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Worldwide Report

TELECOMMUNICATIONS POLICY, RESEARCH, AND DEVELOPMENT

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WORLDWIDE REPORT

TELECOMMUNICATIONS POLICY, RESEARCH AND DEVELOPMENT

CONTENTS

LATIN AMERICA

NEAR EAST/SOUTH ASIA

SUB-SAHARAN AFRICA

WEST EUROPE

PEOPLE'S REPUBLIC OF CHINA

POSTS, TELECOMMUNICATIONS MINISTRY CORRECTS STYLE

OW170211 Beijing XINHUA Domestic Service in Chinese 1556 GMT 14 Mar 86

[By RENMIN RIBAO reporter Zhang Guorong and XINHUA reporter Zhang Jinsheng]

[Excerpts] Beijing, 14 Mar (XINHUA)--The Ministry of Posts and Telecommunications today held a telephone meeting of national posts and telecommunications departments to relay and implement the important directive recently issued by the Secretariat of the CPC Central Committee on posts and telecommunications work and make preparations to immediately launch activities of correcting the work style of post offices and telecommunications bureaus by consolidating the ranks and dealing blows at lawbreaking in China's posts and telecommunications departments.

The activities aim at markedly improving postal and telecommunications workers' political and vocational qualities within 2 or 3 years so that the people's posts and telecommunications can restore their reputation to an all-time high.

At the telephone meeting, Yang Taifang, minister of posts and telecommunications, relayed the Central Secretariat's recent important directive on posts and telecommunications work. The Secretariat pointed out: Since the 3d Plenary Session of the 11th CPC Central Committee, the posts and telecommunications departments have shouldered a heavier and heavier task under the new circumstances of opening to the outside world and invigorating the domestic economy. They have done much work to promote socialist material and spiritual civilization. Since the reshuffle of the ministry's leading body, the correct guiding ideology of vocational work has been followed through party rectification, and remarkable results have been achieved.

Analyzing the main problems existing in the ranks of postal and telecommunications workers today, Yang Taifang said: Just as the Central Secretariat pointed out, our postal and telecommunications work still fails to meet the needs in the development of the objective situation. This is because our capacity in telecommunications is inadequate, our workers' political and vocational qualities are poor, some of our personnel have no clear concept of the legal system and their sense of discipline is poor, and a few of them even neglect their duties, break the law, and commit crimes. As a result, our telecommunications service is poor, and accidents in

telecommunications have continuously occurred. Both the masses' interests and the posts and telecommunications departments' prestige have been seriously damaged. The public is dissatisfied and disgusted with all this.

Yang Taifang emphatically pointed out: Through the activities of checking the telecommunications service and consolidating the ranks, we must sum up the experience of model workers and commend and award them; we must distinguish between different types of mistakes made by workers whose performance is poor and handle their cases accordingly. Train those who should be trained; criticize those who should be criticized, and punish those who should be punished. It is particularly necessary to deal relentless blows to law breakers and criminals. We must never be soft on them or appease them. It is necessary to discharge a number of serious law breakers and criminals and bring them to justice. It is necessary to replace a number of leading cadres who have seriously neglected their duties. During the activities of checking the service, it is also necessary to clear up long-pending cases, find out where the shoe pinches, and handle consumers' appeals.

/12858
CSO: 5500/4152

PEOPLE'S REPUBLIC OF CHINA

GUANGZHOU-ZHANJIANG-HAIKOU MICROWAVE COMMUNICATIONS SYSTEM OPENS

HK171151 Haikou Hainan Island Service in Mandarin 0400 GMT 15 Mar 86

[Excerpts] The inauguration ceremony of the Guangzhou-Zhanjiang-Haikou 1,800 circuit microwave communications system, a project organized and built by the Guangdong Provincial Posts and Telecommunications Management Bureau, was simultaneously held in Haikou, Zhanjiang, Guangzhou and Hong Kong yesterday.

Kuang Ji, Guangdong Provincial vice governor; Yang Jie, former vice minister of Posts and Telecommunications; (Hu Chaoyu), vice chairman of the Guangdong Provincial Economic Commission; Meng Qingping, principal responsible person of the Hainan administrative Regional People's Government; (Yuan Jiawen), director of the Provincial Posts and Telecommunications Management Bureau; and responsible comrades of Hainan Administrative Region, the Hainan Military District, the Hainan Li and Miao Autonomous Prefecture, and all counties and cities in the region, attended the inauguration ceremony in Haikou.

Mr Sharp, chairman of the Cable and Wireless Company of Britain, and Mr Takahara, representative of Japan's NEC Company, were also invited to attend the inauguration ceremony in Haikou.

(Yuan Jiawen), director of the Provincial Postal and Telecommunications Management Bureau, first delivered a speech to introduce the construction and significance of the project. He said: the Guangzhou-Zhanjiang-Haikou 1,800 circuit microwave communications system starts from Guangzhou, travels through 8 counties in Zhaoqing, Maomin, and Zhanjiang, and ends in Haikou. The total length of the system is 595 kilometers, the longest microwave communications line in the province. The completion of the system indicates a new advancement in the province's telecommunications development.

In their speeches Vice Governor Kuang Ji, Yang Jie and Meng Qingping warmly hailed the completion of the Guangzhou-Zhanjiang-Haikou 1,800 circuit microwave communications system.

In their speeches Mr Sharp and Mr Takahara expressed satisfaction over the friendly and successful cooperation between the two parties.

Vice Governor Kuang Ji, Meng Qingping, and Mr Sharp respectively, used the direct dialing telephone system installed at the site of the inauguration ceremony, to talk to Yang Taifang, minister of Posts and Telecommunications; (Xu Zhi), deputy secretary general of the Guangzhou City People's Government; and Mr Wilson of the Hong Kong Cable and Wireless Company.

/12858
CSO: 5500/4152

PEOPLE'S REPUBLIC OF CHINA

CONTEXTUAL INFORMATION ANALYSIS OF REMOTE SENSING IMAGERY

Beijing ZIDONGHUA XUEBAO [ACTA AUTOMATICA SINICA] in Chinese Vol 11 No 4, Oct 85 pp 413-415

[Article by Wang Chengye [3769 2052 2814] of the Institute of Automation, Chinese Academy of Sciences, and Gong Xiao [7895 2556] of the Space Science and Technology Center, Chinese Academy of Sciences]

[English Abstract] A contextual model is described and analyzed. Comparison is made between its results in classification of remote sensing image data and the results of classification based on spectral information only. Experiments justify that the contextual method provides extreme advantages. (Paper received 19 September 1983.)

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[2] Swain, P. H. Vardeman S. B. and Tilton, J. C. Contextual Classification of Multispectral Image Data, *Pattern Recognition*, 13 (1981), No. 6.
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CSO: 4009/1041

PEOPLE'S REPUBLIC OF CHINA

CORRECTION OF LATERAL OFFSET WITHIN LANDSAT MSS IMAGERY

Beijing ZIDONGHUA XUEBAO [ACTA AUTOMATICA SINICA] in Chinese Vol 11 No 4 Oct 85 pp 358-363

[Article by Wang Tianxi [3769 1131 4406] of the Scientific Research Institute for Petroleum Exploration and Development, Beijing]

[English Abstract] A computer technique for correcting lateral offsets within Landsat MSS imagery is introduced. These offset lines were produced by an apparently random line-start problem in the Landsat MSS sensor. Two values are needed to correct the offset: (1) the numbers of the line containing offset, and (2) the number of pixels of offset in the lines. The determination of these values is time-consuming by visual inspection on the display. Therefore, a computer program which makes use of correlation techniques or Sequential Similarity Detection Algorithms (SSDA) has been developed to calculate the above two values automatically, and then perform the required line shifts to correct the offset. (Paper received 18 August 1983.)

