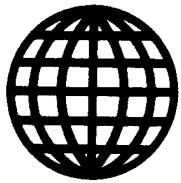


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11 JUNE 1987



**FOREIGN  
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# ***JPRS Report***

## **Telecommunications**

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11 JUNE 1987

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## INTER-AFRICAN AFFAIRS

### LIPTAKO-GOURMA PROJECT INAUGURATED

Ouagadougou SIDWAYA in French 16 Mar 87 p 6

[Statement by Liptako-Gourma Authority: "Inauguration of the Communications Network at Mopti"]

[Text] On 13 and 14 March 1987 in Mopti (Republic of Mali) there took place the inauguration of the telecommunications network of the Liptako-Gourma Authority, presided over by His Excellency Moussa Michel Tapsoba, the minister of equipment of Burkina, representing the president in office of the council of ministers, and in the presence of the authority's ministry trustees and the postal and telecommunications ministries of the member countries.

Present at this ceremony will be representatives of the funding agencies (African Development Bank, Nigeria Trust Fund, Central Fund for Economic Cooperation), suppliers and many guests.

This major project, which will integrate the telecommunications networks of the member states (Burkina, Mali, Niger) has the following parts: 4,650 telephones; 22 local subscriber networks; 10 telephone switching stations, 8 automatic and 2 manual, with a potential to handle telephone and telex traffic of upwards of 2,710 lines; 4 subscriber concentrators; 1 rural telephone liaison system of the 1500 IRT type with a 126-line capacity; 1,500 km of liaisons in Hertzian bundles and buildings for postal and telecommunications administration as well as logistical support.

The overall cost of the project, which was financed by the African Development Bank, the Nigerian Trust Fund, and the Central Fund for Economic Cooperation, is 10,122,400,600 CFA francs.

In Burkina, the project made the following possible: supply of 1,750 telephones; construction of three automatic switching stations (Dori: 200 lines; Kaya: 400 lines plus through traffic; and Kantchari: 100 lines); service by rural telephone to the towns of Diapaga, Namounou, Arly, Gorom-Gorom and Markoye; setting up liaisons in Hertzian bundles totaling 541 km for the two routes Ouagadougou-Yako-Ouahigouya-Mali border and Ouagadougou-Kaya-Dori-Niger border; construction of local subscriber networks in Dori, Kaya, Yako, Ouahigouya, Gourcy, Markoye, Gorom-Gorom, Kantchari, Diapaga, Namouni, Arly,

Ziniare, and Tougouri; construction of buildings for the Postal and Telecommunications Office as well as provision of logistical support; training for about 40 agents to use and maintain the telecommunications network.

Similar actions were also carried out by the two other member countries (Mali, Niger).

Thus the Liptako-Gourma telecommunications network allows the different urban and semiurban centers of the region to leave their isolation behind them and contribute toward strengthening the secular ties of solidarity and fraternal cooperation which exist among the peoples of the member countries.

12789/6091

CSO: 5500/8

GHANA

SUB-SAHARAN AFRICA

BRIEFS

RURAL RADIO COMMUNICATIONS SYSTEM INAUGURATED--This year's world telecommunication day has been marked in Ghana with the inauguration of a rural radio communications system at Hohoi in the Volta region. The theme is: telecommunication in the service of nations. Under the system, the Posts and Telecommunications Corporation will link the rural areas and industrial sites in the remote locations to the national network. At the function, the director general of the corporation, Colonel Kwasi Pong, said the corporation has now embarked on a scheme to extend its services to other urban and rural areas where the majority of the population lived and produced the bulk of the nation's wealth. The regional director of the corporation, Mr Akakpo Siti, announced that national telecommunication rehabilitation and extension projects for the region are going on according to schedule. This has enabled the Ho exchange capacity to be increased from 600 to 1,000 subscriber lines. He announced also that a new exchange of 300 lines has been completed at Denu and Aflao. [Text]  
[Accra Domestic Service in English 2000 GMT 15 May 87 AB] /6662

CSO: 5500/50

TOGO

SUB-SAHARAN AFRICA

BRIEFS

FRANCE TO PROVIDE COMMUNICATIONS AID--The Central Fund for Economic Cooperation [CCCE] has just granted Togo another financial package. Komlan Alipui, Togolese minister of finance and economy, represented his country while (Olivier Bourgnon), director of the CCCE, represented France at the signing of the financial agreement in Lome this morning. Under the agreement, 800 million CFA francs from the CCCE will be invested in the establishment of a posts and telecommunications corporation, which will be in charge of both national and international mail services, as well as national telecommunications services. A joint satellite company, which is to be created, will manage international communications. This investment program includes assistance for the creation of a posts and telecommunications corporation; the establishment of an up-to-date inventory for the corporation; the drawing up of a financial and accounting system for the corporation, and the setting up of a training program. [Excerpts] [Lome Domestic Service in French 1230 GMT 15 May 87 AB] /6662

CSO: 5500/50

## NORTHERN TELECOM PLAN TO BOOST EUROPEAN BUSINESS REPORTED

Toronto THE GLOBE AND MAIL in English 1 May 87 p B4

[Article by Lawrence Surtees]

[Text]

Rumors continue to swirl on both sides of the Atlantic that Northern Telecom Ltd. will make a major acquisition in Europe, following the rejection of its offer to buy Cie Générale des Constructions Téléphoniques of France.

The French Government surprised industry experts and stunned U.S. officials when it sold state-owned CGCT to L. M. Ericsson AB of Sweden last week. A joint venture between American Telephone and Telegraph Co. of New York and NV Philips of the Netherlands had been favored to win CGCT, which controls 16 per cent of the French market for computerized telephone switches.

Both Northern Telecom, based in Mississauga, Ont., and Siemens AG of West Germany also bid for CGCT. However, because of CGCT's financial losses and the amount of money the buyer will have to invest in it, some financial analysts are relieved Northern Telecom lost the bid and think its money will be better spent elsewhere.

Northern Telecom has a war chest of \$280-million (U.S.) in cash and has stated its intention to increase its presence in major European markets.

The company dominates the

North American telecommunications equipment market along with AT&T, but its share of the European market is meagre.

For the three months ended March 31, Northern Telecom had a profit of \$60.1-million on revenue of \$1.1-billion, compared with \$50.1-million on revenue of \$970-million for the corresponding quarter a year earlier. Share profit rose to 46 cents from 37 cents.

The company posted a profit of \$313.2-million on revenue of \$4.4-billion in 1986, compared with \$299-million on \$4.3-billion a year earlier. Share profit was \$2.45, compared with \$2.36.

Only 5 per cent of Northern Telecom's 1986 revenue, or \$213-million, came from outside North America.

Although it ranks second in North America, Northern Telecom ranks third in total worldwide market share, according to estimates from Northern Business Information Ltd. of New York. AT&T has almost 34 per cent of the world market; Alcatel NV of France has almost 15 per cent; Northern Telecom has 8.1 per cent; NEC Corp. of Japan has 7 per cent; Siemens ranks fifth with 6.2 per cent; Ericsson has 5.4 per cent; and all others have 24.6 per cent.

Edmund Fitzgerald, chairman and chief executive of Northern Telecom, said Europe is the fastest-

growing international market for the company and it is seeking to strengthen its business there, as underscored by the bid for CGCT.

He told the Toronto Society of Financial Analysts in early April that he expects Northern Telecom's offshore business to account for 15 per cent of its revenue by the early 1990s.

The company may make acquisitions and enter joint ventures to increase its European business. "Direct investment and strategic alliances are all in our copybook," Mr. Fitzgerald told the Financial Times of London.

Alliances between telecommunications companies in Europe are becoming more important, particularly in the wake of Alcatel's acquisition last year of the European business units of ITT Corp. that made it the second-largest telecommunications equipment maker. For example, AT&T has forged partnerships with Philips and with Olivetti SpA of Italy.

Bruce Tavner, head of Northern Telecom PLC, said the company will be more likely to enter alliances in individual countries, but did not rule out the prospect of a single partnership across Europe.

To get more business in West Germany, Mr. Tavner indicated Northern Telecom may build a fac-

tory there, although he would not indicate when. The company's British unit has factories in Britain and Ireland.

Mr. Tavner said the company wants to increase European sales to \$350-million next year from \$200-million in 1986, a target that excludes any increase from potential acquisitions.

The liberalization of many state-run markets in Europe has increased competition and the likelihood of acquisitions in many countries.

Some analysts believe Northern Telecom's best chances for an acquisition or alliance are in Britain. Two candidates are General Electric Co. PLC and Plessey Co. PLC. GEC's attempt to buy Plessey for \$2.4-billion was rejected by the British Government last year. Although Northern Telecom may not want or be able to afford all of Plessey, it might look for an unwanted unit or a partnership.

At least one industry source who does extensive business in Britain thinks GEC may put one of its units on the block. Either GEC or Plessey might want to sell their stake in their jointly produced System X. GEC also does extensive business in fibre-optic transmission systems, an area that Northern Telecom has targeted for expansion.

/13046

CSO: 5520/30

## BRIEFS

FIBER OPTICS DISTANCE BREAKTHROUGH--Calgary (CP)--Engineers from Northern Telecom Canada Ltd. and Alberta Government Telephones say they have made a breakthrough in voice and data signals transmission. The two companies say the breakthrough involves the distance over which voice and data signals can be transmitted in a fibre-optics network without the use of repeater equipment. Using Northern Telecom fibre-optics cable and opto-electronics equipment installed by Alberta Government Telephones, the engineers completed what was termed the first long-distance North American transmission of voice and data signals. They were transmitted over a 107 kilometre route from downtown Calgary to Canmore. Repeater equipment is usually required at 40-kilometre intervals along a fibre-optics network to regenerate the digital light signals. The companies said in a statement the system recorded 400 error-free hours of transmission over fibre-optics cable. [Text] [Ottawa THE OTTAWA CITIZEN in English 1 May 87 p E1] /13046

TELECOMMUNICATIONS FINANCING FOR TURKEY--Canadian banks are loaning money to Turkey again after the federal government removed the country from its watchlist of debtor nations. The Export Development Corp. said Tuesday a consortium of banks, led by the Royal Bank of Canada, has agreed to provide financing for a major sale of Canadian telecommunications equipment to Turkey. Earlier this year, the federal government agreed to remove Turkey from a list of 32 countries for which Canadian banks must set aside special reserves in the event of default. The Royal consortium is supplying \$18 million of a \$204-million loan package given to Turkey by the development corporation in September 1985. [Text] [Ottawa THE OTTAWA CITIZEN in English 29 Apr 87 p D12] /13046

TV TRANSMISSION TO NEW ZEALAND--Teleglobe Canada Inc. will provide a television transmission service from North America to Pacific locations for the Broadcasting Corp. of New Zealand. Teleglobe said the five-year contract is worth \$2.8-million. The link will carry U.S. and European television signals to New Zealand through an antenna at Lake Cowichan on Vancouver Island linked to the Intelsat V satellite. Teleglobe is a unit of Memotec Data Inc. of Montreal. [Text] [Toronto THE GLOBE AND MAIL in English 1 May 87 p B4] /13046

CSO: 5520/30

## SATELLITE GROUND STATION SITE SELECTION CRITERIA

Beijing DANZI SHIJIE [ELECTRONICS WORLD] in Chinese No 7, 15 Jul 86 pp 4-5

[Article by Zhang Heren [1728 0735 0088]: "Selection Criteria of Satellite Communications Ground Station Sites"]

[Text] Communications satellites today in China have passed the testing stage and entered the application phase. An important task now is to expand the development of communications satellites. The realization of a satellite communications network is no longer in the distant future. The first problem encountered in the building of a communications satellite ground station is the selection of a qualified site. Based on the author's experience, the selection of a ground station site should include the following four considerations.

I. Interference by Ground Communications in the Same Frequency Band

As is well known, a communication satellite is a microwave relay station located at an altitude of 36,000 kilometers. Due to various constraints, the satellite cannot transmit to the ground with a large power and, because of the large distance, the signals received by the ground station are extremely weak. As a result, very low-level ground communications signals in the same frequency band can be greater than the signals transmitted from the satellite and interfere with the reception or disrupt the normal communication. It is therefore important to avoid the interference by ground signals in the same frequency band, especially in the direction of the ground to satellite communication. Detailed data must be collected for the orientation, frequency band, and power of microwave lines, radar stations and high-power shortwave stations in the considered site of the ground station. Extensive work should be done to calculate the voltage of the interfering signal and to actually measure such signals in the field. The following factors should be taken into account in the calculation and measurement of the interfering signals in the same frequency range:

1. The effective power of the interference source.
2. Antenna gain of the interference source in the direction of the ground station.

3. Antenna gain of the ground station in the direction of the interference source.
4. The free space electromagnetic attenuation between the interfering source and the ground station.
5. Shielding factors of ground structures.

It is worth pointing out that shielding structures may block the interfering signals and make the site selection of the ground station much easier. We may make use of natural and man-made shielding structures to improve the performance of the ground station.

By considering the above factors, the interference signal voltage level may be computed and measured. Then, based on an analysis of the communication type and activities of the ground station, a preliminary decision can be made regarding the desirability of the candidate site.

In addition, any spark of electrical devices may interfere with the antenna communication system. The ground station should therefore avoid plants using electrical machinery, research institutes, electrified railroads, high voltage transmission lines, airports and flight routes, especially in the direction of communication. If ground interference sources cannot be avoided, then the optimum distance for minimum interference should be calculated.

Also considered should be the communication performance of the ground station when the antenna is pointed at the satellite and the possibility for long-term use. In other words, the communication performance of an antenna pointed at a low elevation angle should be fully analyzed. The azimuth and elevation angle of the ground station antenna must be properly chosen. Based on the above analysis, the best environment of a ground station in China is surrounded by mountains or other shields in the east, north and west to block any interference signals and leaving the south side unshielded or at least meeting the requirements for the minimum elevation angle. Any shielding structures in the south side may increase the noise level entering the antenna and lower the signal-to-noise ratio. It is generally believed that the thermal noise entering the antenna may be neglected if the elevation angle difference between the horizon and the satellite is greater than  $5^{\circ}$ .

## II. Avoid Severe Weather Zones

Weather should also be considered in the selection of a ground station site. Severe weather can increase the transmission loss and noise in the satellite communication channel and thereby degrade or disrupt the operation of the system. Meteorological data such as the occurrence of severe winds, heavy snowfall, torrential rain and dense fog at the candidate site should be obtained to understand the weather pattern and severity. Wind gaps, river channels, and foggy areas should be avoided. The weather data also serve as a basis for determining specific weather resistance requirements of the ground station against wind, ice or snow.

### III. Locations With Unstable Mantle Should Be Avoided

Detailed hydraulic and geological data should be collected for the preselected site based on the size of the ground station, the diameter and weight of the antenna, the type of communication, and the development plan. Earthquake fault lines and unstable geological locations must be avoided. Because of the large weight of the antenna and the high accuracy required in tracking the satellite, the antenna site must have precise nonuniform settling standards. If these standards are not met, the satellite tracking system would have difficulty in operation and may not perform the communication functions.

The water quality at the ground station site should be good. This is important not only to the cooling and air conditioning of the station but also to the living needs of the station personnel. The environment should be noncorrosive to the equipment.

### IV. Promixity to Cities and Shortest Possible Communication Lines

The site should be selected at pleasant locations close to cities with easy access. Since the microwave communication network in China has not reached a high density, this is easy to achieve. The communication lines can be made as short as possible in order to maintain high signal quality. In the meantime, close proximity to cities also provides convenience for the workers and their families.

From the discussion above, the construction of satellite communication ground stations is an integrated communication engineering task. As China establishes its satellite communication network, various types of ground stations will be quickly built all over the country. This will undoubtedly promote the four modernizations of China.

Since the ground stations built at different locations will be of different types and have different communication functions, the selection of the station type, performance standards, and equipment should not only satisfy the communications requirements but also the economic considerations. This is an important issue before all the satellite communication workers and is key to the success of China's satellite communication network.

Since the satellite can perform a number of communication functions, the ground stations may be divided into different types according to their function, utility and characteristics. The division can be made according to the size of the station, or the diameter of the primary reflection surface of the antenna. It can also be made according to the utility of the station. The ground station can be fixed (standard stations and small stations), mobile (on ships or aircraft) or portable (on vehicles or carried).

