JPRS 72135

27 October 1978

WORLD

WIDE

TRANSLATIONS ON TELECOMMUNICATIONS POLICY, RESEARCH AND DEVELOPMENT

No. 57

Reproduced From
Best Available Copy

U. S. JOINT PUBLICATIONS RESEARCH SERVICE

DISTRIBUTION STATEMENT A
Approved for Public Release
Distribution Unlimited

20000315 125

NOTE

JPRS publications contain information primarily from foreign newspapers, periodicals and books, but also from news agency transmissions and broadcasts. Materials from foreign-language sources are translated; those from English-language sources are transcribed or reprinted, with the original phrasing and other characteristics retained.

Headlines, editorial reports, and material enclosed in brackets [] are supplied by JPRS. Processing indicators such as [Text] or [Excerpt] in the first line of each item, or following the last line of a brief, indicate how the original information was processed. Where no processing indicator is given, the information was summarized or extracted.

Unfamiliar names rendered phonetically or transliterated are enclosed in parentheses. Words or names preceded by a question mark and enclosed in parentheses were not clear in the original but have been supplied as appropriate in context. Other unattributed parenthetical notes within the body of an item originate with the source. Times within items are as given by source.

The contents of this publication in no way represent the policies, views or attitudes of the U.S. Government.

PROCUREMENT OF PUBLICATIONS

JPRS publications may be ordered from the National Technical Information Service, Springfield, Virginia 22151. In ordering, it is recommended that the JPRS number, title, date and author, if applicable, of publication be cited.

Current JPRS publications are announced in Government Reports Announcements issued semi-monthly by the National Technical Information Service, and are listed in the Monthly Catalog of U.S. Government Publications issued by the Superintendent of Documents, U.S. Government Printing Office Washington, D.C. 20402.

Indexes to this report (by keyword, author, personal names, title and series) are available through Bell & Howell, Old Mansfield Road, Wooster, Ohio, 44691.

Correspondence pertaining to matters other than procurement may be addressed to Joint Publications Research Service, 1000 North Glebe Road, Arlington, Virginia 22201.

BIBLIOGRAPHIC DATA SHEET	1. Report No. JPRS 72135	2.	3. Recipient's Accession No.
4. Title and Subtitle TRANSLATIONS ON TELECOMMUNICATIONS POLICY, RESEARCH AND DEVELOPMENT, No. 57			5. Report Date 27 October 1978 6.
7. Author(s)			8. Performing Organization Rept. No.
9. Performing Organization Name and Address Joint Publications Research Service 1000 North Glebe Road Arlington, Virginia 22201			10. Project/Task/Work Unit No. 11. Contract/Grant No.
12. Sponsoring Organization Name and Address As above			13. Type of Report & Period Covered 14.

15. Supplementary Notes

16. Abstracts

This serial report contains translations from the world press and radio relating to worldwide political, economic and technical developments in telecommunications, computers, and satellite communications. Coverage will be worldwide with focus on France, Federal Republic of Germany, United Kingdom, Italy, Japan, the USSR, People's Republic of China, Sweden, and the Netherlands.

17. Key Words and Document Analysis. 17a. Descriptors

Worldwide
Computers
Satellite Communications
Electronics and Electrical Engineering
Telecommunications
Telemetry

17b. Identifiers/Open-Ended Terms

17c. COSATI Field/Group 09B, C, F, 17B, 22B

18. Availability Statement	19. Security Class (This Report)	21. No. of Pages
Unlimited Availability Sold by NTIS Springfield, Virginia 22151	UNCLASSIFIED	94
	20. Security Class (This Page) UNCLASSIFIED	22. Price

FORM NTIS-35 (REV. 3-72)
THIS FORM MAY BE REPRODUCED
USCOMM-DC 14952-P72

JPRS 72135

27 October 1978

TRANSLATIONS ON TELECOMMUNICATIONS POLICY, RESEARCH AND DEVELOPMENT

No. 57

CONTENTS PAGE

WORLDWIDE AFFAIRS

Vietnamese, Iraqi News Agencies Sign Cooperation Accord
(VNA, 8 Oct 78)..... 1

FRG Broadcasting Consortium To Cooperate With PRC
(DPA, 27 Sep 78)..... 2

Sudanese, Soviet News Agencies Sign Cooperation Agreement
(SUNA, 2 Sep 78)..... 3

PRC Broadcasting Delegation Signs Pact, Ends French Visit
(NCNA, 13 Sep 78)..... 5

Persian Gulf Uses Soviet Satellites To Monitor Weather Forecast
(Lynn Manning; THE GULF WEEKLY MIRROR, 29 Jul-4 Aug 78)..... 6

Yugoslav, DPRK News Agencies Sign Cooperation Agreement
(TANJUG, 8 Sep 78)..... 7

Briefs
French-Indonesian Telecommunications Pact 8
News Agencies Conference Opens 8
Broadcast Engineers Conference 8
Chinese, Italian Sign Agreement 9
Submarine Telecommunications Cable 9
Sweden-Sri Lanka Telecommunications Pact 9
GDR-Philippines News Agency Cooperation 9
Mongolia-Hungary Radio Protocol 9
Pan-African Network Equipment 10
PRC-FRG Cooperation Talk 10

CONTENTS (Continued) Page

FRG-PRC Cooperation Agreement 10
CAE/USSR Cooperation 10
Nigerian News in Lagos 10
Socialist News Agencies Conference 11
USSR-International TV Exchange 11
Soviet TV Equipment in Cuba 11

ASIA

INTER-ASIAN AFFAIRS

Indonesian Officials on Submarine Cable Network Linking ASEAN Nations
(ANTARA, 2 Sep 78)..... 12

Vietnam Proposes Radio, TV Exchange Program With Indonesia
(AFP, 14 Sep 78)..... 14

Vietnam Joins Asian Broadcasting Institute
(Lumpur Domestic Service, 7 Sep 78)..... 15

Briefs
ASEAN Submarine Cable Network 16
Singapore-Philippines Cable Inaugurated 16

AUSTRALIA

First Steps Taken Toward Era of Satellite Communications
(THE AUSTRALIAN, 28 Sep 78)..... 17

British Military Breakthrough on Speech Transmission
(THE AUSTRALIAN, 25 Sep 78)..... 19

New Fire Systems for Submarines
(THE AUSTRALIAN, 10 Oct 78)..... 20

M/600 Minicomputer To Be Used in Fuel Exploration
(THE AUSTRALIAN, 10 Oct 78)..... 21

Call for Better Use of Industry
(THE AUSTRALIAN, 25 Sep 78)..... 22

Briefs
Intelsat Echo Problem 24

CONTENTS (Continued) Page

BANGLADESH

Briefs
New TV Station 25

CAMBODIA

Pol Pot Reports on Cambodia's Telecommunications
(Editorial Report)..... 26

INDIA

First Satellite To Be Launched in 1981
(General Overseas Service, 10 Sep 78)..... 27

Synchronous Satellite Experiments Underway
(THE HINDU, 20 Sep 78)..... 28

Briefs
Seminar on Telecommunications 29
Workshop on Rural Broadcasting 29

INDONESIA

Briefs
New Television Stations 30

JAPAN

NTT Finishes Fiscal Year in Black, Ends 3 Years of Red Ink
(KYODO, 31 Sep 78)..... 31

PEOPLE'S REPUBLIC OF CHINA

Briefs
Tibet Postal, Telecommunications Conference 33
Liaoning Microwave Communications 33

VIETNAM

Briefs
An Giang Telephone Links 34

CONTENTS (Continued) Page

EASTERN EUROPE

CZECHOSLOVAKIA

Briefs
Vietnamese Radio Official's Visit 35
Communications Minister 35

YUGOSLAVIA

Radio Broadcasting Developments in Vojvodina Outlined
(TANJUG Domestic Service, 12 Sep 78)..... 36

LATIN AMERICA

ARGENTINA

Briefs
Second Satellite Ground Station 37

BELIZE

First Satellite Communications Station Begins Operation
(THE REPORTER, 8 Oct 78)..... 38

BOLIVIA

Briefs
Microwave Network Expansion 40

BRAZIL

INPI Delays Payment for Technology in EDISA-Fujitsu Contract
(O GLOBO, 18 Sep 78)..... 41

Labo To Initiate Manufacture of Minicomputers in 1979
(O GLOBO, 18 Sep 78)..... 43

Parana Firm To Place First Minicomputer on Market in October
(O GLOBO, 18 Sep 78)..... 46

CONTENTS (Continued) Page

Communications Minister Discusses Concern in CPA Bidding
(O ESTADO DE SAO PAULO, 23 Sep 78)..... 49

TELEBRAS Defends Use of Domestic Satellite
(O GLOBO, 15 Sep 78)..... 51

COLOMBIA

Briefs
Geostationary Communications Satellite 52

URUGUAY

Briefs
Reorganization of Broadcasting Service 53
ANTEL Contract With Spanish Firm 53

NEAR EAST AND NORTH AFRICA

INTER-ARAB AFFAIRS

Arab States Broadcasting Union Meets in Riyadh
(SNA, 15, 26 Sep 78)..... 54

Issues on Agenda
Conclusion of Meeting

'GULF NEWS AGENCY' Members Conclude Meetings in Manama
(INA, 9 Oct 78)..... 56

EGYPT

Briefs
Satellite Ground Station 57

IRAQ

Contract Signed for Radio, TV Complex
(AL-THAWRAH, 8 Sep 78)..... 58

ISRAEL

Concern Over Arab Broadcast Plans Reported
(JERUSALEM POST, 27 Sep 78)..... 59

CONTENTS (Continued) Page

LIBYA

Briefs
Regional Communications Networks 60
Telecommunications Center 60

QATAR

Biggest Monitoring Station in Middle East Nears Completion
(QNA, 21 Sep 78)..... 61

SUB-SAHARAN

INTER-AFRICAN AFFAIRS

Nonalined Bloc Asked To Improve Radio Frequencies
(TIMES OF ZAMBIA, 12 Oct 78)..... 62

Briefs
Tunisia-Niger Media Cooperation 63

DJIBOUTI

Ground Station in Ambouli To Link Djibouti With World
(LE REVEIL DE DJIBOUTI, 21 Sep 78)..... 64

LIBERIA

Telecommunications Corporation To Increase Satellite Capacity Station
(THE LIBERIAN AGE, 29 Sep 78)..... 68

ZAMBIA

President Commissions New Lusaka-Nakonde Microwave Link
(ZAMBIA DAILY MAIL, 22 Sep 78)..... 70

Government Hopes To Extend National Radio, Television Reception
(Lusaka Domestic Service, 10 Oct 78)..... 71

CONTENTS (Continued) Page

WESTERN EUROPE

INTERNATIONAL AFFAIRS

Finland's Telephone Service To Be Improved
(UUSI SUOMI, 2 Sep 78) 72

FINLAND

Decision to Censor Nordsat Programs Not Favored by Majority
(Editorial; HELSINGIN SANOMAT, 25 Aug 78) 73

CP Stand on Nordsat Condemned
(Editorial; HELSINGIN SANOMAT, 31 Aug 78) 75

Turku Firm Develops Antenna for Nordsat
(HELSINGIN SANOMAT, 4 Sep 78) 76

SPAIN

TVE Chooses PAL Color Broadcasting System
(EL PAIS, 28 Sep 78)..... 79

SWEDEN

Research Institute Criticizes Telecommunications Data System
(Bobi Sourander; DAGENS NYHETER, 16 Sep 78)..... 82

New Telecommunications Chief Hits 'Chaotic' Planning
(Curt Jonasson; SVENSKA DAGBLADET, 15 Sep 78)..... 84

VIETNAMESE, IRAQI NEWS AGENCIES SIGN COOPERATION ACCORD

Hanoi VNA in English 1602 GMT 8 Oct 78 OW

[Text] Hanoi, 6 Oct (VNA)--A principle agreement was signed in Baghdad on October 7 between Dao Tung, director general of VIETNAM NEWS AGENCY, and Muhammad Manaf Yasin, director general of the IRAQI NEWS AGENCY (INA), on exchange of news reports and photographs and professional cooperation between the two agencies.

The signing ceremony was attended by Hong Duc Phuong, Vietnamese ambassador to Iraq.

The agreement provides that VNA and INA will frequently exchange teleprinted news reports destined to foreign readers in the Egnlish or French languages, as well as news photographs in order to feed newspapers, the radio and television network and other information services in each country, as well as professional experience.

The two sides also discussed measures to establish a direct telecommunications line between the two agencies.

During its visit to Iraq, the VNA delegation led by Dao Tung called at a number of economic and cultural establishments, including the Basrah industrial centre and the ancient city of Babylon where it was received by the governor of Basrah Province.

The VNA delegation left Iraq on October 7.

CSO: 5500

FRG BROADCASTING CONSORTIUM TO COOPERATE WITH PRC

Hamburg DPA in German 1111 GMT 27 Sep 78 LD

[Text] Peking--A delegation of the ARD [FRG consortium of broadcasting corporations] led by its deputy chairman, Werner Hess, has agreed in Peking with the Chinese State Radio and Television Commission to conclude a cooperation treaty. The treaty provides for the exchange of television news and films as well as tapes for radio. In addition, the ARD is offering assistance to the Chinese in training technicians.

The delegation, which also includes the television program director, Dietrich Schwarzkopf, is paying an 11-day visit to Peking. It was received for a discussion on Wednesday by Wun-lan-fu, member of the Politburo and vice chairman of the National People's Congress.

This agreement, which the ARD has been hoping for, has only one predecessor. The first foreign media organization to conclude a cooperation agreement with the Chinese media was the French state radio and television organization.

The director of the ZDF [second German television], Karl Guenther von Hase, is expected in Peking at the beginning of October.

CSO: 5500

SUDANESE, SOVIET NEWS AGENCIES SIGN COOPERATION AGREEMENT

Khartoum SUNA in English 1000 GMT 2 Sep 78 JN

[Text] Moscow, 2 September (SUNA)--Starting from January 1, 1979 the SUDAN NEWS AGENCY has the exclusive right to receive and distribute in the Sudan the news transmitted through teleprinters by TASS of the Soviet Union according to an agreement signed here yesterday.

This exclusive right does not affect the right of the Soviet press agency (NOVOSTI) to use TASS information in its bulletins distributed in the Sudan.

In its turn, TASS shall have the same right with SUNA's news transmitted by radio teleprinters.

The Soviet news agency shall make available two sets of radio-receiving equipment for SUNA to receive its news service. Teleprinters will be delivered in the first half of 1979 subject to acceptance by the manufacturing firms at the delivery time.

An engineer from TASS will be sent to Khartoum to install the equipment and to train SUNA's staff in using them. TASS shall also bear regular maintenance and provide spare-parts for the equipment.

SUNA shall provide the Sudanese radio of Omdurman with the full TASS news and AT-000 teleprinter with Arabic character and other equipment will be provided by TASS for the purpose.

The declaration of the agreement expressed the two agencies' keenness on further professional cooperation. In this connection the two parties agreed to negotiate the possibility of transmitting their full news service to other subscribers in their respective countries.

Future negotiations will also cover a proposed agreement on the exchange of photos.

Direct contacts will later be made for promoting the existing cooperation. The parties agreed to give preference to each other's reports when covering events occurring correspondingly in their respective countries over the information of other agencies.

