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Worldwide Report

TELECOMMUNICATIONS POLICY, RESEARCH AND DEVELOPMENT

No. 265

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INTERNATIONAL TELEX, TELEPHONE SYSTEM WORKING WELL

Kathmandu THE RISING NEPAL In English 28 Jan 83 p 1

[Text] Almost three months after the satellite communications system was introduced in this Kingdom, the theething troubles now seem to be over and functioning of international telex and telephone appears to have been smooth.

There have been complaints in the past of the telex connections abruptly fading away and the line being disconnected. However, this is now no longer as frequent as in the past though the connection to India, specially via the direct and more cheap connection, is still plagued by this problem.

The telecommunications authorities speak of sharp increases in the international telephone calls as well as telex calls. This is because the telephone connections almost anywhere in the world come through within minutes of booking. As far as telex is concerned, direct dialing makes it even more easy and foolproof.

However, there are stray cases of wrong numbers being connected despite dialing the correct number. But this kind of complaints appears to be mostly with calls to India. The subscribers complain that such kind of connection to the wrong number is charged and they are having to pay for something for no fault of theirs. Some of the subscribers say they have made written representation to the telecommunications authorities about this and others say they will be doing so shortly.

Another aspect of the telex system not quite palatable to the subscribers is the billing system under which a bulk "pulse" for each subscriber is noted and each "pulse" charged at the rate of seven rupees.

But for these stray complaints, the new satellite communications system under which Nepal is connected to the rest of the world through the international communications satellite placed in a stationary orbit some 36 thousand kilometres over the earth, appears to be doing well both for the Nepal Telecommunications Corporation as well as the general people who use it.

CSO: 5500/4724

BRIEFS

JAPANESE-AIDED TRANSMITTERS--Katmandu, Feb 23 (AFP)--With the completion of two 100-kilowatt mediumwave transmitting networks, a new chapter has been added to the history of landlocked Nepal's mass communications. The transmission sets, built with Japanese aid and installed in Katmandu and in Pokhara Valley, 225 km west of Kathmandu, went on the air for testing yesterday, an official source said. Nepal started mediumwave broadcasting in 1963, but the antenna power of the existing mediumwave transmitting station had a capacity of only 10 kilowatts and its service area was limited to the Katmandu Valley which only reaches some 650,000 people. Under the current Japanese-aided project both the centre and western development region [Pokhara] will be covered by the mediumwave broadcasting service, thus reaching 55 percent of Nepal's population of 15.26 million. The establishment of one modern studio each at Katmandu and Pokhara has fulfilled wishes to diversity broadcasting and improve the quality of programs. [By Kedar Mam Singh] [Excerpts] [BK231228 Hong Kong AFP in English 0307 GMT 23 Feb 83]

CSO: 5500/4725

JZ200/600 CROSSBAR AUTOMATIC TELEPHONE EXCHANGE DESCRIBED

Beijing TIEDAO TONGXIN XINHAO [RAILWAY COMMUNICATION SIGNAL] in Chinese No 11, 1982 pp 1-3

[Text] After the JTZ Model 200/400-line crossbar automatic telephone exchange was placed into extensive use in various areas, design, manufacturing, and operating units presented many views, particularly reflecting the various problems. Repeaters are small in number; long distance automatic connection "paths" and the outgoing trunks of two 200-line units are incompatible; a connection from a subscriber's telephone to the repeater on the toll board causes each call to occupy a market; and the performance of the toll board's repeater is poor.

The JZ200/600 exchange (called the ZHJ in the design and trial production stage) is a regional automatic exchange equipment designed in coordination with the specific conditions of the country's railway telephone communications network using the JTZ exchange as a base. It can meet the telephone communication requirements of single-office regions such as railway regional stations and intermediate stations.

The JZ200/600 crossbar automatic exchange uses a 200 line basic unit which can be expanded in capacity to 400 or 600 lines. The three-digit numbering system has been adopted for regional subscriber numbering.

Directly connected with the CA-I or CA-II automatic toll link, the point-to-point automatic repeater may be connected to eight "paths" bearing index numbers 81-88, and the number of the repeaters on each "path" may be jumpered according to need. If the home switch is connected to the automatic toll switch, the trunk toll automatic index number would be "9" and the local toll automatic index number would be "8." At this time, the remaining point-to-point toll return repeater would be converted to index number "01-06." Toll boards would be directly joined with such manual toll switchboards as the JT-73 or JT-3A. Special service repeaters 141 and 161 can be connected to the toll board or to a specially established records information [position]. Special service repeater 151 has the capability of automatically ringing back in the direction of the caller. After the caller has dialed number "151," heard the ringback, and put down the transmitter-receiver, the TF 151 repeater will send ringing current in the direction of the calling subscriber's telephone. On hearing his telephone ring, the calling subscriber picks up the hand set again and the ringing stops. After the calling subscriber replaces the handset, the

relay returns to its original state. This "self-ringing" capability may be used by outside plant workers for test ringing during telephone repair, and may also be used for calling and communication between two extensions. If the calling subscriber still has not picked up the handset after 10 seconds of ringing, the TF151 repeater is automatically released and returns to its original state.

The city telephone offices outgoing trump index number "00" may be connected to any type of city telephone office. The city telephone office is connected to an incoming subscriber circuit or is connected by a manual switchboard. Inasmuch as the JTZ Crossbar Automatic Telephone Exchange is already familiar to the specialists in technical railway telephone operation, the following introduces only the principal characteristics of the JZ200/600 Exchange and the differences between it and the JTZ Exchange.

I. Performance Features

1. There are actual subscribers and there are toll subscribers.

Connecting JTZ Exchange toll repeaters and special service repeaters to the subscriber circuits occupies subscriber numbers and causes the 200-line exchange to have only 178 subscribers.

On the JZ200/600 Exchange, the various incoming trunk and outgoing trunk equipment is connected by the vertical unit of the CS grade connector without further occupying subscriber numbers, so that subscribers may be connected to the limit of the line capacity. At the same time, new toll subscriber lines amounting to 4 percent of capacity may be used to connect toll subscriber telephones on lines with loop resistance of less than 3,000 ohms (including the resistance of the subscriber telephone).

2. Capacity expandable to 600 lines.

JTZ Exchange subscriber numbering is according to the three-digit numbering plan, 2XX-5XX when it is a 400-line exchange, so that its capacity can only be expanded from 200 to 400 lines.

In the "TBnz-78 Standard," "7" in regional exchanges is prescribed as the subscriber lead number. When the JZ200/600 Exchange uses the same three-digit numbering plan, it can use subscriber numbers 2XX-7XX, and capacity can reach 600 lines.

3. Each region's subscribers have only one number.

The special operation telephone leading digit of the JTZ Exchange is "1" and its special service repeater is connected outwardly using subscriber circuits. This makes subscriber 2XX also 1XX at the same time, causing one subscriber to have two numbers. When a subscriber dials an incorrect number, an incorrect call is produced. For example, if a subscriber of a JTZ-400 Exchange erroneously dials "171," and if the calling subscriber is in the first 200 lines, he would be incorrectly connected to subscriber 271; if the calling subscriber is in the second 200 lines, he would be incorrectly connected to subscriber 471.

When the special service repeater of the JZ200/600 Exchange is connected outwardly by the CX grade connect, each area subscriber has only one number, so that the erroneous call problem will not exist.

4. There are many automatic toll connection "paths"; loop lines are adequate.

The JZ 200/600 Exchange is equipped with 8 point-to-point automatic toll loop line "paths." When there are 200 lines, they each have 15 outgoing automatic toll repeaters and incoming repeaters, twice the automatic toll connecting "paths" or twice the number of repeaters on the JTZ Exchange, which is adequate to meet the requirements of various conditions. When the capacity is increased to 400 or 600 lines, the automatic toll repeater, after graded multiple reconnecting, may be employed compatibly among 200 different lines, reducing the call loss rate.

When automatic incoming toll repeaters of the JTZ Exchange are firmly connected to incoming senders, each incoming repeater may hold only one sender. The automatic incoming toll repeaters of the JZ200/600, on the other hand, have 15:30 interconnecting circuits with the incoming senders, and each automatic incoming toll repeater may select two incoming senders, raising the connection rate of the automatic incoming toll repeaters.

5. Automatic outgoing toll trunk circuits are simple and reliable.

The JTZ Exchange's automatic outgoing toll trunk circuits are equipped with six relays: the CM, CZ, CH, CC, CS, and CP.

In the JZ200/600 Exchange, the newly designed automatic outgoing toll trunk circuits have only three relays: the CM, CZ, and CH, which directly retransmit the calling subscriber's dial pulses. The equipment is simple and its action reliable. The automatic outgoing toll repeater uses the idle (line) indicator voltage to tape directly the C lead from the CZ-I automatic toll connector. Should a trouble block the outgoing frame of the connector, it would be equivalent to direct blocking of the outgoing repeater. Under the same conditions, the JTZ Exchange, on the other hand, because its idle line indicator voltage from the automatic outgoing toll repeater to the marker is provided only when the outgoing trunk is idle, after the caller has dialed out and made a connection to an outgoing trunk, because the outgoing frame of the connector has already been closed, cannot hold the outgoing frame of the connector. The CS relay is activated and releases all grades of periodic lines. The caller hears a busy tone, and this produces a meaningless call loss.