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CSO: 4009/1041

PEOPLE'S REPUBLIC OF CHINA

BRIEFS

OPTICAL FIBER CABLES--Chengdu, 8 Mar (XINHUA)--Two kinds of optical fiber cable for communications purposes were developed by the No 5 Research Institute of the Ministry of Posts and Telecommunications and passed the ministry's examination today. They are 24-core cable for optical communications within a city and 12-core cable for long-distance optical communications. Also passing the examination were connecting devices for these cables. Development of these items were listed as key technological research projects in the Sixth Five-Year Plan. [Summary] [Beijing XINHUA Domestic Service in Chinese 1530 GMT 8 Mar 86 OW] /12858

OPTICAL FIBER CABLE BEING LAID--Guangzhou, 11 Mar (ZHONGGUO XINWEN SHE)--The laying of China's first optical fiber long-distance telecommunications cable, the Guangzhou-Foshan optical fiber long-distance telecommunications cable, started recently. It is expected to be completed and put into use in the second quarter of this year. The total capacity of the Guangzhou-Foshan optical fiber long-distance telecommunications cable is 9,600 lines. The main equipment and cable, which have been imported, are of the advanced level of the eighties. This project is the "major artery" connecting the telecommunications network of the Zhuijiang Delta area. After the project is completed and put into operation, it will not only increase the telecommunications capacity between Guangzhou and Foshan but also lay a good foundation for setting up a digital telecommunications network in the Zhujiang Delta area. [Text] [Beijing ZHONGGUO XINWEN SHE in Chinese 1234 GMT 11 Mar 86 HK] /12858

SATELLITE TELEPHONE CIRCUIT TRIED--Beijing, 19 Mar (XINHUA)--Beijing's satellite communications ground station opened its civilian communications circuit on a trial basis today. Some national minority comrades from the frontier regions working in Beijing made telephone calls to their relatives in Urumqi, Lhasa, and Kunming via the communications broadcast satellite launched by China itself. The voices heard during the telephone conversations were as clear as those in local telephone calls. When Gulanbaner, an Uygur girl studying in the cadres training class of the Central Nationalities College, picked up the telephone, she could immediately tell that the voice at the other end was that of her mother. Gulanbaner said excitedly: "Satellite communications has shortened the distance between Beijing and the frontier regions." The experimental communications and broadcasting satellite was launched on 1 February this year. [Text] [Beijing XINHUA Domestic Service in Chinese 1753 GMT 19 Mar 86 OW] /12858

CSO: 5500/4152

GERMAN DEMOCRATIC REPUBLIC

BRIEFS

TRANSMISSION VIA SATELLITE COMPUTER--Jena, 26 Mar (ADN)--A continual system of information transmission from the work stations of design engineers via a satellite computer (intermediate computer) to the electronic data processing installation of the data center has been set up at the Carl Zeiss Jena combine (Gera Bezirk). The principle of distributed data processing which has been implemented, has proved successful in the design of optical systems for precision instrument construction. Scientists and engineers active in this field were given nine new interactive work stations in 1985. They develop and design optical components--which must meet the highest standards--on the screen in a dialogue with the computer. Apart from higher product quality, the Jena engineers also achieve considerable time savings. While the design of a microscope lens once took roughly 440 hours, engineers now produce a design in a third the time on the graphic display unit. [Excerpts] [East Berlin ADN International Service in German 1052 GMT 26 Mar 86 LD] /12858

CSO: 5500/3006

ERICSSON PHONE EXCHANGES TO GUATEMALA, MEXICO, ECUADOR

Copenhagen BERLINGSKE TIDENDE in Danish 28 Feb 86 p 6

[Article by Lise Tajik: "Ericsson Orders Worth $108 Million"; first paragraph is BERLINGSKE TIDENDE introduction]

[Text] The public telecommunications agencies in Guatemala, Mexico and Ecuador have ordered telecommunications equipment worth $108 million from Ericsson. The equipment will be manufacturered at Ericsson's factories in Mexico, Italy and Sweden.

The Swedish telecommunications and electronics firm L. M. Ericsson has obtained orders totaling $108 million for telephone exchange equipment and transmission systems from Guatemala, Mexico and Ecuador.

Mexican Orders Worth $67 Million

Telemex, the Mexican public telecommunications agency, has ordered digital transmission equipment and a parallel exchange worth a total of $67 million from the company's Mexican subsidiary, Teleindustria Ericsson SA.

Most of the equipment will be produced at Ericsson's factory in Mexico and delivery will start this year.

The biggest single order, worth $30 million, came from Guatel, the Guatemalan telecommunications agency. The contract involves several local digital-AXE exchanges with long-distance customer units, transmission equipment and an operation and maintenance center. These units will be delivered in the second half of this year and are being produced by Ericsson's Italian subsidiary, Fatme.

Some 13.7 Million Lines

Ietel, the telecommunications agency in Ecuador, has placed two orders worth $11 million for three local AXE-digital exchanges that will be manufactured in Sweden and for equipment to expand eight Ericsson parallel exchanges. This will be produced by the company's Mexican subsidiary.

Ericsson's sales of AXE exchanges are now up to 13.7 million lines--772 exchanges in 64 countries. The company claims to have 9 percent of the world market for telecommunications equipment. But in Latin America the company's market share is around 50 percent.

6578
CSO: 5500/2634

BRAZIL

MINISTER ANNOUNCES EXPANSION PLANS FOR SECTOR IN 1986

Sao Paulo O ESTADO DE SAO PAULO in Portuguese 26 Feb 86 p 15

[Text] Brasilia--The goals to be achieved by the communications sector during 1986, estimated at 18 billion cruzeiros, were announced by Minister Antonio Carlos Magalhaes during the commemoration of the 19th anniversary of the establishment of the Ministry of Communications. The ministry's program gives priority to rural telecommunications, the contracting of new telephone terminals, and the expansion and qualitative improvement of the Posts and Telegraphs Company; it also provides for strengthening the operational structure of the Amazon Region transmitters in order better to serve the population of that region.

Minister Antonio Carlos Magalhaes defined the guidelines for the telecommunications sector based on the great growth shown by his sector, which in 1985 alone reached 16 percent and contributed to Brazil's establishing an economic growth rate of 7.5 percent last year. The research and development area also presents a substantial growth of investments, which are estimated at 1 trillion cruzeiros this year compared to the 153 billion invested in 1985.

In the area of public telecommunications, 110,000 isolated rural properties will be served, which represents an expansion of 30 percent, increasing from 8,558 to 10,388 the number of places in the country that have telephone service. The program anticipates that the number of public telephones, both in booths and open-air shells, will show an increase of 67,000, going from 106,000 to 173,000 installations by the end of the year. The number of urban residences served by telephone will also increase considerably, going from the current 4.95 million to 5.5 million.

The number of telephones installed in the country will expand 8 percent compared to 1985, while telex terminals should increase 15 percent. The program also calls for maintaining operational and productive efficiency, attaining the rate of 12.8 percent employees per terminal installed, a proportion that is equivalent to the best in the world. The Ministry of Communications program envisions the transfer to national industries of the technologies of fiber optics, lasers, equipment for the transmission of television via optic fibers, programmable data analyzer for data networks, and satellite stations.

The postal services will serve all Brazilian municipalities with the establishment of new branches and the replacement of present post offices. In this

sector, priority will be given to rural areas, which will be served by 1,400 new post offices, in addition to the establishment of an air-mail network in the Amazon Region lending impetus to that service. The neediest areas of the large urban centers will receive more efficient service with the establishment of 100 community post offices. The automation systems of branches in the principal states, such as Rio de Janeiro, Sao Paulo, Minas Gerais, Bahia, Parana, Pernambuco, Rio Grande do Sul and Brasilia, will also be expanded.

The TV-radio broadcasting system will have five more satellite-TV receiving stations in military units in the Amazon Region and in Mato Grosso do Sul. The programming of TV-Nacional will be revised so that solid links will be established with the cities and regions reached by its transmissions. The operational structures of the Amazon broadcasting stations will also be strengthened, providing better service to the population. In this sector, the program also provides for consolidating the radio network formed for transmission of "Jornal Nacional," which is currently retransmitted by 123 stations throughout the country.

The ministry's program provides for the implementation and consolidation of the new regional directorates of the National Telecommunications Department (DENTEL), in addition to the study and proposal of new criteria for granting private radio and television channels.

Minister Antonio Carlos Magalhaes stressed the importance of the launching of the Salt 2 satellite, which will provide service not only to Brazil but also to neighboring countries, and advocated a democratic Latin America in terms of the communications media. Magalhaes also emphasized the importance of human labor, without which it would be impossible to achieve the positive results that are being attained, and admitted the possibility of the definition of other goals by the end of the year.

8711/12859
CSO: 5500/2031

BRAZIL

SECOND TELECOMMUNICATIONS SATELLITE LAUNCHED

PA290114 Paris AFP in Spanish 0035 GMT 29 Mar 86

[Excerpts] Kourou, French Guiana, 28 Mar (AFP) -- The second Brazilian telecommunications satellite, Brasilsat S-2, was placed today in orbit on the 17th launch of the European rocket Ariane III, an improved model of the Ariane. It was launched from the Kourou Space Center.

