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19 November 1984



# Worldwide Report

## TELECOMMUNICATIONS POLICY, RESEARCH AND DEVELOPMENT





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# WORLDWIDE REPORT

## TELECOMMUNICATIONS POLICY, RESEARCH AND DEVELOPMENT

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## EAST EUROPE



## LATIN AMERICA



## NEAR EAST/SOUTH ASIA

SUB-SAHARAN AFRICA

ZHEJIANG SPEEDS POSTAL, TELECOMMUNICATION WORK

OW231711 Beijing XINHUA in English 1640 GMT 23 Oct 84

[Text] Hangzhou, 23 Oct (XINHUA)--Work has begun on a postal building in Hangzhou, capital of Zhejiang Province, and a microwave circuit to cope with growing demands on posts and telecommunications in Zhejiang Province.

Bao Rongming, deputy director of the provincial bureau of posts and telecommunications, said the building, requiring more than 10 million yuan, would be the province's largest. It will consist of a postal handling center and a postal conveying building, and the whole process will be computerized. The building is scheduled to go into service in 1990.

The 153-kilometer microwave circuit will link the lake-city of Hangzhou, a tourist attraction, with Ningbo, one of the 14 coastal cities open wider to the outside world. It will have three 960-channel waveguides for broadcasting, television relay and telecommunications. The projects requires 5.6 million yuan and is to go into operation in 1986.

Bao Rongming said Zhejiang's present posts and telecommunications were backward. To upgrade its telecommunications system, Zhejiang has imported an advanced telephone system with stored program-controlled digital switching. It will be installed in Hangzhou's telecommunications building still under construction. Equipped with high-capacity cable carriers and microwave circuits, the building will open in 1986.

About one-fourth of a 766-kilometer coaxial cable between Hangzhou and Fuzhou, capital of Fujian Province, has been laid since December 1983. The 45-million-yuan project, with a capacity of about 3,000 telephone channels, is to be completed in 1986. The cable passing through 22 cities and counties will facilitate telecommunications between the two neighboring provinces.

Zhejiang plans to install 200,000 more telephone lines by 1990.

These projects, when completed, will greatly improve Zhejiang's postal and telecommunication services, the deputy director said.

CSO: 5500/4144

## BRIEFS

PHOTOCONDUCTIVE FIBER COMMUNICATIONS SYSTEM--Tianjin, 25 Sep (XINHUA)--A photoconductive fiber communications system, with a total length of 7 kilometers, which enables simultaneous operation of 480 telephone sets, passed examination in Tianjin on 24 September. The system was designed and installed by a research institute of the Ministry of Electronic Industry. [Summary] [Beijing XINHUA Domestic Service in Chinese 1504 GMT 25 Sep 84 OW]

NORTHEASTERN AREA BROADCAST SYSTEM--According to the Anshan City People's Broadcast Station, from 12 to 14 October, the managers of the radio and television service companies of the 17 cities in Heilongjiang, Jilin, and Liaoning provinces as well as in Nei Monggol Autonomous Region held a meeting in Anshan City to discuss the issue of establishing the preparatory committee for building the Joint-venture Radio and Television General Company of Northeastern China. At the meeting, the members of the preparatory department discussed the draft regulations and rules of the general company and adopted a resolution on establishing offices in Changchun, Harbin, and Dalian cities and on setting up the main office of the general company in Shenyang City. [Text] [Shenyang Liaoning Provincial Service in Mandarin 1030 GMT 17 Oct 84 SK]

ANHUI LONG-DISTANCE TELEPHONE PROJECT--According to a report by ANHUI RIBAO, the key long-distance communications project in Anhui successfully passed the overall acceptance test on 9 October. This project is a component part of the No 4201 project, a key state project in communications and a pivotal station for carrier communications on the Beijing-Shanghai-Hangzhou coaxial cable trunk line. It has facilities to establish communications with foreign countries, transmit newsphotos, data, television and radio signals, place auto-dialing, long-distance telephone calls, and run other communications businesses within the province, and with other provinces via the open-wire carrier, coaxial cable carrier, and microwave systems. Its completion has greatly changed the backward situation in Anhui in long-distance communications, and helped modernize the long-distance communications facilities, meeting the requirements in the development of the four modernizations program, and transmitting information. The project covers a total area of 20,000 square meters, with a magnificent and massive tower in the center. Rooms in the business building are spacious and elegant. Since completion of the project, all communications facilities have functioned well, and the various user units are completely satisfied. [Text] [Hefei Anhui Provincial Service in Mandarin 1100 GMT 19 Oct 84 OW]