Generally the fixed standard stations are used for international communications and small fixed stations are the ones with an antenna diameter less than 10 meters. The small stations are used in the transmission of television broadcasting, telephone calls and data. Using the broadcasting communication

satellite launched by China on 1 February 1986, small ground reception stations based on 4.5 m and 6 m diameter antennas designed and produced in China can satisfactorily meet the broadcasting, television and telephone needs. This is no doubt a good news for providing satellite communication services to cities and villages in China.

9698/13046

CSO: 5500/4143

EDITORIAL VIEWS DEREGULATING, PRIVATIZING TELECOMMUNICATIONS

Melbourne THE AGE in English 6 May 87 p 13

[Article: "Looking Again at Telecom"]

[Text]

**F**OR several months now there has been talk of the Federal Government deregulating parts of the telecommunications industry, or even privatising Telecom. At present Telecom enjoys a monopoly in the field of supplying and installing first telephones. It is a situation which Telecom is understandably keen to see maintained. However, that may prove impossible, unless the Government is prepared to introduce special protective legislation. Legal advice suggests that Telecom's monopoly over the provision of first phones and small business systems and the maintenance of PABX systems may be in breach of the Trade Practices Act.

In the circumstances, the Government has no choice but to look at the question of Telecom's market dominance and decide whether it should be preserved or not. There are strong arguments on either side. The chief argument for deregulating the industry is that it would open up the field to competition, and therefore to the possibility of greater efficiency and lower charges. That is an argument which would no doubt appeal to Telecom subscribers. As most telephone users discover to their annoyance, Telecom is too often inefficient, with customers faced with delays in receiving what should be simple services.

Telecom has suggested that dismantling its monopoly could threaten 26,000 jobs. The claim seems dubious — presumably many of those displaced would be employed by Telecom's new competitors. If, indeed, many jobs were permanently lost, this could be taken as evidence of overstaffing under the present system. The worry about deregulation is that, while it would doubtless help to eliminate some undesirable work practices, it could also expose Australia to what the Minister for Communications, Mr Duffy, has called an "enormous flood" of imported telephones and other equipment into Australia, at the expense of local industry suppliers and the trade balance.

Telecom spends \$1.45 billion on technical equipment and materials and a further \$70 million on research and development each year.

Ultimately, the question that the Government has to ask itself in this matter, as in all matters involving deregulation or the sale of public assets, is where does the public interest chiefly lie. If the effect of selling off part of Telecom and/or deregulating the telecommunications market was to be greater efficiency and lower charges, the move would be desirable. But if it would do irreparable harm to local industry suppliers, as well as leaving people outside the major cities facing higher installation and service costs or reduced service, the idea would be much less attractive. In the short term, the best solution may be for the Government to introduce temporary legislation exempting Telecom from the Trade Practices Act while the matter is examined further. If changes are to be made to the industry, they should be gradual and properly thought out.

/9317

CSO: 5500/4320

MYSTERY GROUP EYEING HONG KONG TELEPHONE MONOPOLY

Hong Kong SOUTH CHINA SUNDAY MORNING POST in English 19 Apr 87 p 3

[Article by Vicky Wong]

[Text]

A MYSTERIOUS third contender is interested in grabbing a slice of the Hongkong telecommunications pie.

But the third party has been hiding behind Strategic Planning Associates Pte Ltd, a Singapore management consultant company which is currently assessing the potential market for a contender to the Hongkong Telephone/Cable and Wireless telecommunications monopoly.

In the past few weeks, SPA has blitzed 250 of Hongkong's top telecommunications users with a highly-detailed postal questionnaire seeking information on their views and needs.

Several of those on the receiving end, however, have found the 29-page postal survey, a copy of which has been obtained by the *Sunday Morning Post*, far too long and asking for information which is far too confidential.

According to SPA manager Mr Bruno Salle, it is definitely not Hutchison which has commissioned the survey, although he declined to disclose which company had done so.

The Hutchison group has already declared its interest in bucking the Hongkong Telephone/Cable and Wireless monopoly in Hongkong,

and the Government is currently examining the merits of deregulation.

What is intriguing, however, is that SPA, which does not have an office in Hongkong, is conducting its work from the offices of a local market research company, Research for Marketing (HK) Ltd.

According to records filed at the Companies Registry, Research for Marketing is a Hutchison subsidiary.

Mr Salle said yesterday that he did not know that Research for Marketing was a Hutchison company.

He said that SPA chose Research for Marketing from the many local firms available to provide the Singapore company with a temporary Hongkong office as well as a "mailbox".

Mr Salle said that the Hutchison link poses no problem since he believes that "every company is ethical" and Research for Marketing is not involved with the actual research, but only redirects mail.

According to Mr H.L. Chan of Research for Marketing's, the arrangement with SPA is similar to a "joint venture" under which the Hongkong company splits the cost of offices and manpower.

Hutchison Telephone general manager Mr Jimi Lee said it was "definitely not" his company that commissioned the SPA survey. He said he did not know who the mystery contender might be, although he said the telecommunications authorities of several countries as well as various international telecommunications operators have looked into the development potential of the Hong-kong market.

A manager who has received the SPA questionnaire said the survey was "dynamite", asking many questions on confidential information which, if disclosed, could allow the recipient to build up a profile of the company.

The information sought includes a company's major business area, number of employees, annual turnover and information about all its communications facilities.

Questions also include a company's use of local and international telephone services, telex, facsimile, local and international leased voice/data circuits, data communication network, local area network, electronic mail, electronic fund transfer, cash

management system, database access and its mobile telephone facilities.

In many of these services, information is being sought on how much a company spends a year as well as the countries with which the company most frequently communicates.

Respondents have also been asked how satisfied they are with existing services and whether they would welcome more competition in the telecommunications field and a breaking of a monopoly.

Several of Hongkong's major survey research firms have told the *Sunday Morning Post* that they had not been approached to conduct a postal telecommunications survey here.

According to Ms Angela Leung of Frank Small and Associates, who has seen a copy of the SPA questionnaire, the survey is likely to receive a "very, very low" response rate.

The questionnaire was badly presented, far too long, and asked too many open-ended questions for a postal survey, she said. There would be little incentive for managers to respond to such a lengthy questionnaire.

/9317

CSO: 5550/0137

PLANS TO LINK HONG KONG TO OPTICAL FIBER NETWORK

Hong Kong SOUTH CHINA MORNING POST in English 24 Apr 87 p 6

[Article by Peter Robinson]

[Text]

CABLE and Wireless expects to begin work within the next month on a US\$200 million (about HK\$1.6 billion) project to link Hongkong to a high volume global telecommunications highway.

The company has just got the go-ahead for the US end of the Pacific optical fibre network but Japan is stalling over allowing a foreign company to link up with its, so far highly protected network.

The optical fibre link will offer a cheaper, more reliable and higher capacity service to satellite transmissions for voice and data. But marketing director Mr John Slaughter said it would not mean reduced tariffs.

"It will reduce the unit cost of telephone channels over long distances, offering considerable productivity benefits. And, while it will not reduce charges, it will reduce the pressure to increase charges as a result of inflation. It will also allow a greater facility for mainframe computers to talk to each other at high speed in real time without fear of interruption and for other services such as cable television," he said.

Work on the London-New York and Seattle-Tokyo links is in progress and should cost around US\$300 million (about HK\$2.34 billion) each. But it is the issue of who should operate the service from Tokyo which is proving contentious.

Some highly placed Japanese officials claim the network is not needed and there is feeling that foreign firms should not be allowed to make inroads into Japan's telecommunications system.

On the surface the situation looks similar to that in Hongkong where Cable and Wireless and its subsidiary, Hongkong Telephone are currently seeking to preserve their telecommunications monopoly. They are denying the need for the additional service British Telecom wants to provide.

However, Mr Slaughter claims the two situations are entirely different. "We do not see the same requirement in Hongkong. Elsewhere the demand for these additional services came from the public.

This was the situation in the UK in the early eighties when the Government approached Cable and Wireless saying that people wanted

better telecommunications services and were even having to go abroad to get it. They asked for an alternative network to the Post Office service (now British Telecom) and that was how the Cable and Wireless Mercury network began in the UK.

"In Japan there was the same growing imperative with a stale service provided by the local providers NTT and KDD, not providing what people wanted. In Hongkong the reverse is the case, with no pressure from users of the telecommunications system.

"The pressure here has come from the company wanting to get in and provide a service and that is what concerns us. In Japan we are going there not because we are demanding it but because Japanese users have been putting pressure on the Government."

In Japan there are two rival groups. Cable and Wireless has a 20 per cent stake in one consortium, International Digital Communications Planning. There are tentative plans to merge this with the other consortium, International Telecom Japan.

This would involve eight partners and the issue is

whether foreign partners can participate and whether such a merger would severely reduce their stake. The charge of protectionism which has reached a crescendo in other trading areas with Japan is now being applied to the telecommunications scene.

Mr Slaughter said: "It is unlikely now that they will say that foreigners cannot participate. There is a lot of feeling that Japan should bring in foreign firms and not have such a protected situation and MITI now looks keen for this to succeed. But it is difficult to say, with the present Nakasone situation — it is all rather a movable feast."

There are alternatives to landing the Pacific cable in Tokyo but since it is the nearest point and also the largest telecommunications centre in the region it is the logical place.

When a link has been established to South Korea, other countries in the region will be added. There will also be a link via Guam and Hawaii and the Philippines to Tokyo. A contract to link East and West Malaysia has recently been signed and Singapore and Brunei should be linking in along with Australia.

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CSO: 5550/0138

PAPER INTERVIEWS CABLE AND WIRELESS FAR EAST CHIEF

Hong Kong HONGKONG STANDARD in English 2 May 87 Supplement p 3

[Article by Cathy Shergold]

[Excerpts]

LESS than a month into his new role as Cable and Wireless plc's Far East director, well-known telecommunications supremo Eric Walker does not intend to get his wires crossed.

His first task has been to set in motion a co-ordinated public affairs programme, ensuring that Cable and Wireless and its subsidiary companies present a united corporate front to the public.

"It is obviously unwise for any organisation to be speaking with more than one voice. As far as Cable and Wireless is concerned, we know we're good, but does everyone else?" Mr Walker said.

"As someone who is not a professional engineer — or, indeed, a professional anything — but an administrator, I tend to see things from the customer's viewpoint."

The former head of Hongkong Telephone returned to take up his new position with the global telecommunications giant on April Fool's Day after a two-year period of semi-retirement in Portugal.

During his semi-retirement, Mr Walker kept in close contact with the Far East, as his non-executive directorships on the boards of Cable and Wireless Hongkong and CTM in Macau called for quarterly visits to attend board meetings.

And his more than 10 years' experience with Hongkong Telephone prior to his departure in 1985 obviously stood him in good stead when Cable and Wireless put out the call for a Far East director.

Now back manning the corporate switchboard, Mr Walker has spent his first month learning about his new responsibilities, the geographic spread of which covers Hongkong, Macau, the Cook Islands, the Philippines, China, the Solomon Islands, Tonga and

Looking further ahead, Mr Walker said his main concerns were the continued growth of the company, to improve service and to ensure that the group's interests were properly managed.

As far as Hongkong and China are concerned, growth in terms of phone traffic continue to be phenomenal, he said, with constant upgrading of pro-

ducts on the mainland increasing IDD traffic there and Hongkong's rapid pace of development adding to demand almost daily.

Other services are also keeping pace, with telex the only one not moving forward rapidly. Mr Walker attributed the slowdown in telex to the quantum leap forward in time and cheapness taken by the facsimile and other forms of electronic mail.

On the well-publicised cable television wars, Mr Walker said Cable and Wireless was not averse to competition but that it was unfortunate that the battle of words had been conducted through the press.

But when an incumbent company is publicly challenged by a newcomer, such statements cannot be ignored.

"We believe that, provided use is made of the existing network augmented to carry cable television, then that is the vehicle to be used," he said.

"And if the government licenses one or more providers of cable television over that network, then we would be fairly relaxed about it, as the more use made of the network, the more stable telephone charges would be."

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CSO: 5550/0139

HONG KONG

BRIEFS

SATELLITE DATA TRANSMISSION--A new satellite-based broadcast service which will make it easier and more cost effective to deliver press and business information simultaneously to locations in Europe, Africa, the Middle East and the Asia-Pacific region will be introduced on September 15. This new data broadcast service, using the virtually error-free Spread Spectrum technology developed by Equatorial Communications Co of the United States will be known as the Cable and Wireless (HK)/Equatorial World Broadcast Service. An agreement to implement the World Broadcast Service from Hongkong was signed on Monday by representatives of Cable and Wireless (HK) and Equatorial Pacific International Co NV. [Text] [Hong Kong SOUTH CHINA MORNING POST in English 6 May 87 Supplement p 2] /9317

CSO: 5550/0140

# EFFECTS OF PLANNED MACAO TELEVISION EXPANSION STUDIED

Hong Kong SOUTH CHINA MORNING POST in English 27 Mar 87 p 1

[Article by Barry Grindrod]

[Text]

AN estimated three million Hongkong viewers will be able to switch on to Macau television by the end of the year, according to Teledifusao de Macau (TdM) administrators.

Hongkong's Postmaster General, Mr Hugh Ardley, however, doubts whether this will be technically possible.

Certainly large scale exposure in Hongkong would be a big attraction for parties interested in leasing TdM's proposed new Chinese channel. Media magnate Mr Rupert Murdoch is among them.

TdM's relaxed censorship policy and its promise not to follow Hongkong in completely banning cigarette advertising after 1990 could prove costly and embarrassing for the local stations, Television Broadcasts and Asia Television.

TdM administrator Dr Antonio Ribeiro said yesterday the station would increase its power output 25-fold by November as part of a widespread upgrading of the entire service.

This would also increase TdM's transmission range in China, which at present covers much of the special economic zones of Guangdong. Dr Ribeiro had no statistics on mainland viewing figures.

Only about 1,200 homes in Hongkong, primarily on Lantau Island and in part of the New Territories, can receive TdM at present.

"Our company is at a turning point," said Dr Ribeiro.

"Our budget has been approved, the way ahead is clear. We are out to make TdM a good broadcasting company and produce a better product both for the Macau and Hongkong public.

"We are looking at every opportunity to improve programs without compromise.

"We are building a new image of competence, of quality.

"We plan to be different to TVB and ATV. Because we are not as commercially orientated, our emphasis will be more on up-market programs. No soap operas for example," said Dr Ribeiro.

"We will not create any problems for the Hongkong establishment. On the contrary, the public of Hong-

kong will have a new option."

Mr Ribeiro said he believed Macau's prevailing censorship guidelines covering culture and religion were adequate.

He agreed Macau could benefit handsomely from Hongkong's decision to phase out tobacco advertising.

Postmaster General Mr Ardley confirmed last night that his telecommunications staff had spoken to TdM officials and were due to meet again to discuss an increase in power.

"My impression was that they were talking about a relatively low increase, but even with the highest output of power, I doubt if TdM could reach three million people in Hongkong.

"Lantau is in the way of most reception at sea level. You would have to be the equivalent of Mid-Levels or the Kowloon hills to receive it.

"As long as the frequency does not interfere with anything on our channels there is nothing we can do about it.

"TdM do not have to ask our permission to transmit. It happens so often where

one country's television can be picked up over the border in another country."

The proposition that Hongkong should jam an enhanced signal from Macau was only speculative.

A spokesman for TVB said she had heard of TdM's plans and considered any competition to be good for Hongkong.

She was unsure, however, if the TdM signal would be strong enough to ensure good reception and she doubted if the station had the facility to produce good local programs or whether Hongkong people would be interested in them.

TdM said it was confident it had facilities to produce local programs and had begun expanding production.

It was also looking to buy quality programs from around the world.

RTHK Director of

Broadcasting Miss Cheung Man-Yee said she had not heard of TdM's plans.

"RTHK makes only a few programs for television and we do not collect any commercial revenue from them, but if this plan goes ahead then TVB and ATV may have cause to raise their voices," she said.

Spokesmen for ATV and the Television and Entertainment Licensing Authority were unavailable for comment last night.

Administrator Dr Maria de Belem R.M. Coelho said a number of parties from various parts of the world had applied for the concession to the new Chinese radio and TV channels.

Applications close at the end of July, when a short list will be drawn up.

Dr Coelho said Mr Murdoch had expressed an interest in TdM but had not approached Macau direct.