The present agreement shall remain operative till December 31, 1981 and be renewed automatically for 12 months and could be subject for revision or termination in six months' notice.

Radio-receiving equipment will be delivered by TASS to SUNA under the protocol of September 2, 1974.

Signing for SUNA and TASS were their director generals Mustafa Amin and Vladimir Khatuntsev, respectively.

CSO: 5500

PRC BROADCASTING DELEGATION SIGNS PACT, ENDS FRENCH VISIT

Peking NCNA in English 2138 GMT 13 Sep 78 OW

[Text] Paris, September 13 (HSINHUA)--The Chinese broadcasting and television delegation led by Li Lien-ching, deputy director of the Central Broadcasting Administration, left here for home today after concluding its visit to France.

Following its visits to Sweden and West Germany, the delegation arrived here on September 1 for a visit in accordance with the Sino-Franco cultural exchange agreement.

During its stay in France, it was warmly received by French television, broadcasting and industrial circles, visited Paris, Bordeaux and Toulouse and exchanged experience with the French side.

The delegation signed an agreement with the Societe Nationale de Television Francaise yesterday, stipulating that both the Chinese and French sides exchange television reporters for news coverage, exchange TV programmes, and further develop their relations of professional cooperation.

CSO: 5500

PERSIAN GULF USES SOVIET SATELLITES TO MONITOR WEATHER FORECAST

Bahrain THE GULF WEEKLY MIRROR in English 29 Jul-4 Aug 78 p 7

[Article by Lynn Manning]

[Text]

THE DUBAI Airport Meteorology Office has been monitoring Russian satellites recently — not for military secrets but for weather forecasting.

The Met Office normally tunes in to American satellites for the aerial photographs it uses to predict Gulf weather. But one satellite failed in February and a standby one has not been transmitting well.

A new American satellite, the Tiros N, is due for launching in September and promises to send back better photographs than the Russian ones.

"Meanwhile, to fill in the gap, we've been using Soviet satellites," says forecaster Peter Wakeland. "We suspect a lot of people are using them for the same reason.."

The information that weather satellites beam down to earth is available to anyone with the equipment to pick it up. The Met Office had to get a special quartz crystal to tune in on the Soviet satellites, but it already had the receiving and print-out equipment.

Two or three times a day, one of several Russian satellites passes within range of Dubai and the Met Office listens to its "conversation."

The satellite scans the earth from north to south taking continuous photographs. The picture — an area about 900 miles wide by 3,000 miles long — is coded into a radio signal which the Met Office picks up, decodes and recomposes into a photograph in about 10 minutes.

One Russian satellite, the Meteor 28, always comes within range in the mornings. It is small — five metres long and 1½ metres in diameter — but heavy (it weighs two tons), and it sends information to Earth from an altitude of about 650 kilometres.

Along one edge of photographs received from Meteor 28 is a series of numbers that the Met Office has been trying to decipher. Mr. Wakeland suspects it is details about conditions aboard the satellite; one number stays constant, identifying the satellite, and another gives changing Moscow time.

"But the rest is still a mystery to us," Mr. Wakeland says.

Although most of the photographs coming in this summer show cloudless skies over the Gulf, the Met Office continues to pick them up. "As far as we're concerned," says Principal Met Officer John Sisson, "we get a picture and two hours later it is out of date."

The winter season is more interesting from the forecaster's point of view.

CSO: 5500

YUGOSLAV, DPRK NEWS AGENCIES SIGN COOPERATION AGREEMENT

Belgrade TANJUG in English 1132 GMT 8 Sep 78 LD

[Text] Pyongyang, Sept 8 (TANJUG)--The democratic People's Republic of Korea's news agency, KCNA, and Yugoslavia's news agency, TANJUG, signed a cooperation agreement here today.

In the talks between a KCNA delegation led by Song Bong-sun and a TANJUG delegation led by Pero Ivacic, it was (?assessed) that considerable results have been achieved in the two agencies' cooperation bilaterally and multilaterally and that, thus, conditions have been created for expansion and enrichment of this cooperation.

The agreement provides for the expansion of the volume and forms of cooperation and, particularly, for the promotion of the bilateral exchange of information and photos. KCNA and TANJUG will work for equal and broad cooperation multilaterally and, in particular, have expressed their readiness to be active within the framework of the nonaligned news agencies' pool and work for its strengthening.

CSO: 5500

BRIEFS

FRENCH-INDONESIAN TELECOMMUNICATIONS PACT--A cooperation agreement on telecommunications between Indonesia and France was signed in Jakarta on 6 October by the Indonesian minister of communications, Rusmin Nurjadin, and the French ambassador to Indonesia, Rene Servoise. Rusmin Nurjadin expressed the hope that France would continue to help Indonesia, especially in the scientific, technical and industrial fields. He said that cooperation in telecommunications projects, including the development of domestic satellite ground stations and rapid communications systems in cities in Java, Bali, north Sumatra and south Sulawesi, had been very successful. The French ambassador said that his government will cooperate with Indonesia in carrying out telecommunications surveys in Kalimantan and Java. [Jakarta Domestic Service in Indonesian 1200 GMT 6 Oct 78 BK]

NEWS AGENCIES CONFERENCE OPENS--Moscow, 10 October, TASS--A meeting of top officials of information agencies and press agencies of socialist countries opened in Moscow today. It is attended by representatives of Bulgaria, Hungary, Vietnam, GDR, Cuba, Mongolia, Poland, Romania, the Soviet Union and Czechoslovakia. They will discuss questions of cooperation between the agencies and their objectives at the present stage. [Text] [Moscow TASS in English 1130 GMT 10 Oct 78 LD]

BROADCAST ENGINEERS CONFERENCE--Minister of Information, Broadcasting and Tourism Mr Unia Mwila today called on a group of nonalined broadcasting engineers to fight for a fair share of the frequency spectrum; currently being dominated by advanced countries. Officially opening the second conference of the nonalined broadcasting experts at Mulungushi Hall this morning, Mr Mwila also urged [word indistinct] to (?use) everything in their power to obtain a fair share of the frequency spectrum to effect better reception in member countries. The minister said Zambia has had a long-(?term) problem of broadcasting stations in countries outside (?its national) territory interferring with its own radio. [Text] Lusaka Domestic Service in English 1115 GMT 9 Oct 78 LD/CA]

CHINESE, ITALIAN SIGN AGREEMENT--Peking, 9 October (HSINHUA)--A news cooperation agreement between the HSINHUA NEWS AGENCY and the AGENZIA NAZIONALE STAMPA ASSOCIATA of Italy was signed here this afternoon. Mu Ching, deputy director of the HSINHUA NEWS AGENCY, and Gianna Granzotto, chairman of the board of directors of the A.N.S.A., signed the document. [Text] [Peking NCNA in English 1633 GMT 9 Oct 78 OW]

SUBMARINE TELECOMMUNICATIONS CABLE--Buenos Aires, 2 Sep (YELAM)--Gen Eduardo Oscar Corrado, administrator of the National Telecommunications Company [ENTEL], goes to Rome today to sign a letter of intent on the installation of a telecommunications system by submarine cable which will link South America, Africa and Europe via the cities of Recife; Dakar, Senegal; and Lagos (Portugal). The agreement will be signed by the presidents of the Portuguese Radio Marconi Company, the Brazilian Telecommunications Company [EMBRATEL], the French Post and Telecommunications Company, ITALCABLE, TELESENEGAL AND INTELCIT of the Ivory Coast. [Buenos Aires TELAM in Spanish 0407 GMT 2 Sep 78 PY]

SWEDEN-SRI LANKA TELECOMMUNICATIONS PACT--An agreement was signed in Colombo on 28 September between the Post and Telecommunications Department and a Swedish firm for the provision of a new 200-trunk international telephone exchange for the Ceylon telephone service. This exchange will be the first computerized system to be used by the overseas telephone service for providing automatic subscriber dialing from Sri Lanka to 50 countries. The international subscriber dialing will be available to telephone subscribers in Colombo and in the free trade zone. The cost of the project is around 35 million rupees and is made available under a Swedish grant. The exchange will be commissioned by early 1980. [Colombo International Service in English 1045 GMT 29 Sep 78 BK]

GDR-PHILIPPINES NEWS AGENCY COOPERATION--ADN and the PHILIPPINES NEWS AGENCY [PNA] signed an agreement in Berlin on Friday. It provides for the exchange of news and photos and also covers other areas of cooperation between the two agencies. The agreement was signed for ADN by its director general, Guenter Poetschke, and for PNA by the deputy director of the Bureau of National and Foreign Information in the Philippines Department of Public Information, (Jose U. Macaspac) Jr. [East Berlin ADN International Service in German 1550 GMT 22 Sep 78 LD]

MONGOLIA-HUNGARY RADIO PROTOCOL--Ulaanbaatar, 23 Sep--A working protocol on cooperation in radio broadcasting between the State Information, Radio and Television Committee of the MPR Council of Ministers and the Hungarian Radio for the 1978-80 period was signed here today. The protocol was signed by S. Purebjab, chairman of the MPR State Information, Radio and Television Committee, and (K. Kiss), deputy chairman of the MPR State Information, Radio and Television Committee, and J. Szerencses, Hungarian ambassador to the MPR, were present at the ceremony. [Ulaanbaatar MONTSAME in Russian 1833 GMT 22 Sep 78 OW]

PAN-AFRICAN NETWORK EQUIPMENT--The Tanzania Post and Telecommunications Corp has signed a 25 million-shilling contract with (Shihito) of Japan under which the Japanese firm will provide radio and transmission equipment (?multiplex) for the establishment of the pan-African telecommunications network (?sections) in Tanzania. Under the contract, signed last week, (Shihito) will provide radio equipment and services for the Dodoma-Tunduma and Mosho-Arusha-Namanga links at a cost of 19 million shillings. The firm will also install (?multiplex) radio transmission equipment (?in) the Dodoma-Arusha section [words indistinct]. [Dar es Salaam Radio in English to East Africa 1600 GMT 23 Sep 78 LD/EA]

PRC-FRG COOPERATION TALK--Peking--Ulanfu, vice chairman of the National People's Congress, has received Karl-Guenther von Hase, director of Second German Television, and a Second German Television delegation for a talk. The delegation has been in Peking since Sunday to discuss possibilities for cooperation with Chinese radio and television and the exchange of programs. The delegation is traveling to Mongolia tomorrow for 2 days, after which it will return to Peking for final talks. [Text] [Hamburg DPA in German 1204 GMT 3 Oct 78 LD]

FRG-PRC COOPERATION AGREEMENT--Peking--Second German Television (ZDF) signed a cooperation agreement with Chinese television today. It was signed on behalf of the ZDF by Director Carl Guenther von Hase, who is currently visiting China. The agreement, which comes into force immediately, is designed to give a permanent basis to the already existing cooperation. ZDF is the second Western organization, after French Television, with which Chinese Television has signed such an agreement. The agreement provides for an exchange of experts and television programs and for mutual aid in the production of television programs. ZDF expects the agreement to lead to an increase in its reports from the PRC. [Text] [Hamburg DPA in German 0954 GMT 6 Oct 78 LD]

CAE/USSR COOPERATION--The minister for orientation, radio broadcasting and television of the Central African Empire, Barthelemy Yangongo, has been in Moscow at the invitation of the Soviet Government Committee for Television and Radio Broadcasting [GOSTELERADIO]. An agreement on cooperation was signed on Monday. It provides for exchange of television films and radio programs about the life of the people of the two countries, music and programs about folk art. The same day a protocol was signed on developing cooperation between the Soviet news agency TASS and the information agency, ACAP. [Text] [Moscow Radio in English to Africa 1330 GMT 3 Oct 78 LD]

NIGERIAN NEWS IN LAGOS--The News Agency of Nigeria (NAN) has begun service in Lagos. The service, currently restricted to the federal capital, consists of bulletins of Nigerian news for distribution to a limited number of news organizations. The agency explained that it could not at the moment serve subscribers outside Lagos because of inadequate facilities. The News Agency of Nigeria will be fully operational as from January next year. [Text] [Lagos International Service in English 0730 GMT 3 Oct 78 LD]

SOCIALIST NEWS AGENCIES CONFERENCE--Moscow, 12 Oct TASS--A conference of the leading officials of the news agencies of 10 socialist countries closed here today. Its participants discussed various aspects of cooperation among the fraternal agencies and their role in informing work public opinion on the peaceable policy of the countries of the socialist community aimed at stopping the arms race, strengthening general security, easing international tension and averting the danger of a nuclear war. The conferees shared their experience of news reporting on the achievements of the socialist countries and of bilateral and multilateral cooperation among fraternal news agencies. The conference was attended by the leading officials of the news agencies of Bulgaria, Hungary, Vietnam, the GDR, Cuba, Mongolia, Poland, Romania, the Soviet Union and Czechoslovakia. The leading officials of the news agencies were received by Mikhail Zimyanin, secretary of the CPSU Central Committee. Leonid Zamyatin and Yevgeniy Tyazhelnikov, heads of departments of the CPSU Central Committee, were present at the meeting. [Text] [Moscow TASS in English 1236 GMT 12 Oct 78 LD]

USSR-INTERNATIONAL TV EXCHANGE--Moscow, 3 Oct, TASS--A protocol has been signed in Moscow today between the GOSTELERADIO [State Committee for Television and Radio Broadcasting] of the USSR and the International Television Information Agency. TV news reels on the most important events in the life of the USSR and topical international information are to be exchanged. [Text] [Moscow TASS in English 1326 GMT 3 Oct 78 LD]

SOVIET TV EQUIPMENT IN CUBA--A modern complex of Soviet technology for black and white remote control operations will begin to operate late this year at the Telerebelde Plant of the Cuban Radio and Television Institute. Remote control at the plant is now done with U. S. equipment and does not have microwave to receive and transmit signals. Therefore, it can only originate direct broadcasts in Holguin, Santiago and other areas on the eastern zone. The new complex has four camera channels and a switcher which can be used for special effects on the television screen and direct broadcasts from the five eastern provinces. [Havana Domestic Television Service in Spanish 1800 GMT 14 Oct 78 FL]

CSO: 5500

INDONESIAN OFFICIALS ON SUBMARINE CABLE NETWORK LINKING ASEAN NATIONS

Jakarta ANTARA in English 0727 GMT 2 Sep 78 BK

[Text] Jakarta, Sep 1 (ANTARA)--The five ASEAN member countries will soon use the submarine cable network (SKKL) as scheduled before, which consists of five parts, Dr Syamsuddin, public relations service head of the Directorate General of Post and Telephone, and Dr Musyafri Effendy, public relations service head of the Telecommunications Public Corporation (PERUMTEL) said at a press conference here on Thursday [31 August].

The five parts of the system comprise: The Philippines--Singapore line to be completed in fiscal 1978-79, Indonesia-Singapore line to be finished in 1979-80, Singapore-Malaysia line to be completed 1980-81, Malaysia-Thailand line to be completed in 1981-82 and the Philippines-Thailand line to be finished in 1982-83, they explained.

In accordance with the recommendation, the governments of Indonesia and Singapore signed a memorandum of understanding on June 29 last year to agree to the construction of the system with a capacity of at least 480 telephone circuits and scheduled to be ready for service by April 1980.