XINJIANG RURAL COMMUNICATIONS DEVELOPING--Rural telecommunications work in Xinjiang Region has developed quickly. Rural areas throughout the region have now set up some 1,000 telecommunications service points, 97.8 percent of communes or townships have telephone services, some specialized households have installed telephone in their homes, and peasants no longer need to ride on horses or donkeys to a city to make a telephone call. The Regional Posts and Telecommunications Administrative Bureau has specially set up a rural communications department to be responsible for the planning and management of the building of rural communications. Over the past few years, the regional posts and telecommunications bureau and all autonomous prefectural posts and telecommunications bureau and all autonomous prefectural posts and telecommunications bureaus have almost every year run coursesin the management of rural telephone and technical training courses ot train qualified communications persons for rural areas. The region's rural telephone lines now total some 43,000 km, and a modern rural communications network has been basically formed. [Summary] [Urumqi Xinjiang Regional Service in Mandarin 1300 GMT 13 Oct 84 HK]

NHK-PRC COOPERATION AGREEMENT--NHK and the Chinese Ministry of Radio and Television signed in Beijing today an agreement to further promote cooperation in the broadcasting field between Japan and China. At the signing ceremony held at the CPC guest hall, NHK President Kawahara and Chinese Minister of Radio and Television Wu Lengxi signed the agreement and exchanged documents. According to the agreement, NHK and the Chinese Ministry of Radio and Television will cooperate in news collection and technology exchange. Actual plans for program and technology exchange will be worked out at cooperative committee sessions to be held alternately in Tokyo and Beijing once a year. Furthermore, the agreement states that NHK and the Chinese Ministry of Radio and Television will exchange, free of charge, news material within 48 hours after release and that priority will be given to cooperation in satellite-relayed broadcasts between the two countries. Thus, arrangements have been made for further cooperation between NHK and the Chinese broadcasting agencies. [Text] [Tokyo NHK Television in Japan 0310 GMT 16 Oct 84 OW]

OPTICAL COMMUNICATION SYSTEM--Tianjin, 25 Sep (XINHUA)--An optical communications system, providing 480 telephone channels on a single fiber, has been approved for regular operation by more than 100 specialists from all over China. The 7-kilometer system, including terminals, optical fiber cable and laser aids, was designed by research institutes under the Ministry of Electronics Industry, beginning from 1982. Since it went into trial operation in December last year, the system has demonstrated clarity without interference, number faults or interruptions despite high ground water levels and temperature extremes. In the past few years China has built experimental optical fiber communication lines in Beijing, Shanghai, Wuhan and other cities. [Text] [Beijing XINHUA in English 0045 GMT 25 Sep 84 OW]

HAIKOU-GUANGZHOU MICROWAVE CIRCUIT--Installation of the Haikou-Guangzhou 1,800-channel microwave circuit using advanced equipment imported from Japan by Hainan Island is in progress. The project is scheduled to be completed and commissioned by the end of next year. [Text] [Guangzhou YANGCHENG WANBAO in Chinese 24 Aug 84 p 2]



CSO: 5500/4141

IMPERIAL OIL FIRST TO HAVE OWN SATELLITE NETWORK

Ottawa THE CITIZEN in English 5 Sep 84 p 19

[Text]

It's a first for the Canadian telecommunications industry.

Imperial Oil Ltd. has become the first Canadian company to have its own private satellite communications network.

The system was designed and installed for the petroleum company by Telecom Canada, the association of Telesat Canada and nine major telephone companies.