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CSO: 5550/0129

ARGENTINA

BRIEFS

FM RADIO STATION OPENS--La Rioja, 16 May (TELAM)--A new FM radio station was opened last night in La Rioja. The 100-watt radio station is called FM Capital, is commercial, private, and transmits on 95.1 mhz. Pedro Villagas will be the radio station's director. [Excerpts] [Buenos Aires TELAM in Spanish 1424 GMT 16 May 87 PY] /8309

CSO: 5500/2041

# EMBRATEL AUTHORIZED TO REQUEST ORBIT FOR THIRD SATELLITE

Rio de Janeiro DATANEWS in Portuguese 23 Feb 87 p 14

[Text] Communications Minister Antonio Carlos Magalhaes has authorized EMBRATEL to ask the International Frequency Registration Board, an agency of the International Labor Organization [as published; presumably should read: International Telecommunications Union], to reserve another geostationary orbit for a third satellite for domestic and international service. According to EMBRATEL President Pedro Jorge Castelo Branco Sampaio, registration does not represent any cost to the country but imposes a period of 5 years for the placement of the satellite in orbit. Third Brazilian orbital position will be at 61 degrees West, a favorable placement for transatlantic communications.

## Idle Space

Castelo Branco also make it clear that the request is not connected with any pressure of demand. The two satellites in operation--Brasilsat I and II--have an occupation rate of only 18 of their 48 channels. The first satellite has 10 transponders allocated to telephone traffic, data transmission, and telex. Six channels serve the national networks and the international transmission of TV signals, and two transponders are leased to the military ministries but have not yet been used. There are still six idle channels on Brasilsat I and Brasilsat II is completely unused.

Larry Clarke the president of Spar Aerospace, the Canadian company that is the leader of the consortium that built the two Brazilian satellites, was in Brasilia with Minister Antonio Carlos Magalhaes and TELEBRAS President Almir Vieira Dias a few days after the request was made public. On that occasion, he announced the possibility of Brazilian companies participating with Spar in the construction of new satellites. He also expressed the intention of continuing to be in charge of production of the satellites that Brazil may require for its space program.

The total cost of the space segment of the Brazilian telecommunications program--construction of the two satellites and their launching--amounted to \$231 million. Of that total, the major part--\$85 million--went to the Spar-Hughes consortium. The launchings cost \$58 million. Payments by EMBRATEL to the international banks that financed the operation began to be made in 1985, the year of the launching, and should extend until 1996. The largest portion of that contract, \$41 million, will be paid that year.

## INPE

Despite the fact that the original plan provides for the launching of two other satellites only in 1993, since the forecast for utilization of the satellite system extends to the year 2000, the reservation for the placement of a third satellite received the support of the scientific community. The National Space Research Institute (INPE), an agency of the Ministry of Science and Technology responsible for the development of a satellite with its own technology, also considers that request opportune.

According to Eduardo Antonio Parada Tude, the director of telecommunications of the INPE's data-collection satellite project, the orbit capacity for artificial satellites utilized in telecommunications is limited. The orbital spacing, which used to be 10 degrees, has been reduced to 5 degrees to permit a greater number of satellites, but each country has an interest in certain placements, precisely where there is greater telecommunications traffic, thus the importance of advance reservation.

Parada Tude considers that "the investment that was made in ground stations is very high to have only one satellite in orbit." The ideal would be to go on using Brasilsat I and II, the reserve, and to have another reserve satellite on the ground for launching the moment that should become necessary. At the present time, we are disputing that orbital position with the United States and Canada, countries that have a very high number of satellites in orbit. Our argument is our territorial size and the fact that a large part of our territory is below the line of the Equator.

## Lease

In an attempt to reduce the idleness of the system, EMBRATEL has been seeking to lease some of the transponders of Brasilsat II to countries such as Peru, Bolivia, Argentina, Colombia, and Venezuela. Negotiations are well along with Peru but there is the possibility of the entrance into operation of the satellite recently recovered by the space shuttle, which will be relaunched into an orbit favorable to the telecommunications of Latin American countries.

While the lease of a transponder from Brasilsat and Intersat costs \$1 million, Pan American Satellite, the company that owns the recovered satellite, is planning to lease each channel of its system at a price of around \$700,000. "I doubt that the recovered Pan American satellite will offer the quality of one of ours," challenged the president of EMBRATEL. "We are now thinking of purchasing an even more sophisticated satellite that operates on Band K, at 11/14 GHz, whereas Brasilsat I and II operate on Band C, at 4/6 GHz. Band K will permit communications through small stations, reducing even more the costs of expanding the telecommunications network," he said.

8711

CS0: 5500/2037

## BRIEFS

DIGITAL PHONE SYSTEM--The early and successful changeover of the Virgin Gorda and Little Apple Bay digital telephone exchanges heralds the completion of the first part of the modernisation of the British Virgin Islands telephone system. On Tuesday 31st March the "Long Swamp" digital telephone exchange was successfully brought into service and for the first time customers on this exchange were able to use the "International direct Dialing" service. Only a week later, on Tuesday, 7th April, two more digital telephone exchanges were successfully brought into service; that is, "Virgin Gorda" and "Little Apple Bay", and for the first time, customers on these exchanges were able to use I.D.D. Further improvements are on the way. A new telephone exchange will shortly open at Virgin Gorda North to serve customers in that area. Also planned for the near future is a telephone exchange for Anegada. [Excerpt] [Road Town THE ISLAND SUN in English 29 Apr 87 p 3] /13046

CSO: 5540/099

## CABLE &amp; WIRELESS LAUNCHES ST VINCENT, BEQUIA PROJECTS

Kingston THE DAILY GLEANER in English 12 May 87 p 4

[Text]

**KINGSTOWN, May 11, CANA**

Cable and Wireless, the British telecommunications company, has launched a 2.6 million dollar (one EC dollar - 37 cents US) telephone exchange on the Grenadine island of Bequia, 10 miles south of St Vincent.

The project provided for international direct dialling facilities to telephone subscribers on the 6.9 square mile island.

The Bequia exchange launched yesterday is connected to the new digital telephone system which was inaugurated in most areas of mainland St Vincent in February last year.

Other exchanges at Layou and Georgetown have also been added to the system since then, and subscribers in most areas of mainland St Vincent and now Bequia are able to dial direct to over 130 international destinations including the United States, the United Kingdom, Canada and Caribbean islands.

Prime Minister James Mitchell who formally opened the exchange and inaugurated IDD in Port Elizabeth, the capital of Bequia, said

such facilities helped to improve conditions and brought the country and its people into new dimensions.

Mitchell said "as we use modern technology, let us understand how we can maintain our country and what standards we want to impose so that there is a proper blend between the new technology and the cleanliness of our own minds".

Charles J. Antrobus, general manager of Cable and Wireless in St Vincent, said EC38 million dollars had already been spent on the telecommunications expansion and improvement programme and that a

further EC30 million dollars had been earmarked for expansion of the system and services over the next five years.

It will include extension of the digital system to Union Island and Cannouan in the Grenadines and the small village of Troumaca on the north-western side of mainland St Vincent at a cost of EC4.3 million dollars.

An EC3.2 million-dollar two-storey building at the technical engineer centre at Arnos Vale on the outskirts of Kingstown is also part of the new five-year development programme.

/13046

CSO: 5540/100

CANTV PURCHASES TRANSPONDER FROM INTELSAT

Caracas EL NACIONAL in Spanish 19 Apr 87 p C-6

[Text] From now on, Venezuela will have a little "space" in space. For the first time, a space segment is being acquired in the country, involving, in this instance, the Intelsat V (F 13) Intelsat satellite, which can be put to different uses: telephony, television, telegraphy, data, and radio broadcasting.

The purchase was made possible through the National Telephone Company of Venezuela (CANTV) and the International Satellite Telecommunications Consortium (Intelsat), an organization whose purpose it is to put in space the satellites for international communications, while at the same time leasing or selling space segments (transponders) to the countries seeking them, in accordance with their needs, as CANTV's executive manager for development, engineer Pedro Barrios remarked.

Up until now, Venezuela had confined itself solely to leasing satellite segments, but now, with a little daring, it has decided to purchase one of those segments, the Intelsat V (F 13) number 37 transponder; a purchase approved in the contract dated 17 February of this year.

To note the results, it will be necessary to wait for a regulated period of time spent on the launching of the satellite, set for 15 August 1987; and then to undergo a period of adaptation, during which the putting into service, estimated between October and November of this year, will be determined.

The purchase of the transponder, for the first time, will cost a total of \$4.489 million, but it was well worth the trouble, because its installation will make it possible to provide services in different areas and, what is even more important, it will cover the entire national territory.

The number 37 transponder purchased has an orbital position of 307° east longitude, a band C (4/6 GHz) frequency, and belongs to the high-powered pencil beam type satellites. All these specific technical data translate into actual applicability in the country, because the scope thereof covers all of Venezuela.

The implementation of this new system will take place in the field of telephony, making it possible to open 80 two-way telephone channels; in television, specifically in the state channel; and in telegraphy, with data base, and radio broadcasting.

The purchase of this space segment could not be used to full advantage if a ground plan, which we might call infrastructure, were not devised, making the scope and projections of the satellite domestically practical.

Therefore, engineer Pedro Barrios observed, CANTV designed a system to establish domestic communications via satellite for Venezuela, known as Vensat; a Venezuelan domestic satellite project that will serve different border or remote towns in the country.

#### Interconnection of the Entire Territory

The system in question is intended to incorporate those towns which, owing to their socioeconomic, political, or strategic conditions, need to be interconnected to the national telecommunications network; or in which, because of their geographical conditions, access would be more economical through the satellite system, compared with conventional systems (radio links, cables).

Because of the multiple advantages that it offers, it was decided to put this system into effect. It provides greater flexibility, since the communications system is established through a satellite with total coverage of Venezuelan territory, making it possible to incorporate any town in the country into the network, to make expansions in the number of channels required, and to offer all the telephone, television, data, telex, and radio broadcasting services.

Furthermore, the number of stations to be maintained is smaller than that required by a radio link system, thus achieving a lower maintenance cost. The system can also be used as a contingency network for the national trunk network, making the necessary repairs to any route affected, in the case of failures.

And, finally, those independently managed networks, such as the Armed Forces and state enterprise networks, can be incorporated into the system, as can transportable stations; thus facilitating oil exploration and operations at production or mining sites.

This entire project will be executed in different phases, and will operate jointly with the recently purchased satellite segment. The system could not be applied without the satellite; and the same thing would hold true if the transponder were purchased and there was no infrastructure for putting it into operation.

It is expected that, by 1989, the fourth and final phase will be completed; and these steps will be taken in accordance with the different areas in which the work is being done. This decision is based on a study in which the demand recorded to date, the population density, the socioeconomic conditions, and the strategic requirements were taken into account.

A tentative order of priorities was also decided upon, because it might undergo some changes, depending on the requirements in each case, in consideration of the

needs of both CANTV and certain external needs cited by the Defense Ministry, BAUXVIVEN [Venezuelan Bauxite, Inc], and Venezuelan Petroleum, Inc [PETROVEN].

In this connection nearly the entire national territory will benefit from this project, which already has more of an aspect of application than on paper, because, this very year, the first phase will be starting, including Santa Elena de Uairen, El Dorado, La Paragua, and Icaribu (all in the state of Bolivar). The second phase will be carried out in 1988, and the stations will be located in San Fernando de Atabapo (Federal Territory of Amazonas), Maripa (Bolivar), and Maroa (Federal Territory of Amazonas).

The third part will occur in the same year of 1988, including the states of Apure, Anzoategui, and Bolivar, and the Amazonas and Delta Amacuro Territories. The fourth and final phase will take place in 1989, with San Juan de Manapiare (Federal Territory of Amazonas), Curiapo (Federal Territory of Delta Amacuro), Mucuchachi (Merida), and Bruzual (Apure).

All these facilities will operate as stations in which, besides installing telephone channels, it will be possible to receive television signals, which will be transmitted from the master station in Camatagua. This master land station is already installed and operating.

With the aid of the satellite segment that has been purchased, these facilities will allow for the interconnection among different parts of the country which, for one reason or another, need to be involved in the national telecommunications network. The idea is something akin to enabling the inhabitants of Santa Elena de Uairen or San Carlos de Rio Negro, where the wind does not return (according to Caracas residents) to feel that their presence is important.

2909

CSO: 5500/2038

## BRIEFS

EPABX MANUFACTURE--Calcutta, April 22--Northern Digital Exchanges Limited (NODE), a joint sector project of the Punjab government and Balarpur Industries Limited (BILT) of the Thapar group, to manufacture EPABX systems, is all set to start commercial production in June, according to Mr L.N. Thapar. The company has selected the technology of OKI of Japan and has also entered into the marketing arrangements with Crompton Greaves of their own group. The company will enter the capital market on April 27 for the NRIs and on May 4 for others, to raise a total Rs 1.6 crores to part-finance the project involving Rs 9.6 crores. The Punjab State Industrial Development Corporation (PSIDC) and BILT have contributed RS 88 lakhs and RS 77 lakhs as promoters' equity in the ratio of 26 and 25 percent respectively. The balance of the fund has been obtained as term loans from the financial institutions. Although NODE's immediate purpose is to produce 50,000 lines per annum of EPABX systems, Mr Thapar said extra investment would be made in the near future to manufacture complimentary subscriber terminal equipment such as facsimile and electronic telex. All models--from 10 to 5000 lines--of the system that the company will manufacture, will be fully digital with a totally integrated design of hardware and software, Mr Thapar claimed. The special feature of the process offered by the collaborator was the surface mounted technology for assembly of various components like integrated circuits, capacitors, resistors etc on printed circuit boards and this would make the total system more compact and less power consuming, he claimed. Mr Thapar said that NODE will have a sizeable share of the market of EPABX systems in the country which is likely to form the core of office automation and cut communication costs in other sectors like railways, banks, power and irrigation systems. The EPABX system itself will play a big role in meeting the projected demand of 30 million telephone lines by the turn of the century against only four million now, he added. [Text] [Calcutta THE TELEGRAPH in English 23 Apr 87 p 8] /9317

CUSTOMS SATELLITE LINK--Calcutta, April 8--The Calcutta Customs will computerise some of its operations like clearing of bills of entry and import manifest documents, Mr G. Sarangi, Collector customs (appraisal) said here today while addressing members of the Merchants' Chamber of Commerce. Mr Sarangi said the format of the bill of entry is also being changed to facilitate quicker clearance. Customs offices in other parts of the country and Calcutta will be linked to a central computer, to be

set up at Bombay customs, via satellite. This facility, he said, would enable the customs authorities to settle disputes faster and ensure coordination between the different customs offices spread over the country. [Excerpt] [Calcutta THE TELEGRAPH in English 9 Apr 87 p 6] /9317

ONGC TELECOM NETWORK--Baroda, April 7 (UNI)--The Oil and Natural Gas Commission (ONGC) has decided to set up its own integrated communication network--the first of its kind in the country--to provide faster and more reliable links to its various projects in the western region. An ONGC spokesman said the Rs 14 crore project would be completed by the next year. The network will be based on the mobile radio cellular communication technology and digital time division multiple access (TDMA) system, he said. Both systems will share a common "backbone" microwave communication facility, he added. According to the spokesman, the mobile radio cellular system will provide automatic telephone connections to be subscribers whether in office or in the fields. The connections will be established through nodes or base stations connected to one or two computer-controlled telephone exchanges. The TDMA system will be a point-to-point communication network with computer-controlled telemetry-cum-telesupervisory facilities. ONGC has decided to design and develop its own network because the public telecommunication agencies have little interest in developing communications in these areas, the spokesman pointed out. [Text] [Calcutta THE TELEGRAPH in English 9 Apr 87 p 8] /9317

ITI-PHILIPS TIEUP--Bangalore, April 8--The Indian Telephone Industries today signed a memorandum of understanding with AT and T Philips of the Netherlands for the collaborative manufacture of digital coaxial system (34 and 140 MB/S) at Bangalore. The equipment proposed to be manufactured at ITI-Bangalore is of the new generation which caters to 480 and 1920 channels, respectively, ITI said. At the signing function, the acting Managing Director, Mr D.V. Gupta, reiterated that ITI was poised to manufacture new generation of digital telecommunication products during the Seventh and Eighth Plans. ITI signed the MOU to be in line with the Government's policy to digitalise Department of Telecommunication's network. ITI was also exploring the possibilities of entering into technical collaboration agreements for the manufacture of digital microwave, transmux, optical fibre systems, etc. ITI said out of the 26,000 route kilometres of small and large tube coaxial system planned at the end of the Seventh Plan, nearly 7,500 route kilometres have to be digitalised during the Seventh Plan. ITI was setting up productionisation of digital coaxial equipment with an investment of Rs 3.5 crores to produce annually 30 terminals and 230 repeaters of both 34 and 140 MB/S systems for a turnover of approximately Rs 22 crores, during the Seventh and Eighth Plans. In the initial phase, productionisation of these equipment would be carried out with Semi-Knocked Down (SKD)/Completely Knocked Down (CKD) imports followed by components level manufacture with maximum indigenous content. Mr P. Liefkens, Director, Transmission, AT and T Philips, said they were confident of implementing this programme with the maximum indigenisation in the shortest possible time. [Text] [Madras THE HINDU in English 9 Apr 87 p 9] /9317

CSO: 5550/0135

ESFAHAN INTER-CITY TELEPHONE PROJECT BECOMES OPERATIONAL

Tehran RESALAT in Persian 4 Feb 87 p 11

[Text] Esfahan--IRNA: The great inter-city telephone project for the province of Esfahan became operational in the past few days.

