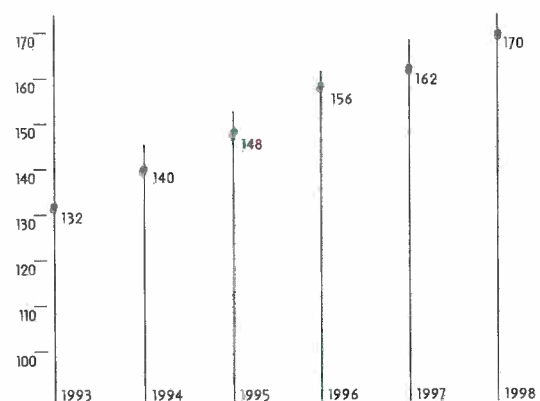
In 1998, 87 new employees were hired and the total number of staff reached 2.395.

In the area of health, we continued to provide health care to our staff, to the Authority's pensioners and to members of their families.

In connection with looking after the health of our personnel, we prepared statistical analyses on staff illness and took measures for the best use of the right to sick leave. It is noted that in 1998, the average sick leave per employee was 5,19 days. CYTA's contribution to the Medical Fund amounted to £1,3m.

As part of our social contribution, in 1998 we continued our long-established tradition of blood donations by staff volunteer donors.

Number of Direct Exchange Lines per Employee



In the field of safety, we continued to take special measures and extended our staff training through educational programmes for new recruits and by organising specialised seminars aimed at reducing accidents at work.

Regarding staff welfare, our Organisation continued to provide low-interest student and housing loans to members of staff and pensioners, making available £200.000 and £397.000 respectively. We also proceeded to make grants of £103.000 to the children of employees for studies in Cyprus and abroad.

Concerning pensioners' benefits, we continued to operate the Pension Scheme,



the Pension Fund and the Weekly Paid Employees Provident Fund.

At the end of 1998, 650 pensioners belonged to the Pension Scheme and 64 to the Pension Fund. We also paid out 112 pensions to widows and orphans.

In the area of personnel training and development, members of staff continued to participate in training programmes in Cyprus and abroad. The main issues concerned the development of managerial skills, service support and technical issues.

On average, each employee devoted a week of working time to training. The total cost of the training was around £1,5 million, or 1,86% of CYTA's total operating costs.

As part of CYTA's international obligations and its social role, practical training programmes were offered to employees from

Commonwealth countries and those belonging to the INTELSAT organisation, as well as to students of the Higher Technical Institute, various Universities and to pupils of Technical Schools.

Guided by our customer-oriented philosophy, we continued to give priority to the enhancement of customer service. To this end, the first phase of the "Customer Service" training programme was held. During 1998, we also continued to provide free training on the use of the Internet to customers and other interested parties.

For the implementation of the provisions of the collective agreements, in 1998 our Organisation finished making the required amendments to the regulations, which are now at the final stage before being sent to the relevant state authorities for approval. Also, amendments to the Regulations pertaining to Pensioners of the Cyprus Telecommunications Authority were also completed in accordance with the relevant 1997 legislation and forwarded to the House of Representatives for approval.

### Information technology at the service of the Organisation

Adjusting to the demands of the times, we continued to make good use of information technology, both for improving the productivity and efficiency of our own business activities as well as for enabling better interaction with our customers.

The upgrading of our business systems and the information network which began last year continued during 1998.

In 1998 we further upgraded CYTA's computer hardware and software infrastructure and consequently we continue to have at our



disposal a firmly based, large-capacity internal computer network with modern end-user tools and Internet access, fully serving our needs regarding data processing and storage and business systems communications.

As part of our planned upgrading of the computer network in 1998, we completed:

- the expansion of the network with the addition of new, more advanced workstations
- the upgrading of the processing power, storage capacity and other characteristics of the central computer complex
- the implementation of a complete software package supporting the automation of office work and internal communications with Internet access.

Based on the present infrastructure, we intend to offer direct access to our customers, so that via the Internet they may export information, general or personalised, and also carry out commercial transactions. In this context, the following actions are being taken:



- trials and testing of the parameters which guarantee the secure and easy access from the Internet to our Organisation's own internal network

- the development of a system for the provision of Telephone Directory and Yellow Pages services via the Internet or on CD-ROM

- the creation of the infrastructure and the development of a pilot scheme for the provision of billing information to customers.

Immediate priority was given to our Organisation's preparations for dealing with problems likely to arise with the changeover to the year 2000. Following the completion of the inventory of our systems and an initial check, it was decided that all the necessary measures should be taken to secure total year 2000 compliance as early as possible in 1999. Our intention is to ensure that none of the services we provide to customers will be affected by the year 2000 problem.

Within the framework of our efforts to support business activity with information systems, systems were planned and implemented, existing systems were extended and modified to cover additional functionality. The aim is to support new business activities, such as mass rerouting of circuits (telephone lines), the utilisation of preconnected circuits, the automation of the updating of the directory assistance system, as well as the introduction of new services, such as the VoiceMail service, the new smartcard public phones and others.

At the same time, we proceeded to upgrade the quality of existing information systems and improved the models for the development of new systems.

## Business planning

In recent years the telecommunications sector has undergone rapid development, both as regards technology and the introduction of new services and also the regulation of telecommunications and the development of global competition. These rapid changes have created an urgent need for the constant re-evaluation of the course being followed by telecommunications organisations, of their aims and strategies, so that they are in a position to respond to each new given situation as it arises.

For this reason, in 1998 we proceeded with the business reengineering of our "business planning and implementation process". We reengineered the part of our activities concerning the promotion and implementation of the strategy, with the formulation of a general framework for the entire system and



the description of the methodologies to be included in it. Specifically, it concerns the methodology of implementing strategy by way of a balanced scorecard and the specialised methodology requiring the detailed formulation of business plans (Hoshin) for the implementation of our Organisation's own strategic aims, as well as our operational (basic business) aims.

At the same time, we proceeded to implement the methodologies with the completion of the necessary training of a large number of staff in the methodologies

and through the introduction of the appropriate software.

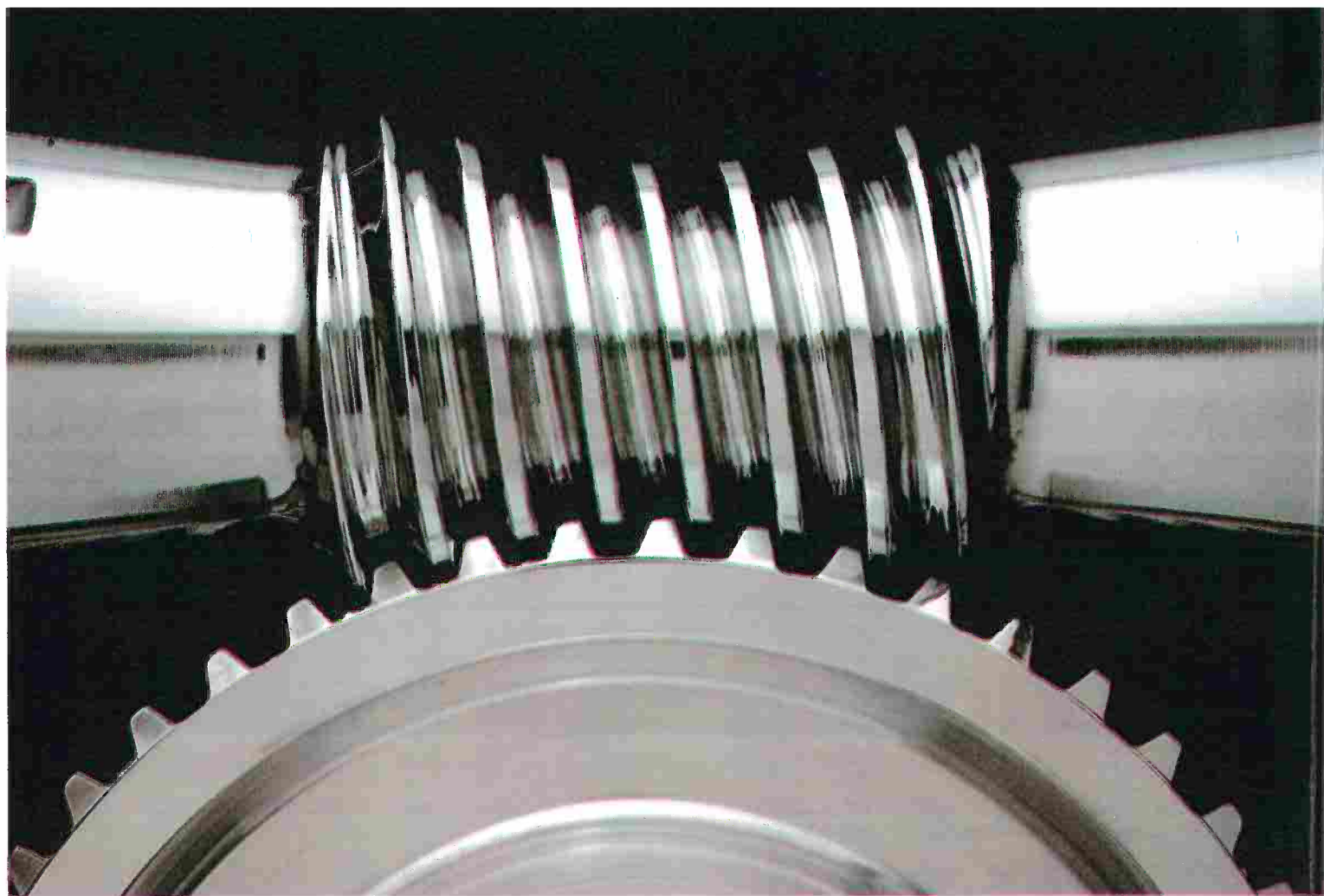
Additionally, we began reengineering the part of our activities which deals with the formulation of strategy and the setting out of aims, with the integration into the whole system of the methodology of self-assessment, based on the model of the European Foundation for Quality Management (EFQM).

## Environment

Our Organisation, within the framework of its obligations arising from signing the Environmental Charter of the European Telecommunications Operators, keeps a close watch on the activities of the working group of the European Public Telecommunications Network Operators' Association (ETNO) regarding the environment. Also, we continue to educate and inform the relevant officials of our Organisation on issues of environmental management with the aim of promoting associated projects.

In 1998 we took part in the "Second European Conference on Telecommunications and the Environment", which was held in Italy. During the conference, the first annual ETNO environmental report was presented, that includes facts and figures about the environmental performance of the organisations which have signed the Environmental Charter (including CYTA) and examples of good practice by various organisations.





p r e p a r i n g





Our Organisation is ready to respond to the present and future needs of our customers. They are our great challenge, our great incentive. We are constantly upgrading the services we provide to our customers and the way in which we provide them. We care, we remain vigilant and we work untiringly...

*Like a watch with strong*

*interlocking wheels.*

o | respond



# services

Our new customer-oriented philosophy has become a reality. Intensifying our efforts to come even closer to our customers, we have given special emphasis to customer care, to the upgrading of existing services and the introduction of pioneering new ones.

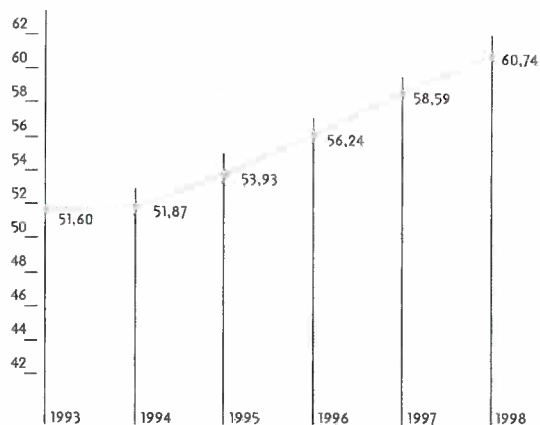
The significant general upgrading of the way in which we serve customers, especially those of the CYTANET service, the project for the rebalancing of tariffs, the introduction of the latest technology cardphones and the impressive increase in the number of customers of value added services are just some of the highlights of the work we carried out in 1998.

*Continuous preparation with the aim of first-class customer service is our commitment today and tomorrow...*

## Fixed telephone services

The telephone service continues to be the backbone of all our telecommunications services and that is why, in 1998, we continued to place particular importance on upgrading it. It is worth noting that the number of direct exchange lines increased by 18,697 or 4,8% compared with the end of 1997, a penetration of 60,7 lines per 100 inhabitants. Particularly impressive is the fact that it is now higher than almost every country in Western Europe, including France, Germany, Italy, the United Kingdom, Belgium, Spain, Finland, etc. In fact, 92% of our subscribers were connected to digital telephone exchanges and only 8% to the analogue exchanges. Total telephone traffic in minutes continued to rise, while international outgoing telephone traffic rose by 9,4%.