PERUMTEL of Indonesia and the Telecommunications Authority of Singapore have been nominated as agents of their respective governments to proceed with the planning and implementation of the system.

A Japanese company, Nippon Electric Company (NEC), has won tender for the supply and construction of the submarine cable system. The total cost of the contract will be approximately $30 million.

NEC will design, manufacture and install the complete system, which is expected to be ready for commercial service in 1980.

This is the first system of its kind in Southeast Asia, having 374 nautical miles of buried lightweight protected cable, representing 65 percent of the total submarine cable length of 570 nautical miles, while the remaining 196 nautical miles is of heavy armoured cable.

The system will link the Ancol cable station in Jakarta and the Katong cable station in Singapore, with a capacity of 480 channels of 4 kHz bandwidth.

This line will be able to carry all types of high quality telecommunications traffic including telephone, telegraph, telex, high speed data and fascimile.

When completed, the system will complement the existing satellite circuits working with Indonesia, thus enhancing the reliability and quality of telecommunications service between Indonesia and Singapore and between ASEAN countries and the rest of the world.

The Indonesia-Singapore cable represents the second segment of the ASEAN submarine cable network to be constructed.

Initially, the ownership of the cable system by Indonesia and Singapore will be on a 50-50 basis. It is anticipated that other ASEAN countries will invest and participate in this cable system which will link countries east of Indonesia.

The first segment, i.e., the Philippines-Singapore cable, will be completed by the end of June 1978 and is expected to carry telecommunications traffic in August 1978.

CSO: 5500

VIETNAM PROPOSES RADIO, TV EXCHANGE PROGRAM WITH INDONESIA

Hong Kong AFP in English 0652 GMT 14 Sep 78 BK

[Text] Jakarta, September 14 (AFP)--Vietnam has asked Indonesia to establish an exchange program of radio and television broadcast materials to enable the people of the two countries to know each other's culture.

This was stated by Mr. Tram Lam, head of a four-member mission of the Vietnamese Committee for Radio and Television currently visiting Indonesia.

Mr. Lam, who lived in Indonesia in 1962, told the secretary general of the Indonesian Information Ministry, Mr. Sutikno Lukitodisastro, that he was impressed by the progress made by Indonesia since then.

Mr. Sutikno told his Vietnamese guests that although the two countries had different views and political structures, they could cooperate in developing their respective countries in an atmosphere of peaceful coexistence.

The Vietnamese radio and television delegation visited the Indonesian ground satellite station in West Java and various radio and television studios in Java.

Other members of the delegation were Mr. Nguyen Duy Phuc, head of the foreign relations department, Mr. Le Vo, head of the technical department of Vietnamese television, and Mr. Nguyen Tri Dung, an interpreter.

Before visiting Indonesia, the Vietnamese delegation visited Malaysia.

CSO: 5500

VIETNAM JOINS ASIAN BROADCASTING INSTITUTE

Kuala Lumpur Domestic Service in English 1130 GMT 7 Sep 78 BK

[Text] Vietnam will send several officers from its broadcasting unit to Malaysia soon for training at the Asian Institute of Broadcasting Development--AIBD.

The chairman of Radio-Television Vietnam, Mr Tran Lam, said this today at a signing ceremony held in Juala Lumpur to mark Vietnam's admission as an associate member of the institute. He said that by becoming a member of the AIBD, Vietnam would be able to promote close cooperation and exchanges between its radio-television and mass media organizations and those in Malaysia.

CSO: 5500

BRIEFS

ASEAN SUBMARINE CABLE NETWORK--The ASEAN submarine cable linking Singapore with the Philippines was inaugurated on 3 October simultaneously in the Republic and in Manila. The communications minister, Mr Ong Teng Cheong, and the Philippine minister of public works, transportation and communications, Mr Alfredo Juinio, conversed for 5 minutes over the 2,800 km cable link which cost 116 million Singapore dollars. The cable link is one of the segments of a submarine cable network designed to link all the five ASEAN countries. Minister Ong said that the construction of another segment of the ASEAN cable network, the Indonesia-Singapore cable, is already underway and is expected to be completed in 1980 at a cost of 73 million Singapore dollars. He also said that discussions on the Singapore-Malaysia and Malaysia-Thailand cables are now in progress and are expected to be ready for operations in 1981. Mr Ong added that with the completion of the Thailand-Philippines cable by 1982 or 1983, the entire ASEAN cable network will be completed. [Singapore Domestic Service in English 1130 GMT 3 Oct 78 BK]

SINGAPORE-PHILIPPINES CABLE INAUGURATED--Singapore Oct 3 KYODO--Singapore and the Philippines Tuesday inaugurated the first link of the Association of Southeast Asian Nations (ASEAN) communications network by submarine cable in simultaneous ceremonies in the two countries. The Singapore-Filipino cable link, completed by Britain's Standard Telephone and Cable Co. at a cost of dollar 150 million, extends 1,450 nautical miles and has 1,200 circuits. Singapore Communications Minister Ong Teng-Cheong hailed the inauguration as the first joint action by ASEAN countries for their common benefit. The construction of the second link between Indonesia and Singapore has been entrusted to three Japanese companies including Nippon Electric Co. The survey for the third link between Singapore, Malaysia and Thailand was completed last May and international bids will be invited in December. The ASEAN's communications network will be completed with the last link between the Philippines and Thailand, which is yet to be finalized. [Text] [Singapore KYODO in English 1229 GMT 3 Oct 78 OW]

CSO: 5500

FIRST STEPS TAKEN TOWARD ERA OF SATELLITE COMMUNICATIONS

Canberra THE AUSTRALIAN in English 28 Sep 78 p 7

[Text] **The Federal Government announced yesterday it would study a $200m proposal that Australia launch its own domestic satellite system. The proposal, which would open up a fascinating era of communications, immediately sparked off debate on its consequences. DOUG HOLDEN examines the task-force report on a "national communications satellite system."**

IN THE early '60s an enterprising American decided to attempt to launch a new dimension in television.

He decided his testing ground was to be the United Kingdom, whose citizens, unlike their Australian and United States cousins, were suffering the cultural deprivation of having only two television channels.

The Ariel TP mogul intended to beam television programs directly into the homes of Her Majesty's citizens from a converted bomber flying in a corridor along the west coast of England and Scotland over the Irish Sea.

The BBC and the Independent (commercial) Television Services, while at first sceptical of the technical feasibility of it all, took umbrage and the British Government took steps to stop this potential Biggles of television.

He was refused permission to land, refuel or accept advertising and, if you will forgive the continued pun, never got on to the air.

But the incident, and more significantly the successful launching of the Soviet Sputnik One satellite four years earlier set television and technocrats minds working on a new era of communications.

By 1964 the Russians had proved that the day of satellite communications was here to stay by establishing a service to project to its remote areas in Siberia.

Since then the Europeans, the United States, Canada and even Indonesia have either developed, launched or are in the process of planning domestic communication satellite systems.

Despite their early and unwanted experiment the UK, because of its small size and well-established ground system of communications, has not had to bother, except for international communications.

Yesterday, almost 21 years to the day since Sputnik One sent back its first garbled signal to earth, Australia made a hesitant step into the satellite era.

In a 228-page document the Federal Government's task force on a national communications satellite system published its recommendations on the direction Australia should take toward a satellite communications era.

Its recommendations, that an Australian national communications satellite system should be developed and launched as soon as practicable, was surrounded by bureaucratic infighting and an entire section presented a dissenting view from the Department of Finance that the idea was a waste of money at this stage.

Australia to date has not been shy in involving itself in international satellites. It was one of the early signatories to international conventions on the subject.

The use of international satellites in recent years has brought Australia, in television terms, more up to date with the northern hemisphere in coverage of news.

The Overseas Telecommunications Commission has also adopted, on behalf of Australians, a more dynamic approach to the expansion of international telephone com-

munications than most countries.

Yet in the domestic area it took an independent investigation — by publishing entrepreneur Mr Kerry Packer — to jolly a government into action.

The task force, headed by the general manager of OTC, Mr H. White, was set up a year ago after Mr Packer, of Channel Nine and World Series Cricket fame, presented his submission to the Government seeking a privately owned communications satellite to expand domestic television.

The task-force report, costing about $250,000 during its eight months of deliberations, has recommended that the satellite be government-owned.

The report presents an opportunity for detailed debate in the community, government and industry on the future of such services.

Yet it is full of conflicting Government opinions, and contradictions, but reveals the opportunities Australia's own communications satellite could open up.

There are implications for defence, health, education, science, transport, business and commerce as well as for radio, television, telephonic, telex and other forms of communications.

"A national satellite communication system offers a range of improved, extended and new services over the broad frontiers of our national life," the report says.

"Further, it offers the potential for applications and extensions of our national purposes, as yet unknown."

Satellite's potential for the radio and television industry include the provision of dozens mare television and radio stations, direct and live beaming of programs to homes whether they be in the city or in the remotest corner of the country.

It would add a new meaning to the ABC National News, although it might present some problems for sports programmers, given the historical preferences of various States.

The report says the Government should invite applications for additional television licences, adding that the major cities could support more channels and small centres could cope with one more.

For telephone, telex and other person to person communications, the satellite system could mean a network which provides equal services to all Australians.

The report points to the potential improvements in communications to Aborigines as well as isolated pastoral communities, currently served, if at all, by the tenuous link of a radio telephone.

CSO: 5500

BRITISH MILITARY BREAKTHROUGH ON SPEECH TRANSMISSION

Canberra THE AUSTRALIAN in English 25 Sep 78 p 12

[Text]

A FIVEFOLD increase in the capacity of existing telephone lines might be possible within five years as a result of a new speech processing system being developed in Britain.

The UK Ministry of Defence says a top military communications expert and a team from the University of Bath's School of Electronic Engineering in Western England have solved a speech transmission problem that has baffled scientists for years.

The result, it is claimed, is a system that transmits speech by wire or radio with greater clarity and efficiency than at present. It will be marketed, it is hoped, at less than a tenth of the cost of existing systems.

Patent applications have already been filed and experts are now predicting that worldwide commercial sales could be worth millions of pounds sterling.

Details of how the new system works are classified, but it is known that it reduces speech patterns with the aid of computers to a small number of basic "shapes." It is possible to break down and reconstruct combinations of these shapes like jigsaw puzzles.

CSO: 5500

NEW FIRE SYSTEMS FOR SUBMARINES

Canberra THE AUSTRALIAN in English 10 Oct 78 p 16

[Text] THE navy's Submarine Update program will move ahead when the first of eight modern fire control systems will be officially handed over to the Navy at HMAS Watson, Watson's Bay, tomorrow.

The Minister for Defence, Mr Killen, said in Canberra the new system was one of the most advanced fitted in submarines anywhere in the world.

Mr Killen said the system was designed and produced to initial R.A.N. specifications by the Librascope division of the U.S. Singer Corporation, with the total project cost estimated at $20 million at 1978 prices.

SONAR

The system will allow submarine commanders to make use of new advanced: sonar equipment currently being installed in the Oberon submarines, and the new Mk 48 torpedo being acquired for the R.A.N. submarine squadron.

One wonders if Whitehead knew what he was starting so long ago in Reijeka, or, as it used to be called, Fiume? It does seem funny that modern torpedoes started life in what is now the Croatian part of Yugoslavia.

The latest system incorporates a minicomputer and several microprocesors to provide continually updated data from the submarines' sensors, and then provides commanding officers with tactical information on the determination of weapons use with the system finally guiding weapons to the targets.

INSTALLED

In all, eight of the systems will be installed for the R.A.N., the next system being installed at the submarine support base HMAS Platypus, with the other six being installed in the R.A.N.'s Oberon class submarines.

On Wednesday, the R.A.N. Chief of Naval Material — Rear-Admiral D. W. Leach — will officially accept the first system at a ceremony attended by defence officials and representatives of the various companies involved.

CSO: 5500

M/600 MINICOMPUTER TO BE USED IN FUEL EXPLORATION

Canberra THE AUSTRALIAN in English 10 Oct 78 p 20

[Text]

A DATA General M/600 minicomputer installed by Woodside Petroleum Development in Perth will be used in petroleum exploration and the planning of the North West Shelf natural gas project.

The M/600 system, valued at about $320,000, is taking over work that consists of seismic data systems, log well data systems, and other technical systems.

The company will use the M/600 for on-line digitizing and plotting for interpretation of data from seismic surveys, and for processing of data obtained from wells on the characteristics of the sediments encountered, including porosity and permeability.

It will also be used for technical programming for engineering design for the North West Shelf project, and as a remote job entry station for several computer bureaus.

DG says the company will also benefit from the provision of interactive terminals in user departments and from the introduction of interactive graphic capabilities.

In addition to the M/600 system, Woodside has installed two graphic display terminals, one hard copy unit, a belt plotter, a drum plotter and a digitizer.

The M/600 is the largest system in Data General's Eclipse product line and compares in performance with the middle range of general purpose mainframe computers.

Woodside's system has 512K bytes of memory, two 192 megabyte discs, 13 terminals, two magnetic tape units, one two megabyte paging disc unit, a line printer and a card reader.

CSO: 5500

CALL FOR BETTER USE OF INDUSTRY

Canberra THE AUSTRALIAN in English 25 Sep 78 p 12

[Text]

THE electronics industry is the nerve centre of our entire defence umbrella and it must be nurtured, encouraged and protected, according to the Australian Telecommunications Development Association (ATDA).

The Australian telecommunications industry was pleased to see the Defence Department had granted some Australian manufacturing companies contracts for feasibility studies on defence equipment.

This comment was made last week by Mr A. T. Deegan, chairman of the ATDA.

Mr Deegan said it was encouraging to see some purchase contracts being let although they were not major contracts of any financial significance and were still only token gestures rather than a concerted defence plan involving the Australian electronics and telecommunications industry.

The weakened Australian electronics industry could receive a very beneficial and much-needed boost if the Government decides to proceed with some of the major projects now undergoing feasibility tests.

REQUIRED

"Whilst we realise that everything required for today's super-sophisticated defence equipment cannot be made in Australia, there are many types of electronic equipment which can be manufactured here, and in the process we could retain and build up the technologies involved," he said.

"This in itself would mean that over a period of time the local content could be increased as our industry rebuilds the expertise, development, design and manufacture.

"One does not have to be a defence expert to realise that electronic equipment, as well as involving vital communications, forms the very heart of modern weapon control systems," he said.

"Today electronic equipment is so important a part of our modern defence system that the very size and performance of units such as naval ships, aircraft and tanks is largely determined by the size and quality of the electronic equipment which must be provided.

"There can be no argument that the electronics industry is not being maintained at a level of either capacity or capability from which it could effectively expand in the event of an international crisis."

Referring to the Government's offset policy, the chairman said all overseas government contracts were awarded on the undertaking that 30 per cent of the content be Australian made.

In quoting on overseas contracts for part of the equipment manufacture, the local company is heavily disadvantaged by being expected to provide an exact replacement of the overseas item with no cost penalty protection even though the volume is low.

Important strategic materials have still to be imported, despite our Australian industry's un-

disputed ability; key experts, frustrated and disillusioned, are leaving the industry and the ability, and indeed the incentive, to produce electronic equipment is in decline.

Many electronic and electro - mechanical technologies of defence importance are not being produced and test processes and facilities are being outmoded.