According to IRNA's report, at the opening ceremonies of this project Ayatollah Taheri, imam's representative and the Friday imam of Esfahan, the minister of post, telegraph and telephone, the governor-general of Esfahan, a few members of the Islamic Consultative Assembly, some of the Friday imams and other personalities from the province of Esfahan were also present. According to this report at the inauguration ceremonies of this center, the director general of communications of Esfahan Province in a report announced: With regard to this project a contract in the amount of 13.36 million marks had been entered into with a foreign company, of which about four to six million marks pertained to installation fee alone. He further added: After the cancellation of this contract in 1982, the pertinent operation of this project were carried out by the communication specialists from the Province of Esfahan in four and a half years with a total cost of 70 million rials.

The director general of communications of Esfahan Province further stated: As a result of this center which has become operational, there will be 173 percent increase in the number of outgoing channels and 176 percent increase in the number of incoming channels of the Esfahan region.

In a comparison with the communication activities before the advent of the revolution and thereafter, he said: Before the advent of the revolution only 14 rural areas of Esfahan Province had access to communication facilities, whereas today this figure has reached 141 for such rural communities.

He further added: We hope by the end of 1366 [21 March 1987 -- 20 March 1988] the figure will reach 261 communication centers throughout the province. In comparison to the international communication activities of Esfahan, the general director of Esfahan Communications Department stated: With regard to international communication channels, there were many inadequacies before the advent of the revolution, however today the outgoing channels number 25 while the incoming ones reach 20.

He put the capital investment for the communication facilities of the Province of Esfahan at 1.5 billion tomans, as of 1364 [21 March 1985 -- 20 March 1986].

He also added: Before the advent of the revolution there were only four towns in this province with 17,500 telephone subscribers, while the figure has reached 44,000 subscribers today.

The report of IRNA reporter in this regard points to the statements of Mr Gharazi, minister of post, telegraph and telephone concerning the communication inadequacies of the country who stated: The communication tools are economic instruments of the world and unfortunately in our country we face certain deficiencies. Part of this inadequacy is the result of the inattentiveness of the former regime to the matter of communications. The minister of post, telegraph and telephone pointed to the matter of investment in communication with regard to lightening the burden of other economic expenditures and said: We had 10 billion tomans of revenue from communication industry of which we reinvested six billion tomans in the area of communication development and expansion throughout the country.

At the end of these ceremonies, the great inter-city telephone exchange of Esfahan at martyr Beheshti's center of this city became operational and all the participants paid a visit to one of the communication stations outside the city.

12719

CSO: 5300/4777

QORVEH TELEPHONE CENTER INAUGURATED

Tehran RESALAT in Persian 7 Feb 87 p 11

[Text] Sanandaj--IRNA: Yesterday afternoon the 5000-unit automatic telephone center of martyr Esfandiari of Qorveh was inaugurated in the presence of the minister of post, telegraph and telephone, the deputy governor general for development of Kordestan, the Friday imam, the governor, the representative of the people of Qorveh in the Islamic Consultative Assembly, the families of the martyrs and some of the muslim inhabitants of the said city.

According to IRNA's report, with the opening of this project which became operational with a capital investment of 1.4 billion rials, it is possible to make contact with Qorveh township by using the telephone code of 04745.

According to the aforementioned report until now about 2000 new telephone numbers have been assigned to subscribers and another 3000 numbers will be gradually assigned later on.

At the inauguration ceremonies of the 5000-unit telephone center of martyr Esfandiari the minister of post, telegraph and telephone announced: Before the advent of the revolution all the various towns of Kordestan Province had only 6000 telephone subscribers, whereas after the advent of the revolution this figure has reached 20,000 and God willing this figure will be doubled in the future. He further stated that in the next year one hundred communication offices will be established throughout the Province of Kordestan.

12719

CSO: 5300/4777

## SEVERAL AUTOMATIC TELEPHONE CENTERS BECOME OPERATIONAL

Tehran RESALAT in Persian 14 Feb 87 p 11

[Text] Rasht—Central News Unit—On God's day, 21 Bahman [10 Feb], during a heavily attended demonstration by Muslims and partisans of God on the anniversary of the triumph of the Islamic revolution, the 1,000-number Manjil telephone center was opened and put into service in special ceremonies attended by the Imam's representative in Gilan, the Rasht Friday imam, the minister of post, telegraph and telephone, the governor-general of Gilan, the Friday imam and governor of Rudbar, and the people's Majlis representative from this municipality.

The Central News Unit reports from Rasht that during these ceremonies, after the reading of several verses from the glorious word of God, Majid, the Imam's representative in Gilan as well as the Friday Imam of the Municipality of Rudbar, discussed the accomplishments of the government of the Islamic republic of Iran in the years since the triumph of the Islamic revolution and expressed appreciation for the valuable measures taken by the Ministry of Post, Telegraph and Telephone.

Then Mr Gharazi, minister of post, telegraph and telephone and general manager of the Gilan telephone company, enumerated the activities carried out by this ministry in providing telephone services to villagers and people in deprived areas.

According to this report, the 1,000-number Manjil telephone center was built on a site of 1,800 square meters with a foundation of 618 square meters at a cost of 450 million rials from the Gilan telephone company's credit.

### Utilization Begins for 1,000-Number Gilan Chaboksar Telephone Center

Rasht—ISLAMIC REPUBLIC NEWS AGENCY—On the first day of the ninth anniversary of the triumph of the splendid Islamic revolution, the 1,000-Number telephone center for the city of Chaboksar was opened and put into service in ceremonies attended by the minister of post, telegraph and telephone.

The ISLAMIC REPUBLIC NEWS AGENCY correspondent reports that various classes of people from Chaboksar and a number of local officials participated in the ceremonies opening this telephone center.

According to this report, more than 400 million rials were obtained and spent by the Gilan Province General Telephone Office to install and start operations for this center. It is noted that during Fajr, the ten blessed Days of God, the telephone centers in the cities of Manjil and Chaboksar, each with 1,000 telephones, were opened and placed in service.

The general manager of the Gilan telephone company explained that most of the company's efforts go into providing telephone service to the villages of the province. In the same regard, he said: Under current plans, even now construction has begun for 50 telephone centers in 50 villages lacking communications facilities, and, God willing, these projects will go into service in the near future.

The general manager of the Gilan telephone company discussed plans to expand the telephone centers in the province. He said: God willing, utilizing the great inter-city telephone center in Rasht, all municipal telephone centers in the province will have the use of the inter-city code.

At the conclusion of the interview, he also announced: By the end of the current year [20 March 1987], in addition to the initiation of operations for several rural telephone centers, 5,000 new telephones in eight municipalities will have been delivered to applicants.

Piranshahr Municipality and Maku Municipality the Siah Chashmeh District Telephone Centers Open

Urmia—ISLAMIC REPUBLIC NEWS AGENCY—Through the efforts of workers of the central telephone office of the Province of West Azarbaijan, Installation and start-up were completed yesterday for the 1,000-number telephone center for the Municipality of Piranshahr, on God's day, 22 Bahman [11 Feb]. The ISLAMIC REPUBLIC NEWS AGENCY reports that with the opening of this center, from now on our compatriots will be able to dial numbers in this municipality directly by using the prefix 4446.

According to this report, this week the 1,000-number automatic telephone center of Siah Chashmeh district in the municipality of Maku also opened and went into service. This center can be expanded to 3,000 numbers.

9310

CSO: 4640/4719

## THOUSANDS OF TELEPHONE NUMBERS TO BE DISTRIBUTED

Tehran JOMHURI-YE ESLAMI in Persian 4 Apr 87 p 2

[Text] In honor of God's day, 12 Farvardin [1 April], Islamic Republic Day, a 3,500-number telephone center and a new post office building were opened in the municipality of Nowshahr during ceremonies attended by Mr Gharazi, our nation's minister of post, telegraph and telephone.

According to the ISLAMIC REPUBLIC NEWS AGENCY, the ceremonies opening these projects were attended by the governor-general of Mazandaran, the Friday imams of Chalus and 'Abbas Abad, the province's general managers of post and communications, a number of families of most martyrs, and local officials. The minister of post, telegraph and telephone spoke during the ceremonies. He offered congratulations on the joyous anniversary of the birth of Imam Hoseyn (Peace Be Upon Him) and for Revolutionary Guards Day, and then compared the completed projects and the services provided by the Ministry of Post, Telegraph and Telephone in the years before and after the triumph of the Islamic revolution.

He said: In the 20 years of its wretched life, the sinister former regime only installed 900,000 telephones, despite the presence of 100,000 consultants from America and other foreign countries, while the number of telephones installed in the country in the short time since the Islamic revolution is double that of the previous period. He added: Prior to the revolution, only 300 villages in the Islamic nation had telephones, but now 2,800 of the nation's villages have telephones and telephone offices.

He also said: All of the nation's telephone revenue prior to the triumph of the Islamic revolution was used solely to support personnel, but now, nothing goes to the government of the Islamic republic except funding for communications development plans.

Noting tasks completed last year, Mr Gharazi said: 70 of the nation's remote cities obtained automatic telephone service in the year 1365 [21 March 1986 - 20 March 1987].

In conclusion, he expressed the hope that 220,000 telephones would be delivered to applicants throughout the country by the telephone company by the end of the year, in accordance with existing plans. Mr Gharazi said: It is hoped that by the end of the year 1,000 more villages will be covered by telephone service.

It is to be noted that the 3,500-number telephone center in the municipality of Nowshahr that was opened can be expanded to 10,000 numbers. This center, whose construction, installation and start-up cost more than 1.4 billion rials from the Iran Telephone Company's development credit, has 1,080 square meters of foundation. It has two floors with 2,400 square meters of floor space.

The same report states that after the opening of the 3,500-number telephone center in the municipality of Nowshahr, the newly-constructed post office building in this municipality was also opened and put into service in separate ceremonies attended by the minister of post, telegraph and telephone. This project, which was built to expand postal services, has 1,400 square meters of foundation on a 2,500-square-meter lot. More than 60 million rials were spent to build the post office building in Nowshahr from the Province of Mazandaran's development credits.

9310

CSO: 5500/4718

## BRIEFS

**ONE THOUSAND TELEPHONE NUMBERS DISTRIBUTED IN ARDAKAN**—Ardakan—JOMHURI-YE ESLAMI correspondent—An official from the Ardakan telephone office discussed the activities of this office during the year 1365 [Text] [21 March 1986 – 20 March 1987]. He noted that 80 percent of the telephone company's activities were in the villages. He said: In the year 1366 [21 March 1987 – 20 March 1988] 1,000 telephones will be installed and put into service in Ardakan. The telephones will be given to individuals chosen by lottery. The official from the Ardakan telephone office noted that with the installation of the 240-channel device Ardakan's problem of inter-city expansion has been to a certain extent solved. Concerning rural telephone communications he said: Service for Mazra'eh-ye Now and Khalil Abad to 'Aqda has begun and two direct lines from Ardakan to these two villages have been given, and connections have been made to all parts of the country. After that telephone service for the villages of Sarv-e Sofla and Haftadu was installed by the brothers of Ardakan themselves because of not being included in the plan. Telephone service for two other villages 230 kilometers from Ardakan was also very successful through the Ardakan municipality wireless plan. The villages of Haftar and Sarv-e 'Olia will soon receive telephone service, and the villages of Chah-e Afzal, Fakhr Abad and Meydan-e Tut are also in this municipality's telephone service plan. Continuing, he said: The Ardakan telephone center building was constructed on a 1,300-square-meter lot with a foundation of 500 square meters at a cost of 36 million rials. In conclusion he noted this office's activities in connection to the war. He said: To date the workers of the Ardakan Municipal Telephone Office have given more than 278,000 rials in cash to the combatants of Islam. Most of the brothers have been to the fronts, some of them have even gone several times. There are few people who have not been to the fronts. [Tehran JOMHURI-YE ESLAMI in Persian 9 Mar 87 p 4] 9310

**MAHSHAHR TELEPHONE CENTER BECOMES OPERATIONAL**—Ahvaz—ISLAMIC REPUBLIC NEWS AGENCY—Yesterday afternoon, on the joyous anniversary of the birth of Her Holiness Fatimeh Zahra (Peace Be Upon Her) and the birthday of His Holiness Imam Khomeyni, the Shahid Rahimi 3,000-number telephone center in the municipality of Mahshahr was opened and put into service. With the opening of this telephone center, people in the rest of the country can contact Mahshahr using the code 6232. This telephone center cost more than two billion rials. The ISLAMIC REPUBLIC NEWS AGENCY reports that during these ceremonies, attended by local officials, the minister of post, telegraph and telephone expressed appreciation for the support of the province's telephone workers. He discussed the role of communications in international circles and in Iran. He said: Today the telephone has found a special place for itself in the world as a means of easy communication with other places and it plays a very important role. He discussed the situation of telephone service prior to the revolution and its expansion since the triumph of the Islamic revolution. He said: Prior to the triumph of the Islamic revolution only 70 cities throughout the country had telephone service, with 900,000 telephones available to the people, but since the triumph of the splendid Islamic revolution, this figure has risen to 1.8 million telephones, and the people of 250 cities throughout the country have telephone service. In conclusion, Mr Gharazi discussed the plan to expand the telephone network throughout the country. He said: God willing, with the plans and programs that are being carried out, we will be able to provide telephone service to remote villages. [Text] [Tehran RESALAT in Persian 21 Feb 87 p 11] 9310

PAKISTAN

BRIEFS

RADIO DEVICE--A high frequency radio pulsar device designed and built by the Suparco [Pakistan Space and Upper Atmosphere Research Commission] is now in regular operation at its center in Karachi. The device reveals the composition of atmosphere and ionization of electronic particles caused by ultraviolet radiation from the sun. There are certain other potential applications of the device, and these are being investigated. [Text] [Karachi Domestic Service in English 1100 GMT 1 May 87 BK] /9274

CSO: 5500/4720

## SOVIETS BEGIN TV BROADCASTS TO AMERICA

Moscow IZVESTIYA in Russian 21 Feb 87 p 7

[Article by S. Dvigantsev under rubric "TV and Us": "American Looks At Moscow." Interrogatory paragraphs appear in boldface]

[Text] We are in the "Intervision" technical control room in the Moscow TV center at 7 o'clock in the morning. Senior Engineer Mariya Vysotskaya is at the control panel. A brief conversation with Central TV control follows:

"We are working with the first program on the third outgoing line. The satellite is ready. Can we start sending to America?"

"The first program is ready. We are going on the air!"

Mariya Ivanovna presses a button on the switching panel, and an electrically-coded image breaks away from the spire of the TV tower in Ostankino; it speeds to the satellite communications station in Dubna, near Moscow, from where it shoots into outer space. From the "Intelsat" satellite, it leaps across the ocean and brings a "live picture" to television screens in millions of American apartments.

This important and complicated event, as is usual, was preceded by negotiations and experiments. I asked Valentina Lazutkina, the chief of the Main Directorate of Foreign Relations of USSR Gostelradio, to tell us about it:

"It all began with a 'dish,' which is the word customarily used to denote the television antenna invented by Ken Shaffer, president of the 'Orbit' Company. The 'dish' is in the shape of a hemisphere (from which it gets its amusing name). But, joking aside, this antenna is installed on the roof of a New York skyscraper, and it receives images from the space communications satellite steadily and without interferences. Ken Shaffer proposed trying out his invention for the reception of Soviet television programs. We signed an agreement with the 'Discovery' cable television company and the 'Orbit' corporation, giving them the right to show TsT [Central Television] broadcasts in the United States, and the first stage of the experiment was started in 1984. The audience was small at first: our programs were viewed by students of Columbia University in New York who were studying the Russian language and by American political scientists, in a word, by specialists who were already

established and those who were just beginning. The living Russian language helped them to master it quicker."