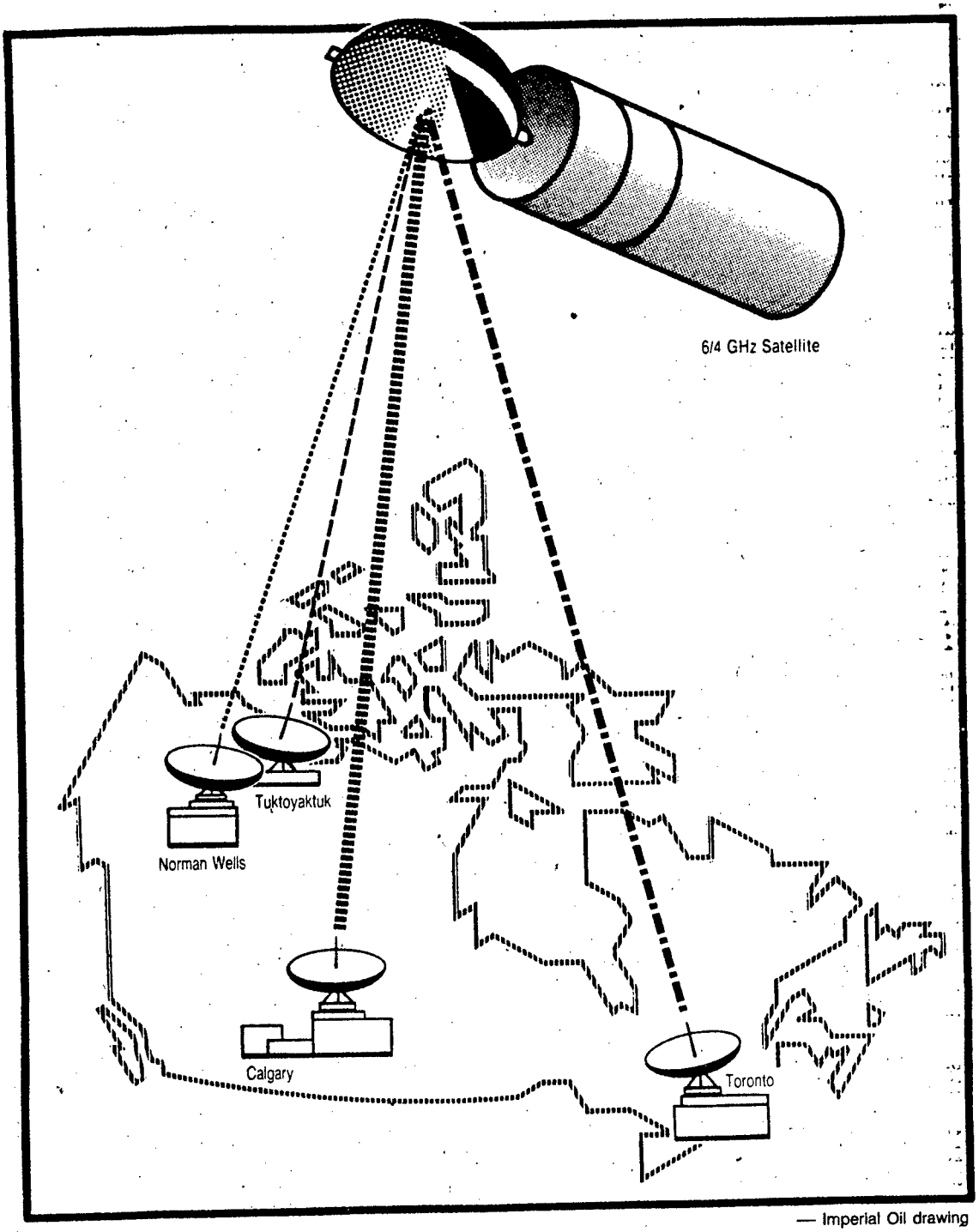
Dave Lynch, manager of Imperial's operations division, said in a news release the company expects the changeover to satellite communications will eventually save Imperial $1 million a year.