The "Buy Australian" factor mooted some time ago as a principle of AIP was intended as a guide to the extent of Australian content in all defence procurement.

In fairness, Mr Deegan said, there are now some indications from Canberra that the policy involving 30 per cent made in Australia appears to be an emerging requirement.

Modern arms, he said, were dependent on electronics, but Australia's ability to produce electronic components was in decline because there was no real incentive, either short term or long term, for the industry to expand technologically or numerically.

MISSILE

Few people would realise that 30 per cent of the cost of a nuclear submarine and 60 per cent to 80 per cent of an intercontinental missile is involved in its electronic components.

"But sadly many electronic and electro-mechanical technologies of defence importance are no longer being practised in Australia, despite our industry's ability to do so."

The establishment, maintenace and staffing of a successful electronics industry is a long-term project, said Mr Deegan, and Australia should be planning, and supplementing that planning, into the future.

CSO: 5500

BRIEFS

INTELSAT ECHO PROBLEM--Intelsat has announced a contract for the development and production of a device that would eliminate the problem of echo on international phone calls. The contract, worth $87,500, has been awarded to the Nippon Electric Company, of Tokyo. Unlike the echo suppressors currently in use which switch off the return path when one party is speaking on a two-way international phone circuit, the new echo canceller will actually delete the echo electronically from the return path signal. [Text] [Canberra THE AUSTRALIAN in English 25 Sep 78 p 12]

CSO: 5500

BRIEFS

NEW TV STATION--The minister for information and broadcasting, Mr Habibullah Khan, has said that the sixth television relay station at Mymensingh will be commissioned by April next year. The minister on 1 October visited the site of the proposed TV station in Mymensingh, where work has already started. The station, when commissioned, will serve television viewers within a radius of 52 miles. [Dacca Domestic Service in English 1705 GMT 1 Oct 78 BK]

CSO: 5500

POL POT REPORTS ON CAMBODIA'S TELECOMMUNICATIONS

[Editorial Report BK] Phnom Penh Domestic Service in Cambodian at 2300 GMT on 23 September 1978 carries a 40-minute report on the 5 August meeting between Pol Pot, secretary of the KCP Central Committee and prime minister of the Cambodian Government, and a visiting delegation from the Belgium-Kampuchea Association. The report summarizes the answers provided by Pol Pot to questions raised by the delegation and makes the following reference to telecommunications:

"On telecommunications:

"We are making a steady effort to restore them as best we can. We have established telecommunications links with China and, through China, with the rest of the world. We have just begun direct contact with Singapore, and we are working to establish contact with more countries."

CSO: 5500

FIRST SATELLITE TO BE LAUNCHED IN 1981

Delhi General Overseas Service in English 1000 GMT 10 Sep 78 BK

[Text] India is poised to become a pioneer among the developing countries for the launching of its own satellite system in 1981. The satellite, called INSAT-1, will be put in orbit at a height of 290 kilometers over the equator. In terms of utility, INSAT-1 will bring about a revolution in the country's communication system. Apart from relaying education telecasts for viewers in about 135,000 remote villages all over India, it will precisely monitor weather conditions in the subcontinent. As a result, timely warnings against cyclones, storms and tornadoes will be possible.

The advance of space research in India can be judged from the fact that the proposed satellite has been entirely designed and manufactured indigenously. The United States has helped only in its launching.

CSO: 5500

SYNCHRONOUS SATELLITE EXPERIMENTS UNDERWAY

Madras THE HINDU in English 20 Sep 78 p 13

[Text]

MADRAS, Sept. 19.

The nation-wide coverage of the running commentary of the Irani Cup cricket tournament played at Bangalore is part of the STEP (Satellite Telecommunication Experimental Project) project taking advantage of the Franco-German Symphonie satellite placed in orbit over India.

Several other experiments are either in progress or about to be taken up for sorting out problems that could crop up when India goes in for its own synchronous satellite after the Franco-German one is shifted from its present position. Only a few months are left for the Symphonie to function from its present orbit.

The Cricket commentary's nation-wide coverage by All India Radio involves one speech channel alone, routed on the coaxial system between Bangalore and Madras. Madras routes it back to Delhi on the coaxial cable. In addition, as an experimental measure, the same speech channel is put in parallel on the symphonie between Madras and Delhi.

This does not appear to be spectacular. What was more phenomenal was the use of the symphonie satellite for live TV transmission from Delhi of the Republic day and Independent day programmes.

As part of the experiment, earth stations have been put up in Delhi and Madras (Ambattur). It is the intention of the Government of India to design India's own satellite communication system. Unless these experiments are carried out successfully, it is explained, it will not be possible to arrive at design parameters and fabrication particulars for the indigenous synchronous satellite.

One problem that has to be sorted out is the delay caused by the length of the transmission through the satellite link. The synchronous satellite orbits 25000 miles above the earth. The time taken will be about 700 milliseconds for the two-way communication. Delay is an important factor in satellite communication for two-way speeches. For one way, however, it may not make much difference. This problem is also carefully studied under the experiments.

There are ten earth stations around Madras. One satellite (symphonie) is orbiting with reference to all of them. There are economical methods of mixing up the ten stations. It is not necessary to provide all the equipment in all the ten stations. Time sharing and frequency sharing of the satellite are possible. It would be possible to transmit on one frequency and receive it on other frequencies. All these will have the effect of making a satellite station cheaper.

A spokesman for the organisations involved in the satellite ex orbit. Of course, a tentative time soon India will be able to have its own synchronous satellite in orbit. Of ourse, a tentative time schedule has been given—1981-82—for this development.

Discussing the developments in the world, he points out that the U.S. in a couple of years will operate its space shuttle. This is going to revolutionise satellite launching and cut costs. India probably would be able to save a lot of money by waiting for a few years to launch more satellites as it could take advantage of the space shuttle.

In the satellites now in use, the launching is done by a rocket. The rocket burns out and with it, an enormous amount of fabricated material is also destroyed. The space shuttle however is a huge plane which carries a number of rockets each of which would be capable of placing a synchronous satellite in particular orbit. The shuttle can land back after placing many satellites in orbit.

CSO: 5500

BRIEFS

SEMINAR ON TELECOMMUNICATIONS--Prime Minister Desai opened a 10-day seminar on rural telecommunications in New Delhi 11 September. He called on experts to evolve simpler and cheaper technology to provide telecommunication facilities to village people. The seminar has been organized by the International Telecommunication Union in cooperation with the Indian Posts and Telegraph Department. Apart from ESCAP member countries, experts from the United States, the Soviet Union, Canada, Britain, France, the FRG, Sweden and Australia are taking part. [Delhi General Overseas Service in English 1000 GMT 11 Sep 78 BK]

WORKSHOP ON RURAL BROADCASTING--A month-long regional workshop on rural and development broadcasting began in Bangalore 11 September. The director general of All-India Radio told newsmen in Bangalore that it is being organized jointly by All-India Radio and the Asia-Pacific Institute for Broadcasting Development, Kuala Lumpur. Representatives of several South and Southeast Asian countries will take part. The aim of the workshop is to train the participants, among other things, in the use of instructional programs for rural audiences. [Delhi General Overseas Service in English 1000 GMT 11 Sep 78 BK]

CSO: 5500

BRIEFS

NEW TELEVISION STATIONS--Information Department Secretary General Sutikno Lukitodisastro tonight inaugurated the Manado television broadcasting station. Indonesia currently has 9 television broadcasting stations and 88 relay stations. By the end of the second 5-year development plan there will be 103 television relay stations throughout Indonesia. Television stations are under construction in Dili and Aceh. [Jakarta Domestic Service in Indonesian 1500 GMT 7 Oct 78 BK]

CSO: 5500

NTT FINISHES FISCAL YEAR IN BLACK, ENDS 3 YEARS OF RED INK

Tokyo KYODO in English 1227 GMT 31 Sep 78 OW

[Text] Tokyo Aug 31 KYODO--Nippon Telegraph and Telephone Public Corporation came through the 1977 fiscal year in the black after three years of annual deficits, the corporation said Thursday.

According to the NTT, called Denden for short in Japanese, it would up the fiscal 1977 accounting year with a total revenue of yen 3,406.6 billion and a total expenditure of yen 2,964.6 billion for a surplus of yen 439 billion.

The Tokyo-based self-sustaining public utility service corporation disclosed its financial position on filing its fiscal 1977 statement of accounts, closed as of March 31, and an accompanying auditing report with the posts and telecommunications minister.

The corporation can expect to do financially well as far as March 1980, Denden believes. Tokuji Akikusa, NTT President, has thus officially voiced this intention to keep service rates unchanged with no raises at least up to the end of fiscal 1979, according to Denden officials.

NTT's good financial showing has contrasted significantly with that of the deficit-ridden Japanese National Railways (JNR), a similar self-sustaining public utility service corporation.

Both NTT and JNR, governed by special laws, are under the government's rigid supervision.

NTT operates Japan's entire public telecommunication services and controls most private types as well, and its sister corporation, Kokusai Denshin Denwa Co (KDD), Japan's international public services in the field.

During the three years preceding fiscal 1977, NTT had deficits that accumulated to a total of yen 599 billion. But most of that red-ink figure has been wiped out by employing 77 percent of the fiscal 1977 surplus.

For fiscal 1978, NTT has figured on a surplus of yen 385.8 billion, which means the remaining deficits will be completely cleared away during the year. For fiscal 1979, it has estimated there will be a yen 291.4 million freely disposable surplus.

Of NTT's five different services--public and private telephone, telex, telegraph, and data communication--the public and private telephone and telex services were in the black, and the two others in the red during fiscal 1977.

Fiscal 1977 gross business incomes from the five services totaled yen 3,371.3 billion, with the two kinds of telephone services accounting for a predominant yen 3,000.7 billion.

Of the fiscal 1977 gross business outlays, the personnel costs of NTT which has a staff of 326,000 workers, accounted for yen 1,000.9 billion.

The telegraph and the data communication services, respectively yen 111.5 billion and yen 36.1 billion in the red, used up 358 and 35 percent more than they earned.

But the overall business cost was 14 percent less than overall business earnings. Sharp telephone charge markups carried out in 1976 appeared to have been effective.

CSO: 5500

BRIEFS

TIBET POSTAL, TELECOMMUNICATIONS CONFERENCE--The Tibet Regional Conference on Postal and Telecommunications Work was held recently in Lhasa. Chiao Chia-chin, vice chairman of the Regional Revolutionary Committee, spoke at the conference. He called for building an efficient postal and telecommunications network in Tibet. [Lhasa Tibet Regional Service in Mandarin 1500 GMT 23 Sep 78 OW]

LIAONING MICROWAVE COMMUNICATIONS--Microwave communication facilities linking Shenyang, Liaoyang, Anshan, Taian and Panshan in Liaoning Province have been completed and put into trial operation. These facilities carry color television, telegrams and fascsimile with good results. On 30 September, responsible comrades of the Liaoning Provincial Revolutionary Committee and departments concerned attended a ceremony marking the opening of these facilities. [Shenyang Liaoning Provincial Service in Mandarin 2320 GMT 30 Sep 78 SK]

CSO: 5500

BRIEFS

AN GIANG TELEPHONE LINKS--In August and September the An Giang provincial post and telegraph sector completed installing a wireless telephone system linking various cities with districts and towns in the province, thus promptly serving production and combat activities in the border area. To date, telephone networks have been set up in seven out of eight districts and cities in An Giang Province. [Ho Chi Minh City Domestic Service in Vietnamese 0200 GMT 4 Oct 78 BK]

CSO: 5500

BRIEFS

VIETNAMESE RADIO OFFICIAL'S VISIT--Kvetoslav Faix, first deputy chairman of the Czechoslovak radio, received in Prague on 4 October (Ly Van-sau), member of the Vietnamese government cultural delegation and deputy chairman of the Vietnamese radio and television, to discuss further cooperation between the two countries' radio organizations. [Text] [Prague RUDE PRAVO in Czech 5 Oct 78 p 2 AU]

COMMUNICATIONS MINISTER--The delegation of Czechoslovak communication workers led by Vlastimil Chalupa, CSSR minister of communications, left Prague for Tbilisi on Sunday to attend a conference of the socialist states' ministers of communications. [Text] [Prague RUDE PRAVO in Czech 25 Sep 78 p 2 AU]

CSO: 5500

RADIO BROADCASTING DEVELOPMENTS IN VOJVODINA OUTLINED

Belgrade TANJUG Domestic Service in Serbo-Croatian 1244 GMT 12 Sep 78 LD

[Text] Novi Sad--Much fuller radio information in the five languages of the nations and nationalities in the Socialist Autonomous Province of Vojvodina will be insured by as early as the end of this decade. This will be made possible by improved reception of Radio Novi Sad and by considerably greater cooperation between this central radio station and the 16 existing local radio stations and the new ones due to be built in Vojvodina municipalities and regions.

At the Geneva conference of radio broadcasting organizations 3 years ago, when the new distribution of frequencies and the strength of radio transmitters was established, the Novi Sad radio and TV gained an opportunity to build two independent mediumwave networks. A powerful transmitter will be built in Srbobran for programs in the languages of the nations and nationalities. Two main frequencies have been secured for programs in Serbo-Croatian--a 150-kilowatt transmitter in Banat and a 50-kilowatt one in Backa. These two transmitters will insure program audibility over the entire Vojvodina area, while for supplementary coverage during the night eight frequencies for lower-power transmitters have been secured--in Sombor, Subotica, Kikinda, Vrsac, Pancevo, Sremska Mitrovica, Sid and Novi Sad. To all intents and purposes this means that during the day the entire Vojvodina territory will be covered, and during the night an area inhabited by 80 to 90 percent of the Vojvodina population.

This program has been endorsed during public discussion in Vojvodina municipalities and in the province, and today also at the session of the Council for Information and Propaganda of the SAWP provincial conference.

CSO: 5500

BRIEFS

SECOND SATELLITE GROUND STATION--Buenos Aires, 5 Sep (TELAM)--Maximo Garfinkel, director of the international service of the National Telecommunications Company [ENTEL], has reported that feasibility studies for the installation of a second satellite ground station are underway, with very positive results. He said that it would be built in the provinces of San Luis or Cordoba. [Buenos Aires TELAM in Spanish 2005 GMT 5 Sep 78 PY]

CSO: 5500

FIRST SATELLITE COMMUNICATIONS STATION BEGINS OPERATION

Belize City THE REPORTER in English 8 Oct 78 pp 1, 14 FL

[Excerpts] Belmopan, Fri, 6 Oct--Belize's first satellite earth station linking the country in an international telecommunications network began to function here this morning during a small ceremony at the station site.

Some 50 or more people from government, communications experts, representatives from the judiciary and consular corps were on hand for the first calls to be made from the standard 8 earth station [as received]--a complex of sophisticated communication satellites stationed high above the earth.

The Belmopan earth station, built at a cost of some $5 million, is located near the BTA buildings. It has an 11.8 meter dish antenna and is one of five similar stations which Cable and Wireless are bringing into service this year.

Premier Price formally declared the earth station open after Minister of Communications Mr Sylvester made two telephone calls--one to London and the other to Washington D. C.