Is it possible that the unbiased picture of life in the USSR helps the viewers understand more than just the language?

"I will not try to judge. However, a fact is a fact: it was the American side that proposed broadening the limits of the experiment and to acquaint all subscribers of the 'Discovery' television network with Soviet television broadcasts."

How is broadcasting organized? Ye. Tarasova, manager of the legal negotiations group of the Main Directorate of Foreign Relations, provided the answer.

"In the morning (American time), our evening programs are transmitted directly, and in the evening, our morning programs. All broadcasts are 'live,' without recording, rearrangement and commentaries--this is specially stated in the agreement. Only the 'Vremya' ['Time'] program is recorded--it is aired in America at eight o'clock in the evening. This is the news period, and our partners decided not to break the normal broadcast pattern of its viewers. Here is an interesting detail: the provocative TV fraud 'America' starts at 9 o'clock in the evening local time--thus, the truth about the Soviet people on the television screens of Americans presents a striking contrast in comparison with ABC's slanderous film. The 'Vremya' program has English subtitles--translations are done by officials of the Soviet mission to the UN. Before the beginning and at the end of a broadcast, 'Discovery' makes arrangements to poll telephone viewers. For example, the moderator asks this kind of question: 'Has your previous impression of the Soviet Union changed?' There are two telephone numbers on the screen. A call to the first means 'yes,' and a call to the second means 'no.' At the end of the week, after showing all of the scheduled 66 hours of Central Television broadcasts, 'Discovery' will conduct an analysis of viewer opinions."

What is the outlook for this kind of cooperation.

"The idea for the experiment was supported by the cable television network 'Manhattan Cable.' Starting in April, it will also begin transmitting Soviet programs to its viewers. The TBS company has already inaugurated a series of broadcasts about Soviet-American relations with the showing of the film 'Notes of a Dead Man.'"

Many in America cannot stomach the truth about our country. The attempt of the U.S. Federal Communications Commission to disrupt the transmission of scheduled broadcasts is evidence of this. For three hours before the premier showing, the commission prohibited the "Orbit" corporation from receiving television signals from the Soviet "Molniya" communications satellite, as it had been planned beforehand. Nonetheless, a new channel was found: the broadcast was aired exactly at the scheduled time.

/Our own correspondent, L. Koryavin, reports from Washington/

I press the button on the TV channel control switch. A cascade of fire bursts forth, gunshots ring out, dashing cowboys rush around, and a tiger crouches for a mighty leap--the advertising symbol of the "Exxon" company. But then the English letter "V" flares out--it is the first letter of the well-known word "Victory." It denotes the channel which now transmits direct broadcasts from Moscow. I hear a familiar melody. And there is a closeup on the screen of our program "Vremya. . ."

Soviet broadcasts appear on channels of so-called cable television. Its distinctive feature is that it has its own "subscribers" in the United States, that is, those who for a specified sum have the right to use one or another commercial channel. "Discovery" operates through 1,500 cable systems. And this means that broadcasts from Moscow, according to the TV company's calculations, are viewed by a minimum of 35-40 million persons.

"Unquestionably, the figure will grow," Ken Shaffer, the president of "Orbit Technology," told me. "The news of the transmission from Moscow flashed across the United States. At this very moment, neighbors are knocking on the doors of the homes of holders of the 'Discovery' channel. To see life in the Soviet Union from the inside, to hear Moscow's news that is accompanied by English subtitles is amazing and remarkable! TV viewers continuously call us up at the studio. . ."

And indeed, during the conversation with Ken Shaffer, the telephone ringing did not stop. TV viewers thanked the company that arranged the contact with Soviet colleagues. For many, the picture of real life in the Soviet Union is an absolute discovery; what they saw "straight from Moscow" was in sharp contrast with the propaganda to which they had become accustomed and which distorts Soviet reality.

John Hendricks, the chairman of the board of directors of the "Discovery" TV company, also spoke to me about the great benefit to be gained by Americans from the transmission of direct broadcasts from the USSR:

"I consider what our company did together with USSR Gostelradio to be an historic event. In the future, 'Discovery' is thinking about recommending some of its programs for the Soviet viewer.

In translation from the English language, "Discovery" means "Otkrytiye." This is profoundly symbolic. The television channels of "Orbit Technology" and "Discovery" performed a good deed--they are revealing the truth about the Soviet Union to Americans, which will promote not division, but a strengthening of the mutual understanding of two great nations.

13052/12913  
CSO: 5500/1021

USSR COMPLAINTS ABOUT RADIO PSYCHOLOGICAL WARFARE

Riga SOVETSKAYA LATVIYA in Russian 4 Jan 87 p 3

[Article by Yu. Kashlev, doctor of historical sciences, "On the Front Lines of the Ideological Conflict: Psychological Warfare - A Special Form of Aggression"]

[Text] The facts irrefutably testify: bourgeois politicians and ideologues fear and avoid an honest, highly principled philosophical discussion with the world of socialism. They have gambled on large-scale psychological warfare and subversive propaganda that have nothing in common with the struggle between ideas. The issue involves a special kind of "aggression and information imperialism, that trample on the sovereignty, history and culture of the people", as was noted in the Political Report of the CPSU Central Committee at the 27th Party Congress.

Our opponents in the class struggle assign radio propaganda a leading role among the tools intended to undermine the socialist world.

A so-called program of "radio station modernization" was recently adopted in the U.S. under pressure from the White House. The program is intended to run for five to six years. This was declared in principle in Washington as early as 1983 at a closed session of the National Security Council with the participation of President R. Reagan. "Modernization" is a component part of the "program of democracy and public diplomacy", proclaimed by the administration. Its true goal is the manipulation of public opinion abroad, bringing it over to the political views of Washington and undermining the governmental and social foundations in socialist and all other nations not pleasing to the White House.

The U.S. president has signed legislation that provides for the allocation of almost a billion dollars to the U.S. Information Agency, USIA, in 1987.

Washington has already allocated 1.3 billion dollars for the modernization of the "Voice of America" radio station, which is part of the USIA (the radio station directors are hoping that modernization will not only produce a "great leap forward in the technical equipment, but also in the quality of the propaganda itself"). It is planned that an additional several tens of millions will be added to the "Voice" in the new fiscal year. The International Radio

Broadcasting Council, which is formally responsible for the activity of the CIA radio stations "Radio Svoboda" and "Radio Free Europe" (RS, RFE) will also receive several million dollars. Just how much the spy agency will give them is of course not advertised.

Characteristically, in order to improve the operational efficiency of these subversive centers, the former director of the "Voice of America", Eugene Pell, was recently assigned as their director. Prior to this, he headed up the Moscow office of NBC, where he specialized in the fabrication of an entire series of antisoviet insinuations and then was chief of the military radio center in New York. Eugene Pell is considered a great "expert on problems of the USSR".

But let us return to the "Voice of America". The modernization plan for this radio station provided for the construction of new facilities and offices for it in Sri Lanka, Morocco, the Federal Republic of Germany, Spain, Portugal, Pakistan, Hong Kong, Israel and a number of other countries. Only in Israel, for example, is it planned that 16 repeaters will be placed in service, which in addition to the "Voice", will also serve Radio Svoboda and Radio Free Europe.

It is planned that the total number of "Voice of America" branches will reach 23 abroad and 6 in the United States in the near future. Although there are now more than 2,700 radio station personnel, their numbers are continually increasing. The overall program volume reached 1,327 hours per week; the number of broadcast languages is also growing and the "audience coverage area" is also expanding.

The chief of the USIA, Charles Wick, does not conceal the fact that the funds generously allocated to his department are intended for stepping up the psychological warfare against the USSR and other socialist states in order "not to allow the spread of Communist influence in the world". The managers of the "Voice" openly acknowledge that the purpose of the radio station is the destabilization of the USSR and its allies and the creation of dissension between peoples and governments.

The activity of the CIA radio centers - the Radio Svoboda and Radio Free Europe Stations - is also of a clearly pronounced subversive nature. It was reported in the Polish Press, for example, that once in just the course of a day, the Western radio stations transmitted more than 100 times in their programs to Poland calls to the populace to "organize antigovernment street demonstrations". The most insistent, loudest and longest of the voices among them was that of Radio Free Europe. The following fact is also well known: in one of the programs in the Polish language, the radio station transmitted instructions from 32 points concerning methods of underground struggle against the legal government.

It is to be asked whether this is really "dissemination of information"? Of course not. This is nothing more than genuine subversive activity against a sovereign state.

Radio programs as well as speeches by certain officials of the United States and other NATO nations in connection with the accident at the Chernobyl Nuclear Power Plant were cited by the press for particular cynicism, baldfaced slander and malevolence. Appearing on Soviet television on May 14th, 1986, M.S. Gorbachev spoke as follows about this: "They have unleashed an unbridled antisoviet campaign. What haven't they spoken about and written about these days - the "thousands of victims", "common graves for those who perished", "extinct Kiev", and about the fact that "all of the land of the Ukraine is contaminated" and so on and on.

In general, we have come up against a real heap of lies - the most malevolent and unconscionable . . . They needed to have a reason that they could grasp at in order to attempt to denigrate the Soviet Union, its foreign policy and weaken the impact of Soviet proposals for stopping nuclear testing, eliminating nuclear weapons and simultaneously easing the growing criticism of U.S. behavior in the international arena and the militaristic course of the U.S."

A characteristic feature of psychological warfare has always been the use of various kinds of traitors and deserters in the propaganda directed at the nations that were once their homeland. Among the 1,800 regular staff members and "experts" of Radio Svoboda and Radio Free Europe are no few former stooges of Hitler and Nazis, who stained their hands with the blood of Soviet, Polish and other citizens during the Second World War, as well as traitors and criminals who abandoned their own countries in the post-war years. These renegades have now obtained powerful microphones and are using slander to desecrate socialist nations, hiding behind foreign names and impudently beginning their programs with the words, "Dear fellow countrymen . . ."

They will not tell you in any of the radio Svoboda and Radio Free Europe programs that these stations themselves and the editors and announcers working at them are only a portion of the enormous iceberg of special services of the United States, who have become skilled in the conduct of total psychological war. But the facts cannot be concealed by passing over them in silence. The headquarters of Radio Svoboda and Radio Free Europe in Munich have served for decades as one of the major analytical centers for American intelligence and only a minor portion of their "product" (no more than 15 to 20 percent) is used for radio broadcasting. The remainder goes for diversion and subversion purposes. For example, the so-called "sociological service" of Radio Svoboda prepares instructions for the "handling" of Soviet citizens coming to the West; the "research dossier" of the radio station provides the CIA with information on Soviet economics, foreign policy, legislation as well as military and other topics.

The very word "diversion" in being translated from Latin means "distraction" and "deviation". The imperialist special services and propaganda organs are precisely attempting to cause Soviet people to "deviate", if we are speaking about our country, from the ideology of Marxism-Leninism and from the moral and proper standards of the socialist way of life.

The organizers of such diversions make wide use of deception, blackmail, psychological influence, the manipulation of base prejudices and senses, as

well as the instigation of antisocial actions. Imperialist propagandas strive at least to ideologically devastate man, excite a feeling of uncertainty in him, sew apathy, obfuscate and poison his consciousness with national prejudices and shake his confidence.

Specialists in the field of international law associate that foreign policy propaganda activity directed towards overthrowing the existing order in other countries or which can promote the occurrence of war with the category of ideological diversion. Such activity is completely illegal and it is a crude contradiction of the essence of generally accepted international documents, such as the UN Charter, the Final Document of the Conference on Safety and Cooperation in Europe as well as a whole series of conventions, declarations and resolutions of the UN and UNESCO that condemn intervention in the internal affairs of other peoples and require that states prohibit war propaganda and incitement to violence and hostility. Such activity is a direct violation of the major principles of international law, starting with the principles of the sovereignty of all states and respect for their social structure.

The Soviet Union has consistently held the line on excluding the propaganda of enmity between peoples from international life and bringing an end to malevolence in the information media calling for intervention in the affairs of others. Together with fraternal socialist nations, our state continually comes out for the dissemination of truthful information, which would help to restore a climate of trust between peoples and would thereby promote the resolution of the most important problem of the present day: the easing of the threat of war and the preservation of peace and life on the earth.

In continuing with this fundamental line, the Soviet Union secured the adoption of a declaration at the 38th Session of the UN General Assembly (1983) condemning nuclear war. It contains a special statement noting the impermissibility of disseminating both the propaganda of political and military doctrines and concepts called upon to substantiate the "legality" of using nuclear weapons first, as well as the permissibility of unleashing nuclear war in general.

The question of the impermissibility of actions directed towards undermining the public and political structure of sovereign states was again discussed at the 39th session of the general assembly in the context of a proposal put forward by the Soviet Union to discuss the policy of state sponsored terrorism. The overwhelming majority of UN member states voted for the resolution, with the exception of the U.S. and a few of their allies, including Israel and Chile.

The fact that the United States stubbornly voted against all resolutions relating to these questions at a number of UN General Assembly sessions, as well as the fact that the U.S. made a demonstration of leaving UNESCO once again confirm Washington's striving to keep its hands free to continue the psychological war.

Of course, we have no reasons for overestimating the influence of bourgeois propaganda. Over the years of Soviet power, our party and our state have more

than once been forced to deal with the fierce military and ideological attacks of imperialism. But our people have gone confidently ahead, overcoming any obstacles. Any attempts to interfere with our forward progress towards communism today are all the more in vain, when we have constructed a society of social solidarity and confidence, when a powerful friendship exists among the nations of socialism and when ever new millions of workers throughout the entire world are coming under the banner of Marxism-Leninism.

All of this is true. But another thing is also obvious: we do not have the right, even for a minute, to relax our political vigilance. V.I. Lenin noted: "The law that the power of a revolution, the power of an onslaught, the energy, resolve and exultation of its victory strengthen along with the power of the resistance on the part of the bourgeoisie has been confirmed in our revolution, more than in any other" ("Complete Collected Works", Vol. 40, p. 244). We are dealing with an experienced enemy in the class struggle, one who is resourceful and unprincipled, and it is understandable that a continual state of ideological mobilization, openness of information and a courageous and creative character for our propaganda are necessary in the ideological struggle with him. As was noted in the Political Report of the CPSU Central Committee of the 27th Party Congress, it is necessary to go on the offensive, and as far as unmasking the ideological diversions is concerned, it is also necessary to bring out truthful information on the actual accomplishments of socialism and the socialist way of life.

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CSO: 5500/1033

JOURNAL ON U.S. FOREIGN POLICY PROPAGANDA

Moscow INTERNATIONAL AFFAIRS in English No 3, Mar 87 (signed to press 25 Feb 87) pp 99-107

[Article by Spartak Beglov]

[Text]

The year 1986 made it possible to look more deeply than ever before into the propaganda machinery which the present US administration and the ruling groups that have brought it to power and now jealously watch that their interests are respected on the international scene employ in foreign policy.

It would be an understatement to say that this machinery has been running at full capacity; that it was facilitated by additional elements such as the special unit set up under the Department of State and pretentiously meant "to combat misinformation", but actually engaged in activities entirely opposite in nature; that the ways and methods of misleading public opinion have been legalised in the White House and State Department as the misinformation campaign against Libya showed last summer.

Things have reached the point of literary a total mobilisation of government officials of every rank starting from the President down to the chiefs of foreign policy, military and other departments and their respective deputies and advisers. Their active involvement in large-scale propaganda campaigns in every aspect of White House foreign policy has now become the rule. In some situations, such as the US attack on Libya, Washington's so-called diplomatic war against the Soviet Union (unjustifiable moves against the Soviet Embassy and mission to the UN) or the review of the Reykjavik results, the US President and his aides have made statements at briefings and press conferences, on radio and TV almost every day and sometimes several times a day.

Of course, Washington's large-scale propaganda actions are typical not only of recent months. Their ultra-reactionary character and aggressive form were laid down into the present administration's political course from the start.

IN THE SERVICE OF SOCIAL REVANCHE

Immediately after the Republican administration took over, US politicians and news analysts called it the "most ideologised" administration in the nation's history. This primarily referred to the openly confrontational nature of the Republicans' pre-electoral foreign policy platform based on an irreconcilable hostility to the Soviet Union, the entire socialist world and all national liberation forces. It was also based on social revenge, which meant plans to rearm the United States in order to ensure its military superiority. In strict conformity with these guidelines, material

preparations for war were strengthened by all the means of an anti-Soviet, anti-communist "crusade".