6. The CS grade connector uses the JX_3 model 10x30x3 connector.

The CS grade connector of the JTZ Exchange uses the JX_2 model 10x20x3 connector, with each vertical unit having 20 groups of moving-spring-type outgoing lines.

The CX grade connector of the JZ200/600 Exchange uses the JX_3 model 10x30x3 connector, with each vertical unit having 30 groups of moving-spring-type outgoing lines, expanding the number of CS grade outgoing lines. Besides

permitting the supply of adequate outgoing trunk loops, rational selection of a graded multiple type for the CX grade outgoing lines should of course require the use of only two intergroup crossconnect frames when expanding to 600-line capacity. If compared with the JTZ, it corresponds to saving an intergroup crossconnect frame in the case of the 600-line capacity.

7. Performance of toll repeaters is excellent.

After the subscriber line has been connected to the repeater of the JTZ exchange, the marker must make a call connection each time the toll operator calls an area subscriber.

Once the toll repeater of the JZ200/600 Exchange is connected by the CX grade, the marker is not required to make another call connection each time the toll operator calls a regional subscriber. This reduces the time to make a connection on toll channels and lightens the busy-hour load of the marker. Newly designed toll boards have a relatively excellent service capability: signal displays are in accordance with toll board requirements, being able to differentiate between toll and regional busy hours. When the regional subscriber is busy, the supervisory lamp on the toll board flashes. It is possible to plug in and talk, and there is an accompanying supervisory tone. Should the subscriber be in the process of making a manual toll call, it would not be possible to plug in; the supervisory lamp on the toll board would flash; and the operator would hear a busy tone.

8. It is equipped with special service 151 self-ringing repeaters.

The JZ200/600 Exchange includes a newly designed self-ringing repeater, so that the maintenance and repair areas may use it to the test ringing operations of subscriber telephone instruments themselves, with no further need to coordinate with on-duty personnel in the automatic office.

9. It is equipped with an excellent three-level fuse alarm signal.

The JTZ Exchange has only circuit fuse alarms. The JZ200/600 Exchange is equipped with three levels of fuse alarms such as: circuit, equipment rack, and array. The newly selected fuse with contact point alarm has such advantages as direct visibility of alarm contact points, each of adjustment, and alarm reliability. To insure that alarm circuits are always in the normal state, the fuse alarm circuits of all equipment racks and arrays are equipped with alarm test keys.

10. It uses number tubes for direct display of subscriber numbers linked to the market.

The JTZ Exchange's link to the subscriber is displayed by using dispersed hundreds, tens, and units lamps, by which the reading of numbers is very inconvenient.

The JZ200/600 Exchange uses a number tube to display the number of the subscriber linked to the market, making it convenient to read the numbers, and

presenting an attractive appearance. On the basis of feedback from maintenance personnel, this substantially helps to remove obstacles in maintenance and repair work.

II. Improvements in the Connectors and Relays

To raise the operational reliability of the JZ200/600 Exchange, the Shenyang Signal Plant made the following improvements to the principal components of the crossbar exchange--connectors and relays:

1. To solve the problem of wire breaks resulting from protruding wires, the method of assembling coil racks and wire guide plates was changed from riveting to directly pressing into a single unit. Although this structure was not convenient for production, it provided insurance against protruding wire ends resulting from the movement of loose coil wire guide plates.

2. Change the HC activation card inthe three-digit connector so that movement in the HC location would not cause motion in the HA or HB activation cards, nor would motion in the Ha or HB activation cards cause motion in the HC activation card, preventing repeat telephone connections.

3. Connector static separator boards changed from phenolic cardboards to expoxy fiberglass boards. The latter, with greater mechanical strength than the former, does not absorb moisture and does not become deformed so easily, and will not cause false connections because of crosses in crosspoints resulting from static separator boards changing shape.

III. Improvement of Equipment Rack Structure

1. Unitized equipment rack.

The JTZ Exchange is divided into three types of equipment racks--left, center and right, while the JZ Exchange is equipped with one type of unitized equipment rack, with the array of alarm lamps changed to a hanging design which may be disassembled, making it convenient to install and arrange and adaptable to various types of equipment rooms.

2. Dismountable double doors for the rear doors of equipment racks adopted.

In the past, almost all models of crossbar exchanges used lift-catch type doors which were extremely inconvenient to use on site. Now the newly designed dismountable double-door construction permits both doors to be opened 120 degrees. When necessary, the rear door may also be dismounted, so that one person may then open or dismount the upper layer of doors, which is both safe and convenient.

IV. Structure and Arrangement of Complete Equipment

The outer dimensions of the J 200/600 exchange are 2,700 x 650 x 360 millimeters. The complet series consists of a total of eight standard types of equipment racks: AX_1, AX_2, BX, SL, RZ, BZ, ZJ_1 and ZJ_{20}, each weighing an average of 250 kilograms. See the chart for the number and types of equipment racks for exchanges of different capacities.

At the top of either end of each series [set or system] of equipment racks, an array of flexible hanging alarms is installed. The contents of the colored lamps are (from top to bottom): red lamp for a blown fuse, blue lamp for a critical technical alarm, green lamp for an ordinary technical alarm, and white lamp (temporarily unassigned). The various equipment racks of an exchange are arranged according to capacity (see Figures 1-3), using fixed screw bolts to connect the racks. To prevent vibration there are mounting holes in the crossbeam at the top of the back of each rack to bolt it to the wall, and there are mounting holes in the base to bolt it to the floor ducts.

Type \ Capacity / Number		200	400	600	Remarks
AX_1	Rack	1	2	3	
AX_2	"	1	2	3	
BX	"	1	2	3	
SL	"	1	2	3	
RZ	"	1	2	3	
BZ	"	1	2	3	
ZJ_1	"		1	1	For 400 lines
ZJ_2	"			1	For 600 lines
Total		6	13	20	

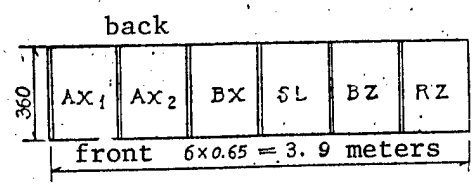

Figure 1. 200-Line Arrangement

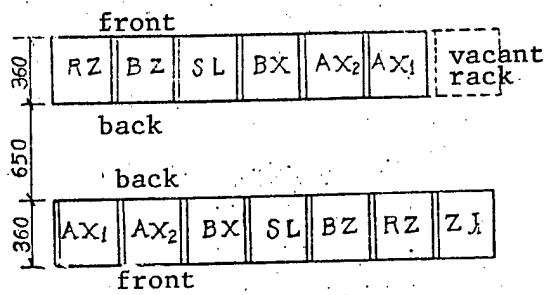

Figure 2. 400-Line Arrangement

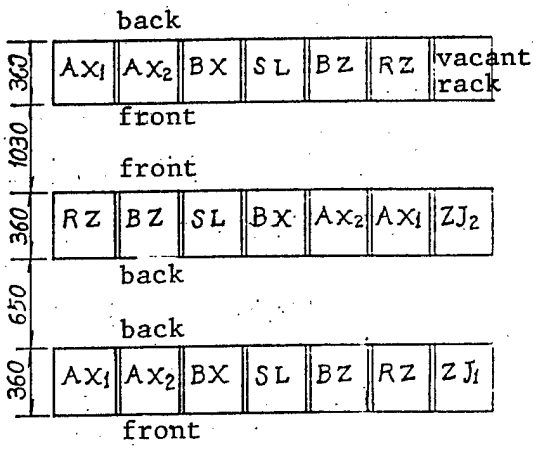

Figure 3. 600-Line Arrangement

8174
CSO: 4008/29

BEIJING NOTES VANDALISM OF BROADCASTING NETWORK

OW219555 Beijing Domestic Service in Mandarin 1200 GMT 20 Mar 83

[Text] Recently, this station has received several letters from listeners calling for better maintenance and management of the wired broadcasting network in rural areas. Listeners (Shao Zhiye) and (He Xichang) of Yinkou City, Liaoning Province, wrote saying that in recent years, the poles and wires of the broadcasting network in the suburbs of Yinkou City have been stolen every so often. One hundred and twenty-five poles and over 10,000 meters of wires in 6 of the 19 production brigades of (Lunan) commune have been stolen, which has resulted in losses of more than 6,000 yuan. These poles were cut down and stolen together with the wires. Because these cases were not investigated thoroughly and dealt with sternly, the criminals are still at large and have become even more brazen. Some broadcasting poles were again stolen in the last Spring Festival season. Some brigades have had no access to broadcasts for over 2 years and the people have complained a great deal about this.

Listener (Long Fei) of Badong County, Hubei Province, wrote saying that he had conducted a survey on more than 200 households of two production brigades and found that wire broadcasts are disrupted in every household. Some peasant households have had no broadcasts for years. Speakers are in disrepair, broadcasting poles and wires have been stolen, and some poles are so rotten they may fall at any time. But the leaders and linemen have turned a blind eye to this matter. There used to be a speaker in every household but now broadcasts cannot be heard anymore.