For his first call Minister Sylvester spoke to British Foreign and Commonwealth Secretary Ted Rowlands. Later he spoke to U.S. Transportation Secretary Brock Adams in Washington. The amplified conversations were described by those present as "crisp and extremely clear."

With the coming into operation of the new earth station, Cable and Wireless will be phasing out their VHF station at Ladyville, previously used for international calls and for telex. The buildings and equipment are to be taken over by Radio Belize for a proposed FM (modulated frequency) transmitter sometime before 1980.

The satellite to which the Belmopan station will beam its signals is located some 22,300 miles (26,888 kilometers) above the equator over the Atlantic Ocean. At this height the speed of the satellite is such that it remains stationary relative to the earth stations far below.

Belize's earth station is initially providing eleven telephone channels plus one telegram-telex bearer. It can be expanded to carry 60 simultaneous conversations--enough to meet the needs of Belize for many a year to come.

CSO: 5500

BRIEFS

MICROWAVE NETWORK EXPANSION--The National Telecommunications Company (ENTEL) has reported that the microwave network expansion to Tarija, Potosi and Sucre will be in operation around the middle of 1980, since work is being carried out on schedule. An automatic telephone system between these three cities will be put in operation at the same time. The microwave equipment will be provided by General Electric of England. It was also reported that the international traffic center and the Tiwanacu satellite communications station may be dedicated in December this year. [La Paz PRESENCIA in Spanish 17 Sep 78 p 12 PY]

CSO: 5500

INPI DELAYS PAYMENT FOR TECHNOLOGY IN EDISA-FUJITSU CONTRACT

Rio de Janeiro O GLOBO in Portuguese 18 Sep 78 p 17

[Text] Porto Alegre--The delay by the National Patent Institute (INPI) in registering the purchase and technology transfer contract for the manufacture of minicomputers signed between EDISA [Digital Electronics Corporation] and the Fujitsu Company, of Japan, is, according to the corporation's chief executive officer, Ana Maria Mandelli, the only difficulty being encountered at the present stage of establishment of the corporation.

"There is no real problem connected with the technology transfer contract between EDISA and Fujitsu, because, since it is a question of a transaction involving a considerable amount of money, it is inconceivable for it to materialize overnight. EDISA, one of the projects approved by CAPRE [expansion unknown] for the manufacture of minicomputers, is encountering no problem in carrying out its program."

Irreversible Program

Ana Maria pointed out that relations between Brazilian companies in the sector and associated foreign companies are excellent. She added that the program for manufacturing minicomputers is entirely irreversible. She admitted, however, the existence of a hindrance in connection with registration of the project in the INPI. She emphasized the fact, however, that this is due to the strict procedural system observed by that agency in examining and registering contracts.

"The contract between EDISA and Fujitsu, approved by the CDI [Industrial Development Commission], depends exclusively on registration by the INPI, because the Central Bank will authorize release of funds to pay for technology only on that basis. But that is not blocking the project, What is taking place is a certain amount of pressure by some sectors, primarily the press, that want to see computers in operation by some magic trick."

Transfer

With regard to the transfer of technology by the Japanese company to EDISA, Ana Maria Mandelli stated that after purchase of the "technological package," consisting of design, project engineering and so on, it is being carried out by means of training of Brazilian technicians at home and abroad by Fujitsu itself, within a time schedule that is being met normally. EDISA will import minicomputer systems from Japan for a period of a year after arrival of the first minicomputer. After they have been tested, they will be marketed under the EDISA label. The second phase, in which EDISA will assemble, in Rio Grande do Sul, imported components in cabinets to be supplied by the local metal-working industry, will start only in the second half of 1979.

The Project

EDISA's project is subdivided in five steps, each one characterized by an index of progressive nationalization, each one absorbing an additional degree of transfer of technology, terminating within a maximum period of 5 years. Ana Maria Mandelli pointed out, however, that, depending on the absorption of technology and on the modifications that may be introduced in the project, complete nationalization may be achieved in a maximum period of 4 years.

EDISA, which will have its plant in the industrial district of Gravatai, in the metropolitan region of Porto Alegre, is setting up a laboratory for development of the project, for absorption of technology, This step is described as "fundamental," because computer equipment becomes technologically obsolete every 5 years. In addition to that, the corporation will train its technicians both in its own data-processing center and in Japan, because it will employ, for its actual operation, close to 100 specialized personnel and 20 engineers for an industrial production of 82 minicomputer systems in the first year of operation. That number will be repeated in the second year, increasing gradually to 120 to 150 systems a year, needed for meeting Brazil's demand, which is on the order of 300 electronic minicomputer systems a year. That market will be handled by EDISA, COBRA [expansion unknown], Labo Electronics, Limited, and SID [Distributed Data Systems].

The First One

The first computer imported by EDISA from Fujitsu arrived in Rio de Janeiro on 14 September, 60 days later than had been originally scheduled. It should be in Porto Alegre in the next few days. Although she preferred not to indicate the causes for the delay, Ana Maria Mandelli stated that the corporation's CPD [Data-Processing Center] will be in operation in the first half of October, when the corporation's showroom will also be set up, and that it will put minicomputers on the market in the first quarter of 1979.

10042
CSO: 5500

LABO TO INITIATE MANUFACTURE OF MINICOMPUTERS IN 1979

Rio de Janeiro O GLOBO in Portuguese 18 Sep 78 p 17

[Text] Sao Paulo--Labo Electronics, Limited, is to start producing minicomputers only in the first quarter of next year. Its establishment schedule is about 90 days behind its original plans, but the project has already come off paper and is being carried out at a pace a little slower than the rate required by the government, when it selected the company, together with two others -- EDISA, in Rio Grande do Sul, and SID, in Parana -- to manufacture minicomputers.

The general manager of Labo, Rudolfo Oehling, states that the delay in establishing a project of this size is normal and delay is mentioned only because there is a concern, above the level of normality, in connection with the needs of the market. In his opinion, estaablishment of a minicomputer plant cannot take place within a 6-month period, as is being said in Brazil, owing to the complexity of the job.

Explaining the Delay

Rudolfo points out that the government's minicomputer plant, COBRA, has been in operation for 4 years, in Brazil, but that it took 3 years to set it up. In addition to that, it began to deliver its products to the market only in the fourth year, after having subjected them to a long period of tests.

"It is necessary to specify exactly what is meant by delay," he remarked. Is the delay in connection with the country's needs or with the company's plans? There was a time limit for our original plans. In practice, things may be different, because the manufacture of minicomputers requires establishment of a very complex industrial infrastructure. Technicians have to be trained. Equipment has to be setup and a technology that is not very simple has to be absorbed. These are problems that even a large international corporation in the sector would have, if it should come to be established in Brazil. It would find it difficult to set up an industry of this size in 6 months."

Training

Labo is already setting up part of the minicomputer plant in its present facilities, in Interlagos. At this time, for example, it is holding technical courses, in its industrial facilities, for skilled workmen and engineers, given by Nixdorf technicians, a German company supplying technology. Two computer systems have been imported and are disassembled in the company. They are serving as a basis for training. In November, the company is initiating another course, with a software instructor, who will come from Germany.

In addition to the investment in personnel, Labo is also constructing a new 3,000-square-meter building on an area of 10,000 square meters, close to its present industrial park. That project even provides for the construction of another building, with an area of over 3,000 square meters, next year, after completion of the first one. This first one is to be ready in February or March.

Up to now, Labo has already invested 10 million cruzeiros in its project, but total investments on the order of $40 million (close to 800 million cruzeiros) have been scheduled during 5 years. In the first year, its minicomputers will have a 50-percent nationalization index.

The components will be imported from Nixdorf, in Germany, and assembled in Brazil. Progressively, they will be nationalized, in accordance with a 5-year program.

Market Pressure

Rudolfo Oehling stated that the market is exerting pressure on the plants being established for them to produce urgently. Since importation is prohibited and there only is one manufacturer, COBRA, buyers are anxious and are putting pressure on the government, alleging that the industrial plants are not preparing themselves for the mission assigned to them. Rudolfo admits that there also is pressure from abroad by international groups that did not qualify in the competitive bidding and that are trying in every possible way to reach a market with a great potential.

"Actually, both our company and EDISA, in Rio Grande do Sul, and SID, in Parana, are being established and are investing. We cannot deliver minicomputers this year, as we had anticipated, but we are investing in equipment, personnel and machinery. A 1- or 2-month delay in a project of this size is almost nothing. What matters is actually knowing that the projects are not on paper. They are being carried out.

Rudolfo also remarked that his company will not be in a position to deliver the first minicomputers this year, but he anticipates the production of 300 systems by next year for placing on the domestic market. The sale of these items of equipment, according to him, should produce receipts on the order of 1 billion cruzeiros.

Nevertheless, the potentiality of the market is his great expectation. In his opinion, the market is sufficiently large for the four manufacturers -- COBRA, Labo, SID and EDISA -- and it is quite larger than the size of the market predicted by all prospect studies made up to now. He says that his company is being called on, at present, by many buyers requesting information. In his opinion, that behavior serves to evaluate the need that the market has for minicomputers. Nevertheless, demand should be much greater than anticipated, because it is possible that supply of the product will expand its use and give rise to an unanticipated demand.

10042
CSO: 5500

PARANA FIRM TO PLACE FIRST MINICOMPUTER ON MARKET IN OCTOBER

Rio de Janeiro O GLOBO in Portuguese 18 Sep 78 p 17

[Text] Curitiba--SID [Distributed Data Systems], one of the three companies selected by CAPRE to produce minicomputers, will place its first computer, the 5240, on the market, in October, only 2 months after acquiring its plant in the industrial zone of Curitiba, where it is now installing the basic equipment. By the end of next year, its production capacity should reach 20 systems a month, with the possibility of expansion, depending on market requirements, according to what was stated by Ronald Leal, its industrial manager, in an interview granted to O GLOBO.

To tell the truth, the first minicomputers to be placed on the market by the company, starting next month, to take care of orders, are complete systems imported from LAGOBAX, a French firm that will transfer all the production technology to the Curitiba industrial plant. But, in July 1979, SID will already be supplying system assembled in its own plant, using components, parts and pieces available on the Brazilian market, with an initial nationalization index of close to 30 percent.

Time Schedule

At any rate, delivery of the first minicomputers, starting this October, proves that SID is completely fulfilling its establishment time schedule, within the specified time limits, according to Ronald Leal.

This time schedule was divided into four distinct phases. Phase 1, which the company is carrying out at present, is intended for final tests and repairs to finished systems imported from LOGABAX. In Phase 2, assembly, testing and repairing of semiassembled systems are scheduled to be started this December or in January. In Phase 3, scheduled for June 1979, there already will be assembly, tests in progress, final tests and repairs of kits of completely disassembled systems. One month later, in July, Phase 4 will be implemented, with assembly, tests in process, final tests and repairs of kits of completely disassembled systems, using components, parts and pieces available on the domestic market.

"All that will be possible, because LOGABAX has long experience in technology transfer. We are the eighth customer of the French company in this connection," Leal said.

Moreover, SID has right now three systems imported from LOGABAX intended exclusively for absorbing technology, while three more for the same purpose are due to arrive starting in October. The process of transfer of technology is divided into three items, according to Leal, covering technical documentation, training and technical advice. SID sent 15 engineers to France for training, between last March and August. They have returned already completely trained and form a "team qualified to give continuity to the activities." In November, eight more Brazilian engineers are to go to France.

Technical Assistance

The company has already received four French engineers to handle technical assistance. Two more are to arrive at SID next month and two more in January, for a scheduled period of from 6 to 12 months. LOGABAX will receive royalties from SID (the amount is confidential, Leal said) for 5 years, the term of the contract, for services of transfer of technology, technical assistance and training.

Thus, the company expects the nationalization indices of its products to evolve from 30 percent, in 1979, to 60 percent, in 1980; 80 percent, in 1981, and 90 percent in 1982. SID anticipates no difficulty in carrying out these plans. According to Leal, in addition to a rapid transfer of technology, there is already at present a large number of components that can be manufactured in Brazil.

"We also have made contacts with several foreign industrial companies, some of them already established in Brazil, interested in producing components for minicomputers," Leal remarked, mentioning the example of the 3M Company, which can easily produce those components in a few months.

Feet on the Ground

The initial production volume scheduled at 20 systems a month, starting at the end of 1979, is regarded to be within an economic scale of production for SID. Leal believes, however, that demand may exceed these forecasts.

"We have scheduled this monthly volume for 1979, because our guiding principle is to plan with our feet on the ground. But we believe that the market prospects for minicomputers ready to absorb easily the production of the three companies are excellent, because each company has designed systems for different services," he stated.

SID will supply models 5240 and 5065, for commerical application. The 5240 is for small and medium-sized companies or as a backup for data processing in large companies. The 5065 is intended for banking applications in distributed processing (agencies), to be tied directly to the large central computers in the main office, or for direct transfer of data between agencies.

The company, formed by Sharp (51 percent), DATA SERV (26 percent), INEPAR (13 percent) and DIGIBRAS [Brazilian Digital Enterprise] (10 percent) is to invest 200 million cruzeiros by July 1979 (it began to make expenditures last March), two-thirds of which with its own funds. The remaining amount comes from subsidized loans being sought from government agencies, like FINEPE [Corporation for Financing Studies and Projects] and PROTEC [expansion unknown] and that the company hopes will be released by the end of this year. A return from these investments should start 3 years after the company's activities have begun.

Therefore, SID has a broad arrangement set up with its component companies. Sharp will handle marketing and leasing services, in addition to maintenance for the final user. DATA SERV will be responsible for sales to companies that will adapt the systems to special services. INEPAR will support exports. DIGIBRAS, a government enterprise, will supply political support in establishing the company and consolidating its market.

In this respect, DIGIBRAS, according to every indication, may be the new company's spokesman in its effort to survive during onslaughts by multinational companies established in Brazil that are attempting to get into the minicomputer market, like IBM, strongly determined to obtain approval from CAPRE to produce medium-sized computers, regarded by the three minicomputer companies as a threat to their market.

"We expect to count on the entire support of the government in settling IBM's plans," Leal stated, "because, if that company obtains approval to produce those systems, we shall have to close our doors."

10,042
CSO: 5500

COMMUNICATIONS MINISTER DISCUSSES CONCERN IN CPA BIDDING

Sao Paulo O ESTADO DE SAO PAULO in Portuguese 23 Sep 78 p 24

[Text] Brasilia--The minister of communications, Quandt de Oliveira, stated, yesterday in Brasilia, that the idleness of companies supplying equipment for the telecommunications sector next year should be around 50 percent. The same rate was recorded this year, because the Ministry of Communications will maintain the same pace in the program being carried out in the sector. According to the minister, industrialists are aware of that situation, because, at the beginning of the present administration, he himself alerted them to the fact that the telecommunication companies were overestimating the requirements anticipated for the telecommunications sector by the ministry.

Quandt de Oliveira stated that his ministry is carrying out in part the proposed programs. According to the PND [National Development Plan], during the present government administration, the number of telephones in service would be increased to 8 million telephones. Now, however, the minister estimates that, by the end of the period, the number of 6.5 million telephones will be reached. The Second PND specified a goal for the installation of 3.5 million new telephone terminals in the 5-year period, but the minister anticipates the total installation of only 2.8 million.