It was not long before the US foreign-policy propaganda system was restructured accordingly. The system of ideological subversion not only took on a more centralised character, but moreover, came to involve all government agencies irrespective of what aspects of US international relations they were concerned with. Also included in the system were all "private" and "public" organisations capable of helping to uphold so-called vital interests of the United States abroad and export the American way of life and "democratic institutions".

To this end a Program of Democracy and Public Diplomacy was adopted, and early in 1983 the interdepartmental committee to superwise the realisation of that programme was formed. It included the President's assistant for national security affairs, the Secretary of State, Defense Secretary, the director of the United States Information Agency (USIA), and the head of the International Development Cooperation Agency. The national headquarters of both major political parties, the apparatus of the AFL-CIO, and various reactionary political alignments joined in the implementation of the programme. Their channels were also used to spend both: funds belonging to these organisations, and also government money allocated for building a "democratic infrastructure" in other countries. What had been considered convenient to achieve only through secret operations had now turned into open bribing of foreign political leaders and trade union activists; people in science, culture, and education; youth activists. And to call a spade a spade, the task set was to form a kind of fifth column in other countries so as to pave the way for US ideological expansion on the international scene.

In the early 1983, the National Endowment for Democracy was also established and began operating both in and outside the United States. Its main purpose is to siphon money to right-wing parties and various non-governmental, trade union and religious organisations with pro-American leanings. The fund is a typical "private organisation" but is financed by the government and controlled by the CIA. Its operations are coordinated by the State Department and the USIA. The fund was promptly supplied with \$18 million, the lion's share of which was remitted to right-wing groupings in Latin American and Asian countries (such as the Philippines), as well as in other parts of the world.

By the end of 1985, it came to light that the fund had made fairly deep inroads into French domestic politics. Force ouvrière, the reactionary trade union centre founded at the very beginning of the cold war to split the French trade union movement, got \$830,000, which it could spend both on subversive operations against France's democratic trade unions and on aiding "refugees", that is, on maintaining anti-socialist emigré organisations whose activities were in harmony with the principles of the "crusade" against communism. Over \$500,000 was granted for the same purposes to the French National Inter-University Union. The officially proclaimed objective was "to combat the spread of Marxism", but the real purpose of the subversion transpired when it was revealed that in some countries the money was used during election campaigns on support for ultra-reactionary candidates. The fund also allocated money to set up courses of instruction under Boston University for professional propagandists active in subversive anti-Afghan organisations entrenched in Pakistan.

Nor have the main government channels of US foreign political propaganda been short of money injections over recent years. Annual appropriations for the USIA have gone up at least 50 per cent during the present administration's term in office and should come close to \$1 billion under the 1987 budget.

Although the network of USIA centres abroad has not grown noticeably (the agency has 214 sections in 129 countries) and the number of the major periodicals published by the agency (12) remains unchanged, the fruits of the agency's efforts towards expansion via electronic facilities are evident. Worldnet, as the central TV programme of the agency is called, has supplied many US embassies and the United States Information Service (USIS) with videomaterial on current problems via satellite. The number of foreign viewers of the agency's live telecasts, such as "America Today", a daily half-hour programme, has increased.

Worldnet concerns itself especially with the live transmission of press conferences, interviews and other public appearances by US leaders, especially the Secretary of State and his deputies. These broadcasts are generally received by major West European newspapers, international press centres and videocentres of the USIA in various countries<sup>1</sup>. A large broadcasting station—RIAS-TV—is being built in West Berlin to beam daily broadcasts to the GDR.

Dollars have continued to pour into the Voice of America (VOA), the main mouthpiece of USIA foreign political propaganda. The international network of VOA relay stations (in the FRG, Sri Lanka, the Caribbean, Israel and elsewhere) is being modernised at full speed. The agency has been granted \$1.3 billion for the purpose under a special long-term programme.

#### CAN BLACK BE MADE WHITE!

US broadcasting to other countries has lately shown a trend towards obscuring the distinction between "white" (official) and "black" (subversive) propaganda; between information and misinformation. Not accidentally, the capacity of Liberty and Free Europe radio stations, those media of psychological warfare, has been built up. Appropriations for their operation have been growing at a record rate, with a nearly 100 per cent increase—from \$87 million to \$168 million—over the past six years. Both stations may therefore be said to have entered their "golden age".

Set up under the CIA and staffed by its people (including recruited defectors, traitors, and war criminals), these "black" broadcasting channels now have a new, more respectable front, the so-called US International Broadcasting Council, except that this name has not made them any "whiter".

In fact, "white" channels, too, increasingly use methods and techniques of "black" propaganda aimed at putting gross pressure on other countries and instigating situations playing into the hands of anti-government forces and counter-revolutionary groups and trends in countries whose social system Washington does not like. It was these tasks that the VOA tried to fulfill during the political crisis in Poland. The VOA encompasses the new subversive broadcasting station set up in 1983 to meddle in Cuba's affairs. Last year broadcasts by the VOA and its new channels were extended from 986 to 1,327 hours a week and are transmitted in 42 languages.

Recurrent provocations on the air staged by its diverse subsidiaries indicate that the VOA is being used to an increasing degree as an instrument of subversion in various "undeclared wars" of the United States. For instance, when US planes launched their bandit-like raid on Libya in April 1986, the VOA broadcast a report amounting to a call on the

<sup>1</sup> Regional services of Worldnet: Euronet (Europe), Afnet (Africa), Arnet (Latin America), Eanet (South-East Asia). Euronet has signed agreements on reception of its programmes with Eutelsat (West European satellite communication company), private cable television companies of another region, hotel complexes, and so on.

Libyan people to revolt against their leadership. USIA Director Charles Wick said proudly on the occasion that the agency had transmitted its editorial commentary to Libya every 15 minutes to make sure that people there knew all about it.

The foregoing suggests that "psychological warfare" is becoming more widespread within the framework of "neoglobalism", a doctrine substantiating the openly interventionist policy of the United States towards developing countries in the process of social reform, and sanctioning various forms of armed intervention and secret operations against countries whose regimes Washington does not like. Understandably enough, US theoretical works and practical instructions assign psychological warfare the role of a "fourth dimension" in "hot" wars. The efficiency of "psychological warfare" operations is gauged by the degree to which the population of the country concerned is demoralised, its internal situation destabilised. In short, "psychological warfare" is placed among other means of destruction.

In the United States the practice of waging "psychological warfare" has gone so far that official establishments and executive apparatus have become just as much a part of the secret operations system as the CIA and other specialised agencies. Last year furnished several examples of this, a particularly graphic one being the subversive propaganda action the State Department and the White House took against Libya. During the many years of military and political pressure by the United States on Libya, which culminated in air strikes against Tripoli and Benghazi in April 1986, "psychological warfare" techniques were used to reinforce the effect of the bombs.

The action may be described as follows: In August 1986 the US administration began to "leak" to the press (jargon used by US experts in misinformation) hints about plans for further bombings of Libya. At the same time, it was insinuated that an anti-government coup there was in the offing.

According to the press, plans for subversive propaganda action were set up by Admiral John Poindexter (then assistant to the President for national security affairs) although according to subsequent reports the idea belonged to the State Department. Moreover on August 14, 1986 the plan was approved by the President.

The information was first "leaked" to *The Wall Street Journal* then to other newspapers and television, with reference to unnamed "official persons". Propaganda subversion was followed by appropriate political measures. Vernon Walters, US Representative to the UN, was sent to Western Europe as an emissary of the White House to secure firm support from NATO allies for the planned actions against Tripoli. Meanwhile US warships appeared off the Libyan coast.

Only six weeks later some US newspapers realised that they had been used for a "black" propaganda campaign according to recipes for psychological subversion dating from the years of the two world wars. Bernard Kalb, a well-known journalist who at the time was an Assistant Secretary of State for Public Affairs, came to the conclusion that misinformation was too unsafe an activity for his reputation, and stepped down. However, the State Department tried to stay unruffled even in those circumstances. Statements by its head implied that one must put up with the necessity of misleading the press.

Thus "leaks" and other propaganda devices of US foreign policy aimed at confusing public opinion are used on a mounting scale in the US rulers' ploys on the world scene. While there is nothing new about "leaks" (remember the trial balloons used by diplomacy in the past), experience has shown that even profuse "leaks" cannot lend any content

to hollow words. Revealingly, they are used more and more often in the area of Soviet-US relations and disarmament talks.

#### REYKJAVIK: A GUSH OF RHETORIC AND AN EMPTY PORTFOLIO

In a series of statements for the press made by the end of last summer, the US President insisted that the United States had serious intentions to reach an accord at another US-Soviet summit meeting. However, the obstructionist stance of the US delegation at Geneva and the US refusal to follow the Soviet example by stopping nuclear tests made world opinion express doubts on the willingness of the United States to meet the Soviet side half-way on the latter's proposals for abolishing nuclear armaments. These doubts were strengthened by the White House's manoeuvring over correspondence between the General Secretary of the CC CPSU and the US President. Although correspondence of this nature should normally be treated as confidential, the content of the President's letters was "leaked" to journalists particularly trusted by the White House. The obvious aim was to inspire the most favourable and optimistic comments on the US approach to the coming summit. The "leaks" abounded in hints and intimations about the President's "new ideas", "flexibility", and "constructive" approach. In short, the public was led to believe that when the time would come to make concrete decisions on disarmament, Washington would not fail.

But the effect of the arranged "leaks" fell short of the US leadership's expectations. In the light of the administration's refusal to respect SALT-2, its steps towards hastening the development of weapons for Star Wars, and other moves leading to an arms race escalation political observers noted a glaring discrepancy between the words and deeds of the US leadership.

And then came the hour of deeds, not words—the Reykjavik summit meeting took place. Its results are well known; they threw a stark light on Washington's actual stance on disarmament. This explains why Reykjavik was followed in the United States by an unusually wide-scale campaign to justify its obstructionist policy. Patrick Buchanan, a Presidential aide, described the efforts of Washington during and after Reykjavik: "It's the most extensive and intensive communications plan I've ever been associated with".

There are three separate fundamental stages in the campaign, which almost fully correspond to the principal stratagems recommended by traditional US directives on political propaganda campaigns; (1) distracting attention from the most pressing problem and the inability of politicians or ruling groups to find a solution; (2) glossing up reality so much as to create the effect of a "hero", the exponent of the people's "vital interests" in relation to the political leader who finds himself in the limelight; (3) juggling the facts, that is substituting one for another when the interests of the ruling group clash with reality and the demands of the day.

This writer was one of the journalists who witnessed the Reykjavik summit. The Icelandic capital drew about 2,000 press, radio and television correspondents, as well as electronic engineers. Most of us, including Western journalists, were looking forward to a positive result, mainly because we were aware of the urgency to solve the disarmament problem. The Soviet Union's consistent foreign policy initiatives early last year were greatly felt by the international community. The USSR began a persevering and large scale campaign for the gradual elimination of nuclear weapons. Nearly all "opinion-makers", as journalists are occasionally called, agreed that the Reykjavik summit could not avoid concentrating on the disarmament problem.

However, the prevailing mood at the US top was different. Shortly before the summit, Washington made clear its intention to reduce everything to another usual discussion of "everything in general and nothing in particular". In the press centres set up in Reykjavik, members of the "presidential team" did their best to create the impression that a working meeting was the wrong place for substantive disarmament talks. One of them said the purpose of the meeting, as far as the US side was concerned, was not to deliver new proposals. Another member seconded him, saying: "There is a place to negotiate—it is in Geneva". Assistant Secretary of State Rozanne Ridgeway, when asked by journalists whether the White House had any disarmament proposals, accented her "no" by slapping the pockets of her jacket, saying: "All I have in my pocket is my hotel key". Yes, unfortunately, the hours preceding the talks between the two leaders found not only Mrs. Ridgeway's pockets empty, but also, and far more importantly, the portfolio of the US delegation.

*The New York Times* commentator Anthony Lewis wrote: "The Reagan Administration spent five years mocking all past efforts at arms control and offering few serious proposals of its own. Mr. Reagan went to Iceland with no new initiatives; his advisers disagreed, and he could not or would not resolve the disagreement".

By contrast, as Mikhail Gorbachev stressed in his address on October 14, the Soviet Union had worked to ensure that the Reykjavik summit gave top priority to the chief problems in world politics: ending the arms race and achieving nuclear disarmament. The original scenario of US propaganda had fallen through.

The US President must have realised that the Soviet proposals created the historic chance of signing a comprehensive agreement and that this chance was let go. He had only himself to blame. As John Oaks, a former *The New York Times* senior editor and a family member of its co-owners wrote afterwards: "His [President's] walkout was based on the delusive belief that Star Wars will lead the way to peace through American military supremacy."

Some day history will establish what discouraged the President more: his failure to impose his illusions or missing the chance of posing as a peacemaker. Here one thing was clear: as one American political observer noted, the President personified an unsuccessful performer in a scenario in which the "happy ending" should have been a subsequent achievement of the US "position-of-strength policy".

A few minutes after the conclusion of the talks at Höfði villa, the US Secretary of State admitted in front of TV cameras that he was deeply disappointed. Thereupon, however, he offered a version which shortly afterwards set the tone for the whole of post-Reykjavik US propaganda; he said that the President had shown great ability for a "constructive approach", creativity and inventiveness. The Secretary put a good face on the matter, which is understandable. In those early minutes, however, he had not yet set about rewriting the record of Reykjavik. He did not yet claim that all initiatives and proposals had come from the US side. And he stressed that the Soviet side had put forward numerous and important proposals on a wide range of problems.

But a mere 40 minutes later—the time it took to drive from Reykjavik to Keflavik airport—the US side had at its disposal the theses of a rewritten record of Reykjavik, the chief thesis being as follows: Reagan was the author of great initiatives, a firm defender of the interests of the American people, and had defended the SDI programme against encroachments from those "insidious" Russians. A US magazine called this "a massive damage-control operation". In the speech delivered by the President at the US military base in Keflavik, the version turning the facts inside out said: "And although we had put on the table the most far-re-

aching arms control proposal in history, the General Secretary rejected it." A few hours later, after crossing the ocean and doing some more editing of the planned campaign scenario, the President said: "The implications of these talks are enormous and only just beginning to be understood. We proposed the most sweeping and generous arms control proposal in history."

Mikhail Gorbachev, speaking on Soviet television the following day, called attention to the fact that the US President had begun to give himself credit for all the initiatives discussed in Reykjavik. The manoeuvre was not hard to explain in view of the strong world-wide appeal of the Soviet proposals.

Meanwhile US official propaganda was moving on to the next stage in the campaign of justifying Washington's policy—going back on Reykjavik. The first two or three days after the summit were marked by an actual avalanche of speeches, statements, briefings, radio and TV interviews, occasionally involving the whole presidential entourage, from the Secretary of State down to White House staff personnel. The military-industrial complex, interfering more and more, made it clear directly or indirectly that in Reykjavik the President had allowed himself to be carried away too much by the prospect of a nuclear-free world and had signified acceptance of proposals for the abolition of nuclear arsenals such as were incompatible with the platform adopted by the Republican Party in 1980. Indeed, it was in line with that platform that the master of the White House got his mandate from the country's ultra-conservatives and militarists. The "presidential team" found it necessary to work out special instructions for US officials on how to explain the position of the President and how to answer questions from the press. The instructions become known to journalists, in particular those on *The New York Times*.

The quickening pace with which the Reykjavik package of agreements was revised amazed even experienced political observers. A mere week after the summit in Iceland, the President affirmed that he had only said "yes" to the proposal for curtailing ballistic missiles. He offered a series of obsolete "limits" and "sublimits" proposals to which the Pentagon would allow nuclear weapon reductions. This time all the reservations which had deadlocked the Geneva talks were added to a Reykjavik package that had been cut by half; the only thing left intact being the concessions from the Soviet side.

Also the President personally joined in the off-year election campaign. He delivered dozens of speeches, in which he stressed that he had upheld the SDI in Reykjavik and in this way "defended" the United States. The chief obstacle to a disarmament agreement was thus made out to look like the best way of "saving" US interests. The ruling party went out of its way to publicise the results of the post-Reykjavik opinion polls. The proportion of those who approved of the President's stance (68 per cent) was said to be a high in his popularity.

Nevertheless, the Democrats' victory and regaining the Senate majority in the off-year elections clearly showed that the Republicans could not be helped by the President's prestige and his favourite Star Wars. Democratic election campaign manager, Senator George Mitchell, even announced the "beginning of the end of the Reagan era". It is still obvious, though, that the overly-refined system of "brainwashing" has no intention of giving up.