These listeners urged leaders at all levels to attach importance to wired broadcasting in rural areas and educate the people to protect broadcasting wires conscientiously. Those who are found to have destroyed the broadcasting network should be handled sternly.

CSO: 5500/4128

STRENGTHENING WIRED BROADCASTING MAINTENANCE URGED

OW210611 Beijing Domestic Service in Mandarin 1200 GMT 20 Mar 83

[Station commentary: "Strengthen the Maintenance and Management of Wired Broadcasting in Rural Areas"]

[Text] In recent years, wired broadcasting has gained new development in rural areas in China. But at the same time, broadcasting poles and wires have been found fallen and broken and speakers are not working in some areas. Incidents cited in the letters from listeners in Liaoning and Hubei Provinces are examples of this. These incidents may be attributed to two factors: 1) the wired broadcasting departments have not done their duty in maintenance and management work properly; and 2) some lawbreakers and selfish people have stolen the broadcasting poles and wires. All localities should seriously deal with both situations. First, the wired broadcasting departments of all localities should strengthen their maintenance and management of the broadcasting network and subscribers' receiving facilities. They should conduct necessary reform and do away with the practice of "eating from the same big pot" so as to arouse the initiative of the staff and workers. Second, party and government organs at the county and commune levels should strengthen their leadership over wired broadcasting.

Wired broadcasting has a very bright future. This tool cannot be replaced by radio or television broadcasting. Wired broadcasting is a powerful propaganda tool of the county party committee. Ignoring or failing to make good use of this powerful tool is a mistake. Party organizations at all levels in rural areas should educate the people to protect broadcasting networks conscientiously. Those who willfully steal broadcasting poles and wires and disrupt broadcasting propaganda should be dealt with seriously and should never be allowed to go free.

CSO: 5500/4128

BRIEFS

HEILONGJIANG RETRANSMITTING STATION--A 1,000-kilowatt color TV retransmitting station with a coverage area of 50 kilometers in diameter was built and started trial operation in Tieli County, Heilongjiang Province, on New Year's eve. Construction of this station was jointly funded by Tieli County, the Tieli Forestry Bureau, Shuangfeng Forestry Bureau, Taoshan Forestry Bureau, Tieli Match Factory, Tieli Timber Dry Distillation Plant, and Tieli State Farm. [Text] [Harbin HEILONGJIANG RIBAO in Chinese 4 Jan 83 p 1]

STANDARD COAXIAL CABLE LINE--The Beijing-Zhengzhou Section of the Beijing-Hankou-Guangzhou standard coaxial cable 1,800 line carrier project, which was completed at the end of 1982, was inspected by the concerned unit organized by the Ministry of Telecommunications and the engineering quality is excellent. This engineering project is 843 kilometers in length. Equipped with four systems, it can carry 7,200 conversations simultaneously with no interference. It will ease considerably the congestion of long-distance communications in the Beijing-Hebei-Henan area. [Beijing RENMIN RIBAO in Chinese 4 Feb 83 p 2]

CSO: 5500/4126

TELEPHONE EXPANSION, DOMESTIC PRODUCTION PLANS NOTED

Bangkok SIAM RAT in Thai 31 Dec 82 pp 1, 12

/Article: "Over 100,000 Phones to Be Connected in 1984"/

/Excerpt/ Montri says from mid-1983 telephone use will increase because a telephone exchange valued at over 10 billion baht has been ordered for purchase. At the end of 1984 over 400,000 telephones can be connected, and at the end of 1985 phone will be able to be connected upon request of the people of Bangkok. But for now there are still shortages. The railroads are short 300 million and need maintenance. Other nations can maintain debts of billions.

Mr Montri Phongphanit, assistant minister of communications, announced last noon at the Ministry of Communication that presently Telephone Organization certificates are ready to be dispensed to people who can pay to reserve a phone connection at the beginning of January. At first 70,000, then another 130,000 will follow for those who pay the price of the certificate to reserve a phone connection. People have been asked to get a receipt for the money and register to receive the certificates, which will ensure that the Telephone Organization will connect a phone. It is said that in the next years there will not be problems of delays for the certificates again. If someone wants a phone connected, he will receive a certificate.

Concerning the lack of telephone lines, Mr Montri said that the Telephone Organization is spending over 10 billion baht on telephone exchange equipment ordered from abroad in April and December. By the middle of 1983 more exchanges can be set up, which will enable 2-300,000 new phones to be connected, and in early 1984 another 120,000 phones will be connected. A total of over 400,000 telephone lines will be connected by late 1984, and at the end of the 5-year development plan in 1986 there will be another 500,000 telephones, which will probably be enough to meet the needs of the people of Greater Bangkok.

As for phones in other provinces, of which there are approximately 130,000, there will be another 10,000 by May 1983, and this will increase to over 500,000 by the end of the 5-year development plan.

However, from now until mid-1983 there will still be a shortage of phones, but the Telephone Organization will work as fast as it can, beginning to put down phone lines in early 1983 while awaiting the exchanges that have been ordered for purchase, in order to be able to connect the phones as soon as the exchanges arrive. It is requested that people not harm the phone lines.

In Bangkok an additional 40 to 50 points for long distance telephones will be connected immediately, and within the year 1985 long-distance phones will be connected up-country almost all over the nation and direct rotary long distance phones abroad will be available in 1984 as well.

Reporters have asked of the progress of the phone equipment factory inside the country. Mr Montri says that in February 1983 conditions can be drawn up for the bidding to put up the factory.

9937
CSO: 5400/4334

ANDEAN COUNTRIES STUDY SATELLITE PROJECT

PA050021 Buenos Aires LATIN in Spanish 0428 GMT 3 Mar 83

[Text] Bogota, 3 Mar (LATIN-REUTER) -- The five member countries of the Andean Pact have agreed to conduct feasibility studies on establishing a joint satellite communications system, it has been officially reported in Bogota.

The National Telecommunications Enterprise (Telecom) said last night that the initiative was recently approved in Panama during the meeting of the board of directors of the Association of Andean State Telecommunications Enterprises (ASETA).

The announcement says that, depending on the Feasibility studies, the system may use the "Condor" satellite, which would be launched by the Andean countries, or the already existing Intelsat system.

In addition to Telecom, the Ecuadorean Telecommunications Institute, the National Telecommunications Enterprise of Peru, the National Telecommunications Company of Bolivia and the National Telephone Company of Venezuela are members of ASETA.

Colombian Jaime Aguilera was reelected secretary general of ASETA during the meeting in Panama.

CSO: 5500/2042

PLAN TO LAUNCH DOMESTIC SATELLITE UNDER STUDY

PY190116 Buenos Aires DYN in Spanish 1525 GMT 17 Mar 83

[Text] General Roca, 17 Mar (DYN)--The planning secretariat has a project under study which, if approved, will allow Argentina to launch a domestic communications satellite consisting of 200 earth stations, some of them mobile.

This information was disclosed to the RIO NEGRO newspaper by Alberto Obligado Nasar, head of the Human Resources Development Committee of the Space Commission which is under the jurisdiction of the Argentine Air Force. He said that the project will cost approximately $250 billion. The satellite, made in Canada, will be put into orbit by the U.S. spaceshuttle "Columbia."

Obligado Nasar recently visited El Bolson where he reported that Argentina has already requested from the International Telecommunications Union (ITU) the space to launch the satellite which would go into orbit at a height of 35,000 km at the intersection of Meridian 65 with the equator.

He said that the ITU has also been consulted about feasilibity studies, application and location of centers and eventual clients.

The satellite named "Alik," which is Canadian made, will permit immediate communications and can also be used for the development of educational, health and cultural services and to facilitate television, radio and telephone communications.

Obligado Nasar said that "Alik" has 24 operating units named "transponder." Each unit can operate 24 hours in a full television channel, 388 radio frequencies and about 1,000 telephone lines in permanent use.

The satellite could start operating in 40 months, but he explained that all the work that needs to be done now depends on the ITU approval regarding space concession and satellite orbit.

The 200 earth stations will be installed in different areas of the country and will permit communication in both directions, not only from a determined center to any one point but also the other way around.

CSO: 5500/2045

BRIEFS

NEW RADIO STATION--Buenos Aires, 3 Mar (TELAM)--The executive branch has granted the proper license to the Ranquel Radiodifusion S.A. authorizing it to operate and exploit radio station LV 15 of the city of Villa Mercedes in San Luis Province. [Buenos Aires TELAM in Spanish 0130 GMT 4 Mar 83 PY]

CSO: 5500/2045

DATA PROCESSING INDUSTRY NEEDS, PROSPECTS ADDRESSED

Legal Protection Requirement

Hamilton THE ROYAL GAZETTE in English 8 Feb 83 p 11

[Text] Bermuda must develop "legislative protections" before attempting to set itself up as an international information and communications centre,a leading officer of the Island's Computer Society said last week.

Addressing a Pembroke Rotary meeting, Mr. Eugene Saunders said that although he agreed with the Premier's recent prediction that Bermuda could one day become a focal point of "technological exchange", the right legal framework would have to be in place in order to attract business.

"More specifically, the issue is one of data protection and the right of privacy of information vis-a-vis the right by any individual of access to information of a personal nature, particularly when held by authorities and employers. . .," he said.