Brasilsat must function for 8 years in a geostationary orbit (altitude 36,000 km), which means that it will give the impression of being motionless on a vertical path over the Brazilian-Colombian border (70 degrees longitude west, over the Equator).

This satellite has 24 retransmission channels, equivalent to 12,000 telephone lines or 24 television channels. Brasilsat S-2, which will provide television, telephone, telex, and data transmission services, looks like a huge drum. It weighs 671 kg in orbit and 1,140 kg on earth.

The first such satellite was launched by Ariane on 8 February 1985. The operational center in charge of watching the satellites for as long as they exist, is in Guaratiba, near Rio de Janeiro. The two Brasilsats were built by the Canadian enterprise Star Aerospace Limited. They belong to the Brazilian Telecommunications Enterprise, a Brazilian public enterprise responsible for the development and work of telecommunications services in that country.

The U.S. satellite, Gstar-2, which was put in orbit 2 minutes before the Brasilsat S-2, is the fifth satellite of the GTE Spacenet Society which has been transported by the European rocket since 1984. Its 16 channels can be rented to enterprises for visual conferences. They can also be used for retransmitting information.

/9365
CSO: 5500/2034

BRAZIL

COMPUTER GROUP PLANS RESPONSE TO U.S. SURVEY

PY190014 Rio de Janeiro O GLOBO in Portuguese 17 Mar 86 p 17

[Text] Brasilia -- The informatics law will not be investigated by the U.S. Commerce Department alone. Now the matter will also be discussed through diplomatic and political channels, since the U.S. State Department has decided to perform a confidential market survey. This was reported by the managers of the Brazilian Computer and Peripheral Equipment Manufacturer's Association [Abicomp], who on 14 March met with Science and Technology Minister Renato Archer and with Foreign Ministry General Secretary Paulo Tarso Felxa de Lima for an initial evaluation of this new situation. According to Abicomp President Antonio Pimentel Besquita, "the situation is not good for Brazil." However, he believes that the difficulties will be resolved.

When President Ronald Reagan first requested an investigation of the informatics law based on Article 301 of the Trade Act (U.S. Trade Law), alleging that the Brazilian Government is practicing protectionism, Abicomp started to move to defend its interests in the United States, as a consultant before the USTR [as published] (Department of Commerce). The process will end by September, and until then Abicomp is trying to find all the mechanisms it can to prevent any retaliation against its interests by the U.S. Government. "The U.S. Government is very strong and it knows how to express its force," Mesquita said.

/9365
CSO: 5500/2033

BRIEFS

USSR, EAST EUROPE TO PURCHASE FIBER OPTICS--The Brazilian Government through Itamaraty is negotiating with East European countries a 4-year export contract for 1,500 km of fiber optic components manufactured by Telebras (Brazilian Telecommunications, Inc). The sale of 400 kilometers of submarine fiber optic cable over a 2-year period to the Soviet Union has already been contracted by the ABC-TAL company. The fiber optic cable is more reliable and cheaper than copper telephone wire. [Text] [Rio de Janeiro O GLOBO in Portuguese 29 Mar 85 p 15 PY] /9738

CSO: 5500/2037

CUBA

IMPROVEMENTS IN RADIO, TV SIGNALS UNDERWAY

FL290140 Havana Television Service in Spanish 0000 GMT 29 Mar 86

[Text] As mentioned in the Third party Congress main report, the state wants to improve the quality of the country's radio and television broadcasts. The following report discusses the matter.

The fields of radio and television are included in the Communications Ministry's investment plans aimed at improving signal quality so they can reach all corners of the country.

Last year, 40 projects were started and they are expected to be completed during this year's first 6 months. Radio Rebelde and Radio Progreso will cover the entire national territory and each provincial station will cover all its municipalities. Old towers, as well as transmitters and television signal relay towers will be replaced and others will be installed in required areas. A lot of this equipment will be manufactured locally. Low-powered relay towers will run with solar batteries, thus saving energy.

Work is being done to create a channel with special programming for Guantanamo and the Isle of Youth and a third channel is being considered for the capital and Havana Province. There are no technical possibilities for the rest of the provinces. Broadcasting television programs via satellite will be the greatest contribution in this field during the 5-year period.

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CSO: 5500-2035

AFGHANISTAN

BRIEFS

TELEPHONE EXCHANGE INAUGURATED--The extention of the automatic telephone exchange at Shahr-e Naw, with a capacity of 2,800 lines, was inaugurated today by Mohammad Aslam Watanjar, member of the PDPA Central Committee Politburo and minister of communications. This exchange is part of the second telecommunications project after the Khayrkhana Mena and Microrayon automatic telephone exchanges. The automatic telephone exchange at Shahr-e Naw, which cost more than 3.3 million German Marks and 16.5 million afghanis, includes the areas of Taymani Wat, Wazirabad, Qala-e Musa, Shahr-e Naw, Qala-e Fatollah, and Kharta-e Parwan. At the same time as the inauguration of the above-mentioned exchange, 40 coin-operated telephones were brought into operation in these areas. A source of the telephone department of the Ministry of Communications said the following: /Begin recording/ The expansion of Shahr-e Naw automatic telephone exchange, which is part of the second telecommunication project, should have been put into operation by the experts of Siemens company of the FRG. However, due to its hostile stance against the DRA, it abandoned the project while still incomplete. Afghan engineers decided to make the project operational themselves. /end recording/ /Excerpts/ /Kabul Domestic Service in Dari 1530 GMT 13 Mar 86/ 12228

CSO: 5500/4729

BANGLADESH

BRIEFS

NATIONAL INFORMATICS BODY--The Government has constituted an 18-member National Coordinating Committee for Regional Informatics Network for South and Central Asia (RINSCA) headed by Dr A M Sharafuddin, Secretary, Science and Technology Division, according to an official handout. The Committee comprises representatives of concerned Ministries, information media and other organisations. The Bangladesh Bureau of Educational Information and Statistics (BANBEIS) of the Ministry of Education will be the national focal point for RINSCA. [Text] [Dhaka THE NEW NATION in English 12 Feb 86 p 8] /13104

CSO: 5550/0097

INDIA

INSAT-1D PROCUREMENT APPROVED, OTHER SATELLITE PLANS

Bombay THE TIMES OF INDIA in English 1 Mar 86 p 16

[Text]

NEW DELHI, February 28: The government has approved procurement of INSAT-1D to maintain continuity in satellite communications while INSAT-1C is expected to be launched by NASA later this year.

The seventh plan also envisages operationalisation of the augmented satellite launch vehicle (ASLV) after the two developmental flights for launching satellites for scientific and application misions.

One of the major elements of the proposed programme for 1985-90 is the continuation of this satellite series.

The polar satellite launch vehicle envisages the development of an Indian launch vehicle to place an Indian remote-sensing satellite of 1000 kg. class in polar synchronous orbit from an Indian range. The approved cost of the project is Rs. 311 crores.

The Indian remote-sensing satellite project envisages indigenous development of a 3-axis stabilised satellite in sun-synchronous orbit at an altitude of about 900km for remote-sensing applications for management of natural resources in the country.

The government has also decided to sponsor the sixth expedition to Antartica during 1986-87 for continuing the scientific research programme.

India has successfully organised four expeditions to Antartica and the fifth expedition consisting of 88 members has reached the icy continent two months ago.

Among the new schemes to be undertaken by the department of atomic energy during 1986-87 are for increasing computing capacity of the research centres and major improvements in the heavy water plants in Kota and Baroda.

The budget also makes an allocation for the new nuclear power project to be set up in Karnataka.