The satellite network consists of a dedicated earth station and radio frequency equipment located at Imperial's premises. It is to provide integrated voice and data communications between Imperial locations in Toronto, Calgary, and Tuktoyaktuk and Norman Wells in the Northwest Territories.

"Imperial Oil's network is just the beginning of what I see to be the widespread use of satellite communications by Canadian businesses," Mike Corlett, senior vice-president of Telecom Canada's national systems group, said in the news release.

"The country's geography and scattered population make satellite communications a most effective way to operate. This is especially true for large companies, such as Imperial, whose operations are spread across Canada."

Imperial's system is the first satellite network of its kind in Canada. Similar systems exist in the U.S. for Dow Jones, Western Union, U.S. Steel, Satellite Business Systems and the National Aeronautics and Space Administration (NASA).




— Imperial Oil drawing

Drawing shows the links established by the new satellite connection

CSO: 5520/12

HEARING TOLD OF SUPPORT FOR LONG-DISTANCE TELEPHONE

Toronto THE GLOBE AND MAIL in English 7 Sep 84 p B 12

[Article by Patricia Lush]

[Text]

VANCOUVER — Consumers, organized labor and small business are fighting to protect telephone companies' monopolies in the provision of long-distance telephone services.

"Don't fix something that's not broken" was the repeated plea of intervenors in the opening round of an informal Canadian Radio-Television and Telecommunications Commission hearing in Vancouver yesterday.

CNCP Telecommunications Ltd. of Toronto has applied to the federal regulator for permission to compete with British Columbia Telephone Co. of Burnaby and Bell Canada in the lucrative long-distance market. Bell is a subsidiary of Bell Canada Enterprises Inc. of Montreal.

The CRTC is holding the informal two-day hearing this week before moving to Hull for the formal session that begins Oct. 2.

Most speakers at the opening session opposed the CNCP application, several equating "competition" with "deregulation." They expressed fears that tampering with the generally highly regarded telephone systems in Canada would lead to problems, confusion and rising rates such as has occurred in the United States since the recent deregulation of telephone systems there.

A B.C. Tel spokesman said the company does not think it proper to comment at this time because the question is before the CRTC.

In a preliminary prospectus issued last month, B.C. Tel said it "is not opposed to fair and equal competition from a business standpoint.

"It is, however, opposed to further interexchange competition unless the CRTC first allows the restructuring of prices for local

and long-distance services to reflect costs more closely."

More than 50 per cent of B.C. Tel revenue comes from the long-distance market, which has, historically, subsidized rates for local service, the prospectus says.

The inference is that if competitors take some of B.C. Tel's long-distance revenue, there would be less for such subsidization and inevitably, local rates would rise.

The telephone companies have been pushing in recent years for some form of usage sensitive pricing, most likely local measured service, in which customers would be billed for the number and length of calls made. Individuals, labor and social service organizations at the hearing expressed fears that such a system would curtail telephone use for low-income, unemployed, elderly and handicapped people.

As well, small businesses see problems because consumers would be less likely to shop around by telephone and would head instead for the large companies they know.

And businesses which rely on telephone sales would see their costs rise substantially — for some, to unmanageable levels.

"Our existence depends on reasonably priced local telephone service," said Mark Luciak, owner of Vancouver-based Qualico Carpet Ltd. "We call 175 to 200 homes a week," he said. If companies like Qualico lose this affordable access to customers, some will fail and unemployment will rise, he said.

CNCP stresses that competition in the long-distance field does not need to cause increases in local telephone rates. If it is allowed to compete, CNCP is offering to share some the resulting profit with local telephone companies, if the CRTC deems such action to be in the public interest.

The proposed CNCP competition would be for a relatively small share of the market, said CNCP spokesman Brian Kilgour. In the United States, there are about 112 companies offering competing long-distance services and together they have less than 10 per cent of the market, he said.

In addition, the CNCP service would not be available from pay telephones or for person-to-person calls and would be available only in certain provinces.