With the aim of responding to the challenge of indirect competition, which we already face regarding international calls, and of preparing for the forthcoming liberalisation of the telecommunications market in Cyprus, in 1998 we began a project for the rebalancing of our tariffs. This rebalancing, which in the case of Cyprus is expected to lead to a reduction in international charges and an increase in the cost of local calls, so as to



Number of direct exchange lines per 100 inhabitants (Excluding the areas occupied by the Turkish invasion forces)



put an end to the cross-subsidising of local telephony, is a practice that has been followed internationally by a large number of telecommunications organisations in recent years. It is noted that this cross-subsidisation amounted to more than £28m in 1998.



In 1998, the freephone service continued to facilitate the operations of CYTA's business customers, enabling their own customers, whether in Cyprus or abroad, to telephone them at no cost.

Additionally, via the call Cyprus direct service, we continued in 1998 to serve our customers wishing to make calls to Cyprus when abroad. This service enables our customers to contact CYTA's operators directly for the distribution of their calls. Over and above the fact that the charge for the call Cyprus direct service is made in Cyprus, another important advantage is the fact that in this way, possible language problems that might occur between a Cypriot caller and a foreign telephone operator are avoided.

Universal access is a new service for business customers which was added to the Organisation's portfolio of services during 1998. The service is particularly useful to those business customers who receive a large number of calls from customers daily,

because the numbering of the service is extremely easy to remember. Specifically, it consists of the code 077 followed by a four-digit number for each subscriber. A special feature of the service is the way it enables



calls to be received at a single point in Cyprus or at one per district, according to the customer's wishes.

Via our digital telephone exchanges, we continued to provide additional telephone services such as call waiting, call forwarding, hot line, alarm calls, conference calls, etc. These additional telephone facilities, especially call forwarding and call waiting, have become for many subscribers essential additions to their telephone line, making their life or work easier. It is worth noting that the number of subscribers to the call forwarding service reached 22,229, an increase of 40% compared with 1997, while the number of subscribers to the call waiting service reached 6,767, an increase of 34%.

As part of our social contribution, we offered reduced international rates during the Easter and Christmas holidays, giving customers an opportunity to contact relatives and friends abroad at reduced rates.

In 1998 work continued on the introduction of intelligent network services. Via the intelligent network, our Organisation expects to be in a position to offer at the start of 2000 a number of new services such as virtual private network, corporate numbering, calling cards, personal number service, etc. Moreover, existing services will be upgraded, including the freephone service and universal access service, and other services which will be offered by then, such as the prepaid mobile telephone service.



Also during 1998, preparations were completed for the introduction of VoiceMail for fixed telephony, which is offered as a package with the call forwarding service. Thus, with the anticipated introduction of VoiceMail at the start of 1999, every fixed telephony subscriber will be given the possibility of having his/her own "telephone answering machine".

While traditional data transmission services, such as CYTAPAC and leased lines continued to serve a large number of requirements, 1998 was marked by the rapid development of new services such as the Integrated Services



**Digital Network (ISDN).** The ISDN service supports applications such as videophone, videoconferencing, file transfer, fast Internet access and other more specialised applications, such as telemedicine, distance learning and teleshopping. 1998 was only the





second year in which the ISDN service was fully operational, but by the end of the year there were 1,045 basic rate access customers and 235 primary rate access customers.

The CYTAPAC service, despite the limitations to the bandwidth it can offer (up to 14,400bps), continued to be used for narrowband services and catered for 455 customers at the end of the year.

Bandwidth restrictions to users of the packet switched system will be overcome in 1999, the year in which new broadband services are due to be introduced via frame relay/Asynchronous Transfer Mode (ATM) network. Frame relay and ATM services



enable high speed transmission using packet technology and support the transmission of all kinds of traffic (data, picture, voice and video) and offer bandwidth on demand.

The ATM network supports a variety of applications which will change the way in which businesses carry out their operations, including telemedicine, teleshopping, teleworking, video on demand, interactive TV, interconnecting of Local Area Networks (LANs), etc. As these applications indicate, the ATM network is ideal for customers such



as banks, insurance companies, hospitals, travel agencies, industrial units, publishing houses, advertising agencies, TV and radio stations. These customers will be able to transfer information or link up their branches via virtual high-speed private networks (64Kbps-34Mbps or even higher if necessary).

An important advantage of the ATM network is the fact that it enables customers to obtain bandwidth on demand and charges them for the service on this basis.

At the same time, during 1998 negotiations were essentially concluded with Merlin Communications Ltd for the provision of turnaround services from Cyprus.

These services involve the rebroadcasting of radio and TV programmes from one satellite system to another, via an earth station located in Cyprus. These new services will be provided by the company IRIS Gateway Satellite Services Ltd, in which CYTA's subsidiary company DIGIMED will have a 50% share, and are expected to begin in the second quarter of 1999.

## Value added services

**Value added services** in 1998 developed significantly and, with the introduction of successful new products, contributed decisively to the creation of a positive image to customers.

The upgrading of the international leased circuits of our Organisation's Internet hub to 5Mbps, the creation of a CD-ROM which put an end to time-consuming procedures related to service provision, the operation of the technical support service and the rebalancing of rates for **CYTANET's** business products were the main achievements of 1998.

With the implementation of the above projects, the CYTANET service managed to double the number of customers which, in December 1998, had risen to 9.500.

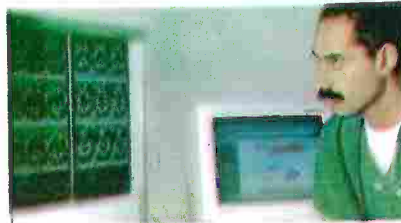
Also, in 1998 the number of international customers in the neighbouring countries of Jordan and Lebanon rose sharply, in line with the CYTANET service's vision, as set out in its



mission statement, to "link Cyprus and the Eastern Mediterranean via the Internet".

As regards the **audiotex service**, we began and are continuing work on upgrading equipment so that it meets today's requirements.

The traditional coin-operated **public payphones** are fast becoming a thing of the past. Of the total 2.005 public payphones,



1.605 are now equipped to operate as cardphones. We have already completed the greater part of the task of replacing existing cardphones, operating with magnetic technology telecards. The new cardphones operate with chip telecards (smartcards). In the future, the public will be able to obtain these cards from automatic card vending machines.

This new technology, which is widespread in Europe, guarantees greater reliability and has considerable advantages over the old system. With its introduction we are laying the foundations on which all imminent developments in this sector will be based.



The whole project is due to be completed during 1999.

It is worth noting that, at the same time, the extent of faults in cardphones has been reduced to a minimum, with 97% enjoying smooth uninterrupted operation, an exceptional achievement by European standards.

## Mobile telephone services



Concerning **mobile telephone services**, operating in accordance with the PROMITHEAS business reengineering project, we are moving steadily towards the achievement of our goal of total customer satisfaction.

Within this framework we also intensified our efforts to educate our customers regarding the use of facilities, we created Internet web pages and started planning the introduction of new services.

The number of subscribers of the **CYTAGSM service** rose from 78.713 at the end of 1997 to 108.183 at the end of 1998, increasing penetration to 16,34 per 100 inhabitants.

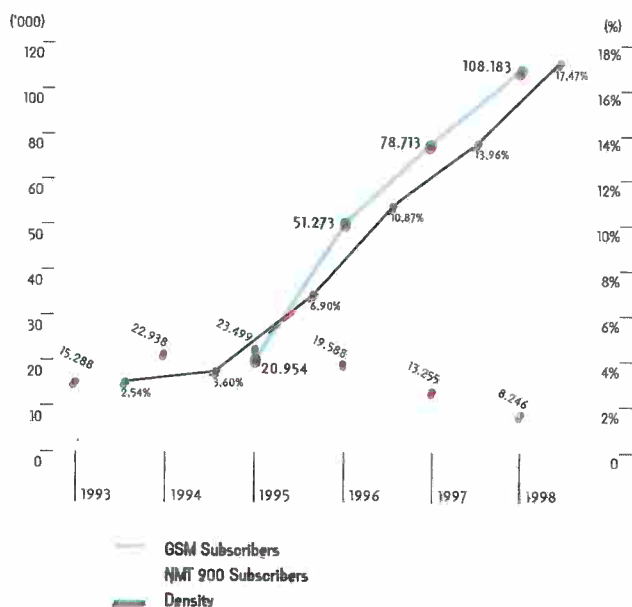
The number of telecommunications organisations with which bilateral roaming agreements have been signed increased from 80 at the end of 1997 to 110 at the end of 1998, enabling us to serve our customers in 60 countries.

It is worth underlining the spectacular improvement to the infrastructure of the mobile telephone network. The voicemail service, mobile telephony exchanges and base station controllers were upgraded and expanded. The number of base stations rose from 97 to 150, an increase of 55%, while the number of cells rose from 179 to 325, an increase of 82% in 1998.

The significant advantages of the GSM digital technology system over the **analogue mobile telephone service** have naturally reduced commercial interest in the NMT service. In 1998, the number of subscribers of the NMT service fell from 13.255 to 8.246.

A slight decline in the interest shown in the **POCSAG paging system** was also observed. The service continues to be provided on an islandwide basis via 14 transmitter stations, but its customers now number only 4.038.

## Mobile Telephony Subscribers and Density



## Aeromarine network services

During 1998 we continued via the aeromarine network services to offer substantial benefits to Civil Aviation, ships at sea, the Meteorological Service and commercial radio stations.

## Civil Aviation services

Our purpose and mission is to contribute to the smooth, safe and efficient management of the Nicosia Flight Information Region (FIR) which extends over an area of 175.000 sq.km., and includes the Larnaca and Paphos international airports.



As part of our efforts to satisfy these aims, we continued to provide the Ministry of Communications and Works and the Department of Civil Aviation with a broad range of services. This includes high level communications between air traffic control and aircraft in the region, the retransmission and exchange of aeronautical information and meteorological announcements, the use of radar facilities, the processing of radar information and the tracking of air movements via synthetic screens and state-of-the-art radio navigational aids and Instrument Landing Systems (ILS) at the airports.



Our services made a considerable contribution to the implementation of the EATCHIP (European Air Traffic Control Harmonisation and Integration) programme of Eurocontrol, within the Nicosia Flight Information Region. The EATCHIP programme aims at serving the continually increasing air traffic and the harmonisation and integration of national air traffic management systems in Europe.

As part of our efforts to upgrade the equipment we use, among other things, in 1998 we replaced the old Instrument Landing System with a new state-of-the-art one at Paphos International Airport.

During the same period we purchased, installed and operated modern digital recording systems in the Nicosia Air Traffic Control Centre and the control towers of Larnaca and Paphos airports.

Also, the acquisition process for new Direction Finders (DF) for both airports is now at an advanced stage.



At the beginning of 1998, the secondary radar system in the Paphos district was brought into service for use by the Nicosia Air Traffic Control Centre.

During the same period contracts were signed for the provision of primary and secondary radar systems for the surveillance of the terminal area of Larnaca Airport. With the completion of the installation and operation of the two new radar stations in the Paphos district and at Larnaca Airport, the part of the EATCHIP programme concerning radar stations in the Nicosia Flight Information Region will have fully been implemented.

Finally, we have asked for tenders for the provision of quality control systems for the radar stations.

Among our long-term objectives we place particular emphasis on harmonising the system and services offered with the directives and recommendations of the Eurocontrol organisation.

Within this framework, we have prepared studies for the upgrading of the existing facilities in the Nicosia Air Traffic Control Centre, so that it may operate smoothly until it is replaced by the new ultramodern control centre known as LEFCO. More specifically, in 1998, we continued the technical evaluation of tenders for LEFCO and contracts are expected to be signed in 1999.



## Services to the Meteorological Department

We continued to provide telecommunications services to the Meteorological Department, in particular to the Meteorological Office at Larnaca Airport. Our most important contribution is the provision of technical support for the operation and maintenance of the Doppler-type meteorological radar system, which enables the study of meteorological phenomena over Cyprus and in the broader Eastern Mediterranean region.

