

JPRS-TTP-89-010  
28 JULY 1989



# ***JPRS Report***

## **Telecommunications**

DTIC QUALITY INSPECTED 2

19980202 164

**DISTRIBUTION STATEMENT A**

Approved for public release;  
Distribution Unlimited

# Telecommunications

JPRS-TTP-89-010

## CONTENTS

28 July 1989

### SUB-SAHARAN AFRICA

#### GHANA

- Kuntunse Earth Satellite Station Upgraded  
[Charles Neequaye; Accra GHANAIAN TIMES, 18 May 89] ..... 1
- Bolga-Accra Telex Circuit Commissioned [Accra PEOPLE'S DAILY GRAPHIC, 18 May 89] ..... 1
- Japanese Companies To Supply Phone Equipment  
[Adwoa Van-Ess; Accra PEOPLE'S DAILY GRAPHIC, 18 May 89] ..... 1

#### LIBERIA

- New Satellite Earth Station Inaugurated [Monrovia DAILY OBSERVER, 1 May 89] ..... 2

#### MALAWI

- Salambidwe Microwave Station in SADCC Role  
[Wilson Pankuku; Blantyre DAILY NEWS, 9 May 89] ..... 2

### NEAR EAST & SOUTH ASIA

#### BAHRAIN

- Advanced Telecommunications Link With Saudis Reported  
[Manama GULF DAILY NEWS 7 Jun 89] ..... 3
- Island Plugs Into High Speed Phone Link [Manama GULF DAILY NEWS 1 Jun 89] ..... 3

#### BANGLADESH

- Bangladesh To Supply Digital PABX Systems to Vietnam  
[Dhaka THE BANGLADESH OBSERVER, 12 Jun 89] ..... 3

#### INDIA

- India Provides Satellite News Circuit [Lusaka TIMES OF ZAMBIA, 1 Jun] ..... 3

#### OMAN

- Developments in Telecommunications Discussed [Muscat AL-WATAN, 9 Apr 89] ..... 4
- ARABSAT Meeting Decisions Outlined [Muscat AL-WATAN, 2 Apr 89] ..... 6
- Earth Stations Linked With INTELSAT to Be Established  
[Mu'min Khalifah; Muscat AL-WATAN, 11 Apr 89] ..... 8

#### QATAR

- Expansion of Telecommunications Network Discussed  
[Muhammad 'Allam; Doha AL-RAYAH, 17 May 89] ..... 8

### WEST EUROPE

#### EUROPEAN AFFAIRS

- European Telecommunications Policy Assessed [Luxembourg IES NEWS, Jun 89] ..... 11
- EC Commission To Support ETSI on ISDN [Brussels EC PRESS RELEASE, 12 Jun 89] ..... 12

EC Commission Details EDI Program [Luxembourg OFFICIAL JOURNAL OF THE EUROPEAN COMMUNITIES, 19 Jun 89] .....	12
CEPT Announces Broadband Interconnection Trial [Chichester INTERNATIONAL TELECOMMUNICATIONS INTELLIGENCE, 9 Jun 89] .....	13
Delays in European Standards Work Criticized [Chichester INTERNATIONAL TELECOMMUNICATIONS INTELLIGENCE, 9 Jun 89] .....	13

**CANADA**

Masse on Planned New Telecommunications Act [Jane Becker; Toronto THE GLOBE AND MAIL, 20 Jun 89] .....	14
Fiscal Problems Postpone CNC's Canadianizing Plan [Ottawa THE OTTAWA CITIZEN 15 Jun] .	15
Nova Scotia To Be Landing Point for Fiber-Optic Cable [Kevin Cox; Toronto THE GLOBE AND MAIL 6 Jun 89] .....	16
Vancouver's First Teleport Reported Operating [David Smith; Vancouver THE SUN 8 Jun 89] .....	16
Bell Canada Increases Spending To Speed Computerization [Lawrence Surtees; Toronto THE GLOBE AND MAIL, 21 Jun 89] .....	17
CRTC Rules Telephones Must Be Adapted for Hearing Aids [Andre Picard; Toronto THE GLOBE AND MAIL, 19 Jun 89] .....	18

**FEDERAL REPUBLIC OF GERMANY**

Siemens, Egypt's ARENTO Form Joint Venture [Chichester INTERNATIONAL TELECOMMUNICATIONS INTELLIGENCE, 26 May 89] .....	18
---	----

**FINLAND**

Public Computer Data Network Gets Go-Ahead [Helsinki HELSINGIN SANOMAT, 6 Jun 89] .....	19
---	----

**FRANCE**

French Syracuse-2 Satellite Program Described [Pierrick Arlot; Paris ELECTRONIQUE HEBDO, 30 Mar 89] .....	19
Alcatel Telspace Shows Satellite Digital Link [Chichester INTERNATIONAL TELECOMMUNICATIONS INTELLIGENCE, 26 May 89] .....	21
CSSR's KOVO, France's TRT Sign Radio Contract [Chichester INTERNATIONAL TELECOMMUNICATIONS INTELLIGENCE, 9 Jun 89] .....	21

**NORWAY**

Alcatel STK's Takeover of Scanvest Unit Seen as Export Boost [Ulf Hellstrom; Oslo AFTENPOSTEN, 6 Jun 89] .....	21
---	----

**UNITED KINGDOM**

Broadcasting Transmission System May Be Privatized [Jane Thynne; London THE DAILY TELEGRAPH 9 Jun] .....	22
---	----

## GHANA

### **Kuntunse Earth Satellite Station Upgraded** *55000046c Accra GHANAIAN TIMES in English 18 May 89 pp 1, 3*

[Article by Charles Neequaye]

[Excerpt] Mr P. V. Obeng, PNDC [Provisional National Defense Council] Member and chairman of the committee of Secretaries, yesterday commissioned the rehabilitated Kuntunse Earth Satellite Station at a ceremony here.

With the rehabilitation, Ghana can now Communicate direct with most of the world's, major cities.

Mr Obeng said the station's capacity had been extended by 50 percent as a result of the rehabilitation.

The station, he said, could automatically convert SECAM and NTSC Television signals into the country's standard PAL system and vice versa with the result that Ghana could now exchange TV programmes with other countries without technical complications.

The PNDC member said the Government was taking the necessary steps to reclaim the damages, waste of time and resources caused by the original contractors—Messrs SPAR Eurospace of Canada.

The country he said had now managed to obtain to the full, benefits of the station at a prohibitive cost of eight million dollars being 50 percent more than what it had cost Ghana's neighbors to obtain the same facilities.

What was more disturbing, he said, was that "we have to wait for 12 long years to secure these vital services from the station as against the three years which was stipulated in the original contract." [passage omitted]

### **Bolga-Accra Telex Circuit Commissioned** *55000046a Accra PEOPLE'S DAILY GRAPHIC in English 18 May 89 p 1*

[Text] The first telex circuit, through which people and especially the banks and business community can send messages from Bolgatanga to Accra more quickly was commissioned at Bolgatanga yesterday.

The circuit, which cost C1,350,000 and has a special memory system replaces the Morse system, which has become outmoded.

The commissioning ceremony coincided with the 21st World Telecommunication Day.

According to Mr A. K. Odametey, Regional Director of the Posts and Telecommunications Corporation (P & T) in charge of Upper East and Upper West, four more of the circuits would shortly be installed at the request of the Ghana News Agency, the Volta River Authority, the Ghana Broadcasting Corporation and the Social Security and National Insurance Trust.

Mr Odametey also said that the P & T will soon install facsimile equipment as a means of improving telecommunication system between the Upper East Region and other parts of the country and the world at large.

Mr L. K. Molbila, Upper East Regional Secretary, who performed the commissioning ceremony said the external Telecommunications Services Division of the P & T has the responsibility of linking its services with overseas countries and maritime vessels on the high seas.

He said telex operations are more reliable than radio/telephone communications and expressed the hope that the P & T will ensure that this facility is made available to more organizations.

The Regional Secretary disclosed that there are plans to extend the new microwave link through Tumu to Wa, the television link to Han in the Upper West Region and the provision of rural integrated telephone circuits at all the district capitals to link the national network.

Mr Molbila took the opportunity to advice workers of the P & T to be in the forefront of the crusade to rid undesirable elements who are engaged in malpractice that tend to erode the confidence that the Ghanaian public and the international community have in the corporation.

He specifically referred to the persistent tampering with mails and the attendant pilfering by some P & T staff and reminded the workers of the concept of hardwork, selfless devotion to duty, honesty and probity in the conduct of public affairs.

### **Japanese Companies To Supply Phone Equipment** *55000046b Accra PEOPLE'S DAILY GRAPHIC in English 18 May 89 p 8*

[Article by Adwoa Van-Ess]

[Text] The Posts and Telecommunications (P & T) Corporation yesterday signed an agreement with the Marubeni and NEC companies of Japan for the supply and installation of automatic digital telephone switching equipment at Ada, Keta and Axim.

Col (rtd) Kwasi Opong, Director-General of P & T who signed for the corporation said the project will complete Ghana's portion of the Pan African Telecommunications Project network (PANAFTEL) by linking up the three rural centers along the international microwave route.

He said the project which will cost \$500,000 is being funded by a loan from the African Development Bank and is expected to take nine months within which the equipment will be manufactured and installed.

The project consists of the supply and installation of 200 lines automatic exchanges with associated facilities and power for the three centers which will also expand telephone facilities to the surrounding areas.

It also has a training component for operation and maintenance staff of the corporation in the manufacturer's plant in Japan and in Ghana.

Mr Youji Uno, Deputy General Manager of Marubeni and Mr Kaoru Koyama Vice President of NEC who initialled for their companies expressed the hope that the equipment to be provided will go a long way to enhance telecommunications in the country.

## LIBERIA

**New Satellite Earth Station Inaugurated**  
*55000046d Monrovia DAILY OBSERVER in English 1 May 89 p 3*

[Excerpt] While dedicating the new Standard "A" Satellite Earth Station, President Samuel Kanyon Doe re-echoed that only Liberians can develop this country. He said if Liberians fail to do this, no one will do it for them."

Dr Doe noted that the dedication of the station was an indication that if Liberians put aside their differences and work together, a lot would be achieved, adding, "this is the work of unity".

The new Standard "A" Satellite Earth Station, located in Wehn Town, Paynesville, outside Monrovia, was constructed by Spar Aerospace, a Canadian firm with \$18m provided by Meridien International Limited. The new facility will expand the scope of services of the Liberia Telecommunications Corporation (LTC).

The new station is said to have over 300 channels capable of bringing live television programs from countries around the world, though such relaying must be arranged with the appropriate international organizations. [passage omitted]

## MALAWI

**Salambidwe Microwave Station in SADCC Role**  
*55000046e Blantyre DAILY NEWS in English 9 May 89 p 3*

[Article by Wilson Pankuku]

[Text] One businessman sits in his office in Blantyre, Malawi. He picks up a telephone receiver and calls his counterpart either in Maputo or Harare. In a few seconds he puts back the receiver. A business deal has been concluded.

Improved communication is one of the major modern developments the world is experiencing everyday.

In Malawi, there are several of such improved communication systems. But, the latest development is the

Salambidwe microwave repeater station on Salambidwe hill, Gola, about 70 kilometers west of Chikwawa Boma.

In a telephone interview with an official of the posts and telecommunications department, it was learnt that the repeater station at Salambidwe, is intended to link Malawi, Mozambique and Zimbabwe.

Cheap

The official also said that the station would reduce the cost of hiring satellite circuits.

"It is intended to eventually interlink the Sadcc region with international land routes," the transmissions engineer said.

He said that Blantyre international exchange in Malawi would be linked to Tete in Mozambique and Harare through Salambidwe microwave repeater station.