CPA

The greatest concern of the Ministry of Communications in connection with competitive bidding for the manufacture of telephone exchanges Controlled by Stored Programs (CPA) is tied to the transfer of decision-making power from the companies into the hands of foreigners, with the conversion of common stock into preferred stock in the space of 3 years, provided for in the Law on Corporations, when a loss occurs during that period. The concern expressed yesterday by Minister Quandt de Oliveira stems from the fact that the telecommunication companies have not been obtaining profits for 3 years and that, in the case of the CPA exchanges, may cause the decision-making power to rest, in the future, with the foreign company winning the competitive bidding.

This point has given rise to great disagreements between the Ministry of Communications and the foreign participants in competitive bidding, because, in

order to prevent greater denationalization of the telecommunications sector, the ministry has established requirements with which especially Ericsson and the NEC [expansion unknown] are not in agreement. The ministry wants the winning company to grant its Brazilian associate a power of attorney to the effect that, in case there is a conversion of the common stock into preferred stock, the Brazilian company will have a voting proxy.

This measure, as the minister of communications stated yesterday, will prevent the foreign company from assuming majority control in the case of the CPA exchanges. The companies participating in the competitive bidding, however, do not agree with the requirement, and this was one of the items contributing to Ericsson's disqualification and it is still being disputed by NEC, the third qualified company.

The second phase in the competitive bidding should be concluded by 10 October. By that date, the Ministry of Communications expects already to have a reply from the executive mansion on the administrative appeal by Ericsson against the ministry's decision to disqualify it from the competitive bidding.

10,042
CSO: 5500

TELEBRAS DEFENDS USE OF DOMESTIC SATELLITE

Rio de Janeiro O GLOBO in Portuguese 15 Sep 78 p 27

[Text] Campo Grande--The president of TELEBRAS [Brazilian Telecommunications Corporation], Gen Antonio Alencastro e Silva, said, yesterday, that, when the new government administration takes office, it is absolutely necessary to carry out the program for the domestic satellite as one of the bases enabling the country to have typically nationwide radio and television programing. He stated that, by using the satellite, it will be possible to broadcast primarily educational programs to each geoeconomic region.

The statements by General Alencastro e Silva were made in an interview during the inauguration by the minister of communications, Euclides Quandt de Oliveira, of new telephone equipment, in Campo Grande, and microwave and direct distant dialing systems, benefiting the cities of Dourados, Fatima do Sul, Rio Brilhante and Nova Andradina. The minister's party spent the day in Campo Grande and is going on, today, to Salvador, Bahia, where a programing will be carried out in the Radiobroadcasting Congress being held there.

Postponement

Gen Antonio Alencastro e Silva believed that the economic crisis that caused a postponement of the domestic satellite program, "although far from being overcome, is being lived with peacefully by us and I believe that, in the next government administration, it will no longer be a problem justifying further postponement." He mentioned that the launching cost had been reduced from $25 million to $8 million by using the Jumbo, from which the satellite would take off at an altitude of 10,000 meters.

Immediately after the statements by the president of TELEBRAS, Minister Quandt de Oliveira said, when he was questioned by reporters, that, to tell the truth, the domestic satellite has a low priority at present. "Our intention to launch it has not been abandoned, however," he remarked. "I only remember it when the press questions me." The minister of communications again said that the problems of the Rio de Janeiro telephone network have not yet been solved. "According to the information that I have at present," he stated, 3,000 telephones are out of service in Rio de Janeiro and we are doing everything possible to solve the problem, which involved 20,000 telephones a short time ago, but I believe that the situation will be met with a balanced effort only in December.

10,042
CSO: 5500

BRIEFS

GEOSTATIONARY COMMUNICATIONS SATELLITE--Bogota, 5 Oct (AFP)--Next year, Colombia will launch into a geostationary orbit its own satellite for domestic communications, it was announced in this capital today. This orbital satellite will not only modernize services but reaffirm "national sovereignty," according to Colombian Telecommunications Enterprise President Guillermo Sagra. The satellite will cost $150 million and will allow the country to have the most advanced telecommunications technology available during the World Football Championship which will take place in Colombia in 1986. The type of rocket which will be used to put the satellite into orbit was not specified. [Text] [Paris AFP in Spanish 2045 GMT 5 Oct 78 PA]

CSO: 5500

BRIEFS

REORGANIZATION OF BROADCASTING SERVICE--The complete restructuring of the Official Radio-Electric Broadcasting Service (SODRE) will be proposed by the Education and Culture Commission of the Council of State, according to the report issued after its last session. Various study meetings have been held on the status of the services in order to evaluate the organization and the deficiencies in its services. This subject was also examined on Wednesday by a working group headed by Dr Arcos Perez. The communique issued at that time states: "In view of the criterion and after studying the records, it has been decided that a memorandum will be issued proposing the full reorganization of SODRE. [Text] [Montevideo EL DIA in Spanish 22 Sep 78 p 4]

ANTEL CONTRACT WITH SPANISH FIRM--Spanish Ambassador Ramon Oyarzun stated that Spanish export of transmission cables to Uruguay will be sizeable. In this regard, ANTEL [National Telecommunications Administration] reported some time ago on the draft contract which was drawn up with the Spanish firm Telettra for the supply and installation of various microwave systems. The draft contract will be submitted for consideration to the IDB, which will make the final decision on the contract. [Excerpt] [Montevideo EL DIA in Spanish 3 Oct 78 p 5]

CSO: 5500

ARAB STATES BROADCASTING UNION MEETS IN RIYADH

Issues on Agenda

Riyadh SNA in Arabic 1035 GMT 15 Sep 78 LD

[Summary] Riyadh--The meetings of the ninth ordinary session of the Arab States Broadcasting Union's [ASBU] General Assembly will be held in Riyadh between 18 and 26 September at the King Faysal Conference Hall. The meeting will discuss a number of important issues, such as approving the resolutions of the eighth session and other issues connected with the union and its various committees.

The General Assembly's meetings will be preceded by meetings of the Programs Standing Committee and the Arab Committee for the Exchange of Television News.

The Programs Committee will discuss a number of topics, including the Holy Koran Week which will be organized in Saudi Arabia, the program of Ramadan in the Arab states and the joint project with UNESCO on cultural and development programs.

The Arab Committee for the Exchange of Television News will discuss a project for the development of this committee, a proposal on the setting up of an Arab office in Rome for television news, and another project for the setting up of an Arab center for the dispatch of Arab news to the world via satellite.

Delegations representing the broadcasting organizations in the kingdom, Syria, Lebanon, Egypt, the Sudan, the UAE, Kuwait, Qatar, Bahrain, the Sultanate of Oman, Iraq, Jordan, Algeria, Tunisia, the Libyan Jamahiriyah, Morocco, Mauritania, the Yemen Arab Republic, Palestine, Somalia and Djibouti will take part in this session.

Conclusion of Meeting

Riyadh SNA in Arabic 1835 GMT 26 Sep 78 LD

[Excerpts] Riyadh--The General Assembly of the Arab States Broadcasting Union concluded its meetings this evening at the King Faysal Conference Hall, Riyadh. The meetings, which lasted for 3 days, were chaired by Salih Bin Nasir, assistant under secretary of the Ministry of Information for radio and television and chairman of the confederation.

The recommendations and resolutions of the ASBU General Assembly include the formation of a financial committee comprising representatives of the kingdom [of Saudi Arabia], Syria and the Sudan to audit the final account for the year 1976-77.

The assembly approved the acceptance of Djibouti as an active member of ASBU and the Irish Radio and Television Corporation as an affiliated member.

The assembly recommended that the ASBU coordinate with the PLO with regard to programs beamed to the occupied territories.

CSO: 5500

'GULF NEWS AGENCY' MEMBERS CONCLUDE MEETINGS IN MANAMA

Baghdad INA in Arabic 1220 GMT 9 Oct 78 JN

[Text] Manama, 9 October--The directors of Arab news agencies which are members of the GULF NEWS AGENCY concluded their meetings here today.

The GULF NEWS AGENCY reports that the conferees formulated suitable proposals to advance the operations of the GULF NEWS AGENCY, to develop the press services it is offering, and to expand its activities in the Gulf area. The conferees also discussed the difficulties the GULF NEWS AGENCY has faced in the previous phases of its functioning. In this connection, they approved several recommendations to overcome these difficulties in order to expand the activities of the GULF NEWS AGENCY to cover extensively the news of the Gulf area. Directors of the GULF NEWS AGENCY, the KUWAITI NEWS AGENCY, INA, SNA, QNA, and the EMIRATES NEWS AGENCY participated in the meeting.

CSO: 5500

BRIEFS

SATELLITE GROUND STATION--Cairo, 17 September--On the occasion of the inauguration of the satellite ground station in Ma'adi today, Prime Minister Mamduh Salim contacted the heads of Egyptian missions in a number of Arab and European capitals by telephone. [Excerpt] [Cairo MENA in Arabic 1252 GMT 17 Sep 78 NC]

CSO: 5500

CONTRACT SIGNED FOR RADIO, TV COMPLEX

Baghdad AL-THAWRAH in Arabic 8 Sep 78 p 4

[Article: "Radio, TV Project Contract Concluded"]

[Text] The minister of information, Sa'd Qasim Hammudi, yesterday evening signed a contract with a Japanese company for the purchase of a mobile radio and television unit at a cost of 12,750,000 dinars. The mobile unit is one part of the state radio and television complex project, which includes the erection of radio and television studios, control rooms, and studios for the production of color programs. The project, which is to be located in al-Salihiyya directly behind the present state radio complex, will also include a large building to house administrative, maintenance, storage and lounge facilities. The project, slated for completion within 24 months of the contract signing, will contribute to increased program production, particularly since each radio and television program will be produced in a separate studio. The project will also make possible the production of a larger number of color telecasts.

The minister of information said the project would advance the productive capacity of the informational apparatus throughout the country and outside it. He added that the project would contribute to a greater production of radio and color television programs and enable the state radio and television establishment to better perform its task, in a manner that is concordant with the aims of the revolution and the party. He explained further that the implementation of the contract would strengthen friendly relations between Iraq and Japan.

The signing ceremony was attended by the director general of the State Radio and Television Company, Mr Suhayl Najm, and a number of ministry officials.

9063
CSO: 4802

CONCERN OVER ARAB BROADCAST PLANS REPORTED

Jerusalem JERUSALEM POST in English 27 Sep 78 p 2 TA

[Text] There is likely to be serious interference in the reception of Israel Radio's first, second and third programmes in the near future as Arab countries take over medium wave radio frequencies in the Middle East, Broadcasting Authority Director General Yizhaq Livni warned yesterday.

Livni told the authority's board that for the last few months there had been reports of Arab plans to set up powerful transmitters which would disrupt normal reception of domestic broadcasts in Israel.

He said that one possible solution would be for Israel Radio to broadcast on FM, but this would require considerable financial outlay for the Ministry of Communications and the public would have to buy FM receivers. The government must take steps to straighten out the division of radio frequencies in the area, Livni said.

He added that such a frequency division had been arranged by an international committee in Geneva in 1975 but that the Arabs were ignoring this and using radio waves in an irresponsible manner.

CSO: 5500

BRIEFS

REGIONAL COMMUNICATIONS NETWORKS--Tripoli, September 25, JANA--The president of the People's Committee of the General Post and Telecommunications Corporation said that the southern region and western mountain, Ajdabia and Kafra had been covered today with a telephone and telegraph network and a radio and television transmission network. The costs of these networks reached 3,018,669 Libyan dinars. [Tripoli JANA in English 1530 GMT 24 Sep 78 LD]

TELECOMMUNICATIONS CENTER--Transport Secretary, Engineer Nouri Faitouri Madani, has inaugurated the telecommunications centre in Murzik. The inaugural ceremony was attended by the Secretary of the People's Congress in Murzik Municipality, the Chairman of Sebha's Post Office Control, local people's committee leaders, chairman of People's Committees and a large crowd of people. The transport secretary also inaugurated the telecommunication station in Obary, later in the evening, with the secretary of the People's Congress in Obary Municipality, chairmen of popular committees inspectors of services and a great number of citizens attending the inaugural ceremony. These stations have established a link between the towns and municipal capitals covering the Murzik, Taragon, Om Al-Araneb, Zuweila and Wadi Atabah area. (JANA) [Text] [Valetta THE JAMAHIRIYAH MAIL in English 23 Sep 78 p 8]

CSO: 5500

BIGGEST MONITORING STATION IN MIDDLE EAST NEARS COMPLETION

Doma QNA in Arabic 1030 GMT 21 Sep 78 NC

[Text] Cairo, 21 September--Qatar is now putting the final touches to the biggest section for political listening in the Middle East. The section has been built by the QATAR NEWS AGENCY (QNA) to monitor all the Arab and foreign radios broadcasting in Arabic in the world.

Stating this to the newspaper AL-AHRAM today, QNA director 'Uthman Abu Zayd said that Qatari Information Minister 'Isa al-Kuwari will open the section next week at a ceremony that will be attended by all the information, press and foreign news agency representatives in Qatar.

'Uthman Abu Zayd said that the section is equipped with the most up-to-date electronic equipment and is the first of its kind in the Arab world. It will operate around the clock daily.

CSO: 5500

NONALINED BLOC ASKED TO IMPROVE RADIO FREQUENCIES

Lusaka TIMES OF ZAMBIA in English 12 Oct 78 p 5

[Text]

MEMBERS of the non-aligned movement should strive to make it a task of improving radio frequencies in their respective countries to counter propaganda from racist minority regimes in southern Africa.

Chairman of the group of experts currently attending a seminar on the "Co-operation Committee of Broadcasting Bodies" in Lusaka, Mr Harbi Mohamed, made the call during a reception hosted for delegates by Lusaka Mayor, Mr Simon Mwewa on Tuesday evening.

Mr Mohamed, addressing hundreds of guests in Nakatindi Hall, said improved frequency on radio and television in the countries belonging to the non-aligned bloc would not only defeat propaganda machinery beamed from racist settler regimes but also bring member countries closer.

He said: "Frequency distribution in the non-aligned movement is of paramount importance whose improvement the movement should regard as its primary task."

He said the job the agency was doing in explaining to the people on the role of its work would bring about development within the bloc in such fields as politics, science and culture.

Mr Mohamed praised Zambians for their hospitality, adding that their country was not famous internationally for hosting the 1970 non-aligned heads of state summit in Lusaka but also for her approach to various world issues.

The deliberations of the second meeting of the Co-operation Committee of Broadcasters from non-aligned countries, which ended in Lusaka last night, will contribute to the improvement of radio and television.

Information, Broadcasting and Tourism Ministry permanent secretary Mr Andrew Chitulang'oma said this in Lusaka yesterday.

Closing the consultative meeting, which was opened by Minister Mr Unia Mwila last Monday, Mr Chitulang'oma said the decisions arrived at during the meeting were important to the non-aligned movement.

He explained that the decisions would form a common strategy to be adopted by the movement at the world administrative radio conference to be held in Geneva, Switzerland, next year.

Besides solving professional issues in the movement, meetings of this nature were an important link in bringing mankind together, he said.