Groups opposing the CNCP proposal included the 45,000-member B.C. Government Employees Union, the Telecommunications Workers Union (which has been sponsoring an advertising campaign against the proposal).

CSO: 5520/12

BELL CANADA LAUNCHES NEW DIVISION, SERVICES, STUDY

Cellular Radio Division

Ottawa THE CITIZEN in English 13 Sep 84 p 59

[Text] Montreal (CP)--Bell Canada Enterprises Inc has established a division called Bell Cellular to operate its planned cellular radio telephone network.

Cellular radio is a high-tech marriage of ultra-high frequency radio telephones and switching computers that constantly transfer calls between transmission centres and from frequency to frequency.

The system takes its name from the overlapping cells or areas served by cellular radio relay transmitters. Plans call for several of the cells to serve major Canadian cities and a string of cells across the country to allow the system to be used anywhere in Canada.

David Orr, a spokesman for Bell Canada Enterprises, said Wednesday the company has reconciled itself to a moratorium on the start-up of cellular radio service imposed by outgoing Communications Minister Francis Fox.

Bell Canada, the telephone operating company of Bell Canada Enterprises, was prepared to offer cellular radio service this month but in March, Fox imposed a moratorium on cellular radio until July 1, 1985.

Fox said the moratorium was needed because Bell had a headstart on its competitor, the Cantel Cellular Radio Group Inc. of Montreal, which planned to offer the service starting next May.

He also ruled that Bell Canada, which is subject to regulation by the Canadian Radio-television and Telecommunications Commission, could not operate a cellular radio network.

The creation of Bell Cellular as a Bell Canada Enterprise division is the company's response to that directive.

## Sale to Universities

Ottawa THE CITIZEN in English 15 Sep 84 p E7

[Text] Carleton University and the University of Ottawa have both chosen Bell Canada to supply their new telecommunications systems.

After reviewing proposals from a number of suppliers, the universities chose to rent Bell's Centrex III digital communications network, which provides customers with integrated voice and data communications throughout their organizations.

University and Bell officials said they could not attach a dollar value to the contracts, because equipment is rented rather than bought outright.

But both universities were interested in the service and maintenance that are included in the agreement as well as the fact that they are renting equipment for three years instead of buying it outright.

A spokesman for the U of O said the new, more advanced system will cost the university $500 a month less than its older Bell equipment.

"Our consultant said we should consider a university-owned system, bought from an interconnect company," said assistant vice-rector Charles Perron.

"But he also suggested that communications technology is an unknown and that we won't know what technology will be offered in the next five years.

"Bell's proposal offered the new technology at a price lower than what we pay now. Because it's a three-year agreement, we've got some 'breathing space' so we can see what's happening with new technologies."

## Megaroute Digital Service

Toronto THE GLOBE AND MAIL in English 21 Rep 84 p B15

[Text] Bell Canada has filed tariffs with the Canadian Radio-Television and Telecommunications Commission to launch a high-speed digital communications service called Megaroute. It is the first in a family of digital business services to be offered by the subsidiary of Bell Canada Enterprises, Inc of Montreal.

The new service will transmit voice and data between locations in the same city on a private digital channel at 1.544 megabits a second.

## Satellite Marketing Study

Toronto THE TORONTO STAR in English 13 Sep 84 p C3

[Text] Spar Aerospace Ltd and Bell Communications Systems Inc--a branch of Bell Canada Enterprises--are launching a study that is expected to lead to joint marketing of private satellite communications systems for business.

A Spar spokesman said the study should be completed during the first quarter of 1985.

The package would include Spar systems for voice and data communications via satellite, linked to SL-1 network systems offered through Bell Communications Systems.

Large multinational corporations requiring extensive communications links would be the likely market for these systems, the Spar spokesman said.

The trend toward setting up private satellite communications systems has been growing as the technology becomes accessible to more businesses.

Two weeks ago, Imperial Oil Ltd announced that it had established a private satellite communications network provided through Telecom Canada.