The official said the "480 telephone channels" microwave radio transmission system was built with funds from the Norwegian Aid for Development (NORAD) and Swedish aid. The project equipment was supplied and installed by Eb-Nera or Norway together with Malawi post office engineers.

Through these radio channels, some of which are installed in Mozambique and others in Zimbabwe, the switching networks in the countries in question will connect the incoming telephone, telex or data into their respective national networks, the engineer said.

He also mentioned that the international land routes will have priority over the satellite circuits because they are less expensive. Hence, the countries concerned would be able to save foreign exchange since they would only agree to share the realized telephone circuit charges.

The official also said that such interlinkage would improve the interregional business transactions and increase economic cooperation in the region.

Construction

On construction work, the official said the access road to Salambidwe hill was built by the Malawi government at a cost of over K3 million including civil works at the station.

"Kier contractors did the road construction and civil works at the station including buildings," he said.

He said the total cost of the whole project from Blantyre to Harare through Tete had a combined estimated value of 86 million Norwegian Krona—23 million for Malawi, 17 million for Mozambique and 46 million for Zimbabwe.

The official also pointed out that the tower at Salambidwe was built between April and July and that the radio equipment was installed between June and August last year.

## BAHRAIN

### **Advanced Telecommunications Link With Saudis Reported**

55004525b Manama GULF DAILY NEWS in English  
7 Jun 89 p 5

[Text] Banks, airlines and other major companies in Bahrain can now plug into new high-speed phone links—the first of their kind in the Middle East.

Batelco has launched International Digital Routes (IDR), which uses a wide-band facility.

This allows voice or data to be transmitted on the same circuit at very high speed, said the company.

Advanced

IDR means big savings in communications costs for heavy users with worldwide contacts, said Batelco.

“Bahrain is the first country in the Middle East to offer such an advanced facility,” said a spokesman.

IDR is already available to the U.S. and plans are being drawn up to extend the service to Hong Kong, Japan and Australia, he said.

“IDR is yet another step toward full digitalization of our network, targeted to be completed by the early 1990s,” added the spokesman.

### **Island Plugs Into High Speed Phone Link**

55004525a Manama GULF DAILY NEWS in English  
1 Jun 89 p 4

[Text] Work will start in Bahrain later this month on a new hi-tech telecom link between the island and Saudi Arabia.

Japan's NEC Corporation will begin installing the 70-kilometer fibre optic cable across the King Fahad Causeway in about two weeks.

A Batelco spokesman said work on the project had already started on the Saudi side.

The link, due for completion early next year, is the first between two Middle East countries.

Batelco said the system would handle more than 7,600 voice grade circuits for telephone, telex and television services.

It will supplement the existing microwave link between the countries, greatly improving two-way telecommunications.

Batelco, engineers, who were sent to Japan for special training on the cable system, will be taking part in the project, said the company.

## BANGLADESH

### **Bangladesh To Supply Digital PABX Systems to Vietnam**

55500098 Dhaka THE BANGLADESH OBSERVER in English  
12 Jun 89 p 3

[Text] Gulf Bangladesh Associates Ltd has recently signed a US dollar 10 million contract with the Post, Telegraph and Telephone Authority of Vietnam to supply mitel digital PABX telephone systems from Bangladesh.

Half of the deal is expected to be completed within June next year, according to company sources. The company exported 1,000 line PABX and rural exchange system to Vietnam last week.

Meanwhile, a three-member engineering team has arrived in Dhaka from Vietnam to undergo month-long training on digital systems. The company is providing the training as a part of the contract.

## INDIA

### **India Provides Satellite News Circuit**

34000477y Lusaka TIMES OF ZAMBIA in English  
1 Jun 89 p 1

[Text] The Zambia News Agency (Zana) and the Press Trust of India (PTI) have launched a direct news circuit by satellite to enhance information exchanges free of past Western media manipulations.

The PTI has boosted Zana with a donation of vehicles, typewriters, televisions, radios and other equipment to help in its operations.

Member of the Central Committee and Chairman of the Elections and Publicity Sub-Committee Cde Joseph Mutale said at a ceremony at mass media complex in Lusaka yesterday that developing nations had been portrayed and judged through disasters, coup d'etats, scandals and catastrophes creating a bad picture which the link would help remove.

Flanked by Zana acting editor-in-chief Cde Simon Sikalele and Indian high commissioner Mr Satnam Jit Singh and Zambia National Broadcasting Corporation (ZNBC) director-general Dr Steven Moyo, Cde Mutale said most developed countries knew little about Africa and considered the nations as lacking any means of development.

Calling for objective and factual journalism between the agencies, Cde Mutale said the Party and its Government would continue making efforts to strengthen Zana to make it a powerful social, economic and political development vehicle.

Cde Sikalele said the link would serve to consolidate understanding between Zambia and India as a third

"Third World to Third World" tie. Zana and PTI were doing a part of the work done by national leaders to improve ties.

Mr Singh said there was unity and understanding at all levels of life between the two countries which would be further strengthened by the development.

The system would enable favourable coverage of events by each country of the other.

Since the two countries' independence from colonial rule their experience had seen the "highest degree" of information manipulation and distortions by multinational news organisations.

The Zana-PTI link would not serve as a public relations tool presenting only the positive side of the nations' experiences which in itself had other negative repercussions but should adhere to internationally accepted standards.

Cde Mutale told the gathering which included media and Party and Government leaders that Zambia saluted the worldwide efforts made by some bodies towards a new world information order.

## OMAN

### Developments in Telecommunications Discussed

55004522c Muscat AL-WATAN in Arabic 9 Apr 89 p 3

[Interview with 'Abd-al-Rahman Ibn-Sa'id Sabti, the general director of the Office of the General Organization for Wire and Radio Communications in Salalah by 'Abdallah Ibn-'Ali al-'Alyan; date and place not given]

[Excerpts] [Passage omitted]

**AL-WATAN:** Can you familiarize us with achievements pertaining to telegraph and telephone in the southern area in past years?

**Sabti:** 1. In the period 1970-75: A telephone switchboard with a 100-line capacity was established at Salalah, in addition to a high-frequency radio station, with a 4-channel capacity, linking the northern and southern parts of the country.

2. The first 5-year plan for 1976-80: A satellite ground station with a 24-channel capacity was built in the southern area—in addition to an earlier-built international communications ground station, which opened in the Muscat area in 1976—to provide better facilities for wire/radio communications, and television/radio reception and transmission.

3. The second 5-year plan for 1981-85: The second 5-year plan witnessed the completion of a telephone communications expansion and development program in the area of Muscat and Salalah. It entailed the

construction of a number of modern, digital switchboards with a capacity for 52,000 telephone lines in Muscat and 12,000 telephone lines in the Salalah area.

A mobile telephone system was introduced in 1985 during the country's celebrations of its glorious 15th anniversary. Celebrations were also marked by the opening of the main building for wire and radio communications in the city of Salalah. Concurrently, an international telephone switchboard was opened, in addition to a number of local, digital telephone switchboards in Salalah, al-Dahariz, al-'Uqdin and al-Sa'adah.

4. In 1988, expansions were introduced to telephone networks in the areas of Salalah, al-'Uqdin, al-Dahariz and al-Sa'adah. The number of telephone switchboards in the southern area came to eight switchboards with a capacity for 15,000 telephone lines.

In view of the strong interest in acquiring car telephones, the basic mobile telephone stations were expanded in Thamarit and Dawkah.

Regarding public telephones, the old card telephones were exchanged for new telephones which are operated with updated cards. There were 59 public telephones in the southern area at the end of 1989, of which 54 operate on the coin-operated system, and five operate on the card system. International calls can be made on 56 of these public telephones.

**AL-WATAN:** What plans and expansions regarding telephone service pertain to the southern and remote areas in the current 5-year plan?

**Sabti:** 1. In the framework of the third 5-year plan, the organization established 12 telephone switchboards to provide telephone facilities to many cities and villages in the al-Batinah and Quryat area.

The Quryat switchboard, which began operating during the 17th national anniversary celebrations (November 1987), provides telephone services to the areas of Quryat, Mazari', Daghmar, Hil al-Ghaf. The remaining switchboards began operating in 1988, bringing the total number of telephone lines at the completion of this project to 16,680.

2. During 1988, a rural communications development project was completed. It provides almost 27,712 telephone lines to many cities and villages in different administrative divisions in the sultanate.

3. The capacities of several switchboards in different areas of the sultanate were increased.

4. Thus, the total capacity in the sultanate at the end of 1988 came to 122,146 telephone lines, whereas the total number of lines in operation came to 81,321 telephone lines.

**AL-WATAN:** What about the connection of telephone services to more developed telephone exchanges to cope with the expansions which have occurred in the cities of Taqah, Mirbat and Sadh

**Sabti:** There is a currently existing project in which four modern telephone switchboards will be established to provide telephone service to the cities of Taqah, Mirbat, Sadh, and Raysut in the southern area. This project is expected to be completed by the middle of next year, God willing.

**AL-WATAN:** Will rural and remote areas be supplied with telephone lines to fulfill the needs of citizens and to help them communicate with other areas in the sultanate in the next 5-year plan?

**Sabti:** There is no doubt that the organization, since it began the rural communications project in 1985-86, was, and still is, primarily concerned with providing telephone services to citizens throughout the sultanate.

After completing the rural communications project, and the first phase of the Quryat and al-Batinah coast project, the organization has now begun to implement the second phase of the al-Batinah coast project, which will cover cities and villages that have not yet received service in the al-Batinah area, in addition to four cities in the southern area.

The organization will continue to implement its projects and plans until the all rural and remote areas have been supplied with telephone lines which fulfill the needs of citizens and facilitate their communication inside and outside the sultanate.

**AL-WATAN:** Mobile telephone service is doubtlessly considered an important accomplishment of the sultanate in the area of telephone communications. The citizens would like clarification of the latest reductions in mobile telephone fees and the manner by which the reduction is calculated.

**Sabti:** Mobile telephone service is an important achievement made in the sultanate in recent years.

In view of its importance, and in order to facilitate citizens' acquisition of this service, the organization has reduced the cost for this service as follows:

1. The cost of an annual subscription was reduced from 500 to 250 riyals as of 1 July 1988.
2. The cost of mobile telephone conversations was amended as of 1 July 1988 according to the following explanatory table, in which day is considered to be from 6:00 a.m. until 8:00 p.m., and night is considered to be from 8:00 p.m. to 6:00 a.m.:

#### Mobile Telephone Rates

Radius in km	Seconds per 25 baysahs/day	Seconds per 25 baysahs/night
Up to 20	180	270
21-50	18	27
51-100	12	18
101-200	8	12
Above 200	6	9

**AL-WATAN:** Has the necessary success been achieved regarding the facilitation of international calls via public telephones operating on the card system, which was applied recently in the southern area?

**Sabti:** There are currently 59 public telephones in the southern area, which can be operated with cards and currency. International calls can be made on 53 of these telephones.

Therefore, we can say that the public telephone system in general, card telephones in particular, has achieved the required success regarding international calls in the southern area.

**AL-WATAN:** What about telex in the area? Has it become prevalent in all sectors, institutions and local companies in order to stay abreast of scientific developments in telex communications in the modern era?

**Sabti:** Telex services are available in the city of Salalah, in view of that city's importance as a center for offices of the public sector, and private companies and institutions, which benefit from this service in the southern area. The organization is studying the possibility of bringing this service to other cities if necessary.