Mr. Saunders, who is operations director of Bermuda-based exempted company Africa International, told the meeting that the need for this form of protection was of paramount importance.

"At the conception of the insurance industry, certain legislative accommodations had to be made," he said. "And for an information industry, where a wealth of information of every possible type would be gathered, stored and processed to some form of product, legislative protections too would have to be provided."

"A number of countries have already introduced data protection and privacy legislation, notably France, Sweden, Austria, West Germany, Canada, various US states and recently the UK has proposed to enact legislation this year. Even our potential competitor, Cayman, has privacy clauses in financial acts which seem to partly cover the issue. There are also quite significant differences as each country has adopted a variety of approaches designed to fit its own particular constitutional, judicial and administrative background.

"This approach is most important to Bermuda too, to devise its own legislation to support our own particular concerns."

Mr. Saunders went on to cite "frightening examples" of existing loopholes.

"Currently, there is no protective legislation regarding privacy of information and neither. . .is there an automatic right by an individual to see his or her own personnel file being held by an employer, credit agency or the CID," he said. "But let us say that someone walked in to an establishment, extracted and read information from some filing cabinet or. . .computer terminal, read it, copied it, was caught red-handed and still used it for personal gain, there is no recourse that could be taken against the perpetrator, except prosecution for larceny and only if information was carried away on a medium owned by the victim. Additionally, organisations do not have real recourse against or deterrent to employees who can make mischievous use of company and client information for whatever ill-believed reasons — notwithstanding the issue that if an employee feels strongly that his or her employer is contravening a law of the land, that there should be a proper avenue and procedure to resolve that type of situation.

"The examples mentioned are primarily of the type that should be of concern to to the local citizenry. . .however, for the attraction of an information-based industry, another concern should be satisfied. That is the issue of privacy and to the degree that confidentiality is protected. Fundamental to this area of business interest for Bermuda, is a belief... that one's ideas are one's own private property and deserving of adequate protection — very much like

Mr. Saunders told the meeting there was a clear need for protection against "organisational information barter" which he said could be damaging "to the individual without him either knowing or having recourse to address an inaccuracy".

And he added: "I urge all Bermudians and particularly our civil servants, legal, banking and business community to begin address of this issue and to begin also looking at future endeavours that fall under the umbrella of information industries."

physical property except for the future we will be increasingly concerned about an invisible world of activities that may be even more tangible than the visible.

"In short, we need both strong privacy legislation. . and more importantly the strength to muster up clout when required to exercise our sovereign right, particularly if we should be subject to demands by persistent foreign governments advocating invasion of a Bermuda client's right to privacy."

Impact of Satellite Link

Hamilton THE ROYAL GAZETTE in English 16 Feb 83 p 12

[Text] Plummeting costs of satellite communications can help make Bermuda the world's first international data processing centre, Mr. Eugene Saunders, a member of Bermuda's Computer Society, said yesterday.

It will make economic sense for European companies to link in via satellite to Bermuda's computer systems, Mr. Saunders said in a speech delivered at Hamilton Rotary Club.

The technical scene is already being set for such an "information society" future with the installation of the Cable and Wireless satellite earth station in Devonshire.

The Premier's proposals for a free satellite zone in Dockyard encourage that view, Mr. Saunders continued.

"Indeed, it is encouraging to know that the leader of our Government is also aware of the potential of high technology and is particularly advocating a progressive directive to us all," he said.

"It is also noteworthy to mention that the United Nations has decreed this year 1983 as World Communications Year advocating also the harnessing of new technologies for beneficial developments and co-operation between nations.

"It is here that we can make a great contribution to mankind through commercial arrangements, by establishing the Island as an important link.

"Specifically, I refer to the rapid development of what is generically called an information society."

The new technology — computers, satellites, data communications — open up possibilities for Bermuda as an off-shore data processing centre, an off-shore data bank, international consulting centre, computerised trading exchanges, international conference centre, a national information data base facility and an international information/broadcasting centre.

"The cost of international satellite communications has plummeted, making it now economically feasible for Bermuda to become the world's first data processing centre.

"The point could perhaps be more appreciated by example. Owing to time differences and current customary hours of business here, computer systems in Bermuda stand idle between 5 p.m. and 8 a.m. the following day.

"A company in Europe, for example, could opt to data processing off-shore, in preference to further capital investment to their limited facilities or preference due to privacy reasons, and could utilise a contracted system here via satellite for a period of time per day.

"This would make participating companies' operations more efficient and provide additional rewarding employment opportunities for our next generation of graduates.

"From a technical perspective, a high-speed data transmission facility is first required to be installed here that can have direct access to international destinations.

"It should be with interest that we view both the Premier's remarks regarding a free satellite zone at the Dockyard and Cable and Wireless installation of an Intelsat Standard A satellite earth station in Devonshire because it will require the capability of such facilities to enable opportunity for these business pursuits."

CSO: 5500/7538

BRIEFS

NEW BROADCAST STATION SET UP--Mr Safwat al-Sharif, the minister of state for information, will open today the largest station to consolidate the Arab broadcast network, which includes the Voice of the Arabs and Rukn al-Sudan, in the Batrah area of al-Daqahliyah. The station cost $7 million, aside from the installations which cost $3 million. During the day, the station's transmission will clearly cover Syria, Lebanon, Jordan, Palestine, northern Saudi Arabia, Iraq, and the eastern coast of Libya, aside from the domestic service from al-'Arish on the east to al-Sallum on the west, as well as areas of the Red Sea and Suhaj in the south and the islands of the Mediterranean to the north. At night, it will cover Iraq, Iran and the Gulf states to the east and Yemen and Somalia to the south. The minister will also open the Nile Information Center in al-Mansurah. This contains a hall for lectures and forums, a video services department, and all the means for presenting media services to the people. In addition, there are rooms to train the public opinion leadership in the province in the use of educational aids. The opening will be attended by Engineer Tawfiq Kararah, governor of al-Daqahliyah, and Mamduh al-Baltaji, chief of the Information Office. /Text/ /Cairo AL-AHRAM in Arabic 17 Jan 83 p 8/ 7005

CSO: 5500/4605

BRIEFS

NEW COMMUNICATIONS CENTERS--To mark the fifth year of the victory of the Islamic revolution, three powerful communication centers--part of the Morvarid project in the northern naval base--were inaugurated today in Bandar-e Anzali [formerly Bandar-e Pahlavi on the Caspian Sea] during a military ceremony attended by the commander of the base and the supervisor of the base's politicoideological section. The three centers became operational today. The base's communication project, having been left incomplete with the expulsion of American advisors, consists of three powerful communication centers. It is capable of meeting the communication requirements of the base as well as other naval bases throughout the country by means of its sound, pictures, teletype, 12 telephone channels, two computers and a 10 kw transmitting power system. [Text] [Tehran Domestic Service in Persian 1630 GMT 13 Feb 83 LD]

NEW IRANIAN RADIO TRANSMITTERS--Thanks to the efforts of the expansion unit of Voice and Vision of the Islamic Republic of Iran and with the cooperation of the Zanjan Centre Technical Unit, the installation of the FM transmitters of the Voice and Vision of the Islamic Republic of Iran Zanjan Centre was completed and commissioned today. The SID transmitters will transmit the Voice of the Majlis open sessions on 102.1 MHz and the Voice of the Islamic Republic of Iran Zanjan Centre on 88.3 MHz [as heard]. The output of each transmitter is 300 watts and will cover the town of Zanjan and some nearby villages. [Text] LD100841 Tehran Domestic Service in Persian 1630 GMT 7 Mar 83 LD]

SECOND CHANNEL ADDED TO BUSHEHR TELEVISION STATION--Experimental telecasts from the second program of the Vision of the Islamic Republic of Iran in the Bushehr Province began yesterday. According to a report by the central news unit, with the cooperation of development section of the Voice and Vision of the Islamic Republic of Iran--Shiraz center--and the Central Telecommunications Department of Khuzestan, Fars and Bushehr provinces, telecasts from the second channel of the Vision of the Islamic Republic of Iran in Bushehr have started last night. The citizens of Bushehr can now watch the Bushehr Vision second program on channel 22 UHF and channel 11 VHF. [Text] [GF161046 Shiraz Domestic Service in Persian 1500 GMT 15 Mar 83]

CSO: 5500/4728

BRIEFS

JORDANIAN TV CHANNEL IMPROVEMENT--Israeli television officials have encouraged Jordan to improve television reception of Jordan's Channel 6 in Israel, and to show subtitles in Hebrew. Director general of United Studios Yitzhaq Qol said: "I think this is the only way to prompt the establishment of a second channel in Israel, since Israel is not initiating or making decisions, but is dragging behind in a panic, I suggested to the Jordanian television representative to purchase a machine for Hebrew translations." Yitzhaq Qol said he transmitted the message to the Jordanian television representatives through a middleman during a symposium held in Switzerland. [By Yitzhaq Ben-Horin] [Text] [TA251327 Tel Aviv MA'ARIV in Hebrew 25 Jan 83 p 16]