CSO: 5520/13

ANIK C1 SATELLITE LAUNCH PLANNED DESPITE LACK OF CUSTOMERS

Toronto THE GLOBE AND MAIL in English 25 Sep 84 p 4

[Text]

OTTAWA (CP) — Telesat Canada will go ahead with the launch next spring of the $70-million Anik C1 satellite — even if no customers have been found for it — company president Eldon Thompson said yesterday.

The country's satellite operator commissioned a series of three Anik C communications satellites seven years ago, but projections made then on the market for them have since been shown to be optimistic.

"As it turns out now, the market that was forecast is not as large as expected," Mr. Thompson says.

Anik C1 is thus for sale, but Telesat is committed to launching it next spring by the space shuttle, even if that means placing Anik C1 in a "storage orbit" 38,000 kilometres above the earth while a use for it is being found.

Launching charges by the U.S. National Aeronautics and Space Administration will double late next year, so Telesat will save millions of dollars by putting Anik C1 up next spring, Mr. Thompson says.

The satellite was designed to carry a wide range of services, including data transmission, teleconferencing, telemedicine, pay TV and educational TV.

Long-distance telephone volume has not, however, lived up to expectations, nor has the market for teleconference and telemedicine services. Many provinces have not proceeded with educational TV plans and pay-TV has been a disaster.

Telesat will forgo $2-million in income this year as a result of the recent merger of First Choice and Superchannel, users of its Anik C satellites. The Anik Cs are operating at about 55 or 60 per cent of capacity as many newer TV services opt for the company's Anik D.

Telesat is owned jointly by the federal Government and the country's long-distance phone companies. It lost $2.19-million last year — the first loss in its 15-year history.

By the time it is launched, Anik C1 will not be the only Telesat satellite without a use. Anik D2, to be launched in November, may be idle for two years. It could, however, be used to replace the aging Anik B, which has lost one of its two technical back-up systems.

Mr. Thompson hopes the company can find a purchaser for Anik C2, because that would let Telesat commission a new generation of more powerful satellites to be launched in the early 1990s.

Even if there is no immediate customer, one should come along within four years, half the satellite's expected lifespan. Mr. Thompson discounts, however any speculation that a bargain satellite is ready for the plucking.

"We are not going to give it away," he says.

CSO: 5520/12

CEMA BODY DISCUSSES TELECOMMUNICATIONS PLANS

LD092247 Budapest MTI in English 1712 GMT 9 Oct 84

[Text] Budapest, October 9 (MTI)--The CEMA standing committee for cooperation in the radio technical and electronical industries met for the 48th session in Budapest Tuesday under the chairmanship of Minister of Industry Laszlo Kapolyi, chairman of the committee. The meeting is attended by ministers and deputy ministers of telecommunication and electronic industry from the CEMA member countries and Yugoslavia.

The agenda includes preparation of production specialization and cooperation agreements and coordination of long-term specialization schemes for 1986-90.

The two-day meeting is to discuss the state of development of a uniform switching system and digital transmission technology, determine topical aims of comprehensive programmes for the development and production of VHF networks and colour broadcasting, and expansion of agreements. The committee is to uniform technical standards for photoconductive telecommunication systems and organize cooperation in development.

The Hungarian industry is interested in 13 of the 16 comprehensive production specialization agreements between the committees member countries, with telephone exchanges, computer equipment, tape recorders and components, telecommunication equipment, studio equipment, service and measuring instruments made in Hungary under CEMA cooperation.

Since the CEMA economic summit in summer that determined the prospects of cooperation the standing committee session is the first.