**AL-WATAN:** How many current projects are being implemented in this plan, and what is their total cost?

**Sabti:** The organization is currently implementing a number of projects within the third 5-year development plan, the most important of which are as follows:

1. Efforts are underway to implement the second phase of the al-Batinah coast project, which entails the provision of 9,350 telephone lines, and the establishment of four new switchboards having a capacity of 1,600 telephone lines in isolated parts of the southern area, at a cost of 12 million Omani riyals.
2. A project to install satellite communications equipment needed at the INTELSAT ground station in order to provide a third carrier with a 48-channel capacity. Upon its completion, this project will permit the opening of direct communications channels with a number of states, in addition to the installation of new equipment,

which will make it possible to transmit and receive international television programs on the 20 MHz wavelength in accordance with new developments pertaining to television programs carried via satellite. The cost of this project is 611,570 Omani riyals.

3. Another project involves the establishment of an optical fiber cable connection on territory located on the borders of the sultanate to link it with the UAE as part of a project to connect Khatmah by sea to al-Fujayrah, at a cost of 80,475 Omani riyals.

Upon its completion, this program will offer such advantages as the capability to expand the number of telephone communication channels to 2,000 channels, in addition to providing the means for carrying radio and television programs via this new system.

4. The expansion of the telephone network in different areas of the sultanate to provide more telephone lines to citizens. This project, which will cost 385,000 Omani riyals, is expected to be completed a year from this month.

**AL-WATAN:** The southern area is witnessing continuous growth in construction expansion in numerous areas, be it in the city of Salalah or external areas. What arrangements have been made to cope with the expected expansion? Has the ministry formulated plans to cope with this residential and commercial expansion?

**Sabti:** There is no doubt that the organization, after supplying telephone services to different cities in the southern area, following the model of other areas in the sultanate, is not neglecting the continuous growth and construction expansion in these areas.

Therefore, a plan has been prepared to cope with this expansion. The organization has begun in fact to implement a project to install several switchboards and units for remote subscribers in the southern area.

**AL-WATAN:** What difficulties face us in providing communication services to citizens in the southern areas, especially the outlying, remote areas?

**Sabti:** The most important difficulties facing us in supplying communication services to remote areas is the scattered distribution of population aggregates in small groups which are distant from each other. This requires the organization to spend large sums to bring services to these areas.

#### **ARABSAT Meeting Decisions Outlined**

55004522y Muscat *AL-WATAN* in Arabic 2 Apr 89 p 3

[Article by Hilal Ibn-Salim al-Hana'i and Talib Ibn-Hilal al-Mu'ammari]

[Excerpts] [Passage omitted]

Concluding ceremonies of the proceedings of the session began after participants had made numerous decisions and recommendations. Then, His Excellency Ahmad

Ibn-Suwaydan al-Baluchi, the minister of posts, telegraphs and telephone, and the chairman of the session, delivered a word of welcome to their excellencies, the chairmen of delegations of member-states in the Arab Organization for Satellite Communications.

#### **Al-Baluchi's Address**

He stated: "I extend to you all many thanks for the good effort which you expended in completing the agenda presented to the general meeting of the Arab Organization for Satellite Communications. Due to the spirit of friendship and brotherliness which pervaded the atmosphere of the discussions, you were able to complete the agenda of your general meeting in an atmosphere of deep understanding." [passage omitted]

His excellency added: "It is cause for happiness that the necklace of Arab countries which use the Arab satellites [sawatil] is now complete with the return of the Arab Republic of Egypt as a member in the organization. Another cause for happiness is the completion of ground stations in the countries whose stations have not yet begun operating." [passage omitted]

#### **Decisions and Recommendations of the Session**

The following is the content of the decisions and recommendations issued by the 12th session of the general meeting of the Arab Organization for Satellite Communications (ARABSAT):

Communications administrations in member states responsible for the ground sector—comprising the ground station and the ground link from the studio to the station to the Arab satellite network—were adjured to exempt television administrations or organizations in their countries from fees levied by them, or to reduce such fees to promotional fees, if these administrations or organizations utilize ARABSAT satellites instead of foreign satellites to transmit their television programs.

The PDRY administration was granted a special discount on the satellite channel fee for local ARABSAT services which it decides to engage. This discount shall be 50 percent of the fee decided for the first year of use.

Also, the administrative council and the executive apparatus were tasked with monitoring issues pertaining to protecting the interests of the organization regarding the position of the orbit of its next satellites through international conferences held in this connection. In addition, the administrative council and the executive apparatus were tasked with energetically monitoring other affairs of the organization, which were mentioned in the report, in order to protect the interests and rights of the organization to the greatest extent possible.

Regarding the financial position of the organization, there was a decision on the need to marshall all the efforts of the organization's member-states and agencies to increase the organization's revenues and financing sources so that it can fulfill the needs of the next phase,

and cover the costs of building its second generation of satellites. This will be done through the following ways and methods in combination:

Adjuration of the administrations of the Libyan Arab Jamahiriyah, the Democratic and Popular Republic of Algeria, and the Republic of Sudan to transfer their local communications traffic to the ARABSAT system as quickly as possible.

Adjuration of the administrations that still have traffic on foreign carriers to quickly transfer such traffic to the Arab satellite network.

Expeditious handling of the requests of friendly, non-Arab administrations to use the Arab satellite network, and deciding on such requests in a matter which encourages these administrations to do a brisk business with the Arab network. If, in this connection, a need arises for the routing of the traffic of those administrations via Arab administrations, the administrative council is empowered to decide on these requests, and to establish criteria and measures which it deems appropriate to achieve this goal in accord with the spirit of the organization's convention, and the directives of previous sessions of the general meeting.

The 12th session the ARABSAT general meeting approved the organization's final statement of account for 1988 according to the tables submitted by the administrative council and the certified auditor, and it also approved the organization's estimated budget for 1989.

In addition, a decision was made to void the decision made by the general meeting in its 2nd regular session (April 1979) to suspend the membership of the Arab Republic of Egypt in ARABSAT. Henceforth, Egypt will enjoy all rights of membership in the organization. His excellency, the chairman of the session will inform the administrative council of the measures which must be adopted in order to apply this decision in practice as quickly as possible. Such measures include the routing of communications traffic between the member-states and Egypt through the Arab satellite network, albeit via ground linkages and the stations of member-states, until construction of the Egyptian station is completed.

Also, a ministerial committee headed by his excellency, the chairman of this session—whose members include their excellencies the ministers of the Kingdom of Saudi Arabia, the state of Kuwait, the Hashemite Kingdom of Jordan, the Moroccan Kingdom, the state of Bahrain, the Syrian Arab Republic and the Iraqi Republic—was formed in order to perform a substantive revision of the foundations underlying the organization's convention, with a view toward enabling the organization to finance its costs itself, especially the next generations of satellites, as would any organization or institution which operates in accordance with conventional commercial foundations regarding various matters. The committee will subsequently prepare a draft, alternate convention which reflects these foundations. It will submit the draft to an exceptional session of the general meeting to be

examined and enacted within no more than six months from the date of the conclusion of the proceedings of this session. His excellency the chairman of the committee called for a meeting of the representatives of the ministers three months hence to formulate a draft convention, which will be presented to the ministerial committee of eight. In this connection, the chairman will see to it that these representatives are specialists and experts.

Regarding the plan to extend the life of the first generation of Arab satellites, and to plan the second generation of Arab satellites, the following was accomplished:

- Backing for the adoption of the technology for extending the lives of the first and second satellites.
- Authorization of the administrative council to contract the COMSAT general corporation to provide these extension services and other consulting services.
- Tasking of the administrative council and the executive apparatus to prevail upon the company that manufactured the Arab satellites (the French Aerospace Company) to change such equipment on the third satellite which is similar to equipment which broke down on the first and second satellites, at no additional cost to the organization in the light of the report made by ARABSAT's general director, which states that contacts were held with the aforementioned company for this purpose, and that the company displayed its willingness to agree to the foregoing.
- Adoption of the idea of launching the third Arab satellite—after the aforementioned changes have been made to support the current two satellites and the extension plan—with the understanding that the administrative council and the executive apparatus will continue negotiating with such companies as deemed appropriate by the organization, which have submitted proposals to the organization regarding the launching or financing of the [third] satellite. The administrative council and the executive apparatus will then obtain the best proposal in terms of its financial, technical and scientific standpoints, and the method for financing it. It will present its final recommendation to the ministerial committee of eight, so that the latter may issue the appropriate decision.

It was agreed to renew the services of ARABSAT's general director, Engineer 'Abd-al-Qadir Ba'iri for a period of three years, starting from the completion date of his current service period.

It was also agreed to authorize the administrative council to change the qualifications and experience requirements which must be met by whoever holds the post of general director. This is to permit those with specialties in engineering, the sciences, administration, law, and economics to compete for this position, while clearly and precisely taking into account other requirements pertaining to the candidate's practical experience, and the determination of the nomination and selection procedures. In addition, it was agreed that his excellency the

chairman of this session, the chairman of the administrative council, and the general director, shall coordinate with each other at the proper time to determine the date and place of the 13th regular session.

#### **Support of the State of Palestine in the Field of Communications**

The general meeting, at the conclusion of its 12th session in Muscat, affirmed its support for the Palestinian state in the field of communications. It adjured ARABSAT members to coordinate their efforts in the proceedings of the conference of authorized representatives to the international communications federation [conference] to be held in Nice France in May 1989, to support efforts to gain acceptance of the state of Palestine as a member of the federation. The general meeting saluted the Palestinian Arab people on the 13th commemoration of Land Day, in esteem for and in admiration and honor of its struggle and the continuation of its intifadah [uprising] in Palestine. It also allocated a sum, equal to one day's average revenues from the commercial operation of the Arab satellite network at the end of 1989, to be transferred to the intifadah fund in Tunisia.

#### **Earth Stations Linked With INTELSAT to Be Established**

55004522z Muscat AL-WATAN in Arabic 11 Apr 89 p 4

[Article by Mu'min Khalifah]

[Text] Work will soon begin on the construction of a ground station to be linked with the international satellite, INTELSAT. When the new station is completed, the sultanate will have three ground stations linked with Arab and international satellites, in addition to eight ground stations for local communications.

This was stated by His Excellency Nur Ibn-Muhammad Ibn-'Abd-al-Rahman, the Executive Chairman of the General Organization for Radio and Wire Communications.

His excellency stated that several days ago His Excellency Ahmad Ibn-Suwaydan al-Baluchi, the minister of posts, telegraphs and telephones, signed an agreement with the France cables and radio company to provide consulting services related to the construction of this station.

His excellency indicated that this station will be linked to the international satellite, INTELSAT, over the Atlantic Ocean, thereby reducing communications costs due to the absence of an intermediary, which is currently used.

His excellency said, "We have found that, due to an increase in communications via INTELSAT, construction of this station has now become necessary in order for the organization to realize greater savings."

He stated that the sultanate currently has a ground station linked to the Arab satellite ARABSAT; another

station linked with a satellite over the Indian Ocean; and a total of eight ground stations in the sultanate for local communication.

His excellency added that the internal network for satellite communications has facilitated bringing remote and outlying areas in the sultanate closer together, thereby helping citizens to communicate with each other quickly and easily, and enabling commercial and administrative centers to administer their activities effectively.

This system has also played an important role in spreading knowledge, science, and entertainment, especially in rural societies, through television and radio programs.

His excellency stated that there are two stations, one in Wadi al-'Amirat in Muscat, and one in al-Ma'murah in Salalah, which have been equipped for television transmission and reception, as well as for wire and radio communications. The two stations in Khasab and Masirah are used for wire and radio communications and television reception, whereas each of the stations at Sahm, Nazwa, Sur and al-Buraymi are for television reception alone.

His excellency stated, "In view of the fact that we are using the satellite system, we have joined organizations which administer and operate the satellite system, such as INTELSAT, ARABSAT, (INMARSAT) and others. We participate in planning and development activities related to the operational system of these organizations, and we are making every effort to implement operation plans according to a set program, in our capacity as direct users of this system."