NEW POSTAL SERVICE, SATELLITE RECEIVING STATION--A rapid mail service to the United States began operating this morning. The Communications Ministry promises that any mail sent through the new service will reach any site in the United States within 72 hours from the time it is deposited in any of three places in Israel: At the distribution office at Giv'at Sha'ul in Jerusalem, the central distributio office at Yad Eliyahu in Tel Aviv or at the post office on Palyam street in Haifa. Communications Minister Mordekay Tzipori announced the establishment of the new service at a news conference in Jeusalem. He added that his ministry is all set to begin alleviating postal services in Israel as of today. The cost of the new service is the equivalent of $35 for any mail item weighing up to 1 kg and another $10 for any additional kilogram. It was agreed with the U.S. Postal Service that a similar service would begin operating in the United States for addressees in Israel. Minister Tzipori added that another antenna would be set up this year in 'Emeq Haela to receive television transmissions from a satellite which will be located over the Indian Ocean and which would enable better television and telephone communications with the Far East and Oceania. He added that television broadcasts would be made more powerful this year to prevent interference by Jordanian, Egyptian and Syrian broadcasts. [By Gid'on 'Eshet] [Excerpts] [TA261536 Tel Aviv YEDI'OT AHARONOT in Hebrew 26 Jan 83 p 4]

24-HOUR RADIO BROADCAST--The broadcasts of Voice of Israel's Network B [657 kHz] will be extended to 24 hours within a month's time. A decision on this was made by the broadcasting authority's plenum yesterday with the opposition of plenary member Tzvi (Zinder), who was formerly the radio director. So far the broadcasts of Network B were stopped at 0100 [2300 GMT], after midnight, except for emergency periods during which the broadcasts were around the clock. In the first stage, the plenum approved extending the broadcasts during the

first 6 months after this decision takes effect. At the end of this period the directorate will present the broadcasting authority's institutions a financial report on the profitability of extending the broadcasts. An initial calculation by the office in charge of commercials on the radio (the radio commercials) stated it would be possible to finance the night broadcasts by means of commercials; the nature of these broadcasts has not yet been decided. At the end of this month a detailed plan will be formulated for splitting Network A [576 kHz]. According to the initial plan, the AM broadcasts will be dedicated to verbal programs while the FM will primarily transmit music. [By Lili Galili] [TA080932 Tel Aviv HA'ARETZ in Hebrew 8 Feb 83 p 2]

BROADCAST SATELLITE PROJECT--A company headed by former Mosad chief Me'ir 'Amit is involved in a $250 million project to launch a communications satellite that will serve clients in Africa and the Mediterranean basin, an official in the Ministry of Science and Development said. The satellite is to begin operating in about 4 years and will offer channels for television, radio and telex for private use. It is to be manufactured by the large U.S. aerospace firm, Fairchild Industries, and launched by the U.S. National Aeronautics and Space Administration (NASA). A prospectus for the project was recently issued by a London-based firm called General Satellite Company, which was set up to coordinate what the prospectus calls the African/Mediterranean Satellite [AMS]. 'Amit's firm, 'Amit Industries, represents General Satellite in Israel. 'Amit's partner in the firm, journalist Hezi Karmel, said that the project, now in the planning stage, is being funded by a group of international firms. 'Amit is one of about 20 members of the newly formed governing council for Israel's space agency, which is now being set up by Science and Development Minister Yuval Ne'eman. The council, composed mainly of scientists and government officials, will convene for the first time next month to discuss ways to encourage research that will contribute to Israel's space programme. [By Charles Hoffman] [Text] [TA240801 Jerusalem THE JERUSALEM POST in English 24 Feb 83 p 1]

BROADCASTING SCHEDULE CHANGES--The broadcasting authority yesterday approved the rescheduling plan for the Voice of Israel, which involves splitting up network A into "Qol Hamusiqa" [The Voice of Music] and the talk network, which will become effective 1 May. "The Voice of Music" will broadcast on FM stereo, classical music only between 0600 and 0100, after midnight. The split network A will broadcast talk programs, including programs for specialized groups. Thus additional broadcasts will be added for new immigrants in languages not previously used, such as Spanish for South American immigrants, and (Yatati) Bukhari for Georgian immigrants from the hilly regions. Member of the broadcasting authority's board of directors Dr Yisra'el Peleg (alignment) has proposed that parallel to the idea of activating the "Voice of the Torah," the Voice of Israel open up the "Voice of Labor and Settlement." Radio director Gid'on Lev-ari said that the possibility of activating a special program for education is being contemplated. [Lily Galili] [Text] [TA150902 Tel Aviv HA'ARETZ in Hebrew 15 Mar 83 p 2]

CSO: 5500/4519

BRIEFS

SATELLITE NEWS EXCHANGE ENDS--Algiers, 17 Mar (APS)--The first phase of inter-African exchanges by satellite was ended on Tuesday as scheduled. This experience which is now considered as conclusive enabled, during two weeks, eight African countries to daily develop their capacity to exchange TV information between themselves and without intermediate. These countries are Kenya, Nigeria, Libya, Tunisia, Egypt, Senegal, Morocco and Algeria which takes the role of coordinator because of its human and technological means in the field of space (both at the level of the Algerian Radio and TV and the ground station of Lakhdaria). Today, the matter deals with examining the technical, journalistic and financial dossier of this first experience in order to draw all lessons which will enable the launching of other experimental phases both on the African continent (URTNA) and the Arab region (ASBU). An important trump is henceforth won if we consider the future of the exchange of experiences by satellite: it is the dynamic work and the active participation of technicians, journalists of organisms of the whole continent who have perfectly understood the importance of the political and strategic stake of the mission they were entrusted with. [Text] [LD171236 Algiers APS in English 1035 GMT 17 Mar 83]

CSO: 5500/122

BRIEFS

FIRE AT BERTOUA RADIO STATION--At high noon last January 11, it took no more than a single match to turn the microwave station into a real blaze which furiously consumed a prey that could not escape. First, the fire attacked the telephone poles, then the transformer station with a generator electric installations, and heavy air conditioners. This station is an emergency unit designed to supply microwave power in case of SONEL [National Electricity Company] failure. The fire then consumed the wall of the most important building, the control room for telephone communications, telex, and radio broadcasting. Fortunately for the people of Bertoua, the state police and agents of the microwave station intervened. Communications were interrupted for a few hours, but plant technicians restored the service. According to these technicians, if the building had been completely destroyed, communications would have been interrupted for at least two years, which is the time it takes to order these preassembled stations from the United States. Damages would amount to several million CFA francs. However, the microwave station was not out of the woods. The brush fire stripped a large old tree which was threatening to collapse on the Batoua polytechnical dispensary. The townhall anticipating the fall of this gigantic tree, cut it down with a saw and a rope, pulled by a large vehicle. The show attracted a big crowd. However, calculations were off, and the tree fell in the direction of the beam, destroying high voltage wires which supply the microwave. Damages are also significant since concrete poles will have to be replaced and the transformer will need repair or replacement. Meanwhile, all communications are cut off. SONEL and telephone officials are at work, and an emergency power line has been provided to restore communications. [By Jean-Mary Neossi] [Excerpt] [Yaounde CAMEROON TRIBUNE in French 27 Jan 83 p 7] 12215

CSO: 5500/96

BRIEFS

NEW TELEX FACILITIES--The Lesotho Telecommunication Corporation is to install a national international telex and data switch in Maseru this year. The M835,000 equipment will be supplied by Plessey Control of Poole, South England. The 4660/20 microprocessor-based system which operates from 50V DC supplies will allow the administration to offer its abbreviated dialling and conference calls. [Excerpt] [MB171542 Maseru LESOTHO WEEKLY in English 4 Mar 83 p 2]

CSO: 5500/117

BRIEFS

NEW TELEVISION TRANSMITTER--The Nigerian Television Authority new transmitter at Gusau, Sokoto State, was commissioned today by Governor Garba Nadama at a ceremony addressed by Information Minister Malam Garuba Wushishi. [Text] [AB082156 Lagos Domestic Service in English 2100 GMT 8 Mar 83]

CSO: 5500/111

BRIEFS

NEW BOPHUTHATSWANA TV SERVICE--The Republic of Bophuthatswana has announced that it is to begin its own television service in January next year. This has been revealed by the minister of works, Mr (A. M. Ngomonkwe), who said the cost of the service would be about $30 million. Studios would be built in the capital Mmabatho and in the Odt region [as heard] Speaking before leaving for Israel, Mr (Ngomonkwe) said the television service would be in three languages: Tswana, Afrikaans and English. Its programs would be seen as far away as Johannesburg on the Witwatersrand. [Text] [MB210943 Johannesburg International Service in English 0630 GMT 19 Mar 83]

RADIO NDEBELE BROADCAST--Radio Ndebele, the South African Broadcasting Corporation's ninth full radio service for the black peoples of South Africa, begins broadcasting from Pretoria from the 29th of this month. The introduction of the Ndebele service comes almost 23 years after the opening of the first black services in 1960 for the Xhosas, the Zulus and the South and North Sothos. With the introduction of Radio Ndebele, which will serve about 500,000 inhabitants of Kwandebele, each of the black peoples in South Africa will have their own radio service. The new service will initially be on the air for just 3 years a day and, for the rest of the time programs will come from Radio Zulu. [Text] [MB151253 Johannesburg Domestic Service in English 1115 GMT 15 Mar 83]

CSO: 5500/116

NORWAY, SWEDEN AGREE ON TELE-X COMMUNICATIONS SATELLITE NET

Stockholm DAGENS NYHETER in Swedish 4 Mar 83 pp 1, 14

[Text] Norway and Sweden are now in agreement concerning the Tele-X communications satellite. That has been clear ever since the Industrial Affairs Ministry in Stockholm received word Thursday from its Norwegian counterpart that Norway will pay 15 percent of the costs.