#### STOLEN SLOGANS

Shortly after the present administration took over USIA Director Charles Wick said that in his view the state of US-Soviet relations was tantamount to a state of war, an observation that has been quoted many

times. After a brief pause, he clarified that what he meant was a war of ideas.

War means war: all resources are good. It is no accident that US propaganda produced the saying that truth was the first victim of war. The principle that all resources are good at war means also that when you have no positive ideas or slogans you may discard all scruples and steal them from your enemy without hesitation.

Back in the days of the Carter administration his spiritual instructor Zbigniew Brzezinski, equated ideological subversion with strategic foreign policy actions, proclaiming "defence" of human rights to be the chief slogan of anti-Soviet, anti-communist policy. Alexander Haig, the present administration's first Secretary of State, introduced a doctrine of combating international terrorism as a cover for an all-out offensive against the national liberation movement. But propaganda activity reached its highest point with the drive in support of the doctrine of neoglobalism, presented as a policy that supports the forces of freedom, democracy and national liberation against the forces of tyranny and dictatorship around the world. Yet imperialism's policy today is the same as before; it is aimed at protecting the "vital interests" of US monopolies and militarist groups, securing support from the more reactionary dictatorships, undermining the process of social change in the developing world and interfering in the affairs of other states to the point of openly exporting counter-revolution.

However, all this is done using antithetical terminology. Contras and Afghan dushmans are called "freedom fighters". The occupation of Grenada is described as "extending the frontier of freedom". The US Marines who committed war crimes during the "dirty war" in Vietnam are praised as "heroes" serving the "cause of freedom".

The US President gave a new example of militant hypocrisy in his speech at the Research Centre for Ethics and Social Policy on November 18, 1986. His remarks implied that the US leadership was not going to slacken its efforts in its "crusade"; it wanted to make America "strong", promote the "revolution of hope", and carry high the "torch of civilisation". The President left no room for doubt whom the crusade was directed against. The difference between this speech and the notorious anti-communist sermon in the British Parliament in June 1982 was purely stylistic. Whereas, in Britain, he anathematised the Soviet Union as an "evil empire", this time he compared the USSR, other socialist countries, and national liberation forces to a "sea of darkness".

Now what made the US leadership spread its rhetoric just then?

The US administration clearly found itself unprepared both ideologically and politically to accept the truly *revolutionary* plan to free the world from the nuclear menace and the burden of the arms race. And since it was unprepared for this "test" in historical maturity, it could only resort to manoeuvring, trickery, heaping lie upon lie.

However, there was something which compelled the US leaders to add the bugaboo of "external threat" to their "white lie". It seems the "moment of truth" in Reykjavik was followed by the scandal over Washington's covert arms deliveries to Iran. A new "credibility crisis" emerged in the United States. The administration stood exposed as a deceiver of its own people, whom it had assured that its foreign policy was prompted by high moral principles.

*The Washington Post* commentator Colman McCarthy pointed out: "Lies are at the core of the current breakdown". Nor is it an isolated or accidental lie but a series of systematic and deliberate lies. The lies in which the imperial policy of the present administration is steeped come out every time a conspiracy or a behind-the-scene deal is exposed. But this does not make them any less dangerous.

"A doctrine which cannot replace foreign policy," evaluated the French weekly *Le Monde diplomatique* in its analysis of the initial period following the application of the Reagan doctrine. The same can be said about the mechanism of ideological subversion, misinformation and slander, which have become part and parcel of the United States' aggressive behaviour in the world. It also explains why humanity has never felt such pressure of falsity and deceit as it does now, as was pointed out in the CC CPSU Political Report to the 27th Party Congress.

Political permissiveness is probably the shortest way to define the US administration's policy in international affairs. The facts show that this dangerous line has entered into a deep contradiction with the realities of a complex and ever changing world. This line leads to the moral and political isolation of the more aggressive, expansionist ruling groups in the USA, to the widening of the gap between them and humanity. And, no propaganda stratagems, no matter how cunning, will be able to stop this trend.

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BRIEFS

USSR, SFRY RADIO, TV EXCHANGE--A working protocol on cooperation in the sphere of television and radio broadcasting between the USSR State Committee for Television and Radio Broadcasting and Yugoslav Radio and Television for 1987-1989 was signed in Moscow 5 May. It makes provision for the further development of exchanges of television and radio material about the life of the peoples of the USSR and the SFRY and for mutual assistance in the preparation of programs about important events in the two countries. The document was signed by V.I. Popov, deputy chairman of the USSR State Committee for Television and Radio Broadcasting and Slobodan Budakov, member of the Yugoslav Radio and Television executive committee. [TASS report under general rubric "Official Reports"] [Text] [Moscow IZVESTIYA in Russian 7 May 87 Morning Edition p 5 PM]

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EUROPEAN PTT'S COORDINATING CROSSBORDER NETWORK FACILITIES, MANAGEMENT

Amsterdam COMPUTABLE in Dutch 20 Feb 87 pp 1-2

[Article: "Better Management of International Networks--PTT's want to Join to Offer Networks"]

[Text] After some 2 years of negotiations, the European PTT's assembled in the European Conference of Postal and Telecommunications Offices (CEPT) have decided to investigate methods to improve crossborder network management. They are thinking, for instance, of making it possible for the user to buy datacom facilities from a single vendor and to pay a single bill.

A feasibility study for such a structure will be financed by the PTT's of most West European countries--including the Netherlands.

The study's objective is to determine the feasibility and cost for the national PTT's to cooperate to support multinationals so they can rent lines at a single source--for example the country where the European head office is established--to be used for both their own internal use and for communication with suppliers and customers. The plan would also make it possible to pay the bills thorough one PTT.

Joint Venture

The national PTT's will thus compete with existing private initiatives. This resulted in opposition from the British Department of Trade and Industry. At first the British wanted to leave those activities to the market sector. However, when nearly all the other national PTT's backed the initiative, they backed down and decided that British Telecom would also participate in the project.

The initiators emphasize that the project is still in an early stage of development and that they can barely foresee the practical problems that might arise. Price differences and technical (compatibility) problems are being mentioned as two possible obstacles. The right organizational structure--possibly a joint venture with offices in every member country--still has to be further investigated.

The investigation will concentrate on "one-stop shopping and billing" and could begin by early March. The study group has to report by October of this year at the latest. It is not yet known when a joint approach can be expected to this market.

STUDY ON SAVINGS POSSIBLE FROM TELECOMMUNICATIONS DEREGULATION

Brussels DE STANDAARD in Dutch 24 Mar 87 p 15

[Report on telecommunications deregulation study by Free University Professors O. Beaufays and B. van Omneslaghe: "Deregulation of Telecommunications will Yield at Least 100 Billion Francs for Economy in 1995"; first paragraph is DE STANDAARD introduction]

[Text] Brussels--A deregulation of the telecommunications sector can lead to a direct savings of 82 billion francs for the Belgian economy by 1995 as compared to merely 48 billion if current regulations were retained. In addition, there is the advantage obtained by consumers (families and businesses) from the lower prices which are the result of the deregulation; that advantage would amount to about 18 billion francs in 1995. Finally, there are also indirect effects for the Belgian economy which are possibly even more important, particularly a greater competitive strength.

That conclusion was reached by ULB [Free University] Professors O. Beaufays and B. van Omneslaghe in the second part of a study on the "Economic Repercussion of Telecommunications Deregulation in Belgium," financed by computer manufacturer IBM. Last November the first part of the study was published; in it, Beaufays and Van Omneslaghe reached the conclusion that our country has acquired a big gap in various domains of telecommunication (such as high prices, relatively few telephone connections, a gap with respect to videotex).

The second part of the study, which was introduced yesterday, includes a calculative approach to a deregulation of the Belgian telecommunications sector and to the advantages implicit in such a deregulation as compared to existing regulations. The ULB professors specifically recommend the following five measures:

--it should be possible to provide all subscriber equipment free of charge if flexible sanction procedures are applied;

--it ought to be possible for the various users to utilize the basic infrastructure (switching exchange, DCS [digital command system] exchange (for the transmission of computer data) and leased lines) without restrictions;

--The RTT [Telegraph and Telephone Regie] would have to be made more autonomous and simultaneously more responsible for the quality of the service it supplies; in all activities which are not part of the "natural monopoly" of the Regie, the private sector would have to be able to freely intercede; (a sector finds itself in a situation of natural monopoly when, in the case of two companies being active on the market, they would have a higher cost price than if there were only one company, and that because of the scale effect.)

--the entire telecommunications sector would have to be placed under the control of an independent body, for example such as that of the Bank Commission for the banking sector;

--finally, the research efforts ought to relate not only to switching exchanges, but also to the terminal equipment and to the services; in doing so, they must not lead to abnormal increases in the sales prices.

#### Demand

According to Beaufays and Van Ommeslaghe, it is an established fact that deregulation leads to a noticeably higher demand for telecommunication services and equipment, for two reasons. On the one hand, relaxing the regulations stimulates the offering of new services and thus elicits a demand which would otherwise not have arisen. On the other hand, the creation of competition leads to sensitive decreases in price which, in their turn, stimulate the demand.

According to the study, the decrease in prices for equipment and fees would lead to the accelerated equipping of Belgium with telephone apparatuses: in 1995 about 4.7 million main switchboards would be installed as against only 4.3 million if the current regulations were retained. Moreover, deregulation would provide an important impetus to data transmission, as well as to the volume of electronic operations (more specifically the paying of bills by electronic means).

In spite of the decrease in prices, the RTT would see its sales increase, due to the increase in the services offered. The sales would increase from an index of 100 in 1985 to 203 in 1995, as against 181 if the current regulations were retained.

Because deregulation would lead to a strong development of services, different from those for telephone traffic (data transmission, electronic payments, electronic information and videotex), it would also lead to a diversification of the RTT's activities. In 1995 the share of those other services would comprise 41.1 per cent of the Regie's output, as compared to only 29.5 percent if the current situation were retained (currently that share amounts to 10.2 percent).

#### Privatization

In order to make that diversification possible, Beaufays and Van Ommeslaghe find it essential that the RTT get a statute which gives it more autonomy. In that context privatization is not an impossibility, but only to the

extent that it does not lead to conflicts of interest (the shareholders can be neither suppliers nor customers), and the private monopoly that would thus be created does not alter its limitations toward activities which are not part of the natural monopoly. In the eyes of the ULB professors, the problem of deregulation comes up not as much in terms of privatization as in those of competition.

The annual investments that are necessary are estimated at 7 to 8 billion francs for the switching exchanges and 12 billion for the transmission equipment. It is noted here that the RTT, from the international viewpoint, is paying "abnormally high prices" for its switching exchanges.

The sales of the telecommunication sector (RTT, services with value-added tax (videotex, electronic reporting, electronic payments\*) and equipment) would amount to 212 billion francs in 1995 with deregulation, as compared to 164 billion with the retention of the current situation (and 91.3 billion in 1985). Work opportunity would increase only slightly, however, from 40,000 people in 1985 to 43,000 in 1995.

Finally, with respect to the repercussion of a potential deregulation on the Belgian economy, Beaufays and Van Ommeslaghe make a distinction between the (direct) and (indirect) repercussion. The direct consequences are decreases of administration, storage and transport costs--savings which result from an appeal to new information technologies. The direct savings are estimated at 82 billion in 1995.

The decrease in prices would, through the consumers, lead to an additional transfer which would gradually increase to 18 billion in 1995. The most important repercussion however, according to the authors, would be the indirect one on the Belgian economy, more specifically the productivity increases which would result from the utilization of new telecommunication opportunities.

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CSO: 5500/2493

FEDERAL REPUBLIC OF GERMANY

TV-SAT 2 PLANS ENCOUNTER CONFUSION OVER FUNDING, STANDARDS

Duesseldorf VDI NACHRICHTEN in German No 8, 20 Feb 87 p 17

[Article by Susanne Paech: "The Celestial Confusion About Satellite TV Continues;" first paragraph is VDI NACHRICHTEN introduction]

[Text] Munich, 20 Feb (VDI-N)--Up to now--a few months before the launching date of the television satellite TV-SAT in June--it remains unclear in the FRG who will be allowed to transmit over this satellite because media matters fall under the jurisdiction of the individual federal states. The minister presidents of the states are unable to reach a media agreement that is valid for the entire FRG. However, this agreement is necessary because satellite transmissions do not stop at state boundaries. So far, there has been only one public letter of intent from the Ministry of Education. According to it, the programs of the private transmitters SAT 1 and RTL plus also will be broadcast over the forthcoming direct broadcasting satellite, in addition to the programs of ARD and ZDF (German television networks). In order to assure uninterrupted transmission, TV-SAT 2 should already be ready as a standby, but that is where the next problem starts.

Engineers could plan and continue to develop projects without being concerned with these quarrels in media policies, but there is a catch: money. According to the official announcement made in October 1986, subsidies for the follow-up satellite TV-SAT 2 can only be granted by the FRG Bundespost after "actual usage agreements" for the television channels of TV-SAT 1 are reached, "so that investment revenues may be determined." This is still the situation in February 1987. Does this mean, then that the PTT has temporarily withheld the subsidies for TV-SAT 2? No!

Following this announcement, the subsidies for the follow-up project were raised by an additional DM25 million to DM51.2 million. In this way financing for the satellite is assured up to March 1987, even if funds only trickle in for the time being. But nobody on the scene seriously doubts that there will be further financing. This step is probably meant to put pressure on media politicians to finally clear up the terms.

This month talks started between the distribution company Eurosatellite and the [PTT] ministry on further financing of TV-SAT 2. "We look forward calmly to these discussions," said Rolf Arnim, managing

director of Eurosat, a European consortium made up of AEG, Aerospatiale (Italy), ANT, Alcatel Espace (France), ETCA, and MBB. "It is our opinion that with the public letter of intent the question of utilization has been clarified."

#### There Are Hardly Any Positions Left in Orbit

Whether this is actually the viewpoint of the PTT minister remains to be seen because the letter of intent ultimately does not contain any indication whether the prospective partners are also prepared to actually pay the necessary lease fees for utilization of the TV-SAT channels. Like Damocles' sword, the justified concerns of the PTT are threatening the present situation because of the fear that, with too little time left for discussion, financial concessions must be made in order to start TV-SAT transmissions on time.

Despite the fact that the situation in the FRG remains distinctly confused, there are international agreements regarding the technical aspects. The most general agreement was reached in 1977 during a conference of the International Telecommunications Union [ITU], according to which every country was allowed to place a "Direct Broadcasting Satellite" (DBS) with five channels. Furthermore, the minimum distance between satellite clusters must be at least 6 degrees; at present even subdivisions of 12 degrees have been made. TV-SAT was assigned--along with France, Austria, Switzerland, the Netherlands, Italy, Belgium, and Luxembourg--the position 19 degrees longitude west above the equator.

This orbital spacing has a major influence on the design of receiving equipment, because the same frequencies are available to satellite clusters in other positions. With a spacing of 6 degrees, a parabolic antenna with a maximum diameter of 60 cm is sufficient to separate the signal sharply from the signal of a neighboring satellite hypothetically transmitting on the same frequency; at 12 degrees the diameter of the parabolic antenna can even be reduced to 30 cm. This means that it should be possible to receive TV-SAT with excellent picture quality with an antenna of 40 cm diameter throughout the FRG, including West Berlin.

Luxembourg's plan for a low cost Astra/SES satellite with 16 channels has alarmed public authorities. Despite the large publicity campaigns of its neighbor Luxembourg, Eurosat faces the competition calmly--for a variety of reasons.

First, Astra is not a DBS satellite and is therefore not subject to the applicable guidelines. It was licensed as a telecommunications satellite (FSS), whose reception according to German law is subject to authorization by both the state media authority in charge and the German PTT. However, authorization is granted only in specific cases. Wherever cable TV has been connected, or where concrete plans for cable exist for the future, it will not be granted. This remains a fact, no matter what anyone believes.

## Antennas Must Be Aligned Very Precisely

Second, not only is a completely different antenna installation necessary (Astra is located 19 degrees east), but also a much larger parabolic antenna for reception of a comparatively good picture. The following results can be obtained from a comparison of the technical layout of tube output power and antenna amplification of the two satellites: Whoever wants to receive Astra as well as TV-SAT needs an antenna diameter which is at least 2.2 times larger than for TV-SAT alone. Not to mention the fact that telecommunications satellites transmit their signal to the ground with a different polarization which requires receiving equipment of a different standard.

Third, if the positions alongside Astra are occupied--the orbital spacing according to FSS rules is only 2 degrees--this factor alone will make an antenna diameter of 160 cm necessary for good reception.