## **QATAR**

#### **Expansion of Telecommunications Network Discussed**

55004524 Doha AL-RAYAH in Arabic 17 May 89 p 3

[Article by Muhammad 'Allam: "On Anniversary of World Communications Day, Telephone Lines Will Be Increased to 4,500 Next November"]

[Excerpts] The Qatari General Telecommunications Organization is celebrating the 21st World Communications Day anniversary as part of the celebration by the International [Telecommunications] Federation which includes 166 countries.

On this occasion, AL-RAYAH opens the Qatari General Telecommunications Organization's statement of account through interviews with a number of the organization leaderships.

We started with Engineer Hashim Mustafawi, director of Frequencies, Car Telephones, and International Relations, who said that the International Telecommunications Federation, which includes 166 countries and is headquartered in Geneva, Switzerland, annually celebrates 17 May as World Communications Day, marking the anniversary of the conclusion of the international

telegraph treaty. The federation selects annually a slogan for these celebrations. This year, the federation has renewed the slogan of "International Cooperation" to celebrate World Communications Day.

### High Fees

Mustafawi added that the efforts made by the International Telecommunications Federation in all parts of the world demonstrate the federation's adherence to the principle of international cooperation which has helped expand communications. Moreover, the celebration marking this day truly reflects the phrase engraved on the memorial erected in Bern, Switzerland, in 1915 to commemorate the creation of the federation: "The life of nations has been united through the Telegraph Federation."

Mustafawi pointed out that the Frequencies, Car Telephones, and International Relations Directorate is one of the general organization's vitally important directorates because it bears the responsibility of regulating the use of all types of land, sea, and air wireless equipment, allocates the frequencies needed by this equipment, and issues permits for its use so that it complies with international radio laws and regulations. The directorate is also in charge of issuing permits for the clearance of all electronic and wireless equipment coming into the country.

[AL-RAYAH] The citizens complain because car telephone fees are higher than in neighboring countries.

[Mustafawi] Each country has, of course, its own policy in drawing up the economic programs that benefit it. There are certain points that govern the tariff for a certain service. Qatar's car telephone network is governed by several things, the first of which is the size of this network. It is a small network when compared with the neighboring countries. Therefore, the number of its subscribers is small. Second, we view the car telephone service as a special service designated for the citizens only.

Third, the system currently in operation for the use of car telephones is to collect a set annual fee, contrary to the Gulf states which charge a fee for every domestic call. If we take this into account, we find that, generally, the fees here are not as different as some imagine from car telephone fees in the Gulf states.

### Comprehensive Survey

Engineer 'Abdullah al-Manna'i, the organization's deputy general director, has said: We are now studying the transformation of all nonelectronic similar telephone exchanges to digital electronic exchanges so as to keep up pace with the technological progress and to provide the best communication services. Al-Manna'i pointed out that the organization is currently conducting a comprehensive survey of all parts of the country to supply telephone services to all population centers. Moreover, the organization is studying the introduction of the

pocket-telephone service and automatic dialing and the drafting of a training policy to attract Qatari cadres.

He added: The organization is also exerting efforts to develop the work in an organized and effective way that insures stable working conditions and improved performance and production and develops the standard of services and enhances revenues. The organization has also devoted attention to expanding the car telephone network from 3,000 lines to 4,500 lines next November. At the Operations and Business Directorate, we interviewed Engineer 'Abd-al-Wahid Fakhru, the director of the Operations and Commercial Affairs Directorate.

[AL-RAYAH] The UAE's beeper apparatus is tied to the telephone apparatus. When will this system be introduced into Qatar?

[Fakhru] At present, the Qatari General Telecommunications Organization does not offer the beeper service. This service is confined to private firms which have been licensed to supply this service to the citizens. As for offering these facilities through the organization, all the economic and technical aspects of this issue are being currently examined. [passage omitted]

At the Engineering Directorate, AL-RAYAH interviewed Engineer Fu'ad 'Abbas, head of the directorate, and asked him:

[AL-RAYAH] The citizens complain that car telephone fees are higher than in the neighboring countries. What do you say?

[Abbas] First, before we embark on the issue of the low costs of car telephones in neighboring countries, we must first know the bases taken into consideration in setting Qatar's car telephone tariff at its present rate and must then familiarize ourselves with all the fees charged in the neighboring countries.

Second, we must take into account that Qatar does not have a domestic tariff on which to rely as a revenue source to make up for the costs of operating and maintaining the country's entire network. Third, we rely on the subscriber's ownership of the telephone, keeping in mind that telephone sets are only leased, not sold, in the neighboring countries. If we compare Qatar's tariff and the neighboring countries' tariffs, we will find that the Qatari subscriber pays less than the subscriber in the neighboring countries. The organization is currently reevaluating the tariff to reduce it as much as possible.

[AL-RAYAH] In the UAE, the beeper apparatus is linked to the telephone apparatus. When will this system be introduced into the service in Qatar?

[Abbas] Before the organization was created, the Qatar National Telephone Utility was responsible for the domestic communication service. Because the utility did not have towers and sites in all parts of the country, it made no effort to establish the beeper system. The Communications Directorate has licensed local firms to

operate beeper systems in Doha and (Umayyad). These systems do not cover all parts the country.

I wish to add that when the organization was created by merging the directorates concerned, it conducted the necessary studies to establish the beeper system by using the sites and towers belonging to the car telephone system to cover all parts of the state. God willing, a tender will be offered shortly for the purpose. This system will adopt some modern technological specifications similar to those existing in the sisterly UAE. [passage omitted]

Engineer 'Abbas Ahmad Jasim ibn 'Abbas, chief telegraph and telematic engineer at the Operations and International Business Affairs Directorate, has said: We are in the process of building a new and sophisticated telex exchange that will cover the telex services and will have special capabilities to offer new and advanced services. [It will also make it possible] to lease international communication lines to transmit and receive audio signals, information, cables, and documents.

Engineer 'Abbas added that direct international communication with 170 countries, representing most countries of the world, is now available. Moreover, the business hours of the General Communications Center have been

extended to cover every hour of the day throughout the year so as to provide numerous services to the public.

Engineer 'Abd-al-Rabb al-Sha'bi, director of subscriber services, has said that the organization is about to build a system of uniform digital car telephones to operate [compatibly] with the GCC [Gulf Cooperation Council] members so that subscribers in these states may take their telephones to other states and use them anywhere, especially since the European countries have begun to consider this system.

#### Coastal Station

Engineer Husayn Makki, director of transmission systems, has said that the directorate is currently examining the services of the coastal station for communication with ships, in addition to linking the Gulf pivotal marine cable with Saudi Arabia and Kuwait through Bahrain.

Engineer Mubarak al-Khatir, director of the organization's engineering services, noted that the directorate is currently drafting general specifications for the sites of the exchanges which will be built in all parts of Qatar in 1991 and that a modern computer center has been established.

## EUROPEAN AFFAIRS

### European Telecommunications Policy Assessed *AN890224 Luxembourg IES NEWS in English Jun 89 pp 16-18*

[Unattributed report on "Assessment-89," a conference on the status and direction of the telecommunications policy in Europe, held in Luxembourg 11-12 May 89]

[Text] Leading experts in the field of telecommunications from many countries met at this seminar to present their perspectives on the future of telecommunications policy in Europe.

The first session, "Who Represents Europe," was chaired by Michel Carpentier, director general of DG XIII. He felt that the challenges which currently face the field of European telecommunications are more difficult than those presented to countries such as the United States of America, where an interconnected network is already a reality. Europe is still an agglomeration of different countries, varying cultures, and dissimilar communication structures with different operators and regulations which all make the realisation of an interconnected network that much more difficult to achieve. Despite these differences, however, Europe has seen some significant modifications in the last 5 years and this has, very importantly, resulted in a strong will for an interlinked European network and a desire for common standards which would provide the means to reach that elusive goal.

Dr Andrea Caruso, director general of EUTELSAT (European Telecommunications Satellite Organisation), next expressed his concern about how international satellite telecommunications networks were being affected by "the wind of deregulation." Telecommunications which were traditionally considered as a public service of high social importance to be provided under government control at a low cost are now being labelled as monopolistic and are becoming a playground for "commercial speculation" from which only the big commercial users would profit and which would increase costs and affect adversely the quality and reliability of the services. He stressed that if changes were introduced, they should be done in a fair and proper manner so that the principle of deregulation is applicable to all operators, regardless of their nature, quality, and objectives, and that consistency at government level should be maintained.

J.P. Chamoux, in his position as head of the Regulation Mission of the French Ministry of PTT, was also concerned about aspects of regulation. Within France, the operational and economic regulatory functions have been separated in order to create a competitive environment which will guarantee market participation for everyone on a reasonable basis. The French PTT now operates in a different environment, having changed from being preoccupied with engineering considerations

to emphasising the user's needs within the market. A public monopoly of telecommunications in France was now no longer a reality.

Olof Nordling, coordinator of International Affairs of the Swedish Telecom Group, then drew attention to the fact that Sweden is easily forgotten, yet it contributes significantly to various Commission programmes (e.g., RACE [R&D in Advanced Communication Technologies in Europe]). In Sweden there is active promotion of liberalisation and it seems that this has resulted in improved services, a very limited degree of regulation. In fact, in Sweden, the word "liberalisation" is preferred to "deregulation". This distinction was expanded upon when Dr K.H. Neumann outlined developments within the Deutsche Bundespost [German PTT] from an economic perspective. Dr Neumann felt that liberalisation could be seen as the introduction of competition in markets, or an opening of markets, whereas deregulation could be viewed as the reduction of regulatory constraints. It was felt that these distinctions were a useful aid for further debates in this area.

The second session, entitled "An Open Market or Fortress Europe," brought new ideas with Takefumi Kubota of C.I.T.O.H, France, proposing that Japan's attitude towards European investors was far more open than the reverse situation. Philippe Glantz of Alcatel NV presented the contrasting view by pointing out that it was very difficult for a non-Japanese or non-US company to participate in Japanese or US government-funded research projects, but, more importantly, he stressed the necessity of working toward global standardisation. Bruce Crockett of COMSAT introduced the American perspective and emphasized that liberalisation would open many doors of opportunity to the EC members, as well as providing opportunities for the non-EC countries and businesses.

At the conference dinner, Jacques Santer, the prime minister of Luxembourg, highlighted the important role that the field of telecommunications fulfils in today's dynamic environment and the necessity of converting from a patchwork of national protected areas to open European structures. Additionally, he congratulated the organisers for choosing Luxembourg as the venue for the conference, referring to that country's depiction as "neutral island... (permitting) the exchange of ideas with the objective of compromise within a complex and often conflictual world."

The deregulation debate was continued on the second day by Dr Wim Dik outlining reasons for the deregulation of the Dutch PTT and how cumbersome the decision-making process would be were it controlled by the State. This presentation was complemented by Jean Grenier, director of France Telecom, who indicated that the French situation closely parallels that of the Netherlands. He felt that deregulation does not actually exist but that it is rather a case of re-regulation—which provided much food for thought for the delegates. He concluded that we should all strive for a truly free market

for telecommunications services and equipment but he also warned that a free market does not necessarily mean a deregulated market and that a deregulated market is not always free.

The title of Mark Fowler's presentation: "Snakes, Toxins and Telecommunications Deregulation: Making the Most of Every Bite," lightened the tone of the seminar but this did not undermine the essential message he wanted to convey: that the deregulation of long-maintained government policies must be performed with care. He was able to use examples from the United States experience in telecommunications in order to illustrate how user needs and demands resulted in a policy of deregulation. He felt that the essential question was how much deregulation would be enough to "get the job done."