## Services to commercial radio

In the sector of commercial radio, our Organisation contributes by providing the technical means for linking the studios of four commercial stations broadcasting islandwide with the CYTA transmitting station on Mount Olympus. In 1998 we renewed our agreement with the four stations to which we provide services on extremely favourable terms, with the aim of supporting commercial radio. The transmitters operate on a 24-hour basis and during 1998, coverage reached 99,9% of the island. During the year under review, a new five-year contract for the operation and maintenance of the transmitters was signed with the suppliers.

## Maritime services

In the maritime services sector, during 1998 we continued to provide a range of telecommunications facilities for ships at sea.



These facilities operate on a 24-hour basis and offer the shipping community communications of a safety, social and commercial nature, as well as special and urgent messages to ships travelling within the Cyprus Coastal Service's allocated region, a range of 400 nautical miles. This mission is carried out in collaboration with the National Coordination Centre for Search and Rescue.



In accordance with the international agreement on the automation of various facilities to ships at sea, we procured new equipment with Digital Selective Calling (DSC) capability for the Global Maritime Distress and Safety System (GMDSS). Furthermore, we studied the upgrading of the GMDSS/DSC system to include the provision of fully automated telephone connections between ships and subscribers on land.

In addition to the services offered to the public for private and commercial use, "CYPRUS RADIO" continued to offer a 24-hour service of warnings for safety and lifesaving at sea. This mission is carried out in collaboration with the National Coordination Centre for Search and Rescue.

Finally, we place special emphasis on our ability to satisfy the needs of the shipping community and travelling public by providing new, up-to-date and reliable telecommunications services at reasonable prices. For this purpose, we are currently studying the possibility of installing cardphones on cruise ships travelling within the island's maritime region.

## Customer Service



Our Organisation is coming closer to its customers in a dynamic way. Through the PROMITHEAS project of modernisation, we presented in 1998 the first results of our new customer-oriented policy. Within this framework, we proceeded with the opening of the CYTANET Call Centre, with the introduction of Internet access software via a CD-ROM, which was on sale even in supermarkets. Also, the number of customer service offices in urban areas increased and new offices were established in rural areas.

At the same time, in our five-year Customer Service Business Plan 1999-2004, we are planning for 1999 to start, among others, the following projects which will support and improve existing customer service activities:

- The establishment of codes of conduct, communication and presentation of front line staff to customers
- The development of a call centre for all services
- The development of a complete sales network for a more personal and

specialised customer service, based on the value it adds to our Organisation

- The development of a customers' charter by which we commit ourselves, as an Organisation, to specific standards on issues concerning service (e.g. the time taken to provide a service, the time taken to repair a fault, etc.).

As an indication, the standards which were drawn up in 1998 show that, in the provision of fixed telephony, 4% of applications for which there was no technical problem were completed the same day, 11% in one to three days and 54% in three to seven days. In other words, 69% of all applications were dealt with within a seven-day period.

Moreover, in the case of the CYTAGSM mobile telephone service and the CYTANET service, the average service provision time was 20 minutes. It is worth noting that the average time for providing CYTANET service before the business reengineering and the introduction of the Call Centre was approximately three days.

## Customer Service Offices



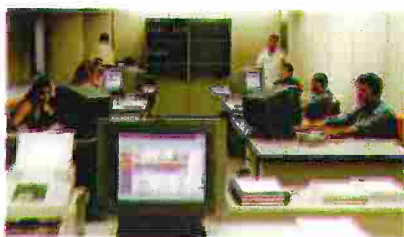
Continuing our efforts to provide the best and fastest service to our customers, in 1998 we established a third Customer Service Office (CSO) in the Lycavittos area of Nicosia and upgraded the CSO in Stroyolos. At the same time, continuing to cater for the requirements of customers in rural areas, we established a CSO at Kakopetria and proceeded with the establishment of another at Platres. The CSOs

have been designed in such a way that customers may be served from any contact point, on any issue, without delay and without being transferred to other services.

All the CSOs offer the complete range of services we provide, concerning customer service and orders/complaints. Additionally, all the CSOs in urban areas enable the payment of bills.

## CYTANET

### Call Centre



The CYTANET service has come closer to the public. In 1998 we completed the first stage of the CYTANET customer service project of the PROMITHEAS modernisation project, with the start of operations of the CYTANET Call Centre (CC). The CC, with its fully trained staff and modern equipment, provides service to customers via the telephone regarding any subject concerning the CYTANET service. Customers, with a simple free telephone call to 0800-8080, are connected easily and quickly with the CYTANET service, and can ask for information, technical support and/or make a complaint. It is also significant that customers can be served not only during normal working hours, but until the evening on weekdays and until the afternoon on Saturdays.

### Customer assistance via telephone

In 1998 we continued to provide telephone service to our customers through the customer service center 132.

providing information on applications, services/facilities, rates and bills. Also, we continued to offer telephone assistance via the directory enquiries service 191/192 and the faults handling 197 service.

It is worth noting that 70% of calls to the 197 service were answered within 20 seconds. Also, regarding the repair of faults, in 21% of cases, service was restored on the same day that the fault was reported, in 49% of cases within a day and 14% within two days. In other words, 84% of faults were repaired within two days.

At the same time, following the practice of other telecommunications organisations abroad and bearing in mind the reduction in demand for the telegraph service, we proceeded in 1998 with adjustments to the operating hours of the service and improvements in the handling of telegrams, with the aim of reducing the cost.

### Telephone directories

The telephone directories (alphabetical and Yellow Pages) are changing. In 1998 we took a decision and began the development of two new products: telephone directories on CD-ROM and telephone directories via the CYTANET service. It is planned that both products will become available in 1999.

The Yellow Pages directory approaches business customers. With the creation, in 1999, of a network of advertising sales consultants, experienced staff will make personal visits to customers, providing advisory services on subjects concerning the Yellow Pages and accepting orders.





p r e p a r i n g





Our network is expanding rapidly in all directions, on land, under the sea and in the air. Utilising state-of-the-art technology, we are busy strengthening our infrastructure. We are developing and opening our wings to travel beyond Cyprus. Because communications know no boundaries...

*As the elements of nature are everywhere.*

to  
expand



# the network

Driven by our ambition to strengthen Cyprus' position as a modern telecommunications hub, we continued to prepare actively, placing particular emphasis on our network, both national and international.

To this end, among other things, the transmission network was fully digitalised, while in 1999 the total digitalisation of the packet switched network will be swiftly completed. For the introduction of new services, we are proceeding with the installation of intelligent network and ATM network equipment. Regarding the international network, one important part is the progress achieved towards the completion of the LEV submarine fibre optic cable system which links Cyprus, Israel and Italy, and the SEA-ME-WE 3 intercontinental submarine fibre optic cable system. Also, we completed satellite communications projects for providing services to others through the establishment of subsidiary companies. Finally, we upgraded our international network

with modernisation programmes which brought spectacular improvements to communications abroad.

*CYTA's systematic preparation  
continues without frontiers...*

## National telephone network

Our national telephone network has been upgraded significantly through a series of modernisation programmes which greatly improved the provision of telephone service.

The percentage of digitalisation of the public switched telephone network reached 88,24%, while total digitalisation of the network is planned to be completed by the end of 1999.



At the same time, we proceeded with the gradual upgrading of the local telephone network management centre and a substantial number of local telephone exchanges. Through this upgrading we are gradually creating a developed network infrastructure with increased capacity and the capability of providing improved services. Also, the telephone exchanges are being made year 2000 compliant.

### ATM network

In 1998 the procedure was completed for the procurement of equipment for the creation of a public Asynchronous Transfer Mode (ATM) network, via which we shall offer our customers the opportunity to receive broadband services.

ATM technology enables transmission at high speeds (155 and 622Mbps and/or higher) using packet technology in conjunction with the Synchronous Digital Hierarchy (SDH) network. The installation of the ATM network is expected to be completed during the third quarter of 1999.



### Intelligent network

In 1998 we continued our studies for the introduction in 2000 of intelligent network equipment, which will be integrated into the fixed and mobile telephone network. This intelligent network equipment is expected to bring significant improvements to the management of existing services and the development and provision of many new ones.

## The international telephone network



### International telephone exchanges

Our international network was upgraded significantly through a series of interventions and modernisation programmes, which brought spectacular improvements to communication with other countries.

At the end of 1998, we implemented a project to upgrade the international telephone exchanges in Nicosia and Limassol with new, more advanced technology with additional technical advantages, in such a way as to secure the functionality and uniformity of CYTA's international telephone network. At the same time, this upgrading ensures that the exchanges are year 2000 compliant.



The past year saw a spectacular increase in the number of new international circuits, which were put into service in the Limassol International Telephone Exchange, resulting in improvements to the backup links for international telephone traffic.

The installation of the new system of handling 198 calls abroad, via an operator at the new Limassol International Telephone Exchange was completed.

The new system, which will cover existing requirements with the possibility of providing additional facilities, was brought into trial operation and is expected to replace the present system, which is linked to the Nicosia International Telephone Exchange, very soon.

### International Network Management Centre



The International Network Management Centre came into operation in Nicosia. The centre monitors and controls the international telephone network (international telephone traffic and signalling). Through its operations, the centre has maximised the utilisation of its technology and human resources, but it also brings with it significant benefits both to our Organisation and to our customers who require a high quality of international service.

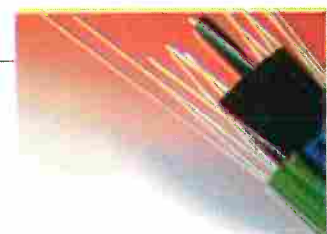


In the year under review, a series of presentations took place at a number of foreign telecommunications organisations, which drew positive comments for the technical standard that we have achieved in the area of centralised management of the international telephone network.

### Transmission Systems

The transmission network, thanks to its continual expansion and upgrading through the introduction of modern equipment and new technology, was completely digitalised at the end of 1998, compared with 97,58% the previous year. Moreover, with the introduction of the new leased lines network and the specialised central management system, the broadband services we provide were upgraded.

In order to satisfy increased customer needs and the provision of upgraded services, we proceeded to install transmission equipment for links with a number of new telephone exchanges and to route circuits via the new Synchronous Digital Hierarchy (SDH) network.



With the aim of providing uninterrupted high quality service and an immediate response to the restoration of service, we continued to place particular emphasis on preventative and corrective maintenance of our transmission systems.

### Access network

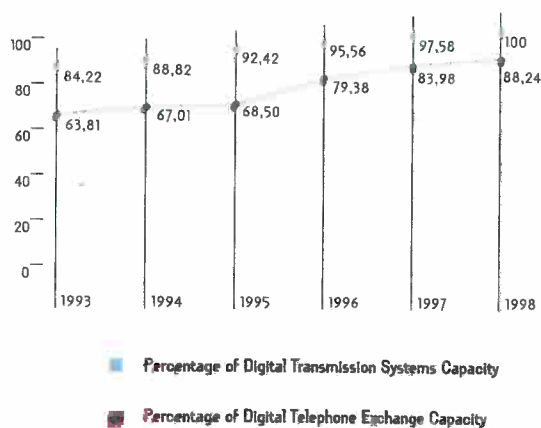
Officials of our Organisation participated in business reengineering projects and committees set up to study the modernisation of the services we offer, as part of the PROMITHEAS project. The committees studied the formulation of the infrastructure of an access network, the business reengineering of such a network, the maximisation of efficiency in network management and in customer contacts, coping with the year 2000 problem, the scheduling of business consistency, etc.



### National transmission network

In 1998, the third stage of the SDH network was completed.

### Digitalisation of the National Network



With the implementation of SDH transmission rings, an extremely flexible infrastructure was created, enabling automatic and immediate restoration of links and circuits in case of faults.

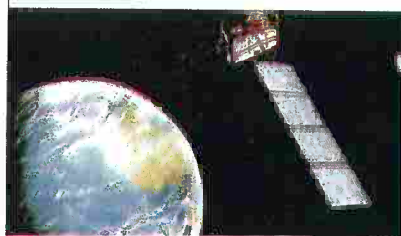
Moreover, with the introduction of SDH equipment for installation on the customer's premises and the use of optical cables, better service to business customers is secured.

The existing SDH network will form the basis for the provision of new broadband services to our customers, based on ATM technology, which CYTA will introduce in 1999.

In 1998, we also signed an agreement for the expansion and upgrading of the digital leased circuit network. The central management system, which has been secured through the agreement, offers upgraded possibilities for management which will benefit our customers.

### Satellite communications

CYTA belongs to and uses the services of the International Telecommunications Satellite Organisation (INTELSAT), the European Telecommunications Satellite Organisation (EUTELSAT) and the International Mobile Satellite Organisation (INMARSAT). It also uses other satellite systems such as Sirius II and the Russian GORIZONT system, while it is also a shareholder in the ICO company, which will provide mobile satellite communications.