The question remains why Luxembourg does not manufacture a DBS satellite. The answer is simple: There was an understanding at the ITU conference that the DBS must be designed in such a way that reception is only possible within the country itself. Of course, in reality reception beyond national borders cannot be prohibited. However, the "super reception range" is much more defined in large countries like the FRG or France compared to small countries like Luxembourg, under the assumption that on the borderline of the transmission ellipse the same dB value for received power is specified for all countries. Therefore, under ITU standards, Luxembourg, as a small country could hardly be received in other areas of a neighboring foreign country with a direct broadcast satellite. It is obvious why Luxembourg quickly dropped its plans for a new private DBS. In contrast, a sort of "alpine satellite" is being contemplated in Switzerland which could conveniently provide direct reception for Southern Tyrol, Austria, and southern Germany, which certainly is a lucrative project in commercial terms.

It is encouraging that TV-SAT also shows international prospects and could develop into a genuine export hit. It was possible to sell it to Sweden with minor modifications. The satellite named Tele X is supposed to be delivered by next year. Also, other European countries contemplating their own satellite for direct TV reception have approached Eurosat. Both Switzerland and Britain have extended specific invitations for bids--in the case of Switzerland Eurosat is the only European company which has even been approached. "Today we are somebody to be considered," emphasizes Eurosat's director Rolf Arnim with pride. But this is not all; TV-SAT has led to a "new philosophy" in Germany, he explains. So far the orientation in this area was along the concept of telecommunications satellites. This is now being replaced by a specific design philosophy for satellite supported TV transmission; it is already reflected in the German telecommunications satellite DFS and the Eutelsat 2 generation which will be the successor of ECS.

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BRIEFS

FRG TV-SAT-2 LAUNCH OPTIONS--In case the European Ariane launcher should have problems again, the West German government is planning to consider U.S. as well as Soviet and Chinese launch offers for its second direct-TV satellite, TV-SAT-2. "We shall consider all offers, naturally besides those from Arianespace," the minister of Post, Mr Christian Schwarz-Schilling, stated in an interview with the daily DIE WELT, published on 10 March. "If the launching of TV-SAT-1 is a failure, these offers will of course become much more topical." In particular, Mr Schwartz-Schilling believes that cooperation with the Soviets "could fully materialize" due to the new climate of USSR-U.S. relations. In addition, the minister stated: "The Soviets are prepared to work under permanent control from the satellite owner: thus espionage is fully ruled out." Although TV-SAT-1 is under a firm launching contract with Arianespace, the West German postal administration has not yet made any commitment concerning TV-SAT-2, which was designed as a backup satellite for TV-SAT-1. This satellite will enable West German TV viewers to receive programs through individual parabolic antennas. TV-SAT-1 has been ready for launching since about a year. The Ministry of Post has placed a firm order for 37.5 percent of the TV-SAT-2 satellite. It is waiting until it knows who the users of the first satellite are to place the rest of the order. The two satellites, like their twin brother, the French TDF-1 satellite, are manufactured by the European consortium Eurosatellite GmbH, which consists of MBB (Messerschmitt-Boelkow-Blohm), AEG (Daimler-Benz group), ANT (Bosch group) for the FRG, Aerospatiale and Alcatel Thomson Space for France, and ETCA for Belgium. The delay in allocating the TV-SAT-1 satellite channels is due to the fact that the Laender, which are solely competent in audiovisual matters, are divided. [Text] [Paris AFP SCIENCES in French 12 Mar 87 p 20] 9294

CSO: 5500/2494

## FINLAND

### PHONE SYSTEM MAKING PROGRESS TOWARD NATIONWIDE ISDN

Helsinki HELSINGIN SANOMAT in Finnish 2 Apr 87 p 11

[Text] Lahti (HS)--The telephone unions are rapidly developing their broad-sector telecommunications networks. This spring the Paijat-Hame Telephone Union is following the Helsinki and Tampere Unions launched about a year ago, and some 20 other telephone unions will follow later.

The Paijat-Hame Union's so-called Diginet network will, among other things, enable them to transmit rapid data communications and images. The digital network is capable of transmitting 64,000 characters, that is, for example, three pages of typewritten text or six display terminal screens of text, a second. Furthermore, the quality of the telecopy, for example, is considerably better than at present.

Up to now the Diginet network has been used in business firms' disbursement communications and data exchange. The telephone unions are rapidly building their networks so that they may soon get at least the biggest business districts within range of the networks.

The Post and Telecommunications Administration is expected to establish a rate schedule for broad-sector-network long-distance calls this spring. Rates one and a half times higher than for regular long-distance calls have been applied between Helsinki and Tampere.

"When the networks increase in number, the development of terminal equipment will also pick up speed. We have not had to develop it precisely because transfer networks have not been available," technical director Matti Nurminen of the Paijat-Hame Telephone Union said.

Rapid transfer networks can be exploited through display terminals and work stations, rapid laser printers and telecopy equipment, picture phones, in video conferences and in data communications between computers.

#### Step Toward General Networks

The Diginet network is actually a step toward ISDN (Integrated Services Digital Network) networks of the future, that is, general networks that make it possible to have two channels that simultaneously transmit 64,000 characters a second.

A general network is a multiservice network, that is, it enables users to transmit sound, images, written matter and data over the same line. With a Diginet hookup sound and data may be transmitted through the network, but not simultaneously.

In the old telephone exchanges vibrations were transformed into electrical impulses. In the early 1970's they began to digitalize communications. Present-day digital lines transform speech, for example, into a numerical form and computer-run digital exchanges tie into it numerically.

The Diginet networks can in the future be combined with the general networks.

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ITALY

## ITALCABLE PRESIDENT OUTLINES COMING REFORMS

Rome IL TEMPO in Italian 17 Mar 87 p 20

[Article by Franco Ruccione: "Telecommunications reforms--Two 'polarities' under government control", Interview with Ugo Monaco, President of ITALCABLE; date and place not given]

[Text] ITALCABLE president Ugo Monaco is convinced that telecommunications reforms and reform of the Ministry of the Postal and Telecommunications Services are, finally, "just around the corner". He says this in spite of the fact that these reforms have been talked about for 40 years without any concrete results. The reform proposal introduced by Minister Gava won the approval of all political parties even because, according to Monaco, "it is the best answer to the Italian telecommunications needs and, moreover, it will guarantee job security for the personnel".

[Question] But what does this reform consist of?

[Answer] In the first place, two sectors will be created, one for national service and one for international service. These two sectors will run the telecommunications areas which are now being parceled out among other agencies, Postal and Telecommunications Administration, and ASST [National Telephones State Board]. Consolidation should happen under the purview of State Holdings and, in particular, within the purview of STET. To make things simpler, the reform will assign national services to SIP and international services to ITALCABLE.

[Question] And then?

[Answer] Then the plan also foresees reforms of the postal system and of the postal money transfer system. The plan foresees establishment of a company or business that will be able to guarantee efficient postal and financial services to the private sector as well as to the business community.

[Question] Will approval of the reform be enough, in itself, to overcome the difficulties in Italian telecommunications?

[Answer] No. The reform tidies the system up and proportions assignments for managers of public telecommunications and of the Ministry for Postal and

Telecommunication Services. However, the main problem in the telecommunication system regarding new technologies requires changes in the Postal and Telecommunication Services' code, especially in keeping an equilibrium between the public and the private sector.

[Question] Where do we stand in the telecommunication sector with regard to new technologies?

[Answer] Saying that we are at a good point is, maybe, saying too little. Actually, Italy is in second place for direct telegraph circuits; in third place for telex; and in fourth place for telephone systems (this is obviously important if we consider that telecommunications represent one of the primary factors for the development of a country). As far as ITALCABLE is concerned, our main strength lies in the quality of our service; it allows 93 percent of Italians to dial 38 foreign countries directly.

[Question] Which are the most important projects in the works?

[Answer] Requirements for new developments and the need to insure a commanding position in the world's telecommunications network for Italy has pushed ITALCABLE to participate in planning for and establishing an integrated fiber optics mediterranean network which will link Italy to the major world trunklines. Construction of a second underwater fiber optics cable (called TAT9) was started during the first part of last year. This will connect Europe with North America. In this way ITALCABLE will have reached the strategic objectives of inter-connecting the entire Mediterranean area and of linking it with the Atlantic area.

[Question] What does this connection consist of?

[Answer] TAT9 (with an approximate length of 8,000 kilometers) will allow for intra-European connections as well as for transatlantic connections between Europe and North America. TAT9 will have five ports in USA, Canada, England, France, and Spain. The integrated network of underwater fiber optics cables for the Mediterranean area will be put into operation in 1990. These projects, together with the Marseille-Singapore telecommunication system of 14,000 kilometers, are the kick-off point for the project--the project that aims to put Italy at the heart of interconnections, and at the center of communication traffic between the Mediterranean geographical area and the main trunks in world telecommunications.

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CSO: 5500/2484

ERICSSON FAVORS TELECOMMUNICATIONS OVER DATA PROCESSING

Paris ZERO UN INFORMATIQUE in French 19 Jan 87 p 8

[Article by Francois Granon: "Ericsson: Concentration and Reorientation"; first paragraph is ZERO UN INFORMATIQUE introduction]

[Text] The Swedish group is moving away from data processing and concentrating on telephony. A wager which has not yet paid off.

Ericsson is reorienting and concentrating its activities. Reorienting? "Our attempt to enter the office systems market has proven to be too ambitious," company president Bjorn Svedberg admitted a few months ago. Concentrating? "We must not simply maintain, but step up our traditional telecommunications activity," explained Svedberg, whose objective is to "secure a place for Ericsson in the largest and most demanding market in the world, the North American market."

The Swedish giant (78,000 employees at the end of 1985) has just come through three rather dismal years. Growth in revenues has slowed (16 percent in 1984, 11 percent in 1985, and certainly less than 5 percent in 1986) and profits have stagnated: With 878 million Swedish kronor in 1985--probably no more in 1986--Ericsson is below its 1980 profit level although turnover has almost tripled (from 12,174 to 32,500 million kronor--1 Swedish kronar is worth Fr 1).

The company started to diversify in 1980. That year Ericsson prospered from large contracts from Third World countries (Mexico, Brazil, Saudi Arabia). Moreover, like so many others, it was convinced that digital technology would make the telecommunications and computer industries converge. It thus purchased 50 percent of the then bankrupt Datasab. A year later, Ericsson increased its holding to almost 100 percent in this manufacturer of IBM-compatible terminals (the Alfaskop line) and small management and banking systems. Datasab was to constitute the nucleus of a new subsidiary, Ericsson Information Systems (EIS), which was completed in 1982 by the takeover of another Swedish office systems manufacturer, Facit.

With almost 4 billion Swedish kronor in revenues, EIS represented a quarter of Ericsson's turnover and was considered its main asset for development. However, two factors were not taken into account. First, the hazards of the office automation market, where conventional management systems are being squeezed out by IBM or Compaq micros and by small minis from DEC and other firms. Second, the need to gain a strong foothold in the United States, particularly when the home market is small.

"The American experiment, based on large-scale distribution of PC compatibles, cost Ericsson several hundreds of millions of dollars," admitted Stig Larsson, head of EIS. Since fall 1985, the group has had the wisdom to withdraw and focus its data processing activities on Europe. This had to have been a hard blow: closure of the American subsidiary (500 employees), cut-backs at the Swedish plants (more than 5,000 jobs lost), low-price clearance of PC stocks, 800 million kronor in losses in 1985 (in data processing alone).

Indeed, other manufacturers of Ericsson's size experienced similar misfortune (Digital in 1983, for example), and Ericsson is not without assets. The first --which is moving back into the spotlight--is public telecommunications, which still represents one-third of company turnover and enjoys a comfortable profit margin. With installations in 64 countries and about 15 million lines installed or on order, Ericsson's "Axe" exchanges (the latest models being all-digital) are claimed to be number one worldwide, although this claim is disputed by France's Alcatel. Recently, the best contracts have been concluded in Korea, the Netherlands, and the UK. In France, the Swedish firm, which operated under its own name until 1976 (when it was taken over by Thomson), is known to be in the running for purchase of the CGCT [General Company for Telephone Engineering] and thus a share in France's domestic market (16 percent). Inasmuch as assessment of such a politicized and interminable deal is possible, Ericsson appears to be in a weaker position than AT&T or Siemens.

The American market remains the key challenge for Ericsson's public exchanges. According to Stockholm, it is not only the largest and most open market since AT&T is no longer the sole supplier of regional companies, it is also the key to technological progress: It is in the United States, and only there, that manufacturers can test the new services made possible by digitization on a real scale. For manufacturers who have never worked in the United States, the price to pay is high: complete overhaul of their exchanges. Ericsson has taken up this challenge by establishing a development center at Richardson (Texas) and increasing the personnel of its American subsidiary to 2,500. Its goal is to conquer 5 to 10 percent of the public switching market (350,000 to 700,000 lines per year) by 1990. To all appearances, Ericsson, which has already obtained some preliminary contracts (with Mountain Bell, for example) is not too badly placed: perhaps not so well as Northern Telecom and Siemens, but certainly better than Alcatel-ITT.

The strategy for the Stockholm company is therefore clear: Move away from data processing, possibly by forming alliances such as the one concluded with Digital in September 1986; concentrate on telephony, primarily the American market; and maintain its share in the "service sector" including a variety of activities in transmission, military systems, networks, components, and especially mobile telephones (see box). The results of fiscal year 1986, when an energetic budget program was implemented, should be only modest.

It will in fact be the 1987 fiscal year, when Ericsson expects its first big American orders, that will determine the group's future!

[Box]

## The Car Phone: A Major Asset

Ericsson is the leader in mobile telephony, with 30 percent of the world market and more than 50 percent of the non-American market. This success is based on the existence of an almost captive domestic market in the Scandinavian countries (Sweden, Norway, Denmark, Finland, and Iceland), which have been jointly developing the NMT (Nordik Mobile Telephone) system since 1981. NMT's goal is to offer everyone in a vehicle (car drivers, truck drivers, etc.) telephone service as similar as possible to their usual telephone service. This is a difficult requirement to meet.

In fact, before (or after) being routed over the ordinary telephone network, each conversation is transmitted by high-frequency radio waves (450 MHz in the case of NMT). The vehicle receives (or broadcasts) these waves via a special antenna mounted on the roof, enabling it to communicate with a fixed station.

One of the disadvantages of the system is that the small size of the cells frequently obliges a moving vehicle to switch from one fixed station to another, and thus from one channel to another. The NMT system automatically performs this transition with an interruption of less than a second. The system also locates the vehicle without user intervention, thus routing incoming or outgoing calls to the nearest fixed station.

The beehive design is most appropriate for rural or suburban areas, but it cannot provide enough channels in dense urban areas. Ericsson has found a solution by modifying the cell shape. Instead of being circular (omnidirectional antenna), the cells are pie-shaped with a 60-degree arc and are served by directional antennas. This structure provides six cells of 30 channels each in a 2- to 5-km radius around the town center. This system has been adopted in Stockholm and elsewhere.

Today, there are 700,000 cellular telephone users worldwide; one-third of them are in the Nordic countries and use NMT technology. With a user base of 1 percent of the population and 3,000 new subscribers per month--mainly executives and professionals--the system is now beyond the start-up phase. Yet, as is explained by Bjorn Svedberg, president of Ericsson, "the success of the cellular telephone, like that of Transpac, is also its limitation." At certain times of day in urban centers, several attempts are needed to obtain a dial tone. Ericsson is therefore installing its first NMT-900 systems. Using a higher frequency range (900 MHz instead of 450 MHz), they offer 2,000 channels in reduced-diameter cells (20 km instead of 40 km), thus increasing traffic by a factor of 20.

In 1985, cellular telephony registered 1.5 billion kronor in turnover, i.e., a mere 5 percent of Ericsson's activities. But this sector has doubled its volume each year since 1981, and by 1990 it will become a significant feature in the balance sheet, especially since certain more traditional activities are on the decline. Abroad, Ericsson claims to have sold cellular telephone systems in 22 countries, "while no other company sells in more than four." The main customers are Great Britain and the United States. In these two countries, deregulation has opened the cellular telephone market to an endless parade of companies, who are content to respect a common technical standard, sometimes concentrating on small regions. Ericsson has thus operated on a national basis in the UK (with the Vodafone company) and on a local basis in the United States (Detroit, Chicago, etc.) In France, Ericsson is somewhat disdainful of Matra's Radiocom 2000 system and is strongly pushing its services for the installation of a more advanced system. This offer is even an element in the important negotiations on the takeover of CGCT.