Richard Butler, secretary general of the ITU (International Telecommunications Union), indicated that the ITU would have to adapt to the dynamic situation in the national and international telecommunications environments. He continued by saying that the ITU could be regarded as a mirror of developments within the telecommunications industry and should therefore ensure that it has the means not only to reflect these developments but to adequately deal with them.

The title of the final session, "Mobile Communications and VSATs: Cracks in the Dam?" introduced an interesting facet of the deregulation issue. Luigi Gasparollo of Selena Spazio in Italy outlined the impact which VSATs (Very Small Aperture Satellites) have made in the US and how they could possibly be integrated with existing national telecommunication networks in Europe. The European applications would, however, be more limited than those in the US. If the VSAT concept were extended to the multinational European environment, the complexity of problems would be increased due to the existence of different terrestrial data networks in each country and varying response times, in addition to the disparate services being offered. In Italy, the PTT policy favours the introduction of VSAT networks and their integration with the public networks, and a shared Hub service for the area of Rome and Milan would be operational this year. Guy le Francois explained how, toward the end of 1985, Alcatel Telspace, together with an American Company, was involved with the development of a VSAT system. By 1987, FASTAR, the Alcatel VSAT, was a purely European venture. He also drew attention to the necessity of a defined European policy.

The final speaker of the conference was Roland Mahler of the Deutsche Bundespost, who informed us that the bill on restructuring the DBP was being passed at the very time that the conference was taking place. What could previously have been regarded as "cracks in the dams" protecting the monopolies of mobile and satellite communications, were being opened up and dealt with in a more competitive manner. He felt that because of the new regulatory economic and harmonisation conditions in Europe, mobile communications seemed to have a bright future.

The conference was organised by Johannesson & Associates, Luxembourg.

#### **EC Commission To Support ETSI on ISDN**

*AN890215 Brussels EC PRESS RELEASE in English No IP(89) 442, 12 Jun 89 p 1*

[Unattributed article: "European Telecommunication Standards Institute—Commission Signs Framework Contract With ETSI"]

[Text] The Commission's 1987 Green Paper on telecommunications proposed the creation of a European Telecommunication Standards Institute. This was taken up by the CEPT's [European Conference of Postal and Telephone Offices] 26 member countries, and ETSI was established in March 1988 at Sophia Antipolis near Nice. This institute is organised in such a fashion as to allow for all interested parties to express their views (telecom administrations, industries, users, the Community, etc.). On 10 June 1989, the Commission signed a framework contract with ETSI, represented by the Institute's director, Professor Diodato Gagliardi, which lays down the ways and means for the Community to support the work of the institute. This comes into immediate effect with a specific order for the preparation by ETSI of the complete and coherent set of common standards required for the establishment of a trans-European ISDN (Integrated Services Digital Network). The background to ETSI's work is the basic necessity of creating standardized technical specifications so that telecoms networks and terminals can intercommunicate. Rapid technical progress is making possible a range of new services, limited only by imagination and some commercial constraints. Standardization must keep up with both technical developments and the introduction of new services if the full potential of advanced telecoms is to be realized. The framework contract confirms this Community decision to support European technical cooperation in an area of key importance to the 1993 objective of the single European market.

#### **EC Commission Details EDI Program**

*AN890214 Luxembourg OFFICIAL JOURNAL OF THE EUROPEAN COMMUNITIES in English No C151, 19 Jun 89 pp 48-49*

[Written Question No 2089/88 by Sir James Scott-Hopkins, EC Parliamentarian from Britain, to the Commission of the European Communities concerning electronic data interchange (EDI); and the reply by the EC Commission]

[Text] What is the Commission doing to encourage the growth of a strong EC presence in the rapid growing electronic data interchange (EDI) market? Does the Commission share my view that EDI will in the future become one of the most important of the new technologies?

Answer given by Mr Pandolfi [commissioner for science, research telecommunications, and information technology] on behalf of the Commission:

The Commission has recognized the need to encourage the growth of a strong Community presence in the growing EDI market and proposed in December 1986 a programme for this purpose. This proposal was approved by Parliament and the Economic and Social Committee and, following the Council Decision of 5 October 1987, a communications network Community programme on Trade Electronic Data Interchange Systems (TEDIS) was launched at the beginning of 1988, with a budget of ECU 5.3 million over two years.

Although the start of the programme was delayed by budgetary uncertainties, the TEDIS programme has been very active in the field of standardization, coordination of existing work, raising public awareness, considering the measures which need to be taken in respect of commercial security and legal requirements, and of telecommunications.

It has supported the work of the Edifact Board for Western Europe in developing standards for the necessary electronic messages, and provides the secretariat for that body, and its working groups on trade, transport, customs and administration, finance, construction and tourism. It has also encouraged and coordinated specific actions in various industry sectors; notably the automotive, chemical, electronics, insurance and retail sectors.

The programme aims to make potential users and suppliers of EDI products and services aware of the benefits of electronic data interchange, and of the standards available. This is and will be done through trade exhibitions and conferences, and by launching projects amongst industry where EDI is not already happening.

The particular need for commercial security and the legal changes which may be required to enable EDI to be used with confidence within the Community are the subject of current research contracts.

The availability of an adequate telecommunications infrastructure, and of a suitable hardware and software for EDI services is of great importance. The Directorate General for Telecommunications, Information Industries and Innovation is taking account of this in the planning of its ESPRIT II and RACE programmes as well as in its proposal for a Directive on Open Network Provision (ONP).

The Commission agrees that EDI will in the near future become one of the most important of the new technologies, and will be proposing a number of specific measures with the aim of promoting the emergence of European value-added services building on the foundation of the present TEDIS programme.

### **CEPT Announces Broadband Interconnection Trial**

*AN890206 Chichester INTERNATIONAL TELECOMMUNICATIONS INTELLIGENCE in English 9 Jun 89 p 5*

[Unattributed article: "Europe Plans a Broadband Interconnection Trial"]

[Text] A European Broadband Interconnection Trial (EBIT) has been agreed by members of the CEPT (European Conference of Postal and Telecommunications Authorities).

The decision to go ahead with the trial has been formulated in a Memorandum of Understanding (MOU) which has now been agreed by 17 telecommunications operators from 14 countries.

The MOU provides a framework for collaboration between the signatories to introduce switched digital services at a rate of 2 Mbit/s on a trial basis. It is intended that the trial would form a backbone network which will support pilot application services developed under the collaborative programme RACE [R&D in Advanced Communication Technologies in Europe]. Future commercial service would then benefit from the results and experience gained by users of the pilot applications provided under the auspices of the EBIT MOU.

### **Delays in European Standards Work Criticized**

*AN890204 Chichester INTERNATIONAL TELECOMMUNICATIONS INTELLIGENCE in English 9 Jun 89 pp 1-2*

[Unattributed article: "Suppliers Concerned at ETSI's Slow Pace"]

[Text] Concern is growing among equipment suppliers that work on the preparation of European telecommunications standards is dangerously delayed. In particular, plans laid by the CEC for the introduction of pan-European integrated services digital networks (ISDN) in time for the completion of the single European market (SEM) in 1992, already three years behind schedule, are in jeopardy, they say.

After a promising start, work on the definition of pan-European telecommunications standards (NETs) is in danger of grinding to a halt, according to industry observers. They have noted that since the formation of the European Telecommunications Standards Institute (ETSI) and the subsequent handing over to it of work previously carried out by CEPT [European Conference of Postal and Telecommunications Offices] working parties, very little progress has been achieved.

In the year before ETSI was set up, three NETs (NETs 1, 2 and Part 1 of NET 3) had been drafted, circulated for comment and brought into force. Two NETs, 4 and 33, had been through the public comment stages, and several

others were in draft and about to be circulated. However, a year after the call for comments, neither NET 4, which is a compendium of the PSTN interface standards for each of the member states, nor NET 33, defining test procedures and minimum standards for digital telephones, has been finalised.

These two NETs in particular are critical to the full implementation of mutual approvals type testing, manufacturers say. And without that, they will not be able to market their terminal equipment freely throughout the Community, they say, losing the benefits of high-volume markets and making the development of new types of terminal equipment unattractive.

To be on schedule for the SEM, ISDN standards have to be agreed by December 1989. Manufacturers see little prospect of this being achieved. Originally, the CEC set target was December 1986.

Doug Barry, telecommunications consultant to the UK Department of Trade and Industry, confirmed their fears when he told delegates to the ISDN'89 Conference in Birmingham last week that "Unfortunately, no further ISDN NETs have emerged since the basic access layer 1 and 2 requirements were defined in NET 3 Part 1 in March 1988." A special project team at ETSI has worked on the layer 3 requirements and produced a draft of NET 3 Part 2, but it has not been formally ratified by ETSI.

A further set-back was the rejection of NET 33 for digital telephony over ISDNs, which progressed to the final draft stage by full and sub-technical committee, only to be sent back "for further work" by the ETSI Technical Assembly in March 1989.

Nevertheless, Barry believes that the standards will have reached a reasonably advanced stage by December 1989. He explained that ETSI has now established its procedures for national public consultation on new standards. These are first issued as European Telecommunications Standards (ETS), which after agreement by technical sub and full committees are then ratified by ETSI's Technical Assembly. Next they must be passed to the CCITT TRAC committee for conversion to full-blown NETs.

Seven "candidate NETS" in the form of draft ETS are now being launched for comment, he said. These include five covering various types of modem plus drafts to teletex and facsimile group 3 services. Comments are due by July 17th.

These, together with other work on standards for Primary Rate access, terminal adapters for X.25 and X.21 attachment to the network terminating point he expects to have reached the "technical subcommittee" level by December. "It will certainly need a determined effort to finalise work by that time," he said, "but we hope that together with standards already completed they will be enough to work with."

Barry pointed out that NET 3, relating to levels 1 and 2 of ISDN basic rate access, were in force. NET 3 Part 2 had been delayed pending finalisation of CCITT definition, but had been agreed in ETSI at the subtechnical level. NET 5, covering primary rate ISDN access, will have reached the sub-technical agreement stage by December 1989, he said, and he is hopeful that NET 7 on ISDN terminal adapters will get to a similar stage at the same time.

He did admit, though, that "this target does not allow for possible revision that might arise when the ETSI documents are discussed in CCITT."

The end result of the delays is that ambitions have been adjusted slightly in terms of the services that will be available when pan-European ISDNs are finally available. Barry said that users will be offered bearer services for unrestricted 64 kb/s data and 3.1 kHz audio circuits; a limited selection of supplementary services restricted to calling line identification (CLI), direct dialing in (DDI), multiple subscriber number (MSN) and terminal portability (TP); and support for just three services—telephony, teletex and group 4 facsimile.

## CANADA

**Masse on Planned New Telecommunications Act**  
*55200045 Toronto THE GLOBE AND MAIL in*  
*English 20 Jun 89 p B11*

[Article by Jane Becker: "Planned Law Would Let Ottawa Deregulate Telecommunications"]

[Text] Ottawa—A federal act that could be tabled as early as next year would enable the federal government to deregulate the Canadian telecommunications system, Communications Minister Marcel Masse says.

In a speech to a satellite users conference sponsored by Telesat Canada, Mr. Masse said the fragmented nature of regulation of interprovincial communications has limited the services and equipment available and made it difficult for any telecommunications company to be nationally competitive.

Under the present system, the federal government, through the Canadian Radio-Television and Telecommunications Commission, has jurisdiction in Ontario, Quebec, British Columbia, the Yukon and the Northwest Territories, while the other provinces do their own regulating.

Anyone wanting to offer telecommunications services across Canada has to receive approval from eight regulatory agencies, Mr. Masse said.