In 1998 we completed the installation of the satellite earth station which enables the transmission of the CYPRUS-SAT programme to Cypriots abroad via the Sirius II satellite, initially in analogue form. The CYPRUS-SAT programme features television programmes from both the CyBC and the island's commercial TV stations.

Our Organisation undertook, after an international competition, the installation of a satellite system for the operation of the monitoring and maintenance of EUTELSAT's DAMA system, which will provide VSAT satellite communications to Europe, Russia and the Middle East. Our intention is also to proceed, through our subsidiary company DIGIMED, with the commercial exploitation of the DAMA service, at the same time securing the routing of telecommunications traffic from countries abroad, via a transit centre in Cyprus.

Cyprus possesses the geographical advantage of being in the footprint of various satellite systems covering Europe and Asia. Taking advantage of this strategic location, our superb international network, our excellent equipment and the ability of our staff, we are moving ahead with the creation of a Teleport in Cyprus, in collaboration with the British company Merlin Communications Ltd. As noted in the section of this report on services, the Teleport will provide interconnections between Europe and Asia for the rebroadcasting of television and radio programmes between the two continents.



In our efforts to continue to play a leading role in the broader geographical region of Cyprus, we went ahead with our collaboration with MATRA MARCONI SPACE and, through DIGIMED, we are part of a multinational team of experts carrying out a techno-economic study of the European African Satellite Telecommunications (EAST) system.

CYTA also houses on its premises a number of satellite dishes belonging to foreign organisations for international transit telecommunications and to other customers.



### Submarine Fibre optic cable systems

Fulfilling our aim of making Cyprus a regional telecommunications hub, by providing high quality services via tried and tested state-of-the-art technology, we participate in various submarine cable systems such as:



- The **SEA-ME-WE 3 submarine cable system** which stretches from the Far East to Northern Europe, involving 33 countries. It utilises state-of-the-art technology (wavelength division multiplexing) which offers enormous channel capacity. The project is already under construction and is due to be completed in 1999.

- The **LEV submarine cable system** which will link Israel and Italy with branching to a landing-point in Cyprus. The system belongs to the multinational company MED-1, in which our Organisation is a shareholder. It utilises the same technology as the SEA-ME-WE 3 system. Work began in 1998 and the project is due to be operational in 1999.

- The **Black Sea Fibre Optic Cable System (BSFOCS)** which will link the countries of the Black Sea (Bulgaria, Ukraine, Georgia, Russia). OTE (Greece) and CYTA were the main participants in the preparation of the specifications, the evaluation of tenders for the project and the carrying out of the relevant negotiations. The contract is due to be signed in 1999.

Also, in 1998 the submarine cable systems SEA-ME-WE 2 (covering Western Europe and Asia), Aphrodite 2 (Greece), CIOS (Israel), CADMOS (Lebanon) and UGARIT (Syria) were also in operation.



### International connections

Cyprus has direct telephone circuits with 60 telecommunications organisations in 51 countries. It has 42 direct signalling links, which serve 154 destination point codes for the purposes of fixed telephony and international roaming for mobile telephony.

At the end of 1998, the total number of telephone circuits stood at 4,386, an increase of 9,8% compared with 1997, while the respective figure for ISDN circuits rose by 28,8% in 1998, reaching 21.

At the same time, 33 new 2Mbps transit connections were established, taking the total to 144 (an increase of 29,7% compared with 1997) while the number of international leased circuits increased by 33% in 1998 from 103 to 137.

### Services to foreign telecommunications organisations

Taking advantage of the excellent coverage and quality of our network, we offer a significant number of services and facilities via Cyprus to foreign telecommunications organisations.



Specifically, our Organisation concedes irrevocable rights of use and leases part of the capacity it owns in the international submarine fibre optic cable systems, for direct links from countries of the Eastern Mediterranean to Europe and America. At the same time, it provides all the required connections through Cyprus.

The routing of telephone traffic through the CYTA public switched telephone network, to and from neighbouring countries which do not have direct links, provides a significant source of income. During 1998, switched transit traffic routed through Cyprus amounted to 264.000 minutes of conversation, an increase of around 62% compared with 1997. At the same time, 37,62 million minutes were routed through Cyprus via refiling, an increase of 113% over the 1997 figure.

When one includes outgoing and transit traffic, 188,8 million minutes were routed in 1998 through our international network to various countries abroad, continuing the upward trend observed in recent years.

Finally, an effort is currently under way to make our Organisation a hub in the broader Eastern Mediterranean region for providing value added services (such as Internet, private leased circuits, image transmission, signalling, etc.). By the end of 1998 we were providing free transit signalling facilities (STP) to 14 telecommunications organisations in 10 countries.

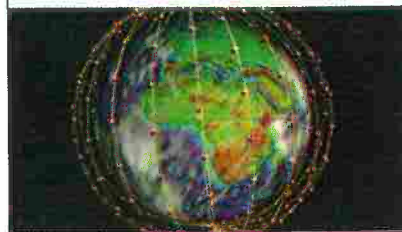
#### Main future projects

In 1999 we shall be continuing our work on the further upgrading of the Synchronous Digital Hierarchy (SDH) network so as to provide better service to customers.

Also, we are planning to purchase new equipment in 1999 which will reduce the time spent by customers waiting for the provision of service.

Through the planned accord between OTE and CYTA for the purchase of a cable ship for the laying and maintenance of submarine cable systems, a new collaboration is being achieved with the aim of upgrading our organisation's position in this sector too. International tenders have already been requested in the form of an international competition and construction of the ship is expected to be completed by the end of 2000.

CYTA continues to study and evaluate the introduction of new submarine cable systems which will terminate in Cyprus, as well as its participation in transatlantic systems and other international networks (such as Global Crossing, TAT 14 and others).



#### Outside plant

##### Strategic choices

Regarding outside plant, which takes up around 25% of our Organisation's development costs, it was not possible for us to remain indifferent to the challenges of the times. Within the framework of modernisation, during 1998 strategic decisions were taken which will shape the future of the international network. These decisions revolve around three basic points:

##### Business reengineering

In 1998 the stage of diagnosis/analysis of current activities and their reengineering was completed. The gradual implementation of the



results of business reengineering also proceeded. The basic guiding factor behind the business reengineering was the unification of all minor activities and their integration and alignment into a complete business process, aiming at reducing handovers and the fragmentation of work, a dramatic reduction in the time taken to serve customers, decentralisation in the decision making process and the modification and/or abolition of processes which do not add value.

#### Access network architecture

A study was carried out for the creation of a modern architecture for the access network. This network, linking our customers' premises with our installations, must support all known and future broadband services, providing first rate quality to the customer in the minimum time and at a competitive price. According to the study, our policy should be based on the gradual expansion of the optical network to the customer. It is evident that at the first stage there needs to be a maximisation of the use of the existing copper cable network, with the introduction of digital transmission equipment. It is predicted that the next stage of development of the access network will be that of fibre to the distribution cabinet, and, ultimately, to the building or house itself.



#### Connection of the subscribers'

##### premises via the underground network

We have drawn up a long-term plan for the underground installation of the network, feeding existing buildings with the aim of removing the last telephone pole by 2010. At the same time a study has been carried out for the simplification of the regulations and installation procedures for underground provision, with the simultaneous agreement of the relevant civil authorities, so that underground connections of new buildings to CYTA's network will be compulsory. It is evident that this policy offers strategic advantages since it will permit the easy future installation of optical fibres to customers' premises. Also, it addresses issues of safety and protection of the environment, which are considered to be equally important.



#### Main development projects

We continued to develop the copper cable network, with the aim of securing a geographically uniform provision of basic telephony across the island. The number of lines of the primary network rose by 22.300 (urban) and 8.200 (rural). The total number of lines at the end of 1998 was 626.070.

We continued in 1998 with the expansion of the optical cable network, which enables high speed transmission and greater quality of service.



We installed 125km of fibre optic cables on the trunk network, enabling the majority of telephone exchanges to be connected via alternative links, thereby reducing the likelihood of interruptions in service due to faults on the network.

In addition, 34km of fibre optic cables were installed on the subscriber optical network for direct connections to our customers.

At the same time we continued to install optical rings on the urban network. A total of 57km of fibre optic cables were installed, representing nine optical rings. In the future they will form the core of the "fibre to the cabinet" infrastructure.

In total, 216km of fibre optic cables were installed during 1998, taking the islandwide total to 1.394km.



### Support and modernisation projects

The upgrading of services on the outside plant, which we achieved in 1998, was also the product of a series of modernisation measures, including:

- the installation of the cable pressurisation and monitoring system on the primary network, which assists in the prevention of faults

- the removal of worn out material and the preventive maintenance of 70% of our Organisation's underground ducting system

- the upgrading and expansion of the automatic customer line testing system, which increases the productivity of staff working on fault repair and improves customer service

- the improvement of network security with the installation of locking devices in distribution cabinets, as part of the project to install a cabinet security system, which is due to be completed by the end of 1999

- the start of digitalisation of the topographical plans of the outside plant. This project, which is 25% finished, is being undertaken both for the creation of an archive of electronic plans and for the preparation of a geographical database for the Geographic Information System (GIS), which is due to be introduced in 1999. Through this system we shall speed up outside plant operations, as well as securing access permission from other authorities, resulting in faster provision of service.



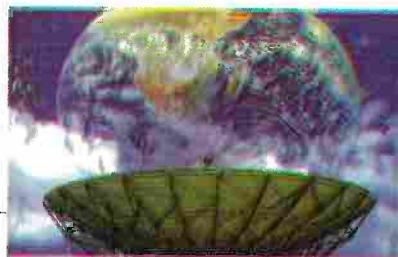
## Research and development projects



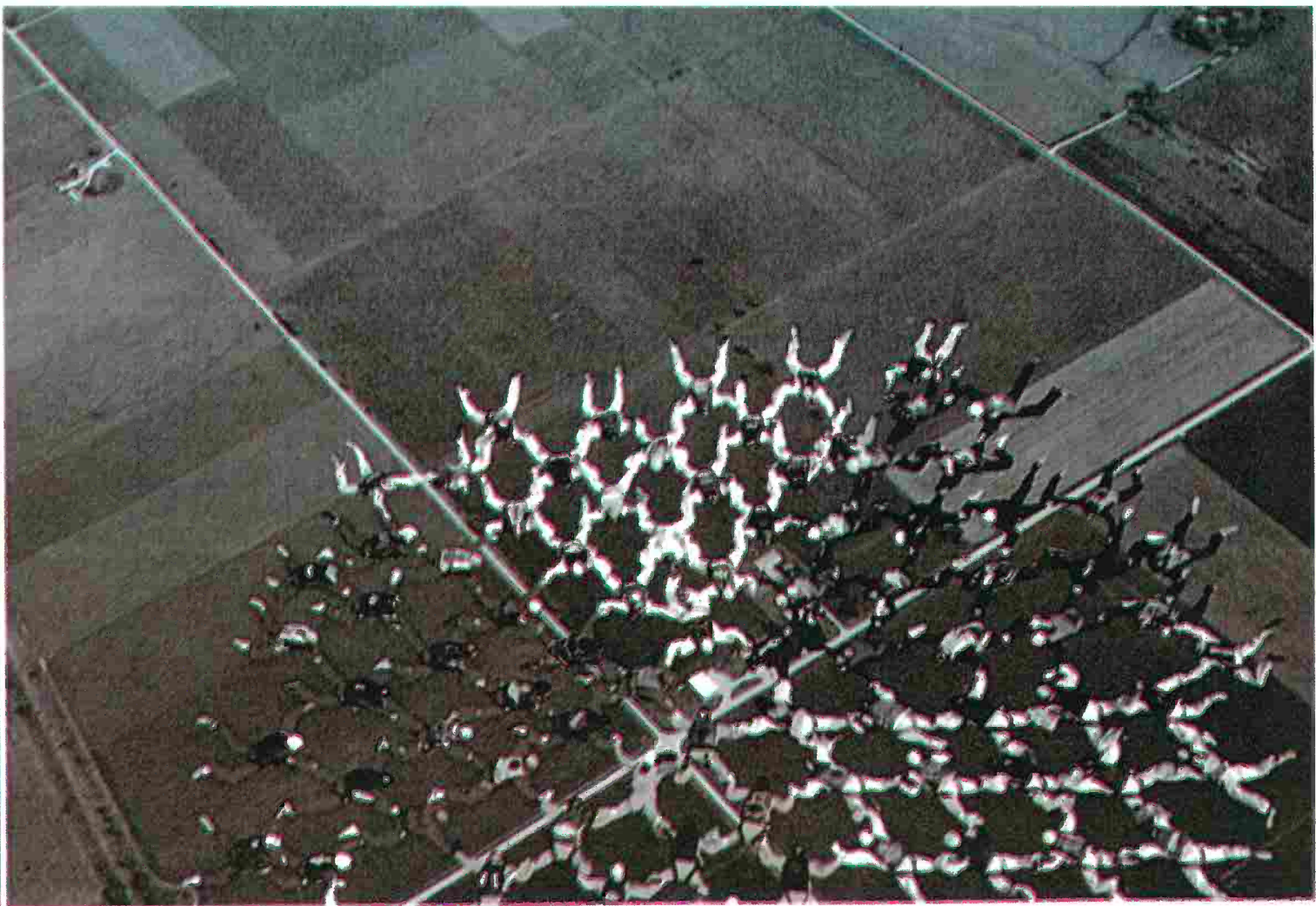
During 1998 we completed the development of the DEUCALION methodology, which covers the complete life cycle of a product from the original conception to its final removal from the market at the end of its life. The new methodology places on a systematic and complete basis the development and management of all our products and is a significant milestone in the efforts of the PROMITHEAS project for the promotion of our new customer-oriented strategy.