CSO: 5500

BRIEFS

TUNISIA-NIGER MEDIA COOPERATION--During a working session this morning Mustapha Masmoudi, secretary of state for information, and his Niger counterpart, Daouda Diallo, decided to draw up a cooperation agreement reflecting the wish of the two countries to exchange reports of mutual interest, radio programs, newspapers and journalists, to establish a link between their news agencies, to undertake joint radio and television production, and to coordinate their work in international organizations, especially in the forthcoming sessions of UNESCO and the UN General Assembly. [Text] [Tunis Domestic Service in Arabic 1900 GMT 8 Sep 78 LD]

CSO: 5500

GROUND STATION IN AMBOULI TO LINK DJIBOUTI WITH WORLD

Djibouti LE REVEIL DE DJIBOUTI in French 21 Sep 78 pp 1,5

[Text] During the course of the coming year Djibouti will acquire an automatic telephone and telex link with France and will be able to receive radio and television broadcasts direct from anywhere in the world.

These are only the initial benefits that will result from the coming installation in Ambouli of a ground station for satellite telecommunications construction of which will begin before the end of this year. The company that is in charge of planning and supervising the installation of this unsurpassed telecommunications equipment on our land is 75 percent owned by the Djibouti International Telecommunications Company (STID). The final cost of the project will slightly exceed 450 million Djibouti francs.

In order to learn more about what will be an instrument for considerable economic growth in our country we have interviewed for the benefit of our readers the director of the Post and Telecommunications Office and the local representative of the French Cable and Radio Company which has a 25 percent interest in the capital of STID. They are both managers of this company that has been specially established in order to promote Djibouti's international telecommunications through the construction and installation of a ground station for space communications. The project should be completed in less than a year.

In less than a year the Republic of Djibouti will have access to the unsurpassed services, in terms of international telecommunications, offered by a ground station for telecommunications by satellite. Through the use of a private firm, STID, established by the Djibouti government which has invested 75 percent of the firm's capital and by the French firm French Cables and Radio (FCR) which has invested 25 percent, our country has in effect drawn up the financing plans for such a station which will enable Djibouti to transmit automatically to the entire world by means of telephone and telex and to receive radio and television broadcasts from anywhere that they may originate.

In order to achieve a fuller understanding of this important project for our country we have chosen to interview the two managers of the new firm thus established, the Djibouti International Telecommunications Company: Mr Youssouf Ali Chirdon, director of the Posts and Telecommunications Office, and Mr Kessas, the FCR's representative in Djibouti.

According to Mr Chirdon, "telecommunications are an essential resource for the Republic of Djibouti in view of the fact that our economy is service in nature."

"The installation of a ground station," he believes, "can't help but create conditions for considerable growth in commercial traffic for our country and will at the same time play an important role in attracting firms to locate here. The facility which will soon become our link to the entire world will undoubtedly encourage some foreign companies to locate in Djibouti."

A Commercial and Cultural Role

"Our future ground station in Ambouli should thus become an important factor in economic development not to mention the reach with which it will provide our country. Telephonic and telex connections will be automatic with France as soon as the station is operational, and while waiting for total automation with the other countries in the world (needs will have to be determined), communications with other foreign countries will be greatly facilitated. Communications services with Europe in particular will be greatly simplified and the quality of the service distinctly improved. In addition, radio and television equipment will give us the ability to directly receive all major international events."

"The role of this station ," concluded Mr Youssouf Ali Chirdon, "will be twofold: commercial and cultural." The STID's mission is thus of considerable importance.

The Birth of a Company

What exactly is STID and what is its history? STID (Djibouti International Telecommunications Company) was established on 1 October 1977 in order to promote international telecommunications in Djibouti through the prompt construction and installation of a ground station for space communications.

It is heir to the post and telegraph service formerly called RGR (General Radio-Television Network) which because of its specifically technical character was run by the corresponding French minister. Then, upon independence, all of RGR's assets were transferred to the Republic of Djibouti. But the French government transferred its role to a company called the French Cable and Radio Company which is an instrument of the French government used in all foreign dealings involving telecommunications matters.

The French Cable and Radio Company's mission was to propose that the Republic of Djibouti establish a private telecommunications company that would be jointly owned by the Djibouti government and itself (75 percent

of the new company's capital would come from the assets of the defunct RGR and 25 percent from the French Cable and Radio Company itself).

This offer was motivated solely by the desire to maintain the quality of services that had been provided up to that point by the RGR operating with the benefit of technical assistance that would continue to be supplied by the French Cable and Radio Company as a replacement for the French minister of posts and telegraph.

Negotiations went smoothly and STID, now located in Salines and Ambouli, was born.

Project Well Uner Way

STID's project is already well under way as evidenced by the fact that the company is presently installing an automated central telex exchange which will be operational in about 4 months, by the end of January 1979.

As for the ground station for satellite telecommunications which is STID's primary objective, the project is in excellent shape as evidenced by the fact that the financing plan for it, amounting to approximately 450 million Djibouti francs, has just been announced jointly by the French and Djibouti governments.

While Mr Youssouf Ali Chirdon is the "official" manager of STID in his capacity as director of the post and telecommunications office, Mr Kessas was named by the French Cable and Radio Company to represent them in Djibouti. Mr Kessas, who is particularly involved in the installation of the station, states that the project is progressing well according to a very detailed schedule.

Ground borings at the Ambouli site where the future ground station will be built have been successfully completed, construction plans for the buildings are almost complete and civil engineering work will begin "no later than" the end of the year, Mr Kessas assured us. As for the final completion of work, "a realistic estimate indicates that the station could be operational by the middle of next year."

The Republic of Djibouti will then have at its disposal a facility that will provide total automation of international telephone and telex circuits as well as reception of radio and television programs from foreign countries (the station will not have a transmitting capability: the cost of the station would have tripled). At first only communications with France (Paris and the provinces) will be automatic but the equipment will be technically capable of accomodating the progressive extension of its automatic services to other countries, the specific determination of which will be based on demand.

A Fantastic Step Forward

Our republic will thus be taking a fantastic step forward with respect to international telecommunications as a result of this so-called standard B station which will be equipped with a parabolic antenna 11.8 meters in diameter. It will be "linked" to the American Intelsat satellite thus enabling the automatic retransmission of all types of international communications.

Constructed by several French firms, including Telespace, with materials that are almost exclusively French, the station will be operated by a European technical head assisted by six senior technicians from Djibouti. These personnel who will be specifically in charge of the permanent operation of the station will of course be supported in the general operation by personnel from STID who already number 55.

This firm will then be completely located in the vicinity of Ambouli and will include the ground station itself with the present receiver center and the telex exchange presently under construction. The transmitting center in Salines will then be transferred to the Posts and Telecommunications Office which has since the establishment of STID been working closely with it and which will continue to do so. We will continue to report on the progress being made in installing this station which will provide Djibouti with an incomparable means of contact with the world and thus permit the economic expansion that is necessary for it.

7779
CSO: 5500

TELECOMMUNICATIONS CORPORATION TO INCREASE SATELLITE CAPACITY STATION

Monrovia THE LIBERIAN AGE in English 29 Sep 78 p 3

[Excerpt] The Liberian Telecommunications Corporation is to increase its satellite capacity station from 24 to 48 channels in preparation for the OAU conference.

Revealing this in an interview on Wednesday, the corporation's managing director Samuel Butler, said that considering the many foreign delegates who will be in the country during the OAU summit meeting, the corporation has decided to increase the channel in order to provide more satellite facilities for those desiring to communicate internationally.

"What we are planning is that during the OAU, we will have facilities not to only receive international television programs but also to translate for any world coverage that might be required," Mr Butler said.

He then underscored the importance of the satellite in terms of international communication and added that as the country develops commercially and industrially there is a growing need to be in constant touch with different parts of the world.

Director Butler disclosed that the long anticipated international telephone dialing facility will hopefully be in operation by the end of January to the middle part of February.

He added that the international dialing system will halt the amount of complaints that his corporation receives from outsiders concerning telephone operators.

The Liberian Telecommunication Corporation, he said, is doing a lot in terms of implementation of its development projects and conceded that outsiders do not see much of what his corporation is doing, because most of Telecom's works are done in buildings.

"In Monrovia we now have equipment to provide services for about 2,000 new telephone subscribers, microwave equipment, telephone exchange equipment, which are being installed throughout the country. In order to provide more and meet up with the growing telephone demand we are trying to do it in an orderly fashion taking Monrovia area by area until it is entirely covered," director Butler revealed.

CSO: 5500

PRESIDENT COMMISSIONS NEW LUSAKA-NAKONDE MICROWAVE LINK

Lusaka ZAMBIA DAILY MAIL in English 22 Sep 78 p 1

[Excerpts] "We have enjoyed peace and stability in spite of numerous and difficult problems which we have faced; let us maintain that peace and stability.

"As One Zambia, One Nationa, we stand strong. Destroy that, and you destroy Zambia."

This is the message Dr Kaunda relayed to the nation yesterday when he officially commissioned the new Lusaka-Nakonde microwave link at Kasama in the Northern Province.

Emphasising the importance of effective communication links for all-round development in the country, Dr Kaunda said: "We need to use these links as tools for development. We need a rapid flow of information on all aspects of development.

"We need these communications links to act as unifying force, for without unity in the nation there can be no development and improvement in the quality of life of our people."

He said lack of effective communications with the outside world has hampered Zambia's efforts in the promotion of cooperation for political, economic, social and cultural security and defence and science and technological development.

He said he was glad that the new link would go a long way in increasing pan-African telecommunications network which were a necessity for the development of African States.

The commissioning of the microwave link to be connected to Mwembeshi Earth Station now means that residents of Kasama and other surrounding areas will be able to receive television casts and the introduction of radio transmission facilities, improved telephone, telex and telegraph services, and will greatly help in the dissemination of information for an all-round development.

CSO: 5500

GOVERNMENT HOPES TO EXTEND NATIONAL RADIO, TELEVISION RECEPTION

Lusaka Domestic Service in English 0500 GMT 10 Oct 78 LD/CA

[Text] The government has embarked on an exercise of providing and extending radio and television reception throughout the country, Zambia Broadcasting Services Director Mr Edgar Chellah announced last night at a dinner he hosted for the delegates [word indistinct] of the broadcasting bodies of nonalined countries at Hotel Intercontinental. Mr. Chellah said feasibility studies had already been carried out in Chipata, Kasama and Mongu, and more studies will be undertaken soon to cover the whole country. He told delegates that television expansions to the areas away from the line of rail were realized last month when President Kaunda commissioned the Nakonde-Lusaka microwave link, which is part of the international pan-African link.

CSO: 5500

FINLAND'S TELEPHONE SERVICE TO BE IMPROVED

Helsinki UUSI SUOMI in Finnish 2 Sep 78 p 6

[Article: "Telephone Service to England from Finland Increased by 180 New Lines"]

[Text] In 2 years Finland will have 180 new telephone lines to England and from there to other countries in the world. The connections will be sufficient once the joint communications satellite of the Nordic countries is put into operation.

A new cable will be installed between Denmark and England. On this cable Finland will be given additional connections to England and from there on to the United States, Canada, and Spain. A final decision on the distribution of the lines to the various countries has not yet been made, states chief inspector Rauno Alander of the Postal and Telegraph Administration.

According to the agreement signed between the postal and telegraph services of the Nordic countries and England, England will take care of the construction of the cable and will pay for half of its expenditure. The share to be paid by the Nordic countries depends on the number of lines each country will have at its disposal. The construction of the cable will cost Finland approximately 2.5 million markkas, which is a little more than 2 percent of the total cost. There will be a total of 4,000 new connections.

At this time there are approximately 80 telephone lines between Finland and England. The new cable will be completed in 1980 and it is calculated that the lines contained in it will be sufficient until the year 1984 when the communications satellite of the Nordic countries is put into operation.

10576
CSO: 5500

DECISION TO CENSOR NORDSAT PROGRAMS NOT FAVORED BY MAJORITY

Helsinki HELSINGIN SANOMAT in Finnish 25 Aug 78 p 2

[Editorial: "Censored Satellite"]

[Text] The Council of Ministers of Nordic Countries at a recent meeting in Stockholm approved the proposal of the Finnish Government, according to which an "edited alternative" should also be clarified in the preparations for Nordsat or the joint radio and television satellite of the Nordic countries.

The term used is misleading. "Edited" in this connection means "censored". Even without a clarification it is clear that a censored alternative would mean a watering down of the whole satellite idea.

The concept behind Nordsat is the transmission of all programs from all Nordic countries to all Nordic countries. If Finland joins the agreement, people throughout all of Finland will be able to watch any and all programs from Nordic countries. The programs would also be dubbed into Finnish. Correspondingly Finnish programs will be seen with translations in other Nordic countries.

An "edited alternative" means that of all the possibilities offered by this expensive satellite only a small portion would be exploited by the transmission of programs on one channel, which would be composed of programming selected by the radio corporations of the Nordic countries. For this type of "Nordic vision" a satellite is not needed, present equipment would be sufficient.

At the meeting of the council of ministers in Stockholm it was emphasized that even though Finland wants a clarification of a censored alternative, our government has not yet adopted a position on it. An "edited alternative" is, however, from the point of view of the basic idea of Nordsat so objectionable that any insistence on the necessity of an investigation will make the other parties smell the smoke of Finlandization.

The limits of the viewing area of the TV satellite do not observe national boundaries. Scattering, the reception of programs across national borders,

is not, however, a foreign policy problem. It is approved as a self-evident matter in Finland in the same manner as is the viewing of TV programs from Tallinn and Viipuri [Vyborg].

In discussing the Nordsat project at lower level meetings of the Nordic countries certain Finnish Communists have disclosed where the shoe pinches: "it is not permissible to freely transmit the programs of two NATO countries and of one EEC country to Finland."

The majority of Finns certainly do not approve of this kind of a freedom of speech-ideology. However, after the Stockholm meetings other Nordic countries may have cause to suspect that the Finnish government has, at least, given partial support to such a concept.

10576
CSO: 5500

CP STAND ON NORDSAT CONDEMNED

Helsinki HELSINGIN SANOMAT in Finnish 31 Aug 78 p 2

[Editorial: "Nordsat Discussion"]

[Text] KANSAN UUTISET, the organ of the SKDL [Finnish Peoples Democratic League] and the SKP [Finnish Communist Party], has urged a discussion of Nordsat. The newspaper has paid heed to its own urgings by enthusiastically arguing with itself about the expenditures and effects of the Nordic Television Satellite.

KANSAN UUTISET explains that in Finland "only 10 percent of the population would be able to follow the programs of Nordic countries without difficulty." A couple days later the newspaper is of another opinion explaining how Nordsat would mean "that national programming would become subjected to an ever more serious threat". If only every 10th Finn is able to follow the programs transmitted by Nordsat, then how could there possibly be a cultural policy threat"

KANSAN UUTISET also differs with itself regarding the expenditures of Nordsat. In one issue it is horrified at the expense of the project. The next day, however, it demands that this expensive satellite should be exploited in the most limited manner possible: by only transmitting Nordic country programs selected after they have been broadcast. Why is there a need for a satellite in such an exchange of programming?

Arguments according to which Nordsat would offer "American series films on channel 12" is a strange picture of Nordic programming policy. Nordsat is only a means of transmitting programs. The kind of programs that are transmitted in each country will be decided by the radio and television corporation of the country concerned. Presently the State Radio clearly offers an abundance of so-called American entertainment. In general, entertainment programs are transmitted at the same time in all Nordic countries. The feared "slipping through" would not succeed, at least, in Finland.