/9274
CSO: 5550/0098

BRIEFS

POWER FOR TRANSMITTERS--New Delhi, March 3. Doordarshan has placed an order with the Central Electronics Limited under the Department of Scientific and Industrial Research, for solar photovoltaic power systems to operate television transmitters being set up in remote areas. The initial order is for 17 transmitters valued at Rs. 35 lakhs. These systems have been designed and engineered indigenously by the CEL in close collaboration with the Gujarat Communications and Electronics Limited in a record five months. These will enable the very low power TV transmitters to operate completely unmanned and be controlled remotely from a central station. The CEL now has an installed capacity to make one MW of solar modules and cells a year. The capacity will increase to two MW by the end of this month, when the second production line, now under commissioning, goes into commercial production. This will make the CEL not only the largest solar photovoltaic manufacturer in the developing country but third largest manufacturer in the world. The solar power systems, which the CEL has designed and has been making now, cover a wide range for use in very low power TV transmitters, offshore oil platforms, rural telecommunication systems, flood forecasting systems and defence systems, irrigation pumps, street lights for villages, community TV sets and specialised refrigerators. [Text] [Madras THE HINDU in English 4 Mar 86 p 11] /9274

CSO: 5550/0099

NEPAL

BRIEFS

DANISH TELECOMMUNICATIONS EQUIPMENT BID--The government of Nepal has asked Denmark to participate in a big international project that will supply the kingdom on the southern flank of the Himalayas with modern telecommunications. Foreign Minister Uffe Ellemann-Jensen (Liberal) therefore asked the Folketing Finance Committee on Wednesday to grant a request to give Nepal, which is one of the world's poorest countries, an interest- and installment-free loan of 115 million kroner. The condition is that the money must be spent on purchasing Danish equipment, including telephone cables. The total amount also covers the purchase of dairy and slaughterhouse equipment. [Text] [Copenhagen BERLINGSKE TIDENDE in Danish 18 Mar 86 p 10] 6578

CSO: 5500/2634

SOUTH AFRICA

BRIEFS

SABC TO ACQUIRE SATELLITE CHANNEL--Cape Town--The SABC is to acquire the use of a satellite channel on July 1, Dr Brand Fourie, chairman of the SABC Board, announced here today. He said the satellite would enable the SABC to transmit radio and television programmes to remote areas. A total of 19 receiving stations were planned to facilitate transmissions. He said the SABC was going through "difficult financial times", but was going its best to overcome these problems. [Text] [Johannesburg THE STAR in English 12 Mar 86 p 1] /9274

CSO: 5500/54

EUROPEAN AFFAIRS

SATELLITES SEEN SOON PERMITTING NORDIC TV EXCHANGE PROJECT

Helsinki HELSINGIN SANOMAT in Finnish 9 Feb 86 p 7

[Text] We may get to enjoy Norwegian television programs as soon as next fall. The Nordic telecommunications agencies, which have been considering the technical aspects of an exchange of programs, are of the opinion that the countries in question might view three or four of their neighbors' television channels.

The joint telecommunications agency project is based on the use of telecommunications satellites that are already orbiting in space. Suitable channels are available in the international Intelsat and Eutelsat systems.

Swedish television programs transmitted via satellite are already being viewed in the Norwegian cable networks.

The joint Nordic Nordprog programs could be promoted in those cable television and common antenna networks in which there is room for additional channels. The Post and Telecommunications Administration is of the opinion that by 1990 a third of the households in Finland will be reached by these programs.

Viewing the new channels incorporated into the cable network would cost from 7 to 11 markkas a month. Payment of royalties may also be required to view the programs. Agreement on the royalties has not so far been reached.

Tele-X Will Begin in Fall of 1987

Even if the program exchange under consideration by the telecommunications agencies does not materialize, Nordic satellite time will in any case begin within a year and a half. The long-debated joint Nordic Tele-X satellite will begin to transmit television programs in the fall of 1987.

At first, the Tele-X will operate experimentally for 3 years. The first year there will be programs for about 20 hours a week. The satellite has two channels. One will transmit news and programs of current interest and the other cultural, entertainment and sports programs.

The Nordic telecommunications agencies publicly admitted last summer that they were considering an exchange of programs via already orbiting satellites. At that time Post and Telecommunications Administration director Pekka Tarjanne said that the project would not complicate implementation of the Tele-X because two different systems are involved.

Director Tarjanne thought that experience for the Tele-X could be gained from the project.

11,466
CSO: 5500/2624

DENMARK JOINS TELE-X SATELLITE TELEVISION VENTURE

Oslo AFTENPOSTEN in Norwegian 4 Mar 86 p 5

[Article by Odd Inge Skjaevesland: "Will Contribute with Programs: Danish Yes to Scandinavian TV"]

[Text] Copenhagen -- Denmark has now made up its mind to let the other Scandinavian countries get to see Danish television programs. The country will soon be able to receive Norwegian and Swedish television directly and for this reason is not interested in using much money on reruns from the so-called Tele-X satellite. But the Danes will offer the rest of us their own programs, something which it is hoped will strengthen interest in this entire Scandinavian joint television venture.

Conversations AFTENPOSTEN has had with prominent Danish politicians show that they are no longer in doubt as to whether they will let Danish programs become part of the Tele-X joint venture. With this the prayers of the culture ministers of Norway, Sweden and Finland are well on the way to being answered. When they agreed last fall to a trial period of three years, the absence of the Danes was such a big fly in the ointment that intense work was done to involve Denmark again.

Money

But the Tele-X project is expensive, and the Danes still will not promise to pay to take part. But according to what AFTENPOSTEN has learned from the Danish government, the purse strings have not been completely tied again in advance. First the Danes want to agree with the rest regarding what kinds of programs are to be broadcast and what form the broadcasts should have. The Danes' justification for taking part is that the Scandinavian countries should understand one another better.

Few Danes

"I do not think many Danes will view programs from the other countries in Scandinavia if they just come as reruns on the Tele-X satellite," Social Democratic Party Media Spokesman Bernhardt Tastesen says to AFTENPOSTEN.

"In a short time we will be able to see both Norway's TV programs and channels 1 and 2 in Sweden at the same time as these countries' viewers," he relates. This will take place via cable and the so-called Hybrid Network, which can contain a "package" of up to 24 television stations. It is easy to cable Denmark, and with Norwegian and Swedish features on a direct basis there is reason to believe that this will be able to catch on in Denmark.

Barter

Bernhardt Tastesen also speaks for the political majority when he emphasizes that it is of great cultural policy importance that Denmark be part of a Scandinavian program agreement.

"We can well enter into some 'horse trading' and buy several Scandinavian programs for Denmark's countrywide television channel and a possible TV2," Tastesen suggests.

Lack

"An important part of the Scandinavian exchange of television programs would be lacking if Danish features were to be left out," Prime Minister Kåre Willoch said during the general debate yesterday during the Scandinavian Council's meeting in Copenhagen. He attaches great importance to Denmark's taking part. At the same time Willoch expressed happiness about the fact that Norway, Sweden and Finland have agreed to try out direct-broadcast television over the Tele-X satellite.

"Denmark has always been positively disposed toward a Scandinavian joint TV program venture, although we have never been interested in the industrial aspect of the Tele-X satellite," Prime Minister Poul Schlüter stated during the debate. He emphasized that it would be a shame if the Scandinavian TV satellite were not to cover Danish programs.

8831
CSO: 5500/2625

DENMARK

REPORT REJECTS NEED FOR MULTIROLE 'HYBRID' CABLE NETWORK

Copenhagen BERLINGSKE TIDENDE in Danish 20 Mar 86 p 20

[Article by Morten Langer: "Hybrid Network Crumbling"; first paragraph is BERLINGSKE TIDENDE introduction]

[Text] An independent panel sharply criticized the planning of the hybrid cable network following a big hearing. There has been no analysis of need and no socioeconomic calculations and there is very little current interest in the project which will cost over 100 billion kroner.

At the moment the hybrid network is unlikely to get off the ground.

Most TV viewers are willing to pay only small amounts to receive more TV channels over the hybrid network's cable TV and both businesses and private households currently have their communications needs covered by the existing telephone network.

These were the conclusions of a report prepared by an independent panel on the basis of statements from the country's leading experts in the field at a hearing held last week.

The hearing was arranged by the National Social Science Research Council. The central question was whether the planned enormous social investment of 100 billion kroner, the hybrid network, can be regarded as already "dead" or whether it is the way to the information society of the future. There was no clear-cut answer to this question but the independent panel was very critical of the planning that has been done so far.

The report reached the following conclusions:

No one has made a systematic evaluation of the need for a hybrid network in the public sector or in the private business sector.

There is a disparity between what it will cost and what people are willing to pay. Most households are willing to pay only small amounts for more TV and the annual cost of a network hookup, a license to receive Danish TV-1 and TV-2 and three Pay-TV channels is 7,000 kroner per family.

It is strange that no calculations have been made about what the investment of 100-200 billion kroner would mean for the national economy and whether this would be a sensible investment.