The DEUCALION methodology consists of four basic activities: innovation management, product development, product management and product portfolio management. The methodology has gradually been implemented with the introduction of electronic support systems for innovation management, with the establishment of working groups for the development of new products, such as those for the intelligent network and broadband services, and with the distribution of user manuals for the new methodology. Training seminars were also organised for members of our Organisation on product management.

Over and above the development and management of products in accordance with the DEUCALION methodology, we expanded our activities into research topics, promoting collaborative initiatives with other research institutes. During 1998, we began cooperating with the University of Cyprus in the field of research into subjects such as digital libraries and broadband ATM networks and we promoted CYTA's membership of the European Research Institute Eurescom, which deals exclusively with research projects in the telecommunications sector. Our Organisation has been provisionally accepted as a full member of Eurescom and it is expected that, in the coming years, our contribution to European research projects will be a significant one.







p r e p a r i n g





Europe is closer than ever. As we move towards membership of the great European family, our Organisation is at the forefront. In the efforts towards harmonisation, we are gathering our forces. We want our country to become an equal member of the group which is why we are attempting the giant leap. We believe in our abilities...

*As we believe in the strength and beauty of the unity of the people of Europe.*

t o

unite



# european and international relations

The past year was marked by the start of intensive work on Cyprus' accession to the European Union.

Telecommunications is one of the most important areas in which the country has to give priority to issues pertaining to harmonisation with the EU's *acquis communautaire*.

*CYTA is making determined and rapid preparations for Europe...*

## Harmonisation with the European Union

The Cyprus Telecommunications Authority is part of the working group on telecommunications established by the Ministerial Committee for EU Affairs, with the aim of preparing for the accession negotiations which started in 1998. Within the accession negotiations, telecommunications was a subject of discussion in May 1998 when the positions of Cyprus were presented. In 1998 Cyprus had committed itself to liberalise the telecommunications sector fully by December 31, 2003.

The position of the European Union was that liberalisation in the telecommunications sector should occur earlier so that it is completed by the time Cyprus becomes a full member, the target date for which is January 1, 2003.

Within the working group, we prepared specific harmonisation programmes which include the legislative measures which must be taken for harmonisation of the sector, relative timetables and organisational changes for their implementation, the required budgets and the technical assistance which Cyprus intends to request.

In 1998 the Council of Ministers took important decisions on the telecommunications sector, the implementation of which will bring substantive changes and will contribute to the efforts at harmonisation with the EU's *acquis communautaire*. Specifically, the Council of Ministers decided, among other things, to take the following steps as soon as possible:

- the separation of the regulatory and operational functions

- the establishment of a regulatory body which will undertake the regulatory responsibility and

- the drafting of new telecommunications legislation.

Additionally, a relevant timetable was prepared which provides for the taking of the necessary measures, so as to realise the above.

At the same time, we are proceeding with relevant activities which aim at harmonisation with the *acquis communautaire* in areas where our Organisation can implement measures by itself, particularly in the technical sector, such as, for example, the adoption of European technical standards and specifications.

## Relations with international organisations

Our Organisation is an active participant in the procedures and activities of all the international telecommunications organisations of which it is a member. It is represented in various working groups and at conferences organised by these organisations, so as to be in a position to observe and apply technological and other developments occurring in the telecommunications sector.





Cyprus is a member of the International Telecommunications Union (ITU) which is a United Nations organisation. CYTA follows its operations closely and implements all the recommendations of the ITU and its various sectors, such as Telecommunications Standards & Specifications (TSS), Radio Communications (RS) and Telecommunications Development (TDS).

In 1998, a delegation from our Organisation participated in the ITU's Plenipotentiary Conference (PP98) in the United States.

CYTA is a founder member of the Association of European Public Telecommunications Network Operators (ETNO), which coordinates members' activities for the promotion of services and the exploitation of networks in Europe. Additionally, it draws up a joint policy of its members on telecommunications issues and submits opinions and proposals to various European bodies, mainly within the European Union, and to international organisations.

In 1998 we took part in the 12th and 13th General Assemblies of ETNO which were held in Austria.



CYTA is also a founder and managing member of the European Telecommunications Standards Institute (ETSI) and follows its operations closely.

Additionally we are members and follow the activities of the Commonwealth Telecommunications Organisation (CTO). We took part in the Annual General Meeting of the CTO in Trinidad & Tobago.

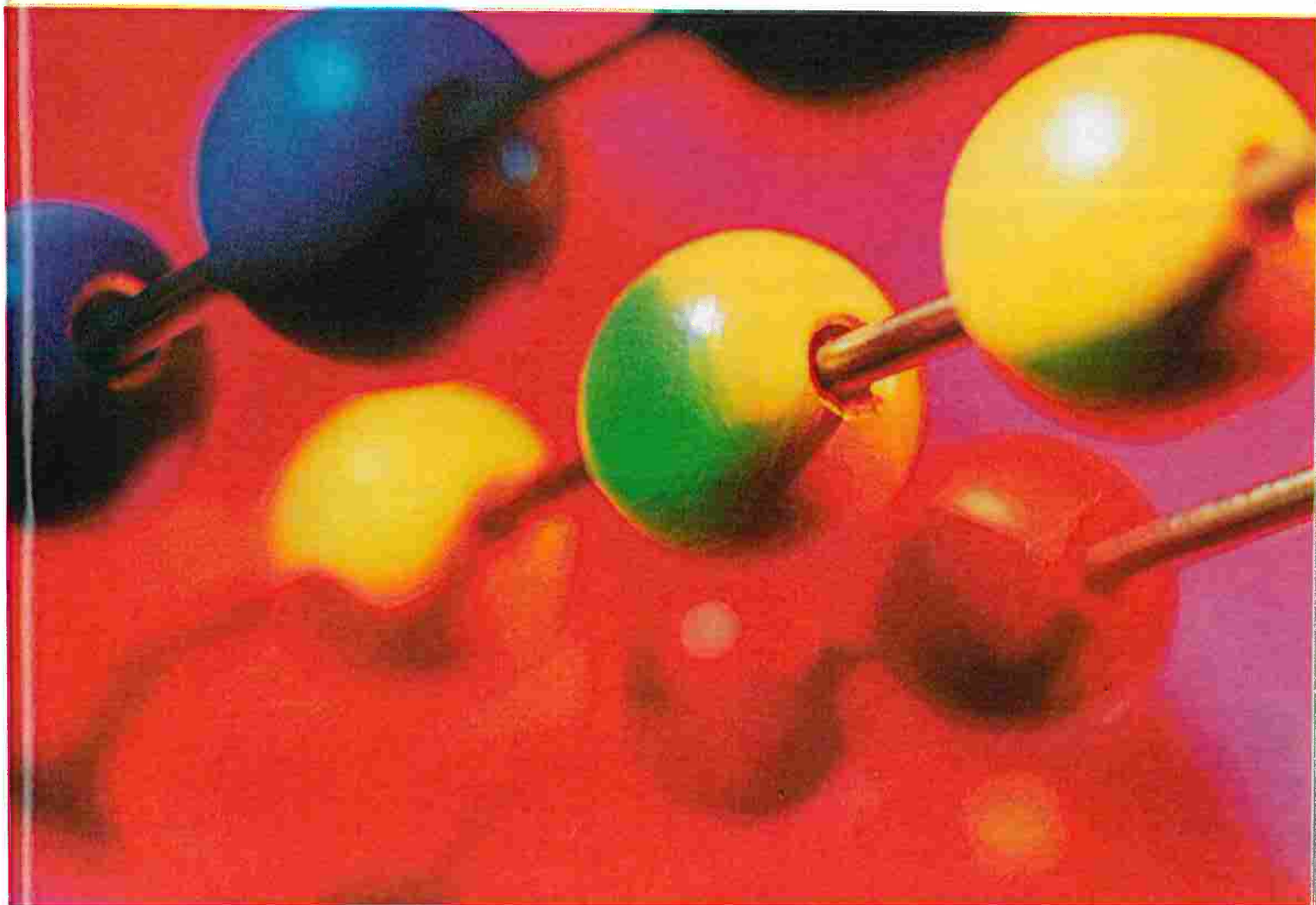
As already stated in the section of this report on our network, Cyprus, represented by CYTA, is a member of the INTELSAT, EUTELSAT and INMARSAT organisations and has been using their satellite systems since 1980, 1986 and 1992 respectively. In 1998 delegations from CYTA took part in various conferences, meetings and conventions of these organisations.

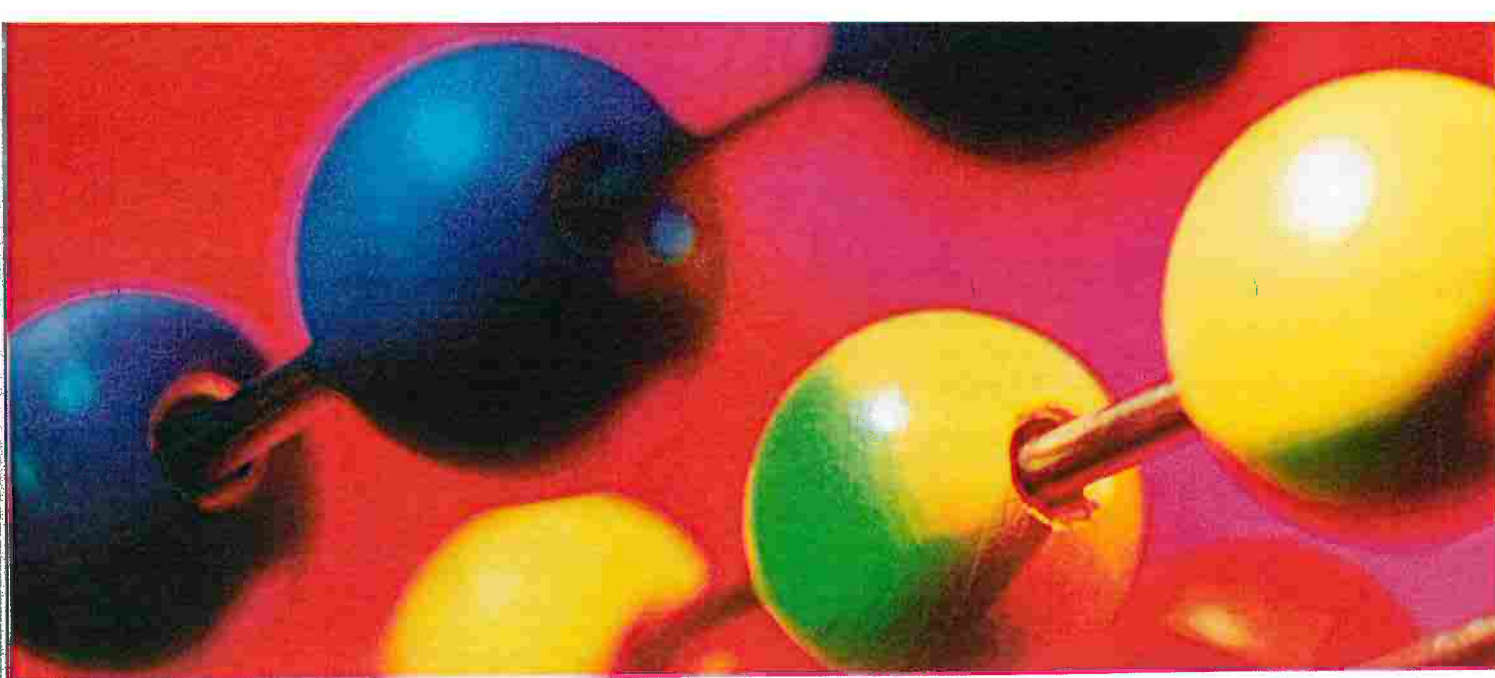
Our Organisation is also a founder member of the European Telecommunications Information Society (ETIS) and took part in the Board of Directors' works, as well as in this organisation's 13th and 14th Administration Committee Meetings.





f i n a n c i a l   r e p o r t   1 9 9 8





# financial report 1998

## Results

The results for the year ended 31 December 1998 were once again very satisfactory and show a surplus after tax of £39.0 compared to £27.1m of the previous year. The total revenue increased by £21.1m or 17% and reached £146.5m whereas the total expenses increased by £6.0m or 7% and reached £96.5m.