"It means the Canadian market, already one of the smallest in the world, is made smaller still. The real market is restricted to Ontario, Quebec and B.C."

Mr. Masse told the conference the government and the CRTC must have the power to deregulate the system "when this seems prudent."

The government wants the power to give clear policy direction to the CRTC in the interest of opening the field for telecommunications companies to compete fairly with telephone companies, the minister said.

In an interview later, Mr. Masse said that although the federal cabinet already has the power to review and override CRTC decisions, this relationship might change in the new act.

However, the direction of the legislation depends on a Supreme Court of Canada decision expected later this year. The court is to rule whether Alberta Government Telephones, which directs telecommunications in that province, is a provincial or federal undertaking.

Two courts have ruled that it is an interprovincial body, and thus subject to CRTC jurisdiction. If the Supreme Court decides otherwise, the hands of all provincially regulated telecommunications bodies will be strengthened and the federal government will be left in a quandary.

Mr. Masse also said that the planned telecommunications act, which would bring together a patchwork of regulations from various acts, including the Railway Act of 1904, will contain a clear statement of Canadian ownership requirements for the industry.

The government wants at least 80 percent Canadian ownership of all international and interprovincial telecommunication networks in Canada, although carriers that simply resell services or rent facilities from the major carriers could be foreign-owned.

The policy would affect two interprovincial carriers - British Columbia Telephone Co. and Quebec Telephone—both 51 percent owned by Anglo-Canadian Holdings, a subsidiary of GTE Corp. of Stamford, Conn.

These carriers would not be allowed to increase their non-Canadian share ownership, although they could retain their present status, Mr. Masse said. But no new foreign-owned interprovincial carriers would be permitted.

He also restated the government's plan to privatize Telesat, now 49.9 percent owned by the federal government. He said he hopes to present the privatization proposal to the cabinet early this fall.

Telesat Canada president Eldon Thompson said he hopes the new act will help telecommunications companies cope with emerging problems in providing service across Canada.

Provincially regulated telephone companies now effectively block "the last mile" in satellite transmissions,

requiring that the satellite signal be transferred to a telephone line before entering a business establishment, he said.

### **Fiscal Problems Postpone CNC's Canadianizing Plan**

55200040 Ottawa THE OTTAWA CITIZEN in English  
15 Jun 89 p D18

[Text] The CBC's grand scheme for Canadianizing its English-language TV network has been put on hold.

Continuing fiscal problems have forced senior network officials to advise lower management that plans to increase Canadian content for the 1989-90 season to 95 percent from the current 84-percent level have been deferred.

CBC spokesman Richard Chambers confirmed Wednesday there isn't enough money to go ahead with 90 minutes a week in new Canadian programming promised by the CBC for the next fall-winter season.

The so-called Canadianization plan was just too expensive to follow this year when the CBC has such a tight budget, said Bill White, vice president of regional broadcasting operations.

Under the plan, American shows would have slowly been replaced with domestic fare during prime viewing hours over the next five years.

The CBC is now studying which services to cut or reduce to deal with a \$140-million budget cut over five years as announced by the government in April, but has so far not admitted that Canadianization is definitely on the chopping block.

"There really is less than enough money to pay our bills and expand the amount of Canadian programming," said White.

"If we had proceeded with Canadianization, we would probably have been short some \$14 to \$15 million...give or take two or three million."

By putting the plan on the back burner for a year, the CBC will be able to balance its budget in 1989-90, said White.

What happens in the years after that will be up to the new CBC president, he added. Pierre Juneau's term as president ends July 31 and the government has not yet announced a replacement.

Juneau has said repeatedly CBC has to cut services to live with the \$140-million budget cut.

Some of the options for next year include closing local CBC radio and television stations, eliminating supper-hour newscasts, abolishing the international shortwave

radio network called Radio Canada International, and bringing back advertising on radio.

White said the corporation decided to defer Canadianization rather than follow other options. Re-opening a local station, for example, would be a more difficult decision to reverse if any extra money should become available, he said.

John Harvard, Liberal MP for Winnipeg-St James, said the decision to defer the Canadianization plan will have a serious impact on the CBC's regional production centres because much of the new Canadian programming was to have originated in the regions.

Harvard raised the issue in the Commons during question period Wednesday, suggesting the government should supply sufficient funds for the CBC to carry out its goal.

"Does this government still support Canadianization?" Harvard asked.

Conservative MP Jim Edwards, parliamentary secretary to Communications Minister Marcel Masse, replied that "of course" the government supports the CBC's Canadianization policy.

"I believe the Canadian Broadcasting Corporation is conducting internal studies as to what its priorities will be in the light of the budget," Edwards said.

#### **Nova Scotia To Be Landing Point for Fiber-Optic Cable**

55200042 *Toronto THE GLOBE AND MAIL in English 6 Jun 89 p B8*

[Article by Kevin Cox]

[Excerpt] Halifax—The Nova Scotia fishing village of Pennant Point will be the Canadian landing point for a \$500-million trans-Atlantic fibre-optic cable project that could make European telephone calls clearer and less costly.

Teleglobe Canada Inc of Montreal announced yesterday that the cable, the first fibre-optic line to land in Canada, should be operational in 1991.

Teleglobe president Jean-Claude Delorme told reporters the cable will connect with landing points in Spain, France and Great Britain.

He said the cable is capable of carrying 75,000 telephone conversations at one time, compared with about 8,400 conversations on the copper co-axial cable.

"It will enable us to optimize our cost efficiency and therefore provide service at the lowest possible price," he said.

He added the Canadian Radio-Television and Telecommunications Commission would force the company to pass on such cost reductions to users.

Mr Delorme said the company's rates have dropped by about 34 percent since the federal government privatized the former Crown corporation and sold it to Memotec Data Inc of Montreal.

He said the company will spend about \$15-million in Nova Scotia, building the station at Pennant Point, 25 kilometres southwest of Halifax, and expanding the communications network.

He said construction of the receiving station will create about 20 jobs, but only about 12 people will be needed to operate it and they will likely be moved there from existing Teleglobe facilities.

Teleglobe is spending \$50-million on the fibre-optic cable project. It will hold an 8.3 percent share of the venture, with the balance of the \$500-million project held by 31 other communications companies from 24 countries.

Mr Delorme said Pennant Point was chosen because it is easily accessible.

#### **Vancouver's First Teleport Reported Operating** 55200043 *Vancouver THE SUN in English 8 Jun 89 p F5*

[Article by David Smith]

[Excerpt] Vancouver's first teleport is up and running with business customers already using Telesat Canada's satellite communications link for voice, data and audio transmissions across Canada.

"It gives them a private line at a fraction of the cost," said Darren Kelly, account executive in Vancouver for Telesat, the country's satellite operator.

Teleports are central transmitting stations where business and broadcast users share space on an array of satellite antennae. Teleports were opened in Montreal and Toronto in 1987 and in 1988 in Edmonton. One is scheduled to open in Calgary in July.

A smaller class of teleport, an unmanned common user facility with one antenna, serves Halifax, Ottawa and Regina.

Telesat recently installed a \$150,000 common user facility at Pender and Burrard in Vancouver to serve its business customers in addition to its teleport site at 455 Industrial which began operating a few weeks ago.

Land costs of the teleport, now occupied by a trucking warehouse, were about \$4 million and \$2 million worth of equipment has been installed by Telesat.

Telesat services include one-way point-to-multi-point data transmissions; two-way point-to-multi-point data transmissions and two-way point-to-point voice and data transmissions.

Customers in Vancouver currently include The Bay, the major banks, oil companies and several small businesses, Kelly said.

Jane Logan, Telesat's Ottawa-based manager of business development, said the 1.8-hectare site is an interim location that will probably evolve into a permanent location on nearby False Creek.

"We bought the land and have put in equipment to broaden our base in the Vancouver market," she said. "Unless we made this investment, we couldn't get customers."

Kelly said in the point-to-point services Telesat "is the only game in town" while CNCP offers competing service to Telesat's Anacom-200 very small aperture terminal (VSAT), used primarily for data transmissions.

Both the teleport and antenna are to be officially opened later this year, he added.

Logan said Telesat competes with fibre-optic network, microwave and terrestrial network services, but they offer a "big cost advantage" since satellite links mean users don't pay for the distance involved like they do in telephone networks.

"It costs the same to transmit from Vancouver to Victoria as it does from Vancouver to Montreal," Logan said. [Passage omitted]

### **Bell Canada Increases Spending To Speed Computerization**

55200047 Toronto *THE GLOBE AND MAIL* in English 21 Jun 89 p B10

[Article by Lawrence Surtees]

[Text] Bell Canada is increasing its five-year capital spending program by \$3-billion, to \$12-billion, to accelerate the computerization of its telephone network.

The company plans to have more than 90 percent of its six million telephone lines equipped to handle digital computer traffic by 1995, Pierre Chagnon, vice-president of engineering and research at Bell, said at a press briefing yesterday.

Bell is the utility arm of BCE Inc. of Montreal and provides telephone service to more than six million subscribers in Ontario, Quebec and parts of the Northwest Territories.

"We are at a threshold of a new era in which the company's commitment to digital technology is paying solid dividends to Bell and to its customers," Mr. Chagnon said.

Bell is intensifying its modernization drive because the use of computerized switches and fibre-optic cables allows the company to provide a wide range of new services to customers that generate more money for the utility. Digital, or computerized, telecommunications is also more efficient and has allowed Bell to trim the cost of running its telephone network.

Digital telecommunications also makes it possible for business and residence customers to communicate with computers and to use new services. But communicating in computerized bits and bytes instead of voice-like analog signals requires customer hook-ups to a computerized telephone company switch that routes subscriber calls.

While Bell can currently transmit 70 percent of its local calls and 75 percent of its long-distance calls down digital lines, only 35 percent of its local switches are computerized.

Bell plans to add the extra \$3-billion to its spending program in order to greatly increase the number of computerized lines and switches in the network. "The goal is to have digital service available in most centres, including small areas, throughout our territory," Mr. Chagnon said.

The company will spend more than \$1.6-billion on the modernization drive alone and an additional \$625-million over the five years on fibre-optic systems, which use laser-generated light waves to transmit messages down glass fibres that replace less efficient and bulkier copper cables.

Mr. Chagnon said Bell will spend an extra \$285-million in 1989 to add an additional 450,000 digital phone lines to the network, compared with the 316,000 new lines added last year. If economics permit, the company plans to accelerate the pace to 660,000 lines a year by 1991, Bell officials said in their June budget estimate filed with the Canadian Radio-Television and Telecommunications Commission earlier this month.

Both Bell and Northern Telecom Ltd. of Mississauga—the telecommunications equipment arm of BCE—have pioneered the development and use of computerized telephone switching and fibre-optic technologies. But the services made possible by these innovations are just beginning to enter the domestic market.

For example, Bell is now offering new calling services to customers with digital service and is testing a group of services, including caller identification. Yesterday, the company announced three new enhancements to its toll-free 800 services for businesses that will simplify the use of national 800 numbers.

While the modernization drive will bring access to those services, including the ability to communicate via personal computer or facsimile machine, to many hard-to-reach areas, digital communications will remain an optional service, Mr. Chagnon said. Customers who want digital communications must have touch-tone services, which involves an additional monthly charge.

Completing the digital modernization of the telephone network is also essential to realizing the potential of a new global telecommunications standard, called ISDN—for Integrated Services Digital Network. But Bell does not yet plan to rewire every home and office with fibre optics, Mr. Chagnon said.