The planned 37-town experiement involving new information technology that was intended to show what the local community and its citizens can use it for in practice is short of funds and needs more economic support.

The panel also said that the hybrid network would provide less all-round TV coverage even though the number of TV channels would increase. Experience from other countries shows that increased TV consumption primarily involves more entertainment.

"If telephone companies continue to be allowed to determine which TV channels will be provided for antenna associations, the transmissions will be nothing but entertainment. So the law should be changed. The panel agreed on that point," said the chairman of the panel, Dr Per Buch Andreasen.

The proposed amendment to the law calls for setting up a broad program selection board to ensure a wide choice of programs on cable TV and to protect the rights of the minority, the people who want to see other things besides pure entertainment.

"While everyone is concerned about the structure of the Radio Council and the management of a second TV channel, people have totally forgotten about culture in the context of the hybrid network. That is undoubtedly because this comes under the heading of business policy," said Per Buch Andreasen.

6578
CSO: 5500/2634

FINLAND

TELECOMMUNICATIONS SEEN SUITABLE AREA FOR DEVELOPMENT AID

Helsinki HELSINGIN SANOMAT in Finnish 8 Mar 86 p 2

[Article by Matti Kuosmanen: The author is a planning engineer in the Radio Department of the Post and Telecommunications Administration. He has participated in Finnish development aid projects in the field of telecommunications technology in several underdeveloped countries]

[Text] The development aid activities Finland engages in in the field of telecommunications technology are still very new. The first rather small projects were launched in 1980 when Finland started to provide aid for the Sri Lanka Telecommunications Administration, among others, with various missions involving the planning of telephone networks.

Finland at present has several telecommunications technology aid projects pending with countries that traditionally receive aid from us. Activities have been expanded and Finland has made an effort to actively participate in big projects too, in which several funding countries and also some international funding organization possibly participate. The recipient country also participates in the project according to its abilities and bears responsibility for carrying out the project.

There Are No Telephones

Every Finn takes it for granted that the Finnish telecommunications network functions reliably and that services are readily available. The thought does not enter our minds how life would change if there were no telephone services. This is, however, an everyday occurrence for many citizens of underdeveloped countries.

The telephone situations in Finland and the underdeveloped countries can be compared with one another by examining the telephone densities of these countries. Data on the telephone densities of those countries with which Finland is participating in development aid telecommunications technology has been assembled in the accompanying table. Each country's annual per capita gross national product has also been added to the table.

Compared to Finland's telephone density, the densities in the underdeveloped countries that are shown in the table are especially low. The telephone densities of Bangladesh and Nepal are the lowest in the world. Among the world's capitals, Helsinki ranks third highest after Washington and Stockholm in terms of telephone density.

The need for telephones in the underdeveloped countries is so great that the number of would-be subscribers on waiting lists is roughly the same as the number of telephone lines in use. The typical average volume per subscriber (telephone line rate of use) is so high that the old telephone centrals and line network now in use cannot handle the current volume. Because of this, it is difficult to get through to the central during business hours.

The old centrals and network cannot be expanded and breakdowns are frequent since the equipment is being operated in the final stage of its lifetime. The only way to remedy the situation is to plan and build a new network with its centrals and lines to meet current and future demands in terms of capacity as well as quality.

The poor situation is in practice evident, for example, in the cities, in that they have not been able to add new subscribers to the network in perhaps several years now. On the basis of surveys, we know that health stations, doctors and police stations as well as farmers, industrialists and merchants, among others, are often on the waiting list. The shortage of telephones causes great inconveniences and inefficiency in the everyday lives of the inhabitants when we further take into account the fact that moving from one place to another, particularly in the big cities of the underdeveloped countries, takes a lot of time because of constant traffic jams from morning til night.

Nepal Project

A telephone network may be lacking altogether in out-of-the-way districts and small rural towns and long-distance telephone lines to the capital may be unreliable and inadequate. In Nepal, for example, there are rural towns whose only long-distance link with the capital is a short-wave radio that operates from a telephone station in connection with the post office. Lines are often too long and equipment obsolete, so that lines are only occasionally in operation. Some days too, one cannot reach the capital at all during business hours. Since, in addition, many towns lack a real road link with the capital, urgent matters are sometimes left unattended to. In Nepal there are also villages isolated in the mountains, the nearest telephone to which is an 80-km hike away.

Nepal's fourth telephone project, which is right now being launched and in which Finland is also participating, will noticeably improve the country's telephone situation. They will be able to provide about 4,000 villages with a telephone station at which there is at least one phone for the village residents. Rural town centrals and line networks will be overhauled and long-distance lines decisively improved. The longest walk to the nearest telephone will be shortened to 8 km.

All areas of human activity and thus also all citizens of underdeveloped countries will benefit from the improvement of telephone services in the underdeveloped countries. If we compare telephone services with physical communication alternatives, telephone services are the most advantageous from the standpoints of both investments and energy consumption, and also in terms of effective use of time.

When there are sufficient telephone services, production activities can be expanded and productivity increases considerably in, for example, an underdeveloped country's outlying districts. The importance of telephone services is accentuated in underdeveloped countries since highway and rail networks, among other things, are inadequate or do not exist at all and since liquid fuel and vehicle prices are high.

Affects Administration

In some underdeveloped countries administration is being decentralized to make development of outlying districts more effective. Officials support agriculture involving the village, small and cottage industries and commerce. Decentralization of administration, however, demands adequate telephone services for the use of central and local government officials to coordinate and keep track of development activities. And later, when economic activity increases in rural areas, they need more effective and versatile telephone technology services than before.

Underdeveloped countries are exposed to the damage caused by different sorts of natural forces like torrential rains, floods, tornadoes and drought. The risks of epidemics and disasters are considerably greater than in the industrialized countries. An insufficiency of telephone lines between a disaster area and officials can have a decisive effect on the success of assistance operations.

Therefore, the construction of a telephone network in an underdeveloped country and its extension to outlying villages are cornerstones in the planning of later development activities.

Well Planned

The Foreign Affairs Ministry's Development Aid Department (Finnida) does not, of course, have the resources for organizing and planning in detail telephone technology projects. For that Finnida makes use of the assistance of outside experts.

The basic information on the telephone situation and its development needs is obtained from government officials and often too from studies and reports by development aid banks like the World Bank. On the basis of the basic data, Finnish telecommunications experts who serve as consultants for Finnida prepare a detailed project plan in cooperation with the recipient country's telecommunications administration experts.

If the study of the project in question conducted by the international organization is inadequate, Finnida has a report made by ITU (International Telecommunications Union) consultants familiar with telephone situations in the underdeveloped countries. These reports are extensive and cover those areas of life which the project may affect from many angles.

The drafting of all of these plans and reports along with studies conducted locally takes about 2 years. After that, Finnish officials can decide on participating in the funding of a regular development aid project.

The development aid recipient country participates in the project with its own contribution by, for example, procuring parcels for plant buildings, building the facilities needed for the equipment and providing manpower for the operation of the project. Finland's role is the technical planning, supplying of equipment, supervision of the work and training of the underdeveloped country's telecommunications equipment installation and operations personnel.

In terms of its technical properties, the telephone network is designed in such a way that it will withstand the strains caused by natural forces and assure the preservation of telephone lines under extremely difficult conditions as well.

Training Important

In the underdeveloped countries modern telecommunications technology is new, but it is nevertheless well suited to conditions in the underdeveloped countries. For the implementation of the new technology to go smoothly, the personnel who work with it must be given sufficiently extensive and thorough training.

Finland has for several years now participated in the training in Finland of experts on telecommunications projects in underdeveloped countries being conducted with development aid funds. The main emphasis in the training has specifically been the adaptation of new technology to conditions in underdeveloped countries. Also part of every Finnish telecommunications technology project is an extensive training program which includes an on-the-job training phase in the underdeveloped country lasting for the duration of the project (3 to 4 years) in addition to special training that takes place in Finland.

Project observation and followup continue after the new facilities have gone into operation and the underdeveloped country can, if need be, obtain the assistance of a consultant from Finland.

In this way they ensure that development aid funds used for the telephone network really continuously benefit the recipient country and create the conditions necessary for the underdeveloped country to develop itself.