## Financial Position

The growth of the Authority is remarkable and reflected in all items of the Balance Sheet. The net assets grew from £178.7m to £229.2m and the reserve fund from £196.0m to £235.0m.



## Financial Highlights

	1998	1997
	£m	£m
Operating revenue	134,8	116,4
Other income	0,8	9,0
Operating expenses	75,9	70,3
Financials and other expenses	5,0	3,6
Interest and deficits on pension funds	16,5	16,6
Surplus before Corporation Tax	50,0	34,9
Corporation Tax	11,0	7,8
Capital Expenditure	46,0	34,5

### Key Ratios:

Operating revenue to net assets	59%	65%
Operating expenses to operating revenue	56%	60%
Surplus to net assets	17%	15%
Long-term liabilities to reserve	1:4,33	1:2,90

## Operating Revenue

Service	1998	1997	% Increase/(Decrease)
	£m	£m	
Telephone	128,2	111,7	15
Telex	0,6	0,9	(33)
Other	6,0	3,8	58
	134,8	116,4	

### Telephone Service

During the year the subscribers of the Authority increased by 43.158 and reached 521.139. The revenue from this service represents 95% of the operating revenue and rose by £16,5m or 14,8% compared to last year. Analytically, the inland calls rose from £34,0m to £40,4m, the rentals from £16,6m to £19,4m, the overseas calls from £53,9m to £61,0m and the revenue from leased circuits from £5,6m to £5,9m.

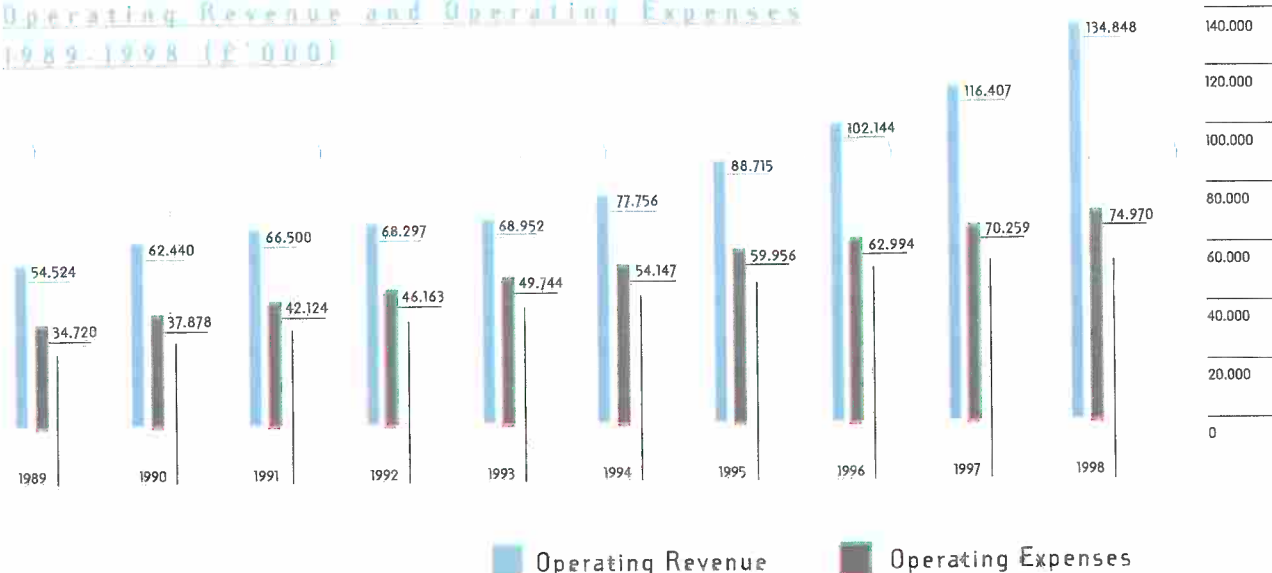
### Telex Service

As a result of usage of other services offered by the Authority the revenue from this service continued to decline and the number of subscribers decreased from 1.616 to 1.315.

### Other Services

In the revenue from other services, which showed a large increase, includes the revenue from packet switching data service (CYTAPAC) of £0,4m, from TV programmes service of £0,5m, from directories service of £0,6m, from CYTANET service £1,1m, from ISDN service £1,5m and from other special services £1,5m.

## Operating Revenue and Operating Expenses 1989-1998 (£'000)



## Investments and other income

The investment and other income increased by £2,6m mainly as a result of increased returns from interest receivable and profit on disposal of fixed assets.

## Operating expenses

The operating expenses for the year, after allocations of £4,9m (1997 £4,7m) to capital and recoverable works, rose by 6,7% and totalled £75,0m compared to £70,3m of 1997. The increase is attributable to salaries and depreciation.

## Interest and deficits on pension funds

Due to the decrease of the interest of the Pension Scheme liability the charge of the year decreased by £0,1m.

## Tax obligations

The 1998 provision for Corporation Tax amounted to £11,0m and an amount of £10,0m was paid until 31 December 1998.

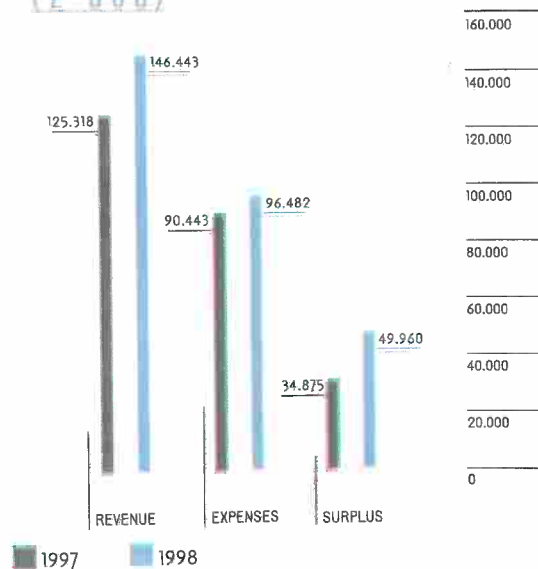
## Capital expenditure

The capital expenditure in the year totalled £46,0m (1997 £34,5m) after deducting contributions of £0,8m (1997 £0,8m) from subscribers by way of installation fees. All these expenditure were financed from internal sources.

## Liquid funds

The Government Bonds and the Bank Deposits which amounted to £37,3m and £76,3m respectively, will be mainly used for financing the Authority's development program.

## Revenue, Expenses and Surplus (£'000)



## Loans and other long term liabilities

The Authority's long term liability to suppliers and foreign financial institutions amounted to £3,4m (1997 £3,8m) and is repayable as follows:

Period	1998 £m	1997 £m
Between 1-2 years from 31 December	0,3	0,4
Between 2-3 years from 31 December	0,3	0,3
Between 3-4 years from 31 December	0,3	0,3
Between 4-5 years from 31 December	0,2	0,3
After 5 years from 31 December	2,3	2,5
	3,4	3,8

## Surplus and Capital Expenditure 1989-1998 (£'000)



## Retirement benefits

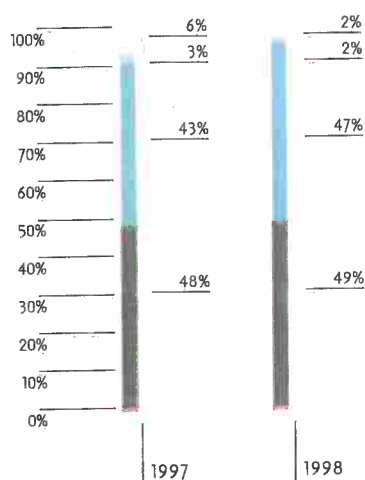
The liability of the Authority to the Pension Scheme at 31 December 1998 amounts to £54,3m. This liability is being repaid by half yearly instalments until 31 December 2002. The last actuarial valuation was carried out on 1 July 1998 by professional actuary.

## Contractual commitments

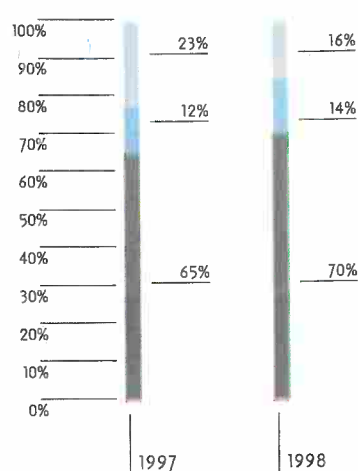
The contractual commitments amounted to £34,4m (1997 £36,1m). They include outstanding orders of £17,6m for telecommunication equipment, £6,1m for submarine cables, £8,6m for buildings under construction, £0,8m for line network and £0,6m for outstanding excavations.



### Total Assets Owned (€'000)



### Total Liabilities Owned and Capital Invested (€'000)



	1997	1998	1997	1998
Fixed Assets	144.683	163.838	48%	49%
Current Assets	129.616	159.781	43%	47%
Investments	8.849	7.587	3%	2%
Long-term debtors	574	542	-	-
Pension Scheme deficiency	17.264	5.814	6%	2%

	1997	1998	1997	1998
Capital & reserves	195.994	234.279	65%	70%
Current Liabilities	37.343	48.238	12%	14%
Long-term loans and other liabilities	67.649	54.345	23%	16%

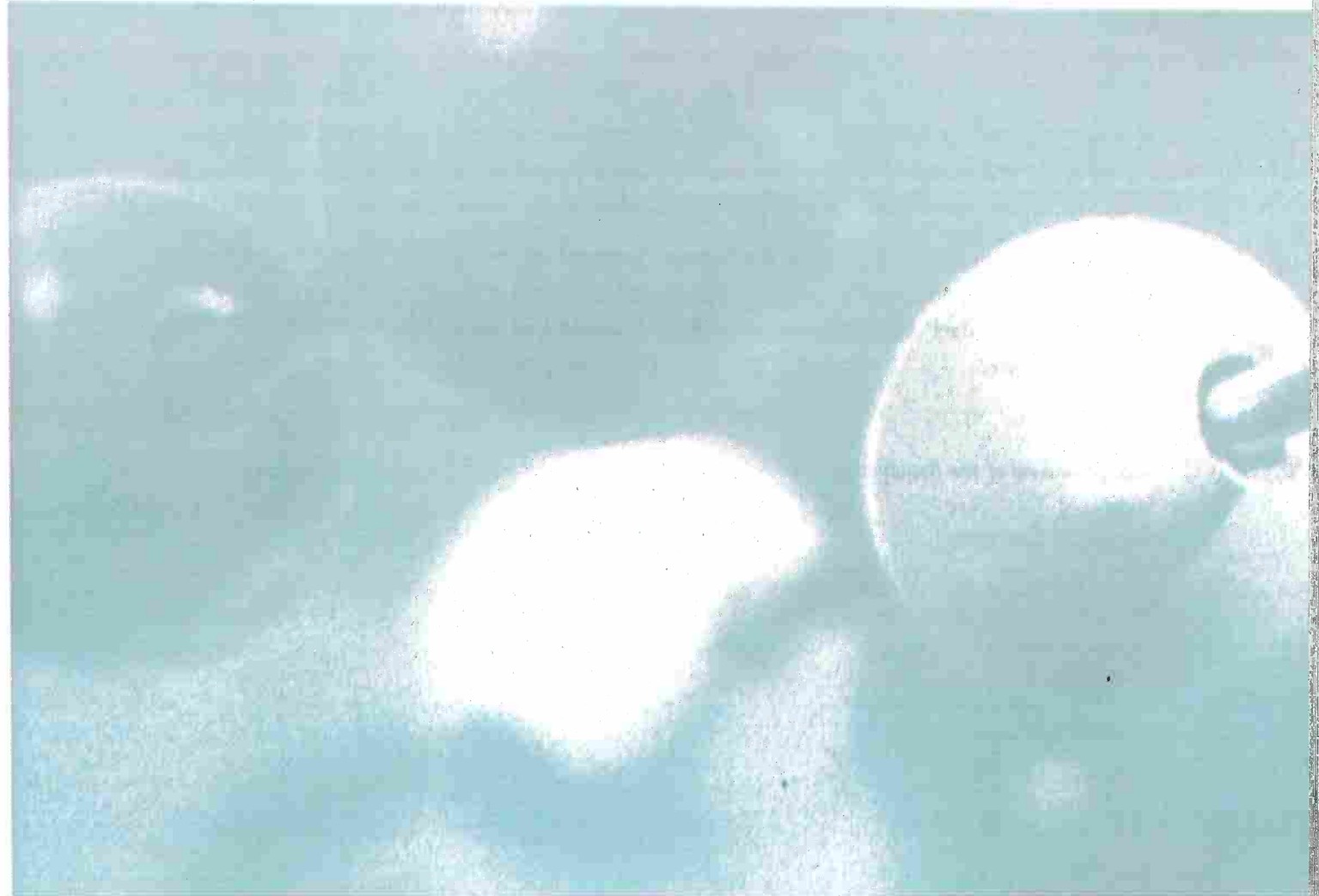
**M. Zivanaris**  
Chairman

**N. M. Timotheou**  
General Manager

**G. Koufalis**  
Manager Financial Services



auditors' report and financial statements



Auditors' report  
to the Cyprus Telecommunications Authority

We have audited the financial statements and have obtained all the information and explanations we considered necessary. These financial statements are the responsibility of the Authority's management. Our responsibility is to express an opinion on these financial statements based on our audit.