Officials from both ministries have been in close contact during the week in an effort to find a solution that both countries could accept. One of the things involved was the division of supplies delivered by industries of the two countries.

On Thursday, a message arrived on telex from an official in the Norwegian Industrial Affairs Ministry to say that Industrial Minister Jens-Halvard Bratz had accepted the terms worked out by ministry officials.

Although Sweden and Norway now agree on the terms, it is still unclear when a formal agreement can be signed.

Sweden will now negotiate with Finland on the size of the Finnish share in the project.

The agreement between Sweden and Norway means that more field stations will be set up and this will mean bigger orders for Norwegian industries. At the same time, the government of Norway will help to insure that the Norwegian space industry can make deliveries to the Tele-X project.

Industrial Affairs Minister Thage G. Peterson said that he is satisfied with the response from Norway and he believes the Tele-X project will have a positive effect on Nordic cooperation.

Highly Esteemed

"The Swedish government places this cooperation in high esteem and has gone to great lengths to reach a settlement for that reason," he added.

It is estimated that Tele-X will cost around 1.4 billion kroner in terms of current prices.

At the outset, the Norwegians were prepared to pay no more than 12 percent, while the Swedes demanded 20. Bratz later raised the Norwegian offer to 15 percent. The Swedish understanding was that Norway had committed itself earlier to pay 25 percent.

According to plans, the satellite should be ready for use in 1985-86. It will contain equipment for conveying computer information and video along with two TV channels.

6578
CSO: 5500/2628

FINANCIAL RISKS OF TV CABLE PROJECT SHOWN

Hamburg DER SPIEGEL in German 31 Jan 83 pp 86-87

[Text] Minister for Post & Telecommunications Schwarz-Schilling is urging rapid installation of cable. A study reveals high financial risks.

Recently television workers have been constantly asking Wolf Gorka, departmental head in the Ministry for Economics in Lower Saxony, about profitable assignments. Each time they are given the answer that they would have to "take a risk themselves" (Gorka).

These exaggerated business expectations were roused by CDU Land chairman Ernst Albrecht, in conjunction with a friend in the party in Bonn, the Minister for Post & Telecommunications, Christian Schwarz-Schilling. The two of them are the most vociferous propagandists for the plan for new cable networks for television and communications purposes, the cost of which will run into the billions.

Cable installation is intended to create the technical conditions for the reception of already existing and new radio and television programs, for the establishment of information and education services and service functions and also for linking production branches or computer centers through an electronic network.

At the same time, it is also an announcement of an increase in the number of available jobs, promised by Schwarz-Schilling, which is supposed to result from the installation, use and maintenance of systems such as this. It is also a patent attempt to continue the media policy offensive of the CDU/CSU, which he himself formerly led.

Recently, in a letter to the administrative heads of postal divisions, the minister made the "increase in program offerings" the "condition . . . for the profitability" of the networks, because without it there would not be a sufficiently "high interest in cable connections" on the part of the consumer. Once the widespread networks are installed, particularly to bring in programs that cannot otherwise be received locally, the Laender governed by the CDU can also grant a permit to private television--by pointing to the investment pressures that will then exist.

Schwarz-Schilling has ordered the 17 postal administrative heads, by this week at the latest, to set up " a chronologically staggered ranking of priorities for com-

letion of measures to install cable" for the districts. In 1983 there would be DM 1 billion available, in succeeding years "at least the same amount of investment can be assumed."

Even conservative postal experts are now passing skeptical judgment on Schwarz-Schilling's "full steam ahead." The minister's plans now seem to them to be in part hastily conceived, in part lacking a plan--particularly with respect to the change that is taking place in cable technology.

For the present the postal service can only lay conventional copper cables, while the technology of the future, the glass-fiber cable, has been developed but must still undergo operational and application tests until about 1986. Schwarz-Schilling's risky decision to invest the postal service's billions now in copper cable networks met with astonishment even in distant Japan.

BLICK DURCH DIE WIRTSCHAFT, the economics section of the FAZ, reported that "it is being interpreted as an erroneous course in the long term" in Japan "That the intention in Germany is apparently to stay with the copper cable and not to switch the new systems to glass-fiber technology." In the words of the report, while a wrong decision by the Germans could only "be welcome for the immediate future" to the Japanese companies, they still see in it a "source of future trade conflicts"--like the current price war over videorecorders.

Schwarz-Schilling ignored all the warnings about future opportunities being blocked, which the minister also heard from German cable manufacturers. His standard argument runs: "The copper cables create jobs for us now."

It is obvious that he is not even excluding later double investments. "In large cities and population centers, which would be first in line in the next decade for the installation of glass-fiber cable," he announced to his administrative council, the postal service will "institute arrangements so that glass-fiber cable equipment can be installed next to copper cable."

At the same time, Schwarz-Schilling knows perfectly well that following the surge in employment resulting from cable installation "jobs will be eliminated elsewhere." But, he says, it would be "silly" to give them up now for that reason.

Professors of communication Herbert Kubicek and Axel Zerdick made it quite clear at a DGB [Labor Union Federation] media convention what the effect of introducing cable technology will be: A "massive" speeding up of improving efficiency in th electronic network and at least 1 million additional unemployed. The DGB is looking at one of "the biggest waves of improving efficiency that has ever been set in motion," and is demanding tariff-policy measures to make this measure "socially manageable" (board member Lothar Zimmermann).

For the postal service itself, the economic feasibility of the cable networks is questionable. An Infratest survey for the social-liberal coalition in Bonn revealed that three-quarters of the population was "not very or not at all interested in an increase in programming." But the networks will only become profitable, according to a postal service rule of thumb, if 3 years after installation at least 40 percent,

and 8 years after installation at least 75 percent of households would be willing to be connected to the cable for a fee.

No one has yet been able to say exactly how high these charges would have to be for the postal service to recover its expenses. At the present time, a highly subsidized price of DM 400 per connection is required (running monthly expenses are staggered according to the number of dwellings hooked up to the connection).

A study of a community on this subject, which was generated by the Blaupunkt works in Hildesheim for the city of Lingen, is most revealing. According to the study, the cable companies, if they wanted to avoid losses with their networks, would have to charge DM 1,800, instead of the previous DM 400, for hookup at the transfer point --a price that would further stifle the citizens' rush to cable television.

In addition, channel fees would have to be levied by commercial television promoters who transmit 8 hours of local programming each day with 10 percent TV advertising. Only then would the cable network emerge from the loss column.

But not even Ernst Alrecht wants local television advertising at the moment, because it would draw off so much advertising revenue from the local press that the newspapers' existence would be threatened.

This is the nature of the unresolved questions of technical, financial and political calculation. Ministry official Gorka in Hannover points out the business risks to those in the local trade who inquire. They had been conceded "opportunities" to participate in network operation, the so-called delivery system, for which the postal service has had the monopoly until now. The family business which he once directed, a battery factory, participated in a cable planning company until just hours before he was sworn in as minister (SPIEGEL 45/1982).

On Friday last week, Schwarz-Schilling announced a "cooperative model" for the postal service and private operators for the period following the Bundestag elections--without a private delivery system.

9581
CSO: 5500/2622

PROGRESS, PROSPECTS OF BUNDESPOST'S CABLE TV PROJECT VIEWED

West Berlin DIW-WOCHENBERICHT in German 3 Feb 83 pp 59-64

[Excerpts] The Bundespost's planned investment increase for expansion of the cable TV network has made the issue of cable TV the focal point in the media-political debate. The national media laws announced also envision, within cable pilot projects, the opportunity for the expanded use of the cable TV system. Is it here a question of a strategic shift of position in the arena of media politics which goes beyond the standstill agreement concluding the "Kronberg Decision"?[1] Or is an expanded role in the field of large master antennae planned for the Bundespost within telecommunications policy?

There Is a Very Low Density of Cable TV in the Federal Republic

Cable TV (KTV) means that video and audio signals, like TV programs, cannot be received in every home without cables. The programs are disseminated through wideband distribution networks to the single lines using copper coaxial cables, which have approximately 2000 times the frequency band of narrowband, double wired telephone lines.

Originally, cable TV was introduced mainly into those areas which could not be serviced in the conventional way because of local propagation conditions; i.e., with an elementary (single) antenna (EA). In the Federal Republic this amounts to 2 households per 100 (about 0.4 million) which do not receive the broadcast signals in the adequate field intensity. Additionally, there are approximately 0.5 to 1 million households whose reception is impeded by high-rise buildings.[2]

Abroad, cable TV has developed through cabling areas with impeded reception in very much the same way. However, it was soon discovered that a strong demand for cable TV arises even in those areas already serviced without cable whenever additional programs, not receivable with conventional antennas, are fed into the cable TV system; e.g., over the radio-relay network. Thanks to their better antenna technology, KTV systems in certain areas are able to receive programs from neighboring countries or have these programs brought in to them through the wideband system of the telecommunications

administration. Besides, the dissemination of programs, which are additionally received or produced in local studios, is an important opportunity for expanding programing where this is allowed by the broadcast and copyright laws. The relatively high density of cable TV in Belgium, Holland, Ireland and Switzerland can be traced back, to a considerable degree, to the demand which resulted from the additional program opportunities.