If KANSAN UUTISET, indeed, wants to discuss Nordsat, it could present the subject by explaining why Communists are horrified by the thought that Finns would have an opportunity to follow "television programs produced in a different political and social environment".

10576
CSO: 5500

TURKU FIRM DEVELOPS ANTENNA FOR NORDSAT

Helsinki HELSINGIN SANOMAT in Finnish 4 Sep 78 p 22

[Article: "Finnish Built Antenna for Nordsat Transmission"]

[Text] Preparations are being made in advance in Turku for television satellite transmission, which according to current information will commence in Nordic countries already in 1985. The Turku industrial plant Teleste Inc. is the first in the Nordic countries to develop a joint antenna system for the satellite era, which will be ready after a couple years of work.

Erkki Backman, the general manager of the company, stated that according to his understanding the development of such a system is also new throughout all of Europe.

"We have developed the matter to such a degree already that if nothing comes of these satellite plans, we will shoot down the satellite itself," he jokingly stated.

However, Backman believes that the permanent work group in Oslo, which also includes Finns, will come to a positive conclusion. "It is a different matter when the satellite will come into existence and in what form."

Three Out of Every Four Are Hooked Up to Joint Antennas

In Finland the television joint antenna system [cable system] has recently been developed to a rather extensive degree. Pekka Ketonen, company production director, stated that approximately 75 percent of Finland's television receivers are hooked up to the joint antenna. The corresponding figure in Sweden is approximately 54 percent, in Norway nearly 40 percent, and in Denmark approximately 50 percent. Professor Martti Tirri of Helsinki Technical College has participated in the development work.

Ketonen also stated that the public debate about the expensiveness of reception from satellite transmissions has been completely erroneous. "The impression has been given that every family will have to sacrifice approximately 3,000 markkas for receiving equipment. This is not the case at all," he stated.

For example, a joint antenna system for a three-story building developed by Teleste with installation in older buildings will cost only 200 markkas per housing unit.

A system for a one-story building will cost only approximately 310 markkas per housing unit.

According to Ketonen it has been assumed that there will be a total of four satellite channels and two for local programs. "Houses in which the joint antenna is already hooked up to a coaxial cable network can also be hooked up to the satellite receiption," stated Ketonen.

In the initial phase, when there are still few channels, no extensions and antenna contact boxes will have to be chan ed. Thus, only the installation of mirror antennas and new amplification centers will entail any expenditures.

The normal "forked antennas" re not sufficient for the receiption of satellite broadcasts. For them it will be necessary to construct a special mirror antenna, which can be aimed in a definite direction with a preciseness of 0.1 degrees -- in Finland, primarily, directly to the south.

The price of the mirror antenna is approximately 3,000 markkas. In addition to this, a special amplification center is needed.

The expenditures in a multistory building are divided between all the television users. If a second multistoried building is connected to this equipment by so-called cable television as will generally be the case, additional expenditure will become significantly smaller.

"By means of cable television neighboring buildings will be able to obtain the equipment at half the price. All the buildings within a 100-meter range can be connected to each other in this manner," stated Ketonen.

For example, in a group of three buildings the total expenditures will be approximately 24,500 markkas. If there are approximately 120 units in the group, the expenditure per unit will be only 204 markkas.

There Is Reason to Prepare for Satellite Transmissions

A mirror antenna installed on a roof will have to be placed on an especially strong base. It must not move around in a storm and it must have an unobstructed visibility directly to the south approximately 10 degrees above the horizon. It cannot even be obstructed by trees.

Ketonen emphasized that satellite transmissions should already be taken into consideration in present-day construction. Especially in new housing areas joint antennas should now be built. In this way we would save both time and money when satellite transmissions become a reality.

According to Ketonen the manufacturing of joint antenna equipment will employ approximately 510 people over a period of 7 years. In addition to this, export prospects are good since the company's nearest competitors are in Germany. The Finnish made equipment is capable of competing with the German equipment both in price and quality. The comapny has sales offices in Sweden and Norway.

The Teleste Corporation also now has plans to expand its operations as well as increase its staff in Turku.

10576
CSO: 5500

TVE CHOOSES PAL COLOR BROADCASTING SYSTEM

Madrid EL PAIS in Spanish 28 Sep 78 p 48

> [Excerpts] After more than 3 years of uncertainty, doubts, and political and economic pressures, Spain has officially decided--through an order issued by the Ministry of Culture which will be published shortly --in an as yet confidential manner to adopt the German PAL (phase alternation line) color television system, in place of the French SECAM [sequential memory color] television system. The rather mild surprise triggered by this decision is nothing more than the confirmation of a fact of life and clashes with the doubts about the reason for the delay in adopting this measure. In any case, the position adopted by the Spanish government implies considerable economic support for Spain from the German government which, in its offer submitted sometime ago, pledged to help the Spanish government with a series of loans if the PAL system were to be picked.

This is the end of the technical, commercial, and political war over the establishment of the color system. There are three systems to produce color pictures for regular television transmissions and they have been in existence since the fifties, based on numerous investigations and experiments going back to the pioneering days, especially by engineer Baird. The NTSC (National Television System Committee) was adopted by the United States in June 1953 through the Federal Communications Commission. In 1959, the SECAM system was presented officially and introduced for commercial operation on French television; it was devised by the French engineer Henry de France. The German engineer Walter Bruch, of the multinational consortium AEG [General Electric Corportation]-Telefunken, in 1963 came out with PAL based on a technical improvement of the American NTSC.

Six Years with German System

TVE [Spanish Television] has been broadcasting with the PAL system for six years now. The current color programming exceeds 70 percent of all

broadcasts and some brands of television sets have been installed in the receivers of the two systems, the PAL and the SECAM, for alternate use. In June 1976, French Industry Minister D'Orgnano proposed to the Spanish government a bidual color television system which would permit telecasts via PAL and SECAM. On that occasion, ANIEL (National Electronics Industry Association) published a report considering the establishment of the German system as a fact. Changing the system would require voluminous conversion expenditures which, according to information supplied by AEG-Telefunken would imply an additional modification of approximately 4,000-5,000 pesetas for each set; this would be equivalent to "burdening the national income with one billion pesetas." The increase on new television sets to be built "would imply a figure of 8-10 billions for the market over the next 4 years."

All of these facts, combined with the relative proximity of the world soccer championship to be held in Spain and the resultant installation of extremely expensive technical equipment speeded up the final official decision. The ministerial order will spell out the technical characteristics, the standards, the synchronization, and the video and audio signals, as well as the identification of television channels for all of Spanish territory.

The PAL system offers automatic compensation and correction of color defects during transmission and will not modify the technical procedures of TVE transmissions, studio facilities, or receiver characteristics. Spain has more than one million color television sets and more than 8 million black-and-white sets.

The PAL system has been adopted by 44 countries with an approximate total of 45 million sets. The French SECAM system is operating in 21 countries with something like 6.5 million sets; and the NTSC system is being used in 14 countries with 100 million sets (most of them in the United States).

The three color systems are not the only technical difference characterizing the different types of television signal transmissions. They work with different numbers of lines: 525 in America, 405 in Great Britain (for the first programs), 819 in France (first television chain), and 625 in the rest of the European countries and chains. There are differences in the amplitude of the total band (frequencies required for sending video and audio signals and signals required for security against interference from neighboring channels), in the separation between the frequencies of image and sound carriers, in the widths of the residual bands, in the image modulation signals, and in the type of sound modulation. In view of the impossibility of international standardization, the international agencies--in an effort to facilitate exchange and rebroadcasting of programs directly between various countries--solved the problem with the help of expensive and complex converters for color procedures and standards.

Sector Satisfaction

The as yet confidential government decision did not cause any surprise in the sector within ANIEL because, as one of its leaders told EL PAIS, this is nothing more and nothing less than the confirmation of the facts of life.

The fact is that an overwhelming majority of the 1.2 million color television sets in Spain employs the PAL system and that any other decision right now, such as the adoption of the SECAM system, would not have been possible because, moreover, all professional equipment used by TVE is based on the German system.

According to the ANIEL spokesman, the tendency pursued by the sector in manufacturing TV sets under the German system was normal, especially taking into account the fact that the majority of TVE broadcasts are coming in through PAL. "The decision made by the government could have been very much different in 1974, the year when the production of color television sets began."

It must finally be pointed out that the PAL system today prevails throughout Western Europe, except for France, while the SECAM system is instituted in France, Eastern Europe, and the Arab countries.

5058
CSO:5500

RESEARCH INSTITUTE CRITICIZES TELECOMMUNICATIONS DATA SYSTEM

Stockholm DAGENS NYHETER in Swedish 16 Sep 78 p 32

[Article by Bobi Sourander: "The Telecommunications Administration's Data Muddle; Improvements Needed on Hundreds of Points"]

[Text] The Telecommunications Administration's data processing activities must be improved on hundreds of points, says the international consultant firm which previously had come out with a harsh criticism of the Administration's work with the handling of data and with the improvement of efficiency. The firm of consultants suggests that drastic measures be imposed right from the highest executive level--where they want to have a special "control committee" which would keep the work under tighter control--down to details such as better-coordinated purchasing of specific consumer-goods items and increasing programmers' pay.

The final report from the Stanford Research Institute (SRI), regarding whose criticism of the Telecommunications Administration's improvement-of-efficiency work DAGENS NYHETER reported earlier, came to the Administration on Thursday.

Control Committee

In it, they first suggested a considerable tightening up of operations in the highest executive office. The Administration should have a unified policy for the development of its computer technology. The role of the central department for the improvement of efficiency should be strengthened as well as altered. Contact between data and systems technicians and their "customers"--in other words, the Administration's other departments--should be better. The development work of the department handling data should be supervised better.

The SRI suggests that a special "control committee" be set up within the Administration's top management for all these tasks. That committee should establish plans for the development of computer and systems work every year, and it also should closely supervise new projects that are started.

In this way, the SRI believes, one can prevent mistakes of the type the Administration has made previously--for example, when they put a program system into operation for the central supply depot in Nassjo which had not been completely developed.

The report actually is only concerned with the work which about 500 people in the Administration are engaged in performing, and which it costs about 150 million kronor a year just to run. But the SRI points out that it is precisely this group of data experts and efficiency experts who have ended up in the role of "technical fixers" instead of functioning as problem-solvers for the other departments of the Administration. Consequently, friction had arisen within the Administration and suspiciousness directed at that department was spreading.

Serious Disruption

The SRI also suggests a large number of steps to be taken to solve the purely technical problems which have arisen. The Telecommunications Administration has two entirely different basic systems for data processing, 13 different terminal models, large numbers of programs which must be "translated" into other data languages continuously and an obvious tendency to develop toward a still greater disruption of the work of improving efficiency.

At the same time, too little work is done within the Administration on the maintenance of equipment and the training of the personnel. Programmers are terribly underpaid by comparison with their colleagues in private enterprise, and the shortage of personnel has too often been solved by hiring expensive consultants. Therefore the SRI submits proposals for improvement on more than 20 points in these areas alone.

Thick Bundle

The SRI's final report is a bundle of more than 150 pages which also reiterates the harsh criticism they had already given in their preliminary report a few months ago. In an annex, that criticism is further intensified in many details--in regard to the Administration's failure when the central supply depot in Nassjo was to be started up, among other things.

"In that part of the report, there unfortunately are a number of factual errors which lead to contradictions and misinterpretations", says an expert in the Telecommunications Administration. "We are not trying to explan away the enormous problems we had in regard to the central warehouse, but SRI is on the wrong track sometimes in its final report."

"Within the Telecommunications Administration, we will study the report in detail now", says director-general Tony Hagstrom. "Our telephone rates are among the lowest in the world. In order to keep them low, we must make use of the modern data processing techniques. But that involves complicated questions. Therefore, decisions by the Administration management can be expected to come out on a continuous basis and over a rather long period of time."

9266
CSO: 5500

NEW TELECOMMUNICATIONS CHIEF HITS 'CHAOTIC' PLANNING

Stockholm SVENSKA DAGBLADET in Swedish 15 Sep 78 p 14

[Article by Curt Jonasson: "New Chief Writes Critical Letter: Telecommunications Administration's Planning is Too Bad"]

[Text] "The Telecommunications Administration's long range planning is chaotic. A clear connection between the plan and the budget is often lacking." That is what the Administration's new chief director-general Tony Hagstrom, said in an internal letter to various chiefs. Otherwise, the Telecommunications Administration is profitable. With a turnover of 5.8 billion kronor during the financial year, a profit of 127 million kronor is obtained.

Director-general Tony Hagstrom told SVENSKA DAGBLADET: "That was an internal letter. I purposely wrote critically in order to attract attention. What I wanted to bring home to those reading it was the fact that we must work at getting better planning and a clearly worked out policy for our overall operations.

"No, absolutely not. I am not attacking anyone. What I mean is that the planning is not satisfactory. I accuse no one.

In Tony Hagstrom's letter he also said:

"It is my opinion that we do not have a chance if we do not have entirely different and more sophisticated planning. And even then it is a very difficult task."

A proposal for a provisional policy for the Telecommunications Administration is to be submitted in October. After that, it is to be discussed by the personnel organizations.

At the end of the 1960s, the National Auditing Department thought that the Telecommunications Administration had too many employees and was spending too much money.

Eliminate 1,500 Positions

The Telecommunications Administration then caused the Asbjorn Habberstad consultant firm from Norway to be engaged to make a thorough investigation. According to information we have received, that cost about 15 million kronor.

The first contact with that firm was made in 1970. Thereafter, at various times, a total of 25 of Habberstad's experts were involved in the investigative work.

Eventually, the experts suggested that each of the Telecommunications Administration's different units should function separately as an enterprise having responsibility for the results achieved. They are doing that at present.

The proposed reorganization, which was accepted in principle by the Telecommunications Administration's management, was intended to mean that the central administration's personnel strength was to be reduced by 1,500 people by 1980.

The costs would be reduced by 100 million kronor, in round numbers, by that means.

One of the Habberstad experts was Esko Olsson. He was appointed the chief in charge of the improvement of efficiency for the Telecommunications Administration, and then he had the principal responsibility for organizational changes. He worked with a management and control group.

Later, responsibility was assigned specifically to each unit chief.

The chief in charge of the improvement of efficiency, Esko Olsson, told SVENSKA DAGBLADET:

"It is true that we were aiming at reducing the number of positions in the central administration by 1,500. That target was to be achieved by 1980--but under certain conditions.

"We still have not reached that goal. Perhaps we are halfway there at present. When we carried out a reorganization and redimensioning, it was based on conditions we were not acquainted with."

Not Yet 1980

Not everything is static at the Telecommunications Administration, says the chief in charge of the improvement of efficiency. The goals we set up have been modified by the fact that an annual budget is prepared, he adds.

The central administration, at present, Esko Olsson goes on to say, has a different substance than it had in 1973 and 1974.

"When we started on our assignment, there were probably about 3,300 positions in the central administration," he continues. "The corresponding figure today lies between 2,600 and 2,700. But we also have gotten the resources for certain work areas increased, and that is something that was not foreseen by the committee at the beginning of the 1970s."

9266
CSO: 5500

END