We conducted our audit in accordance with International Standards on Auditing. Those Standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement. An audit includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements. An audit also includes assessing the accounting principles used and significant estimates made by management, as well as evaluating the overall financial statements presentation. We believe that our audit provides a reasonable basis for our opinion.

In our opinion proper books of account have been kept by the Authority and the financial statements, which are in agreement therewith, give a true and fair view of the state of affairs of the Cyprus Telecommunications Authority at 31 December 1998 and of its surplus and cash flows for the year then ended in accordance with International Accounting Standards and comply with the Companies Law, Cap. 113.

KPMG Peat Marwick  
*Certified Public Accountants (Cyprus)*

Nicosia, 27 April 1999

Report of the Auditor General of the Republic  
to the Cyprus Telecommunications Authority

I have examined the foregoing report on the financial statements of the Cyprus Telecommunications Authority for the year ended 31 December 1998 submitted by the appointed auditor in accordance with section 3(1) of the Public Corporate Bodies (Audit Accounts) Law and I am satisfied that this is appropriate.

C. Giorgatzi  
*Auditor General of the Republic*

Nicosia, 27 April 1999



## Revenue Account

Year ended 31 December 1998

	Note.	1998 £'000	1997 £'000
Operating revenue	4	134.848	116.407
Operating expenses	5	74.970	70.259
Operating surplus		59.878	46.148
Investment and other income		11.627	9.015
		71.505	55.163
Financial and other expenses	6	5.048	3.588
Interest and deficits on pension funds	7	16.464	16.596
		21.512	20.184
		49.993	34.979
Foreign exchange loss		33	104
Surplus for the year before tax		49.960	34.875
Taxation	8	10.975	7.787
Surplus for the year transferred to reserves	17	38.985	27.088

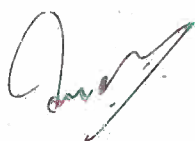
*The notes to the financial statements form an integral part of the financial statements.*

# Balance Sheet

Year ended 31 December 1998

		1998	1997
	Note.	£'000	£'000
Current Assets	9	159,781	129,616
Current Liabilities	10	(48,238)	(37,343)
Net Current Assets		111,543	92,273
Investments in Telecommunication Organisations	11	7,587	8,849
Fixed Assets	12	163,838	144,683
Long-Term Debtors	13	542	574
Total Assets less Current Liabilities		283,510	246,379
Long-Term Liabilities			
Loans and other liabilities	14	3,383	3,812
Retirement benefits	15	42,104	55,695
Deferred tax	16	8,858	8,142
		54,345	67,649
Net Assets		229,165	178,730
Reserves	17	234,979	195,994
Pension Scheme Deficiency	15	5,814	17,264
		229,165	178,730

The notes to the financial statements form an integral part of the financial statements.



M. Zivanaris  
Chairman



N. M. Timotheou  
General Manager



G. Koufaris  
Manager Financial Services

## Cash Flow Statements

Year ended 31 December 1998

	Note.	1998 £'000	1997 £'000
<b>Net Cash Flow from Operating Activities</b>	18	<b>70.274</b>	<b>39.860</b>
<b>Return on Investment and Servicing of Finance</b>			
Interest received		6.645	6.214
Interest paid		(4.526)	(5.120)
Investment income		2.604	2.796
<b>Net cash flow from return on investment and servicing of finance</b>		<b>4.723</b>	<b>3.890</b>
<b>Taxation</b>			
Corporation tax paid		(10.655)	(7.009)
<b>Investing Activities</b>			
Payments to acquire tangible fixed assets		(26.092)	(17.437)
Increase/(decrease) in participation in Telecommunication Organisations		1.262	(1.418)
Proceeds from sale of fixed assets		1.908	3.320
<b>Net cash flow from investing activities</b>		<b>(22.922)</b>	<b>(15.535)</b>
<b>Financing Activities</b>			
Payments to the pension scheme		(10.456)	(7.516)
Purchase of government bonds		(21.761)	(16.531)
Sale of government bonds		16.237	12.597
Repayment of loans and bills payable		(1.640)	(1.606)
<b>Net cash flow from financing activities</b>		<b>(17.620)</b>	<b>(13.056)</b>
<b>Increase in cash and cash equivalents</b>	19	<b>23.800</b>	<b>8.150</b>

The notes to the financial statements form an integral part of the financial statements.



## Notes to the Financial Statements

For the year ended 31 December 1998

### 1. INCORPORATION AND PRINCIPAL ACTIVITY

The Cyprus Telecommunications Authority is a Corporate Body established by Law 67 of 1954 (Cap. 302), as amended by Laws 20/60, 34/62, 25/63, 54/77, 98/88 and 21/89.

The main responsibility of the Authority is the provision, maintenance and development of a comprehensive telecommunications service, both local and overseas.

### 2. BASIS OF PRESENTATION

The financial statements, which have been prepared in accordance with International Accounting Standards, are for the year ended 31 December 1998 and are expressed in Cyprus Pounds.

### 3. ACCOUNTING POLICIES

The following accounting policies have been applied consistently in dealing with items, which are considered material in relation to the Authority's financial statements.

#### *Basis of preparation*

The financial statements have been prepared under the historical cost convention.

#### *Fixed assets, depreciation and amortisation*

Fixed assets are stated at cost less depreciation.

- (a) The cost of fixed assets comprises of the purchase price and any directly attributable costs incurred to bring the asset to working condition for its intended use.

Self constructed assets are valued individually at material cost plus an addition for direct labour and other appropriate expenses.

Borrowing costs relating to the acquisition of plant and equipment are written off as they arise.

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

- (b) Amortisation of leasehold properties is calculated so as to write off the cost of the leased asset by equal annual installments over the period of the lease with a maximum of 33 years.

Depreciation on prefabricated buildings, which are set on private or leased land, is calculated based on the period of their usage, which is 5 years.

For the rest of fixed assets, depreciation is provided by the Authority to write off the cost less the estimated residual value of the assets by equal installments over their estimated useful economic lives as follows:

	%
Freehold buildings .....	.3
Prefabricated buildings .....	.20
Switching equipment, transmission equipment, line network, terminal equipment, mobile telephone service network and power equipment .....	.10
Satellite earth stations .....	.10
Submarine cables .....	.5 - 6,67
Testing equipment .....	.12,50
Motor vehicles .....	.20
Office furniture and equipment .....	.10
Terminal equipment and tools .....	.33,33
Computer peripherals .....	.33,33
Mainframe computer and information systems .....	.20

Land is not depreciated.

A full year's depreciation is charged in the year of acquisition or addition and no depreciation is charged in the year of disposal.

#### Debtors

Amounts, which are receivable, within after more than one year from the balance sheet date are classified as long-term.

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

#### Stocks

Stocks, which include plant and equipment used for the under construction development projects of the Authority, are stated at cost less provision for obsolescence. The principal methods for determining cost are as follows:

- (i) Additions are valued at weighted-average cost, which includes purchase cost and other attributable expenses.
- (ii) Recoveries of equipment are valued at original cost less accumulated depreciation.

#### Long-term liabilities

Liabilities, which are due within after more than one year from the balance sheet date are classified as long-term.

#### Operating revenue

Operating revenue is stated after deducting amounts due to other administrations in respect of international traffic.

#### Foreign currencies

Transactions denominated in foreign currencies are recorded at the rate ruling at the date of the transaction. Monetary assets and liabilities denominated in foreign currencies are translated into Cyprus pounds at the exchange rate ruling at the balance sheet date. Gains and losses on exchange are dealt with in the revenue account.

#### Retirement benefits

The Authority operates defined benefit retirement plans. Provisions in the financial statements are based on actuarial valuations, which consider employees age, years of service and remuneration and also the investment performance of the fund. The latest independent actuarial valuation was conducted in July 1998 with the assumption that the annual average future increase in wages would be 7% and the average annual return on investment would be 7%.

The retirement benefit costs are charged to the revenue account over the period of the expected service lives of the employees.

Deficiencies shown by actuarial valuations are written off against revenue over a period of five years.

#### Government bonds

Investments in Government bonds are stated at cost.

#### Investments

Investments in Telecommunication Organisations are stated at cost.

#### Deferred tax

Deferred tax is provided on all temporary timing differences between accounting and tax treatment of assets and liabilities, using the tax rates that are expected to apply when tax becomes payable.

Deferred tax assets arising from deductible temporary differences are recognised only when it is probable that the related tax benefit will be realised.

### 4. OPERATING REVENUE

	1998 £'000	1997 £'000
Telephone service	128,244	111,668
Telex service	632	884
Other services	5,972	3,855
	134,848	116,407



## 5. OPERATING EXPENSES

	1998 £'000	1997 £'000
Staff costs	40.982	39.643
Maintenance costs	3.982	4.175
Depreciation	24.968	21.730
Leased circuits rentals	1.193	2.258
Other expenses	8.756	7.184
	<u>79.881</u>	<u>74.990</u>
Less: Staff and transport costs allocated to fixed assets and recoverable works	4.911	4.731
	<u>74.970</u>	<u>70.259</u>

## 6. FINANCIAL AND OTHER EXPENSES

	1998 £'000	1997 £'000
Interest on suppliers credit and loans from foreign financial institutions	106	194
Special contribution for Defence	2.370	1.545
Other expenses	2.572	1.849
	<u>5.048</u>	<u>3.588</u>

## 7. INTEREST AND DEFICITS ON PENSION FUNDS

	1998 £'000	1997 £'000
Interest on Pension Scheme liability	4.335	4.859
Pension Scheme deficiency	11.749	11.588
Superannuation Fund deficiency	380	149
	<u>16.464</u>	<u>16.596</u>

## 8. TAXATION

	1998 £'000	1997 £'000
Corporation tax	10.259	6.700
Deferred tax	716	1.087
	<u>10.975</u>	<u>7.787</u>

The Authority is subject to corporation tax at 20% - 25% on taxable profit.

## Analysis of taxation charge

	1998 £'000	1997 £'000
Surplus for the year before tax	49,960	34,875
Tax at 20% - 25%	12,488	8,716
Disallowable expenditure	6,890	5,991
Non-taxable income	(7,457)	(6,517)
Investment allowance	(1,476)	(1,349)
	<u>10,445</u>	<u>6,841</u>
Tax relating to previous years	(186)	(141)
Deferred tax	716	1,087
	<u>10,975</u>	<u>7,787</u>

## 9. CURRENT ASSETS

	1998 £'000	1997 £'000
Stocks	14,856	15,543
Debtors and other accounts less provisions	31,374	29,969
Government bonds	37,292	31,496
Bank balances and cash in hand	76,259	52,608
	<u>159,781</u>	<u>129,616</u>

The market value of Government bonds at 31 December 1998 was £38,042,000 (1997: £31,588,000).