The production of separate local program in every terminal station is, however, a process of intense labor. Only the opportunity providing many such KTV systems jointly with additional supraregional programs led to the enormous expansion of cable TV which, for example, can be observed in the United States and Canada. There, TV satellites partly provide joint supraregional program supply so that a much greater number of customers can be reached with the same program. At the same time, Pay-TV allows for individual billing (accounting for each TV channel).

Above all, the growth of KTV in some of the Laender can be explained by the offer of additional receivable programs--principally, entertainment or variety shows--as well as by the possibility of individual billing. Modern KTV systems can telecast up to 50 TV programs, depending on quality. In some countries--the Federal Republic, Great Britain and France, for instance--the telecast of additional programs runs into broadcast and copyright legalities, however; this explains the resulting differences in KTV density. Providing KTV to impeded areas, as well as taking advantage of large master antennae (GAA)[4], were, up to now, in the forefront of KTV network investments. Resulting opportunities for a greater number of TV programs through KTV have not been realized up to now because of broadcast legalities.[5]

The Status of KTV in the Federal Republic and the Bundespost's Plans for its Expansion

Of the 21 million households which have TV sets (degree of saturation: 97 per one hundred), 52 households per hundred have, according to Bundespost data of January 1982, elementary antennae (EA). The other households are connected, for the most part, to private master antennae of varying sizes and classes; only a very small portion uses large master antennae (GGAA) and cable TV systems with more than 100 users which can be converted for the propagation of additional programs at low cost. It is also noteworthy that only 1.3 households per hundred are serviced by the distribution system operated by the Bundespost.

Although the Bundespost has conservatively invested in recent years, the amount of investment has steadily risen.[9] It has concentrated solely on those fields which were non-conventional in the media political debate. The largest part of the investments in this field was made by private enterprises. This emphasis can now be shifted because of the envisioned investment increases. Substantial social changes will also result because of the Bundespost's investments. If one examines the envisioned focal points of the Bundespost's expansion program for 1983 in the wideband field, such as:

--a sharp public need for KTV systems because of high-rise impedence, ordinances against outdoor antennae and other artificially created gaps in service,
--wideband isolated networks (KTV systems) for communities which cannot be serviced in the conventional manner because of local propagation conditions,
--connecting and expanding existing isolating networks,
--emphasized cabling of cities which are especially interested in a KTV network,

then the last three investment focal points are to be stressed above all.

According to Bundespost indications, the exact distribution of 1983 investments and their individual focal points are not yet firm. It is, however, the last point which should especially interest potential investors as well as the governments of the Laender which want a liberalization of the broadcast laws through a new media policy. As a result, great significance is attached to the way in which private enterprises, which have been permitted already for a long time to establish small private KTV systems, can service major areas with wideband distribution systems in cooperation with the Bundespost. These privately established systems are to be fed by Bundespost terminal stations.

Is the question here about an increase, economically and politically motivated, in order to meet an unsatisfied demand? Surely, the question also arises why this demand could not have been satisfied in the past by antenna builders. This is connected to the fact that since 1977 master antennae are not permitted to cross property boundaries and are thus limited in size; i.e., in the number of connections for each terminal station. Only the Bundespost is permitted to establish major wideband distribution systems. The models of cooperation envisioned by the Bundespost would now also open this field of endeavor to private enterprises.

Or would they rather satisfy the expected demand which will arise on the level of the Laender only through new ground rules in broadcast law,-- re: the possibilities of program offer (private or under public law)? Since a new framework for broadcast legalities is not yet being considered, it follows that a position can be taken regarding only the Bundespost's investment plans.

Can Cabling Create New Jobs?

The Bundespost's minister emphasized in presenting the 1983 budget that the expansion of wideband distribution systems for radio and TV reception is to be intensified on the basis of the most up-to-date copper coaxial technology; therefore, the Bundespost raised its initial budget supplement in this area from DM 410 million to DM 1 billion.

Additionally, the Bundespost intends to cooperate with private enterprises. The firms are to have the opportunity of establishing and operating local wideband distribution systems based on the Bundespost's technical standards. In this connection, the minister mentioned the creation of about 15 thousand

additional jobs, which would result because of the increased investment of DM 590 million, as an essential reason for the increased expansion of these cable TV networks.

It Is Difficult to Understand the Employment Opportunities Resulting From KTV Investments

This newspaper has reported in the last year on employment opportunities resulting from the Bundespost's investments.[14] However, the calculations refer only to the direct and indirect effects of all the telecommunications investments for items procured by the Bundespost in 1980. It is necessary to be cautious in applying these figures to evaluate KTV investments.

The DIW [German Institute for Economic Research] began with the work productivity and price levels of 1980 in its calculations. Based on the most recent DIW economic forecast for 1983, as compared to 1980, we can reckon with a price increase in investments of 11.5 percent.[15] The rise in productivity, as compared to 1980, can amount to approximately 5.2 percent. It is only by taking both these aspects into account that will lead in 1983 (if assuming about the same production structure as for 1980 and a similar price and production development) to the employment of as many as 13,000 people for each DM 1 billion invested in telecommunications facilities.

From this point of view, the above-mentioned statements about employment opportunities through telecommunications investments in KTV seem super-elevated, unless the Bundespost has considered employment opportunities resulting from private investments which could arise because of greater participation by private antenna builders.

According to data from the Central Association of the Electro-Technics Industry (ZVEI), barely DM 1 billion was spent for antenna construction in 1981 (elementary and master antennae). The Bundespost's increased investment activity in the wideband field can, therefore, lead to a strong increase in KTV investments in 1983 (at present prices), if the antenna investments of private investors do not correspondingly decrease.[16]

Whether this is the case depends certainly also on the basic conditions according to which private KTV systems, based on contracts of cooperation with the Bundespost, can be built and operated, and on the long-term media-political concept which will be represented by the individual Laender governments.

The exact format of these contracts of cooperation and the documents associated with them are not yet known in detail. Initial drafts envision, however, very restrictive operation because of telecommunications legalities. Private KTV systems can be built only according to the Bundespost's technical specifications and are to be transferred to the Bundespost after 15 years of licensed operation at market value. Operators of KTV systems are not to be permitted to offer telecommunications services.

The basic stipulations of broadcast legalities are not yet finalized for the Laender media laws, which are now under consideration. Where they are considered as drafts, as in Hessen and Niedersachsen, they envision various incentives for KTV broadcast operators. For example, Niederhausen intends to permit additional TV programs to be nationally telecast so that there would be no chance whatsoever for local KTV programs.

Possible private KTV investors will probably be very inhibited by the telecommunications and broadcast legalities outlined here so that traditional master antennae will rather remain the focal point of private investments.[17] From this viewpoint, the expected additional employment opportunities from KTV investments will also remain limited to the Bundespost's investment increase. Opposing these employment opportunities is a possible decline in the number of private antenna builders, if, as a result of the Bundespost's increased KTV investments, the demand for private master antennae undergoes an overall reduction.

The Outlook

Further studies are necessary in evaluating the development of KTV in the Federal Republic. This has been demonstrated by the ideas already presented. At the same time, the question about industrial-political considerations between investments in a coaxial distribution system which deals with the demand for entertainment, or in an integrated wideband system on the basis of glass fiber needs to be answered, and shortly, to be sure. That which has been briefly covered here results in the following:

The increase of the Bundespost's supplementary investments for KTV networks has up to now been only just an indication in the media-political landscape, without clear decisions under public law having been made about the long-term role of the broadcast monopoly relative to additional program offers and also of the telecommunications monopoly in respect to additional services being offered. As long as these questions are moot, total cabling will be a long time in coming, even if private cable companies participate. As a result, the Bundespost's cable investments should be understood rather as an attempt to catch up after years of staying behind. It is also questionable whether these additional investments by the Bundespost are even profitable with the current fees as they are. Whether cable TV in the Federal Republic will ever realize the worth which exists due to its technical potential will be proved only if the legal ramifications permit the universal introduction and utilization of KTV systems. Difficult media, copyright and even telecommunications problems of legality have still to be solved on the way there.

FOOTNOTES

1. One could conclude after the discussion of the former Bundeskanzler Helmut Schmidt with the Minister Presidents of the Laender on 12 May 1978 that there will be no decision about the universal introduction of cable distribution systems (networks, programs and services) before the completion and evaluation (sometime in 1986-87) of the pilot projects

for cable TV planned by the Laender and that the corresponding adoption of the broadcast system under public law to this situation would take place only afterwards.

2. Compare: EXPERTS' COMMISSION NEW MEDIA - (EKM), Baden-Wuerttemberg, Final Report, Stuttgart, 1981, p 55

4. In apartment houses and complexes, GAA's are less expensive to install and operate.

5. The possibility of feeding in all regional and possibly foreign programs, in addition to the usual receivable programs, is not yet possible in the Federal Republic because of broadcast legalities. Only locally standard and receivable programs are permitted and not long distance ones.