### **CRTC Rules Telephones Must Be Adapted for Hearing Aids**

55200046 *Toronto THE GLOBE AND MAIL in English 19 Jun 89 p A9*

[Article by Andre Picard]

[Excerpts] Montreal—Starting next year, all telephones manufactured or sold in Canada must be equipped with a small metal coil that will make them hearing aid compatible, the Canadian Radio-television and Telecommunications Commission has ruled.

The decision, to take effect January, 1990, is a major victory for the more than 500,000 Canadians who wear hearing aids and cannot use telephones unless a device known as a flux coil is built into the earpiece. It allows sound to be picked up directly from the receiver and blocks outside noise.

“This decision is as important to hard-of-hearing Canadians as a decision to make public transit accessible would be to people who use wheelchairs,” said Denis Morrice, executive director of the Canadian Hearing Society.

The CHS has been fighting since 1975 to make flux coils mandatory, and had threatened recently to take the CRTC to court over the issue, arguing that the hard-of-hearing were being denied equal access to telephone service under the Canadian Charter of Rights and Freedoms.

Mr. Morrice said the flux coil is the “single most important accessibility issue” for people with hearing aids.

In 1982, the CRTC rejected demands to make flux coils mandatory, citing “business considerations” of telephone manufacturers. However, after years of lobbying by the hearing impaired, the commission decided to reconsider its ruling.

This time around, ironically, numerous telephone manufacturers joined the lobby groups in asking for legislation. They argued that a law, rather than voluntary compliance, would ensure high standards in the equipment.

A flux coil costs between 30 and 50 cents per telephone when it is added into the manufacturing process.

Although it did not hold public hearings on the issue, the CRTC received dozens of testimonials from hard-of-hearing people who felt disadvantaged and humiliated by their lack of access to telephone services. [passage omitted]

Bell Canada has provided hearing aid compatible telephones at no extra charge, but a host of other manufacturers have entered the market in recent years—almost three million telephones are imported annually from Hong Kong, Taiwan, South Korea, Singapore and Japan.

These manufacturers have already begun to produce telephones with flux coils because the United States made the device mandatory effective January 1, 1989.

There are more than one million Canadians with hearing disabilities, at least half of whom wear hearing aids.

## **FEDERAL REPUBLIC OF GERMANY**

**Siemens, Egypt's ARENTO Form Joint Venture**  
*AN890187 Chichester INTERNATIONAL*  
*TELECOMMUNICATIONS INTELLIGENCE in*  
*English 26 May 89 p 4*

[Unattributed article: “Siemens in Egyptian Joint Venture”]

[Text] Siemens of West Germany has signed a joint venture agreement with the Arab Republic of Egypt National Telecommunications Organisation (ARENTO) and the Egyptian Telephone Equipment Manufacturing Company. Under the agreement, a digital exchange manufacturing plant will be built in 6 October City, for which Siemens will provide the technology and manufacturing equipment. Initially, 200,000 lines a year will be produced, but this figure should rise to 500,000 lines when production is in full swing. Up to 450 people will be employed at the factory. Siemens was selected from the short list it shared with Ericsson of Sweden; proposals were originally considered from seven international companies. Initial investment costs have been estimated at 101 million Egyptian pounds (\$40 million), while the venture's capital will be 36 million Egyptian pounds (\$14 million). The Arab Industrial Development Organisation of Baghdad, Iraq has been coordinating the project and has expressed hopes that the digital exchanges will be purchased by other Arab countries. Shareholdings in the venture will be held 30 percent by Siemens and 35 percent each by the two state-owned Egyptian concerns.

## FINLAND

### **Public Computer Data Network Gets Go-Ahead** *Helsinki HELSINGIN SANOMAT in Finnish 6 Jun 89* *p 37*

[Text] An agreement to set up a public computer network under the auspices of the Ministry of Communications and Transport was signed in Helsinki on Monday, 5 June. The goal of the venture is to standardize access to services being offered through telecommunication networks, to create new electronic services and to encourage the most widespread possible usage of these services.

Services to be offered will include electronic mail, a telephone directory, marketing, and later on, public services. All of these services may be utilized via personal computers.

On 5 June, member organizations in the management group of the public data network venture signed a so-called management group agreement. The membership consists of the Ministries of Communication, of Finance and of Education; the National Pensions Institute; the Information Technologies Advisory Committee of Municipal Administration; the National Board of Post and Telecommunications; the Union of Telephone Companies; the Finnish Bankers' Association, the corporations of Sanoma [publisher of HELSINGIN SANOMAT], Nokia, Lohja, Kesko, and Tietovoima; the Research Center for Household and Consumer Affairs; and the Support Organization of Data Bases.

During the initial phase, the members will fund the enterprise to the tune of 2 million marks.

The public data network will not entail the installation of any new links for transmission of data. Instead, the enterprise aims to develop new programs for controlling existing networks and to standardize operation procedures for various services.

The Ministry of Communications will initially invest 300,000 marks, the Bankers' Association will allot 200,000 and the other member organizations 100,000 marks each. The later development work will be funded through separate appropriations.

According to the Ministry of Communications, it is hoped that the services to be offered may eventually be accessible with many different kinds of terminals, from advanced telephones to computers.

The data network venture will be composed of several different subventures. Among the first of these will be a universal electronic mail service and an electronic telephone directory. It is projected that the directory will be available for trial use as early as next fall.

The network marketing component is intended to offer both buyers and sellers an opportunity to exchange

information on goods for sale, and also to enable customers to put in orders directly from their terminals.

As far as public services are concerned, plans are in the works to enable citizens to contact governmental officials through terminals. It would become feasible, then, to transmit documents to public officials or to retrieve information from them.

Different administrative branches are on different levels of readiness to offer these kinds of services, and most can offer none at the moment.

The project also involves combining bank, travel and transport services within the same system.

The data bank is expected to have information on public transport timetables. At the most advanced stage, it will be possible to reserve fares and even to pay for them through the network.

### **Tough Competition Between Telephone Companies and the National Board of Telecommunications**

At this time, the National Board of Telecommunications is already operating a nationwide system called Telesampo, which makes it possible to offer and use various electronic services. Telesampo transmits to user terminals a menu from which various services offered by different businesses and organizations can be chosen. Each business or organization bills separately for the use of its services.

Several private telephone companies offer similar user systems, through which one has access to the same services Telesampo offers.

The telephone companies and the National Board of Telecommunications will be competing mercilessly to prove their system the most user-friendly one. For the time being, only the National Board of Telecommunications offers a nationwide system.

For the time being, different systems have been constructed very differently, some of them function badly, and are very costly for the users.

## FRANCE

### **French Syracuse-2 Satellite Program Described** *AN890131 Paris ELECTRONIQUE HEBDO in French* *30 Mar 89 p 10*

[Article by Pierrick Arlot: "French Army Beefs Up Its Space Telecommunications"]

[Text] A contract worth Fr 10 billion has just been awarded to Alcatel as prime contractor to supply ground receiving equipment to the 6-year Syracuse-2 military space telecommunications program. A greater number of correspondents, two specialized fields of deployment—these are the two major improvements that will benefit

the French Armed Forces. A "high point" is of enormous interest in the field of communications, especially in mountainous areas; thus, a relay located on a carefully selected mountaintop makes it possible to increase distances between correspondents and to avoid the obstacles that the topography can generate. On the planetary level, what could be more practical than a geostationary satellite? This is especially the case given that the French military forces are not concentrated in one region of the globe but are dispersed in countries that are more or less far away, depending on cooperation or assistance agreements.

### Improving and Securing Communications

The military program launched in 1980 under the name the Syracuse-1 satellite radiocommunications system, with the purpose of developing a uniform military satellite telecommunications network, currently includes a space component integrated with Telecom-1 and a ground component comprising 26 ground stations—3 fixed stations located in Brest, Paris, and southern France; 12 mobile ground stations; and 11 naval stations. The deployment field scanned by the satellite covers Africa, the Indo-European continent as far as Pakistan, and South America.

However, no matter how sophisticated it may be, a satellite cannot operate forever. The limited life of Telecom satellites (about 7 years) led the Armed Forces Equipment Authority (DGA) to begin research in 1983 into solutions to the challenges posed by the military space telecommunications of the 1990's. For example, there is the requirement to increase the number and type of correspondents, as well as the need for enhanced protection against intrusion, listening, and jamming—the usual foes of any transmission.

How then is Syracuse-2 an improvement over Syracuse-1? The space component of the program will be incorporated into Telecom-2 satellites, which are slated to be placed by Ariane-4 in late 1991 and mid-1992. The satellite will use the same frequency bands (7.9-8.4 GHz for earth-to-space and 7.25-7.75 for space-to-earth) and the overall field of deployment will remain the same. On the other hand, two larger antennas will provide an enhanced transmission-reception capability in two specialized areas—the France-Central Europe area, and, thanks to the addition of an antenna with variable

orientation, a mobile area of about 1,800 km in diameter within the overall coverage. The possibility of clandestine listening by spies outside these areas will be greatly limited by this "clean sweep" coverage.

In addition, the use of 5 transponders (instead of 2 for Syracuse-1) and an increase in the satellite on-board transmission power (40-W traveling wave tube amplifiers) will make it possible to connect a large number of correspondents. The Syracuse-2 program also calls for a fourfold increase in the number of receiving stations, for a total of 100 ground stations.

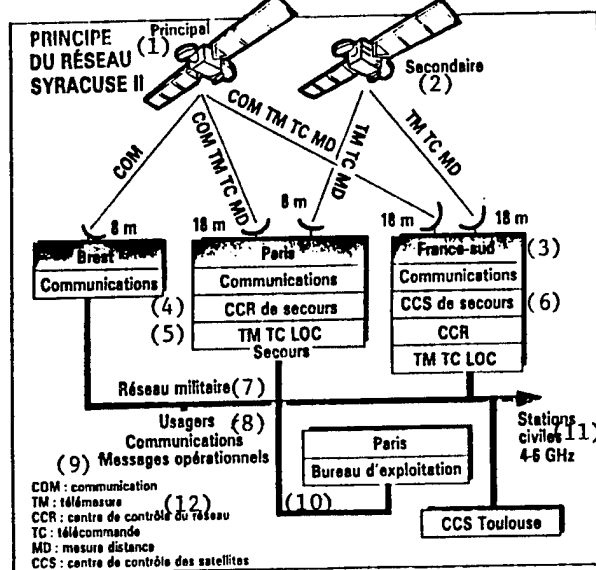
The Syracuse-2 ground component will comprise a network control center, along with old Syracuse-1 stations improved to adapt to the system's new capabilities, additional Syracuse 1-type stations, and a new type of station in the specialized areas (small-diameter aerials—0.5 m versus over 1.3 m currently); the latter stations will be harder to locate and will be installed on smaller carriers, such as nuclear submarines, medium-tonnage ships, or even jeeps. It should be noted that the Syracuse-2 network will be able to link up with the Armed Forces Integrated Transmission Network (RITA) currently employed by the French Armed Forces and, at some point in the future, with the Army's fourth-generation unit.

### Alcatel the Big Winner

What is Syracuse-2's structure? The network's main stations are primarily the fixed stations in France; however, within the area served by the variable-orientation antenna, certain stations will be able to serve as relays for the secondary stations. Given the number of correspondents, shared, multiple-access utilization of the satellite's capability is planned. For the stations that will use the multiple access by frequency-sharing (AMRF) capability, modems will permit the simultaneous use of a voice link (2,400 bits/sec) and a graphics link (200 bits/sec); for those stations that will use multiple access by code sharing (AMRC), 74 bits/sec links (graphics or data), 2,400 bits/sec links (voice or data), or 16 bits/sec links (voice or data) will be possible.

The Alcatel subsidiaries Alcatel-Espace, ATFH, and Alcatel-Tel-space will supply the ground equipment; Alcatel-Espace and Matra have been producing Telecom-2 satellites since 1988. Some European firms, such as British Aerospace, Fokker, and MBB, will also be participating in this project.