## 10. CURRENT LIABILITIES

	1998 £'000	1997 £'000
Bills and other accounts payable to suppliers	7,911	6,307
Loans from foreign financial institutions	287	402
Creditors and other accounts	22,728	17,657
Retirement benefits (Note 15)	12,211	8,051
Deferred income	4,655	4,085
Corporation tax	446	841
	<u>48,238</u>	<u>37,343</u>

Bills and other accounts payable to suppliers are stated after deducting interest of £3,000 (1997: £29,000) representing interest attributable to subsequent years.

## 11. INVESTMENTS IN TELECOMMUNICATION ORGANISATIONS

Investments represent the Authority's share in the International Telecommunications Satellite Organisation (INTELSAT), the European Telecommunication Satellite Organisation (EUTELSAT), the International Maritime Satellite Organisation (INMARSAT) the ICO Global Communicating (Holdings) Limited and in Digimed Communications Limited.

	Investment at cost		Participation (%)	
	1998 £'000	1997 £'000	1998 %	1997 %
INTELSAT	635	674	0.08	0.08
EUTELSAT	1,896	1,842	0.64	0.86
INMARSAT	3,046	4,323	1.57	1.58
ICO Global Communications (Holdings) Limited	499	499	0.05	0.07
Digimed Communications Ltd	1,511	1,511	100.00	100.00
	<u>7,587</u>	<u>8,849</u>		

In respect of the investments in the Satellite Organisations, under the terms of the allotment of the relative shares, the Authority is required to make contributions proportionate to its investment share, towards future development projects of the above organisations.

The income from these organisations which relates to the repayment of capital is deducted from the cost of the investment, while income from the use of capital is reflected in the revenue account.

Digimed Communications Ltd is a wholly owned subsidiary of the Authority. No consolidated financial statements for the year ended 31 December 1998 have been prepared due to the immaterial size of the subsidiary in relation to the size of the holding company.

## 12. FIXED ASSETS

	Freehold land and Buildings £'000	Buildings leasehold land £'000	Telecom- munication plant and equipment £'000	Motor vehicles and tools £'000	Office furniture and equipment £'000	Computer hardware and systems £'000	Assets under con- struction £'000	1998 Total £'000	1997 Total £'000
Cost									
1 January	19,076	4,720	270,232	4,793	2,590	11,081	16,615	329,107	301,304
Additions	2,085	71	36,005	651	219	1,455	5,545	46,031	34,459
Disposals	-	-	(4,496)	(159)	(28)	(14)	-	(4,697)	(6,656)
Transfers	-	-	(5)	-	-	5	-	-	-
31 December	<u>21,161</u>	<u>4,791</u>	<u>301,736</u>	<u>5,285</u>	<u>2,781</u>	<u>12,527</u>	<u>22,160</u>	<u>370,441</u>	<u>329,107</u>
Depreciation									
1 January	3,986	1,551	165,524	3,623	1,686	8,054	-	184,424	165,962
Charge for the year	526	160	21,829	573	207	1,673	-	24,968	21,730
Disposals	-	-	(2,601)	(157)	(17)	(14)	-	(2,789)	(3,268)
Transfers	-	-	1	-	-	(1)	-	-	-
31 December	<u>4,512</u>	<u>1,711</u>	<u>184,753</u>	<u>4,039</u>	<u>1,876</u>	<u>9,712</u>	<u>-</u>	<u>206,603</u>	<u>184,424</u>
Net book value									
31 December	<u>16,649</u>	<u>3,080</u>	<u>116,983</u>	<u>1,246</u>	<u>905</u>	<u>2,815</u>	<u>22,160</u>	<u>163,838</u>	<u>144,683</u>



#### (a) Assets in occupied areas

Fixed assets include assets situated in areas presently occupied by the Turkish army of occupation or in areas, which are not accessible to the Authority due to current conditions. The Authority is not in a position to ascertain the present state of these assets. Full provision has been made in the financial statements in respect of fixed assets and items in stores situated in the occupied areas.

#### (b) Land

Certain plots of land amounting to £279.132 (1997: £207.000) included in the accounts, were in the course of being registered in the name of the Authority at the year end.

### 13. LONG-TERM DEBTORS

	1998 £'000	1997 £'000
Republic of Cyprus	335	387
Other	207	187
	<u>542</u>	<u>574</u>

The debt of Republic of Cyprus represents amounts receivable between 2000 and 2005, in respect of the transfer of the radar system to the Civil Aviation Department.

### 14. LOANS AND OTHER LIABILITIES

	1998 £'000	1997 £'000
Bills payable to suppliers	-	194
Loans from foreign financial institutions	<u>3.383</u>	<u>3.618</u>
	<u>3.383</u>	<u>3.812</u>

The loans from foreign financial institutions are repayable between the year 2000 and 2015 and bear interest ranging between 2% - 12,07% per annum. The loans are secured by guarantees provided by the Government of the Republic of Cyprus.

### 15. RETIREMENT BENEFITS

The Authority operates three separate staff retirement defined benefit schemes. A Superannuation Fund and a Pension Scheme for the monthly paid staff and a Provident Fund for the weekly paid staff.

The Authority's total liability for retirement benefits is as follows:

	1998 £'000	1997 £'000
Short term	12.211	8.051
Long term	<u>42.104</u>	<u>55.695</u>
	<u>54.315</u>	<u>63.746</u>

#### (a) Superannuation Fund

The Superannuation Fund was established to provide pensions to monthly paid employees, and contributions to the Fund were made by both the Authority and the employees. The Superannuation Fund has no members in active service. The Fund operates independently of the finances of the Authority. Under the regulations of the Fund, the Authority is liable to make good any deficiencies, which may result from periodic actuarial valuations. The last valuation was made on 1 July 1998 by a professionally qualified actuary. The resultant deficiency amounting to £321.000 was settled during 1998.

In addition, the Authority is liable to make annual lump sum payments, based on actuarial valuations, for the purpose of funding any pension increase after retirement. The amount paid in 1998 was £59.000 (1997: £149.000).

#### (b) Pension Scheme

The Scheme provides pension benefits for monthly paid employees and their dependents. For the purposes of the Scheme, a fund exists, which operates independently of the finances of the Authority. Under the regulations of the Scheme, the Authority is liable to make contributions, the level of which is determined by periodic valuations. These contributions consist of a percentage of the pensionable salary of the employees-members of the Scheme. Additionally the Authority is liable to make good any deficiencies, which may be shown by actuarial valuations, which concern prior years' service.

The actuarial valuation carried out on 1 July 1994 showed a deficit of £30.676.000 and will be written off in the profit and loss account in equal installments against the Authority's reserves until 30 June 1999. The last actuarial valuation carried out on 1 July 1998 showed an additional deficit of £322.000 and will be written off in the profit and loss account equally between 1998 and 1999. The balance of the deficit not yet written off at 31 December 1998 amounted to £5.814.000 (1997: £17.264.000).

The payment for the Authority's liability is settled in twenty six monthly installments until 31 December 2002. The liability is charged with interest of 7% per annum until it is fully repaid.

#### (c) Provident Fund for The weekly paid employees

Contributions to the Fund are made by both the Authority and its members and it operates independently of the finances of the Authority.

As a result of the collective agreement signed in 1992, weekly paid employees are promoted to monthly paid on the completion of five years meritorious service, and become members of the Pension Scheme retrospectively from their recruitment date.

Based on the collective agreement of 1996 the last employees have been promoted to monthly paid on 1 August 1998 and after that date the Fund had no members.

## 16. DEFERRED TAX

Deferred tax comprises:

	1998	1997
	£'000	£'000
Differences in depreciation and capital allowances	9,074	8,287
Unrealised exchange loss	(216)	(145)
	<u>8,858</u>	<u>8,142</u>

## 17. RESERVES

	1998	1997
	£'000	£'000
Balance 1 January		
As previously stated	204,136	175,961
Prior year adjustment for deferred tax	(8,142)	(7,055)
Balance 1 January as restated	<u>195,994</u>	<u>168,906</u>
Surplus for the year	<u>38,985</u>	<u>27,088</u>
Balance 31 December	<u>234,979</u>	<u>195,994</u>

The Authority has implemented the provisions of the revised International Accounting Standard 12 from 1 January 1998. The comparative figures in profit and loss and balance sheet have been adjusted accordingly with the deferred tax amounts. As a result the taxation charge in profit and loss account has increased by £716 thousand in 1998 and £1,087 thousand in 1997. The reserves as at 1 January 1997 have decreased by £7,055 thousand.

## 18. RECONCILIATION OF OPERATING PROFIT TO NET CASH FLOW FROM OPERATING ACTIVITIES

	1998	1997
	£'000	£'000
Operating surplus	49,960	34,875
Depreciation	24,968	21,730
Unrealised loss on exchange differences	33	104
(Profit)/loss on sale of fixed assets	(2,107)	67
Pension Scheme deficiency	11,749	11,588
Interest received	(6,916)	(6,219)
Interest paid	4,526	5,120
Investment income	(2,604)	(2,796)
Increase in fixed assets	(19,939)	(16,955)
Increase in investments	-	(66)
Decrease/(increase) in long-term debtors	32	(65)
Decrease/(increase) in stocks	687	(2,310)
Increase in debtors	(1,405)	(7,647)
Increase in creditors	5,071	1,056
Increase/(decrease) in balances with suppliers (short term)	1,604	(291)
Decrease in loans and bills payable	(115)	(212)
Increase in deferred income	570	1,346
Increase in retirement benefits	4,160	535
Net cash flow from operating activities	<u>70,274</u>	<u>39,860</u>



## 19. ANALYSIS OF CHANGES IN CASH AND CASH EQUIVALENTS

	Bank balances and cash in hand	
	1998	1997
	£'000	£'000
Balance as at 1 January	52.608	44.467
Net payments before exchange differences	23.800	8.150
Exchange differences	(149)	(9)
	<u>23.651</u>	<u>8.141</u>
Balance as at 31 December	<u>76.259</u>	<u>52.608</u>

## 20. CONTRACTUAL COMMITMENTS

Contractual commitments in respect of capital expenditure as at 31 December 1998 not provided for in the financial statements, amounted to approximately £34.406.000 (1997: £36.148.000) of which £23.400.000 (1997: £28.697.000) is payable in foreign currency. Amounts in foreign currency have been converted into Cyprus pounds at the rates of exchange ruling at 31 December 1998.

## 21. CONTINGENT LIABILITIES

Contingent liabilities in respect of claims against the Authority for which no provision was made in the financial statements, amounted to approximately £135.000 (1997: £35.000).

# Offices

## HEAD OFFICES

Telecommunications Str, Strovolos  
P.O.Box 24929, CY-1396 Nicosia, Cyprus

Telephone: +357 2 701000

Telefax: +357 2 494940

Telex: 3288 CYTA ADM CY

## Web Site Address of CYTA:

<http://www.cytanet.com.cy>

## AREA CUSTOMER SERVICES

### Nicosia

#### Head Customer Services

14, Egypt Ave, P.O.Box 24929,  
CY-1396 Nicosia (02) 70 22 00

#### Customer Service Offices

- Central 14, Egypt Ave
- Strovolos 14B, Strovolos Ave
- Lykavitos 5, Naxos Str.

### Limassol

#### Head Customer Services

89, Athinon Str, P.O.Box 50147,  
CY-3601 Limassol (05) 70 52 10

#### Customer Service Offices

- Central 89, Athinon Str
- Makarios Ave 2, Ioulou Vern Str.
- Linopetra 36, Kolonakiou Str

### Larnaca

#### Head Customer Services

7, Z. Pierides Str., P.O.Box 40102,  
CY-6301 Larnaca (04) 70 42 22

#### Customer Service Office

7, Z. Pierides Str.

### Paphos

#### Head Customer Services

11, Grivas Digenis Ave, P.O.Box 60043,  
CY-8100 Paphos (06) 70 62 01

#### Customer Service Office

11, Grivas Digenis Ave

### Famagusta\*

Edison Street\* (03) 86 25 00

#### Temporarily:

111, Grivas Digenis Ave, P.O.Box 33355,  
CY-5313 Paralimni (03) 70 33 33

#### Customer Service Office

111, Grivas Digenis Ave, Paralimni

### Kyrenia\*

5A, 28th October Ave (07) 45 24 38

### Morfou\*

18, 25th March Str (02) 74 20 55

### Lefka\*

Lefka (02) 81 74 59

## Information on services provided by CYTA

132

\* Inaccessible due to occupation of the area  
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