Telephone Density per 100 Inhabitants

Country	GNP per Inhabitant in Markkas	Capital	Rural Areas	Average
Finland	55,000	104	50	60
Sri Lanka	1,500	2.3	.1	.5
Bangladesh	650	1.2	.01	.1
Nepal	750	2.1	.05	.1
Sudan	2,500	2.5	.08	.3
Egypt	3,700	3.9	.25	1.75

(Data on 1983 or 1984.)

11,466
CSO: 5500/2624

FINLAND

NEW TELECOMMUNICATIONS LAW SEEN PROMOTING MONOPOLY

Helsinki HUFVUDSTADSBLADET in Swedish 13 Feb 86 p 2

[Editorial by Inger Jagerhorn]

[Text] There is a danger that the new telecommunications law will pave the way for another state monopoly. The long-term position of the private telecommunications companies is threatened and their economic foundations are undermined, Inger Jagerhorn writes in today's first editorial.

Calmly and quietly, you could even say insidiously, a development is taking place that, in the long run, could undermine the economic foundations of the private telecommunications companies and pave the way for a monopoly. Is this what we want?

Do we want to see the economic conditions necessary for private telecommunications services to be eroded and for the Postal and Telecommunications Service (P&T) to take over everything eventually? Do we want the private telecommunications companies to fall into a situation in which they may operate only in unprofitable sectors of telecommunications which, in turn, will mean that they must have higher rates to break even which, further, will make these companies more and more unpopular and which, finally, will mean that they probably will shut down completely?

We are awaiting a new telecommunications law with great interest. The proposal, which is based on a 2-year-old committee report, has been examined by the ministry and, according to optimistic estimates, could reach the government in March.

The new law will replace the old law, which is over 100 years old, from the time of the czars. It is remarkable that such an old law can regulate both the modern, lightning-fast transfer of data and pictures through telephone lines as well as ordinary "old-fashioned" telephone conversations. Still, we must stop and think. Clearly, the old law is broad enough to cover a wide range of activities and flexible enough to meet rapid developments--although not forever, of course.

How will the new law deal with these problems? It seems that a number of pitfalls have already been avoided. The problem is not to tie the text of the

law down to the technology that already exists, since technical developments are so rapid that such a law could severely restrict progress. The old telephone network is now becoming a multiservice net. No one can predict where this development will end. We are now looking forward to the optical broadband network that will be installed sometime during the next century.

Although the law must not be too specific in the technical aspects, it is both possible and desirable to indicate the division of labor between the postal and telecommunications service on the one hand and the telephone companies on the other. Such a distribution could apply, for example, to operating as opposed to constructing telephone lines.

It appears that some confusion could arise on this point. The Postal and Telecommunications Service is given the possibility of constructing "special" exchanges for the telecommunications network, although nothing is said about what "special" means in this sense. The agency specified by the law to define this term is precisely the Postal and Telecommunications Service.

There are examples of cooperation between the Postal and Telecommunications Service and the private telephone companies in certain areas of the new telecommunications technology. One example is the General Data Transfer Network (ADN), where the Postal and Telecommunications Service has agreed to maintain an exchange, while the local telephone lines have been managed by the telephone companies. But this was a relatively simple agreement to reach since, at the time, there was only one nationwide data center.

Now the situation has changed. The Postal and Telecommunications Service is busy planning 11 new local exchanges to be operated by P&T. They will be installed in Helsinki this year and next year. P&T will also be responsible for the long-distance lines. This gives some indication as to how the new telecommunications law will be interpreted. This does not bode well.

The 58 local telephone companies in our country now operate on P&T concessions. The concessions require the companies to cover completely the telephone needs of their area. Two-thirds of our country's 2.9 million telephones belong to the private sector. It is this sector that has constructed the local telephone networks in our country. It is also this sector that has provided 80 percent of the investments in the overall telecommunications network.

The Postal and Telecommunications Service is responsible for long-distance traffic. Technically, P&T does this by joining the various private telephone networks together. The cost of doing this hardly justifies the high long-distance fees. Of all the telephone fees collected, two-thirds are long-distance charges. In practice, this amounts to a kind of tax.

The private telephone companies are not permitted to compete in the long-distance sector. On the other hand, they are obligated by their concessions to provide all telephone services within their district. Only the Postal and Telecommunications Service is free to decide which telecommunications services it wishes to provide.

If the division of labor between P&T and the private sector is unclear--which it is in the present proposed legislation--P&T will be free in the future to snap up the most profitable areas for itself. This could also mean that several parallel networks will be constructed--an unfortunate development from a financial standpoint.

The private telephone companies will have to fulfil their "obligatory" duties and be excluded from profitable new "special" telecommunications services. Eventually, the private companies will have to increase their rates dramatically--or shut down. We will then be approaching a new state monopoly.

The exact opposite trend is found in the rest of the world. Instead of centralization, there is a move toward decentralization in the area of telecommunications services. The large American telecommunications monopoly AT&T was broken up into several local companies. British Telecom was privatized and sold on the stock market while, at the same time, several competing companies were granted concessions. Japan has gone the same route. In Denmark legislation was proposed in January that would strengthen the position of the local telephone companies.

Will our own new telecommunications law really pave the way for a monopoly in telecommunications services? Is the new law consistent with the fact that the Postal and Telecommunications Service is a public utility so that, in any case, it does not have the same status as other companies? Finally, before the slow trend toward monopoly is complete, will we see several parallel networks constructed, simply because the division of labor is unclear and because double investments are the best way to force the private telephone companies, slowly but surely, out of the arena?

9336
CSO: 5500/2619

ITALY

MODERNIZATION SOUGHT THROUGH INTERNATIONALIZATION

Rome L'UNITA in Italian 17 Jan 86 p 4

[Article by Stefano Cingolani]

[Text] The year 1975: it was time for the microprocessor. While the world was floundering in the first oil crisis and funeral chants were being sung (the end of growth, the decline of the West, and so on) a small chip of silicon was able to shake the foundations of industrial civilization.

The year 1980: it was the personal computer's turn. At first it seemed only a gadget for videogames; then it changed into a work tool; finally, into a myth. As myth it has entered a crisis, as a tool it is changing the structure of work and even of the economy (think of the financial and banking services).

The year 1986: a year of transition after the computer industry experienced in 1985 its first crisis of adolescence typified by overproduction, immaturity, and savage competition. But in the midst of this period of reassessment and consolidation seeds are being sown for the next great leap: the creation of a teleprocessing market on a planetary scale.

Teleprocessing means the application of computer processing to the field of telecommunications. It ranges from the most simple and peaceful applications: the transmission and processing of data over great distances and in real time, to the most complex and belligerent application: the aiming of a laser beam cannon against a missile reentering the terrestrial atmosphere (as foreseen by one of the applications in the SDI project, Reagan's "star wars").

All the companies involved with data processing are seeking a place of their own in this field. How? First of all by forming alliances with companies that produce telecommunications which, in turn, seek a direct tie to companies that manage and distribute telecommunications (postal services, television and telephone companies). The woven relationships cannot be but international. It does not make sense anymore to talk of boundaries, of nations, may they be as small as Belgium or as big as the United States. It was not by chance that the first to make a move in this direction were the big American companies (followed at a distance by the Japanese).

Thus AT&T, the largest telephone and communications company in the world, is seeking a place of world status in the field of data processing. The accord with Olivetti can be a milestone in such a strategy. On the other hand, the joint venture with Philips is more within traditional bounds (production and sale of telephone exchange centers).

IBM instead, first in computers and data processing, is aiming at inserting itself into telecommunications. And three of the major world producers in this field are European--as was pointed out by Kaspar Cassani, the president of IBM Europe. The old continent may be in debt to the United States and Japan for semiconductors and office machines, but it is a net exporter in the field which seems most promising for the future.

Four great international groups are thus being formed: the first is made up by IBM and its satellites; the second by AT&T plus Olivetti and Toshiba; the third sees Digital tied to General Motors who has acquired EDS and 20 percent of Comau-Fiat; and finally there is McGraw Hill-Fuijutsu-Hitachi-NAS.

As we have seen, Italian companies are also participating in these alliances; but not only private ones. STET [Telephone Finance Corporation] is in it, too. The financial arm of IRI [Industrial Reconstruction Institute]--with control over SIP [Italian Telephone Company], Italcable (telephones), Italtel (telecommunications and teleprocessing), SGS (chip manufacturing), Selenia (military electronics), and Elsag, Sirti, Cselt, etc...--first tried to reach a major agreement with IBM, but was not successful. A series of ties with the number one computer company remain through SGS, CSELT, and most importantly through Elsag (factory automation) who, with IBM Italia, has formed a new company called Seiaf. Then it has concluded an accord with Fiat by tying together Italtel (STET) and Telettra (Fiat) (this is the biggest news of last year, as yet unexplainable in many of its aspects).