Figure. Principle of Syracuse-2 Network



In Syracuse-2, the three fixed stations in France (Brest, Paris, and southern France) communicate with mobile ground stations via Telecom-2 satellites.

Key: 1. Main 2. Secondary 3. Southern France 4. Emergency CCR 5. Emergency TM TC LOC 6. Emergency CCS 7. Military network 8. Users 9. Operational messages 10. Operating agency 11. 4-6 GHz stations 12. COM: communication; TM: remote sensing; CCR: network control center; TC: remote control; MD: distance measurement; CCS: satellite control center

#### Alcatel Telspace Shows Satellite Digital Link

AN890187 Chichester INTERNATIONAL TELECOMMUNICATIONS INTELLIGENCE in English 26 May 89 p 10

[Unattributed article: "Alcatel Telspace Ahead in Digital Satellite Communications"]

[Text] Alcatel Telspace presented six papers on various aspects of digital telephony associated with circuit multiplication and reservation mode business telecommunications and reservation mode business telecommunications, at the International Conference for Digital Satellite Communications (ICDSC'89), jointly organised by Intelsat, France Cables et Radio, and France Telecom at the end of April. A live demonstration of a satellite digital link was successfully presented with the assistance of France Telecom and Intelsat using the latest Intermediate Data Range (IDR) and Digital Concentrator Multiplication Equipment (DCME) technology on products developed by Alcatel. This major contribution at the conference reflects the success of Alcatel Telspace's new products on the market. The company's modems, developed under CNET (French Telecommunications Research Center) licence, were the first to use fully digital technology, providing the operator with all bit rates (from 48 Kbit/s to 8 Mbit/s) through

simple software controls, and to meet the various standards in use—IDR and IBX on Intelsat, and SMS on Eutelsat. The first satellite digital links will enter service in 1989 under contracts in France, Europe and Asia totalling over one hundred modems.

#### CSSR's KOVO, France's TRT Sign Radio Contract

AN890205 Chichester INTERNATIONAL TELECOMMUNICATIONS INTELLIGENCE in English 9 Jun 89 p 4

[Unattributed article: "Modernisation of Microwave Radio Link"]

[Text] The Czechoslovakian Foreign Trade Corporation KOVO and Sprana Radiokomunikaci (Bratislava) have signed a contract with TRT (Telecommunications Radioelectriques et Telephoniques) based in Paris, France, for the purchase of microwave radio systems.

The contract, worth Fr 20 million (\$2.9 million), was won through international competition, mainly from Japan. The microwave radio systems are intended to modernise the Bratislava-Kosice link. The main 400-km-long route, located in the southern part of the country and designed to provide the area with television and telephone services, is to become operational within a year.

TRT is already active in Eastern Europe with rural telephony equipment installed in Hungary and data transmission systems in Czechoslovakia.

## NORWAY

#### Alcatel STK's Takeover of Scanvest Unit Seen as Export Boost

55002468 Oslo AFTENPOSTEN in Norwegian 6 Jun 89 p 21

[Article by Ulf Peter Hellstrom: "Will Increase Tele-Export"]

[Text] Alcatel STK's takeover by Scanvest Ring's telecommunications unit means that the Alcatel concern will now increase its market shares in the telecommunications market considerably. Scanvest Ring will receive 150 million kroner in new capital.

"The trend within the international telecommunications industry is toward fewer, but larger companies. To survive in the increasingly keener competition, one must have considerable market shares. The Alcatel concern has sufficient resources to survive," Bjarne Aamodt, managing director of Alcatel STK, stated in a press conference yesterday, where the purchase was announced.

"Scanvest Ring will now get larger resources to concentrate on its computer activities, which have accounted

for approximately 60 percent of the turnover of the concern," Helle Midttun, managing director of Scanvest Ring, stated.

The deal between the two companies means that Alcatel STK will take over Scanvest Ring Communications, which has well over 200 employees. Alcatel also purchases the electronic production enterprise Kitron at Kilsund in Aust-Agder, with nearly 200 employees. The deal means that the number of employees of Scanvest Ring will be reduced from upwards of 1,000 persons to approximately 600.

The turnover of the two Scanvest-owned companies, which are now being sold to Alcatel STK, last year amounted to approximately 360 million kroner. Kitron is a profit-making enterprise, whereas the activities of Scanvest Ring Communications resulted in a deficit of approximately 7.8 million kroner during the first quarter of the year.

The price tag for the two companies amounts to a total of 150 million kroner, divided between an actual purchase price of 125 million kroner and a loan of 25 million, which Alcatel STK assumes from Scanvest Ring.

#### Norsk Data Contract

The agreement means that Alcatel STK will be a partner of Norsk Data, by the very fact that, a couple of months ago, the computer company entered into a production agreement with the Agder enterprise Kitron to produce computers for Norsk Data. Kitron specializes in the installation of electronic circuit cards. The contract apparently secures the workplaces at Kilsund.

In discussing the agreement, the leader of Alcatel STK's extensive telecommunications activities, Director Lars Harlem, stressed the Norwegian-developed products of Scanvest in the area of business communications as particularly interesting. Scanvest Ring Communications has, among other things, developed a queue and distribution exchange, which already today accounts for between 30 and 45 million kroner of the turnover. Eighty percent of this product is being exported, the leader of Scanvest Ring Communications, Knut Isachsen said.

#### Increasing Sales

"The Alcatel concern has no such product today. Backed by the international Alcatel concern—especially in marketing—we may aim at increasing our sales of such queue and distribution exchanges rather quickly - perhaps by 100 percent," Isachsen said.

His company also sells internal communications plants outside the borders of Norway under the name of Ring-master.

Alcatel STK expects the market share of the concern within the area of business communications to amount

to approximately 10-11 percent, while Scanvest Ring has a market share of 6-7 percent.

"In the course of a short time, we now expect to exceed 20 percent," says Harlem.

Managing Director Helge Midttun of Scanvest Ring rejected that his company, of which the Italian Olivetti concern now is the main shareholder, has been forced to sell its telecommunications activities because the financial situation of Scanvest Ring is weak.

## UNITED KINGDOM

### Broadcasting Transmission System May Be Privatized

55500096 London *THE DAILY TELEGRAPH* in English 9 Jun 89 p 11

[Article by Jane Thynne, Media Correspondent: "£200m Scheme To Sell Off Broadcast Output System"]

[Text] Proposals for a £200 million privatisation of Britain's broadcasting transmission service were announced by the Government yesterday. A commissioned report suggests placing the network, currently owned by the BBC and the Independent Broadcasting Authority, into the hands of two competing companies, offering their services to the BBC and ITV.

But the document, by accountants Price Waterhouse, rejects plans to split the system into competing regional companies as impractical.

A regionally based system would ignore the "cross subsidy" element of a national network, which levels out transmission costs in remote regions such as Grampian, where maintenance costs are high, compared with other areas.

The IBA, whose engineering division is preparing a subsidiary board, headed by Lord Chalfont, to bid for the privatised contract, gave a guarded welcome to the proposals.

But the BBC, whose engineering division has been opposed to the idea of being privatised, gave a cold response.

"We are not convinced that the report's preferred option is the best way forward," the Corporation said.

The BBC particularly objected to "a substantial one-off cost for re-engineering and reorganisation and increased operational costs, year on year".

The service is divided into a network of 51 hilltop transmitter stations and 800 relay stations. Each site is jointly operated by the BBC and ITV.

However, under the recommendations alternate sites would be allocated to the new competing companies—like a patchwork quilt—so they maintain a national spread.

But as each site is linked to a remote monitoring station, this reorganisation would mean replacing links, at an estimated start up cost of £18 million.

The advantage of having two equivalent national companies, would be that their costs could be compared by broadcasters, the report said.

The system cannot be adopted, however, unless the Government amends the BBC's charter in 1996, in which the BBC's transmission responsibilities are based.

The IBA's transmission function, however should be "separated out and possibly moved into the private sector" in 1991 when the Independent Television Commission comes into being, the report said.

Because at present neither system is run on a profit-making basis, "there is little genuine financial incentive to cut costs," the report said. Nor was there nay "overwhelming benefit" in the transmission system being in public ownership.

But the BBC said: "We believe that there is an opportunity for the BBC transmitter service to develop its valuable resources at a time of growth in the increasingly convergent fields of broadcast transmission and telecommunications.

1/10

22161

44

NTIS  
ATTN: PROCESS 103  
5285 PORT ROYAL RD  
SPRINGFIELD, VA

22161

This is a U.S. Government publication. Its contents in no way represent the policies, views, or attitudes of the U.S. Government. Users of this publication may cite FBIS or JPRS provided they do so in a manner clearly identifying them as the secondary source.

Foreign Broadcast Information Service (FBIS) and Joint Publications Research Service (JPRS) publications contain political, economic, military, and sociological news, commentary, and other information, as well as scientific and technical data and reports. All information has been obtained from foreign radio and television broadcasts, news agency transmissions, newspapers, books, and periodicals. Items generally are processed from the first or best available source; it should not be inferred that they have been disseminated only in the medium, in the language, or to the area indicated. Items from foreign language sources are translated; those from English-language sources are transcribed, with personal and place names rendered in accordance with FBIS transliteration style.

Headlines, editorial reports, and material enclosed in brackets [ ] are supplied by FBIS/JPRS. Processing indicators such as [Text] or [Excerpts] in the first line of each item indicate how the information was processed from the original. Unfamiliar names rendered phonetically are enclosed in parentheses. Words or names preceded by a question mark and enclosed in parentheses were not clear from the original source but have been supplied as appropriate to the context. Other unattributed parenthetical notes within the body of an item originate with the source. Times within items are as given by the source. Passages in boldface or italics are as published.

#### SUBSCRIPTION/PROCUREMENT INFORMATION

The FBIS DAILY REPORT contains current news and information and is published Monday through Friday in eight volumes: China, East Europe, Soviet Union, East Asia, Near East & South Asia, Sub-Saharan Africa, Latin America, and West Europe. Supplements to the DAILY REPORTs may also be available periodically and will be distributed to regular DAILY REPORT subscribers. JPRS publications, which include approximately 50 regional, worldwide, and topical reports, generally contain less time-sensitive information and are published periodically.

Current DAILY REPORTs and JPRS publications are listed in *Government Reports Announcements* issued semimonthly by the National Technical Information Service (NTIS), 5285 Port Royal Road, Springfield, Virginia 22161 and the *Monthly Catalog of U.S. Government Publications* issued by the Superintendent of Documents, U.S. Government Printing Office, Washington, D.C. 20402.

The public may subscribe to either hardcover or microfiche versions of the DAILY REPORTs and JPRS publications through NTIS at the above address or by calling (703) 487-4630. Subscription rates will be

provided by NTIS upon request. Subscriptions are available outside the United States from NTIS or appointed foreign dealers. New subscribers should expect a 30-day delay in receipt of the first issue.

U.S. Government offices may obtain subscriptions to the DAILY REPORTs or JPRS publications (hardcover or microfiche) at no charge through their sponsoring organizations. For additional information or assistance, call FBIS, (202) 338-6735, or write to P.O. Box 2604, Washington, D.C. 20013. Department of Defense consumers are required to submit requests through appropriate command validation channels to DIA, RTS-2C, Washington, D.C. 20301. (Telephone: (202) 373-3771, Autovon: 243-3771.)

Back issues or single copies of the DAILY REPORTs and JPRS publications are not available. Both the DAILY REPORTs and the JPRS publications are on file for public reference at the Library of Congress and at many Federal Depository Libraries. Reference copies may also be seen at many public and university libraries throughout the United States.