   The Bundespost's minister has called upon the Laender in connection with the planned raise in KTV investments to quickly create the necessary legal prerequisites.

9. The number of households connected to the wideband distribution system of the Bundespost was (in 1000's at year's end): 1978, 26; 1979, 30; 1980, 72; 1981, 270 and on 31 June 1982, 350.

14. Compare Mueller, Juergen and Wessels, Hans "Opportunities for Production and Employment from Telecommunications Investments of the German Bundespost", weekly report of the DIW, Nr. 1-2/83.

15. "Guide Policies of Scientific Development 1983", weekly report of the DIW, 1-2/83.

16. The investments of the German Bundesbahn (DBB) in this field amounted to only DM 40 million in 1981 and DM 258 million in 1982.

17. Only with the transmission of programs over television satellites (from 1985) can a growing demand for KTV result without a "liberalization of the broadcast law" because master antennae will offer a substantial price advantage with satellite reception as opposed to elementary antennae.

12247
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FINLAND JOINING INMARSAT SYSTEM

Helsinki HELSINGIN SANOMAT in Finnish 15 Feb 83 p 8

[Article: "Inmarsat System Coming to Finland"]

[Text] The maritime radio satellite system is coming to Finland even though at this time it includes only one Finnish ship, the freighter Bulkgard of the Bulk Alandica Shipping Firm, which is presently sailing in African waters. On the other hand, throughout the whole world there were 1,600 Inmarsat ships at the beginning of February.

Last week the Postal and Telecommunications Administration hastened to announce the uniform rates of the new communications service. According to a communique of the postal and telecommunications service, satellite communications with ships will become cheaper on Tuesday 15 February. At that time a telephone call will cost 30 markkaa per minute and a telex will be 13 markkaa per minute. The rates will be the same regardless of the location of the ship. Connections can be made anywhere in the world except for the polar regions.

Inmarsat has been in service for a year and the telecommunicatons service believes that it will meet with the same kind of approval in Finland as it has elsewhere; it has grown a full 65 percent in 1 year. It is expected that this same trend will continue this year also.

The advantages of satellite telephone connections are rapid and clear connections, the voice is "as if it were next door".

Inmarsat calls from Finland can be made from the ship-to-shore telephone number 92026. On the other hand, access to ships from the rather new automated Nordic NMT-mobile telephone network will be direct. Calls from ships to Finland will be automated.

A Long Background

Inmarsat goes back to the last decade when the Inter-Governmental Maritime Consultative Organization, IMCO, clarified the bases for an international maritime satellite system and organization in 1972--1974. An agreement itself came about in 1976 and the organization was established on 16 July 1979. Finland is one of the founding members.

Europe's first joint Nordic earth station was put into operation a year ago in Eikis, Norway. Since then, five additional earth stations have been established, six more will be built elsewhere in the near future, in the Soviet Union, among other places.

The system's satellites or three operational and three reserve satellites are at an altitude of 36,000 kilometers. There rate of revolution is the same as that of the earth. They will also offer opportunities for radio navigation.

10576
CSO: 5500/2623

TELECOMMUNICATIONS AGENCY SURRENDERING EQUIPMENT MONOPOLY

Helsinki HELSINGIN SANOMAT in Finnish 17 Feb 83 p 8

[Article: "Postal and Telecommunications Administration Giving Up Monopoly on Equipment"]

[Text] Jyvaskyla--Beginning in March the telephone subscriber will no longer be only at the mercy of the Postal and Telecommunications Administration (PTL) for the selection of rental equipment. Each customer will freely be able to acquire additional equipment for their telephones. These are, among other things, internal exchanges and switching units, automatic answering machines, express telephones, and data transfer equipment.

General Manager Pekka Tarjanne of the Postal and Telecommunications Administration told the telecommunications area chiefs in Jyvaskyla that Finland will observe general international developmental trends in the area of communications.

The customer will only have to make certain that the equipment is approved for connection to the general telephone network. A check can be accomplished at the closest telephone office.

Not all of the equipment available satisfies the structural stipulations of Finland's telephone network. For example, many of the decorator phones have turned out to be incompatible with the Finnish network. Unapproved equipment, on which maintenance has been neglected, can cause disturbances and damage to the telecommunications network.

The Postal and Telecommunications Administration will publish a list of equipment approved for connection with the telephone network. Type-approval is being accomplished by the PTL's tele research section. This takes time and, therefore, initially the list of equipment types is small.

In addition to the freer procurement of terminal equipment for the telephone network, the PTL will continue the same policy with respect to other terminal equipment which can be attached to the telex-network and the data transfer network, among other things.

An experimental satellite intended for the transmission of radio and television programs and data transfer to a certain degree will apparently be brought up for consideration by the governments of Sweden and Norway in the near future and at a session of the Nordic Council next week.

According to Tarjanne, Finland will make a decision on the basis of the Norwegian and Swedish examples, but its participation in the project will perhaps be only 2--3 percent.

Tarjanne called the satellite project an industrial policy consideration. The telecommunications industry of the Nordic countries needs domestic markets to get started and to keep abreast of international competition in antenna technology and the construction of earth stations.

According to Tarjanne, the experimental phase initiating the satellite era in the Nordic countries will possibly become a reality in 3 years or in the winter of 1986.

However, the leadership and district chiefs of Finland's telecommunications system are presently concerned about the reduction of investment funds.

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CSO: 5500/2623

CAVI PIRELLI CABLE CONTRACT WITH SAUDI ARABIA

Rome IL GLOBO in Italian 8 Jan 83 p 4

[Text] Milan (RED)--With a contract worth about 6 billion lire, Cavi Pirelli has booked an order in Saudi Arabia to supply 200 km of 15-kilovolt impregnated paper-insulated cable to the Saudi Consolidated Electricity Company in the western region.

Cavi Pirelli, a company directly controlled by Industrie Pirelli S.p.A., obtained in 1979 one of the largest contracts in the telecommunications cables field from Libya, for the amount of $500 million, and booked 4 orders in Canada, the most recent of which dates from September 1982, for connecting Vancouver Island with the mainland.

With two locations in Italy, at Milan and Arco Felice in the province of Naples, and control of the stockholdings of another 10 companies in the field, Cavi Pirelli employs a total of over 9,000 persons. It had billing of 400 billion lire in 1981, 39 percent of which came from exports, and reported a profit of 8 billion. It ranks as a world leader and of the Pirelli group's total operations, the cables division represents only 40 percent of billing, which amounted to $4 billion in 1982, about 10 percent less than in 1981. The cables division, with total billing of about 2,160 billion lire (at the current exchange rate), has suffered in particular from the drop in public orders, its principal market, and from the increasingly aggressive competition of Japanese industry. Overall, Pirelli's cables division broke even.

11915
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NORWEGIAN INDUSTRY TO BE INVOLVED IN TELE-X WORK

Oslo AFTENPOSTEN in Norwegian 5 Mar 83 p 7

[Article by Knut Lovstuhagen]

[Text] The Tele-X satellite project will represent development work for Norwegian industries amounting to close to 100 million kroner, as far as can be determined now, so soon after the government decided that Norway would take part in the experimental communications satellite for which the Swedes took the initiative. The biggest job will go to Elektrisk Bureau, but Kongsberg Weapons Factory, Raufoss Ammunition Factories, Ticon Plastic and AME will also do work for Tele-X.

The experimental satellite, Tele-X, which will be launched in 1986, has turned into a Nordic project now that it is definite that Norway and Finland will join Sweden and pay part of the 1.45 billion kroner the satellite will cost before it goes into orbit. Norway will pay around 200 million kroner of this amount.

"Our part of the work on the project will be at ground level, since we will develop and produce some of the ground stations that will be part of the operating communications experiments," technical director Ove Aanensen of Elektrisk Bureau told AFTENPOSTEN. "We will also develop the guidance system."

The stations or office terminals in question are small electronically-equipped antennas that will stand on the roofs of commercial buildings and convey voice and data transmissions via satellite. Elektrisk Bureau will supply around 100 systems for the Tele-X experiments.

The contract for the development aspect and the first prototypes will run to between 60 and 70 million kroner. The starting point for the office terminals will be the EB [Elektrisk Bureau] concern's so-called shipboard ground stations for maritime satellite communications.

Director Aanensen expects Tele-X to be followed by an operative satellite system for the Nordic region and for Elektrisk Bureau this could mean a market worth several hundred million kroner for office terminals over a

period of 10 years. If we look at developments on the international level, the prospects are much greater. "If we can supply the Nordic market as planned and if our exports go as planned, our involvement in satellites will eventually employ between 300 and 400 people." Aanensen called Tele-X a logical way into the Nordsat project.

The other Norwegian firms involved in the Tele-X project will supply equipment for the satellite itself. Kongsberg Weapons Factory will produce parts for a mechanism that keeps the satellite's command antenna pointed toward a fixed spot on earth at all times. Raufoss Ammunition Factories will make a mechanism that keeps the antenna folded up during the launch phase and a similar part to perform the same function for the solar cell panels.

The associated company, Ticon Plastics, Inc., will supply a bracket made of a composite material that will hold the command antenna on Tele-X while AME in Horten will develop some electronic circuits for the satellite.

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END