In substance, a holding company has been formed: 48 percent controlled by STET, 48 percent by Fiat, and 4 percent by Mediobanca; its task is to study possible integration between the two companies (Italtel works in all aspects of telecommunications, Telettra in transmissions). But anything can happen: from the shifting of production activities from one to the other, to the transfer of shares, to downright merging. The only peculiarity is that this joint accord is not between two equal companies. Italtel is at least 4-5 times as big as Telettra; in fact, it has gross sales of 1,500 billion lire and 20,000 employees, while the company from Fiat has gross sales of 400 billion lire and 4,600 employees. In conclusion, a giant and a midget are getting together, but claim to have the same weight and height. The new board of directors, in fact, is made up of seven members: three from Fiat, three from STET, and one from Mediobanca.

What can be the strategic significance of such an accord? For STET it cannot be fully comprehended except within the logic of an ever-increasing concentration. It is said that in the 1990s only three companies in telecommunications may be left instead of the present six. And the new Italtel-Telettra holding company is searching for a European partner: the first choice could be the Swedish Ericsson, but contacts have also been made with the German Siemens, with the English Plessey, and with the French CIT Alcatel. In this manner, STET and Fiat would form the nucleus around which they could aggregate a pool of companies, or become partners with one of the European giants.

Nevertheless, already STET, on its own accord, has recently favored ties between its subsidiaries and the more important international conglomerates. It suffices to mention the ties between SGS and Toshiba for semiconductors. Therefore, it cannot be said that it needs a calling card to enter the club of the big timers. Maybe the opposite is true. It is Fiat who, by joining with STET, enters the field of teleprocessing striving not to miss the bandwagon after General Motors (as we know) also entered the field and Daimler Bentz acquired Aeg-Telefunken. Anyway, we shall soon see whether or not the marriage will favor both partners.

What is certain is that in these last months the big private Italian conglomerates are competing to conquer a key position in the battlefield of teleprocessing. The last ones to arrive are Montedison and Pirelli.

At the end of November, Montedison (or more precisely, its affiliate Meta who is in services, finances, and advanced technologies) has established relations with STET to give life to Televas (51 percent controlled by SEAT from the STET group, and 49 percent by Meta), a small company with a capital of 2 billion lire which, for now, will employ a few dozen people. Its purpose is to furnish advanced services (from electronic bill-paying to inventory management) starting with the 550 Standa chain stores. The objective is to achieve a business of $8.7 million by 1987. Anyway, Montedison can count on the experience of its affiliate Datamont who manages the communication services for the conglomerate.

Involvement in teleprocessing is almost compulsory for Pirelli since it is one of the major producers of optical fibers, essential for the modern systems of information transmission. Thus, the group from Milan has aimed at purchasing shares in foreign companies (among these the American Litel, a telephone company from the Midwest). Then last October it stipulated an agreement with IBM Italia to give birth to Boselli, for operating in the very wide field of automated management of building services.

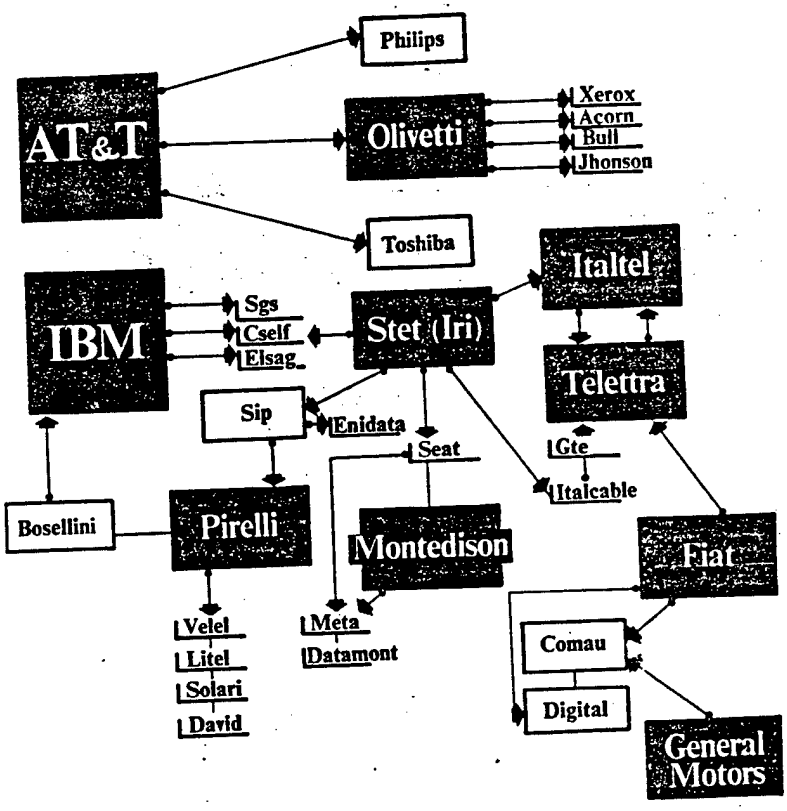
Finally, even ENI through ENIDATA, its computer processing company with 110 billion lire in sales and 750 employees, has stipulated an accord with SIP to market special credit cards (smart card) which would allow the motorist to fill up his tank at AGIP gas stations, travel on toll roads, sleep at motels, and pay by telephone. All that is necessary is a bank account.

Big changes are therefore taking place, while the entire infrastructure of society is being shaped by the computer. Activities of companies, even the Italian ones, have reached a maximum. And yet, in the entire sector ranging from office machines to electronics our trade balance is in deficit and has worsened over the years. Between 1980 and 1984 the imports have tripled while exports have doubled. Therefore, the national demand has been much greater than the total productive capabilities of Italian companies.

The multinational computer companies largely present in Italy have contributed noticeably to this negative balance, because their import of products has grown one-and-a-half times in the 4 years, with a 50-percent jump in 1984. This means that their main activity is to sell hardware and implement software products elsewhere. Among the four major countries of the European Community ours is the one with the largest deficit (even in photocopying machines).

Olivetti, through an accord with AT&T, was able to penetrate the American market selling 500 billions worth of equipment; additionally, it furnishes Xerox with the M24 personal computer which the U.S. company distributes under its own name. It is a volume of export that permits the Ivrea based company a production level sufficient to keep it in step with the market demands. Nevertheless, in spite of Olivetti's dynamism, in spite of the varied fields of interest pursued by STET, the net balance of Italy in the field of data-processing is deeply in the red.

Even this field, therefore, is experiencing what is happening to the automobile industry where the profits of FIAT are accompanied by a deficit in the balance of foreign trade., In the meantime, the positive part of the balance continues to be sustained by the small and medium-size companies operating in apparel manufacturing and light machinery. In conclusion, was the "great restructuring" for naught?



The Electronic Galaxy

13120/8309
CSO: 5500/2588

NORWAY

ERICSSON, ELEKTRISK BUREAU JOIN FORCES TO MEET ITT CHALLENGE

Oslo AFTENPOSTEN in Norwegian 27 Jan 86 p 32

[Article by AFTENPOSTEN Correspondent Arve Hoff: "Ericcson and EB Continue Collaboration"]

[Text] "We have annual sales of 700 million kroner based on technology which has its origin in our joint venture with L.M. Ericsson. This constitutes 50 percent of sales at Telecom and 25 percent of sales at Elektrisk Bureau as a whole (the EB group)."

It is Director Tore Egil Holte of the Telecom telecommunications division, the EB group's largest unit, who illustrates in this way the close and extensive technological collaboration between Elektrisk Bureau and the Swedish worldwide firm. Firm Head Bjørn Svedberg on Friday expressed the fact that this collaboration will continue, although Ericsson before Christmas reduced its share holdings in EB from 25 to 10 percent.

On the same occasion Ericsson Director Bo Landin, who is also an EB board member, stated that he was convinced of the fact that EB-Ericsson sooner or later will again enter the picture as supplier of digital telephone exchanges for the Telecommunications Agency in Norway. Three years ago Standard Telefon og Kabelfabrik [Standard Telephone and Cable Factory] (STK) emerged victorious from the tug-of-war concerning these contracts with its exchanges from the American ITT firm.

Landin's opinion that EB and Ericsson would get their share of this market was not given grounds for with reference to the delay problems STK-ITT is now struggling with. But he believed that the Norwegian Telecommunications Agency, like other telecommunications agencies, for several reasons--among other things, out of concern for competition--would want to operate with two systems.

Director Holte said that EB is not dependent on such a contract, but stressed that in the long term it will be very important, because it would give EB a broader base for further technological development.

These viewpoints were presented to Norwegian journalists at Ericsson's headquarters in Stockholm, where both Bjørn Svedberg and Bo Landin declared that

the changed ownership situation at EB would not influence the EB-Ericsson collaboration.

"I think that the ownership situation is of quite subordinate significance in this connection," Svedberg said. And Landin pointed out that this concerns a collaboration which is built on common interests and which is the wish of both parties.

8831
CSO: 5500/2625

EXPANDED OPERATIONS SEEN AT TELEFONICA

Madrid ACTUALIDAD ECONOMICA in Spanish 10 Feb 86 pp 121-122

[Article by Jose Antonio Roca and Francisco Garcia Martin]

[Text] The uncertainty is over. Telefonica [Telephone Company of Spain] is not giving up its industrial group, and in recent months its industrial structure has actually been strengthened. Only the forms are being changed: Solana doesn't want a holding, but rather a multinational which, inside, will control its companies through its purchasing power and minority stock holdings.

In 1985's big agreement, Telefonica brought Spain into partnership with AT&T, the worldwide leader in communications. This time there was an alliance: in the past the U.S. company had considered establishing a base in Madrid. That was in the time of Alfonso XIII, and a partner was sought in the United States to develop the telephone system: either AT&T or ITT. ITT won the contract. The two companies later reached an agreement giving AT&T the U.S. market and ITT the international market. And that was the origin of Standard Electrica.

Now the two companies will meet once again in Spain. Things have changed since that time: AT&T has lost its monopoly in the United States, and turned toward the world market. It now has agreements with Philips, with Olivetti, and in Spain with Telefonica. This is a well reasoned out agreement: "New technologies in the field of communications have forced Telefonica to make up its lag in semiconductor design and manufacturing. The added value of equipment is now found in chips." This statement was made by Victor Goyenechea, an executive of the Telefonica group. Does this mean that things have basically not changed since the company's founding?

Industrial Strategy

What has changed are areas of emphasis, needs, and marketing strategies. Telefonica likes to describe itself in the 1980s as a group of companies, rather than an industrial group; the company is working on incorporating technology with a high added value rather than simply expanding its network. It has decided to divest its stock in companies of the group in order to open it

up to private capital, even though it will keep controlling packages and will be making use of its purchasing capacity. In addition, it would like the companies in which it holds shares to diversify their clientele and engage in the healthy exercise of exporting instead of relying solely on Telefonica for their business. In fact, the dependence of these companies on the Telefonica market declined six points in 1985; it is now supposed to be about 55 percent.

These ideas lie behind many of the operations which have taken place in recent months and others that will take effect in the midterm: Amper is one example of how Telefonica plans to give more influence within the group to the banks which are part of the company; Central, Banesto, Hispano, Bilbao, and Santander--and to Stock Exchange investors. "The presence of private capital on the boards will force management to become more moderate and efficient," noted Goyenechea. The company is now studying other operations in which it might conduct a "nuanced reprivatization"; it seems very probable that the Sintel company--which is 100 percent owned by Telefonica--may be the next.

Other companies that may be the target of such operations are Intelsa [Telecommunications Industries, S.A.] and Telettra. Telefonica now holds 49 percent of Intelsa--the Swedish multinational Ericsson owns a 51 percent controlling interest. In Telettra, Telefonica holds 51 percent of the stock, with the remainder belonging to the Italian parent company. "These operations would be more complicated," said Goyenechea, "because with a possible sale of shares on the Stock Exchange, the foreign partners want guarantees about the control of these companies." Although the company isn't in any great hurry to carry out these plans--they estimate a period of about 4 years for their execution--the intent to do so has been decided.

Purchases play a fundamental role in this strategy. "Planning of purchases is part of a predetermined plan, which serves both to improve Telefonica's internal management and also to stimulate Spain's entire communications sector," noted Victor Goyenechea. This dispels any doubt about the company's intentions regarding their firms. "Never have we considered abandoning the industrial sector," said Goyenechea, "but we have to keep the market from becoming so locked up that the companies forget that they should diversify and export."

Other member firms of the group are being given a different treatment. Telefonica has continued to add new subsidiaries in recent months, "wherever there were strategic sectors being overlooked," remarked Goyenechea. Thus, the number of firms created by the company doubled in recent months, including firms such as Telefonica Sistemas or Telefonica y Datos. But the most striking feature was certainly the development of agreements with top-ranked international firms, which have two purposes: to give Telefonica a multinational impact and to attract new technologies to Spain.

Foreign Partners

This month the latest major operation is being concluded: an agreement with the German firm, Siemens. Its objective; to produce cables for optical fibers. This will complement one of the 1985 contracts, with the U.S. firm, Corning Glass, to manufacture optical fiber in Spain. The creation of this joint enterprise with Corning Glass--1.05 billion pesetas in capital, with 65 percent held by Corning and 35 percent by Telefonica, with a scheduled investment of 3.5 billion pesetas--is about to be settled. Corning Glass, in conjunction with Siemens, has established a joint firm, Siecor. The Telefonica-Siemens contract will complement this--optical fiber plus the cable that surrounds it--in a field with a strong future; digital communications.

More Sales, More Profits

(Most representative subsidiaries and shares in ownership, in millions of pesetas) [except as noted with *: billions of pesetas].

		1984 Data		Provisional 1985 Data	
Name	% Telefonica	Sales	Results	Sales	Results
Amper, S.A.	87.5	4.271*	138	7.200*	381
Cables de Comunicaciones,S.A.	49	5.770*	765	6.200*	150
Cetesa	97.33	4,910*	67	5,705*	100
Cosesa	94,14	5,457*	1	5.750*	25
Etasa	100	1.810*	128	1.700*	80
Entel,S.A.	100	2.960*	61	3.500*	150
Grafibur	100	571	58	550	20
Hispano Radio Maritima	100	1.939*	(373)	2.200*	20
Intelsa	49	11,476*	1,305	12.500*	550
Secoinsa	23.75	10,291*	158	11.900*	100
Sintel,S.A.	100	13.749*	496	16.800*	530
Standard Electrica	20.64	52.763*	(650)	69.000*	
Telettra Expanola, S.A.	51	9.770*	101	11.600*	300

Note: The 1985 results are estimates at the close of the fiscal year. Other firms which were recently created, such as THM, Indelec, and Telefonica y Datos, have not been included in this chart, as their results are not representative. Nor have some other firms been included, such as Urbana Iberica, in the process of liquidation; or Telefonica International, a firm formed to control foreign currencies. The complete group's total billing in 1985 was 150 billion pesetas; its profits were 3 billion pesetas. Telefonica's participation in Amper will be reduced to 16 percent in 1986.

"With these agreements, we now consider our major projects completed," said Victor Goyenechea. The time has come to implement them. And that will be no small job: a number of contracts were signed during 1985, including the following. With the gigantic U.S.-based AT&T: the manufacture of integrated circuits in Spain, with AT&T holding a majority interest of 80 percent of the capital of 11.375 billion pesetas and estimated investments of 35 billion pesetas. With the Japanese firm, Fujitsu: a merger with Secoinsa [Spanish Communications and Data Processing Company, Inc] to create Fujitsu Espana, about to be set up with a capital of 6 billion pesetas, with Fujitsu holding 60 percent and Telefonica 40 percent. Telefonica became the owner of Secoinsa after taking it over from the INI [National Institute of Industry]. One further item: an 8.3 percent share in the European holding, ES2, which is to develop and manufacture integrated circuits to order, and the intention of forming a joint 50/50 compnay with Telefonica-ES2 for designs in Spain. And as if all this were not enough, Entel [National Telecommunications Company] is seeking a name for another joint venture, with a capital of 300 million pesetas, 70 percent owned by Entel and 30 percent by the Norwegian firm, Sysscan. It will work in the field of digital mapping. When Pacific Telesis begins construction of the research and development center contracted by Telefonica in Madrid, it is going to meet all of its communications colleagues in Spain.

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