CSO: 5500/1003

## BRIEFS

PRC RADIO, TV RELATIONS--Peking, 4 Nov (ADN)--A GDR radio delegation headed by Achim Becher, chairman of the state committee for radio of the GDR Council of Ministers, met Wu Lengxi, Chinese minister for radio television for a friendly exchange of views at the end of its stay in China. The minister called once again for the expansion of cooperation between their radio broadcasting institutions. This serves the development of relations between the two states, greater knowledge about each other, and thus the preservation of peace in the world. [Text] [East Berlin ADN International Service in German 1037 GMT 4 Nov 84 LD]

GDR-PRC BROADCASTING COOPERATION--Beijing, 26 Oct (ADN)--An agreement on the expansion of cooperation has been signed in Beijing between the GDR Council of Minister State Committee for Broadcasting and the PRC Ministry for Radio and Television. Achim Becker, chairman of the committee, signed on behalf of the GDR broadcasting committee, and Wu Lengxi, minister for radio and television, signed for the PRC. The agreement provides for the development of cooperation, especially in the areas of music, radio plays, and the exchange of journalists. [Text] [East Berlin ADN International Service in German 1549 GMT 26 Oct 84 LD]

CSO: 5500/3006

RADIOS INITIATE REFORMS, DIFFERENTIATION, EXPAND PROGRAMMING

Budapest RADIO ES TELEVIZIO UJSAG in Hungarian 20-26 Aug 84 p 3

[Interview with Dr Kalman Kiss by J.B.: "Clearer News System on the Three Programs: 'Napkozben' [By Day] Five Times Weekly: 'Kulturalis Magazin' [Cultural Magazine]; 24-hour Petofi Program"; date and place not specified]

[Text] Beginning 1 October, radio listeners will witness a rather large migration: programs will move to new time periods, some will disappear forever, and in their places new ones will appear. The knowledgeable public will know already from this that the program structure will be changing. Of course most of the "residents" will remain in place, but the change is still of such proportions that everyone will certainly notice. It is really an adjustment in the program structure, the implementation of changes that are overdue. For some programs grow old, others move away, audiences change, and there are new demands which can only be satisfied by new programs. In essence, the radio program must be made more successful, more efficient, and more responsive to developing demands and changes in the public's rhythm of life.

"In planning, testing and introducing a new structure, we will be making a significant practical step forward in improving and developing our programming," says Dr Kalman Kiss, vice-president. "But the structural change is only a possibility which the program producers will have to know how to use, filling it with as high a level of content as possible. We have tried to make the new program structure such that it would inspire the creation of a radio program that would better meet our political goals and the demands of the public. It should promote the creation of new programs, revive tired ones and give opportunity four out-dated ones to be discontinued. The program should progress inspite of difficulties encountered in the economic situation, even under worse circumstances for Hungarian radio broadcasting. For the increase in global political tensions means a new task: it should stimulate the radio to keep its audience and its social respectability and to create an interesting, attractive and meaningful program policy and a realistic image of socialism.

[Question] As a result of debates, discussions and agreements that have taken place in various Radio forums, a new program schedule has been

developed with two important goals: communication of values and orientation toward the public. Aren't these two goals contradictory to one another?

[Answer] The contradiction is only an apparent one. The radio has always been a disseminator and propagator of values, whether they be ideas, artistic works, economic categories or technical discoveries. We recognized long ago that a medium like the radio, which reaches everyone -- and a voice like the radio's, which speaks to everyone -- has a great opportunity for spreading the good, valuable, noble and most worthwhile things and at last making them common property. This happens, of course, if all this is offered and presented in sufficient quantities and appropriate forms to a public that is composed of very many kinds of people. Public orientation does not mean that we serve every kind of demand without reservation, including those with political consequences or those that would lower the level of quality. One nice thing about our work is that we have to find the way to satisfy demands in such a way that at the same time the demands of the audience will also rise.

[Question] The "format" is a technical radio term that has become as well known to experienced listeners as the program structure. It means that the three programs have distinctive, peculiar styles, which so far have only been partially realized, whereas their advantages and importance have been recognized already for a long time. Will the new program structure promote a clearer definition of the programs or the radio formats?

[Answer] We have again made a small step forward. We have become more conscious of the fact that the tasks of the Kossuth Radio include many kinds of more demanding educational material, whereas the Petofi Radio program should apply itself more strongly to forms that are indirectly political and that spread culture. We can be least satisfied with Program Three: so few people listen to it, that the whole concept of the program needs to be thoroughly examined, debated and transformed. But the combined activity of the three programs already promises that when the new structure is introduced, harmony among them will improve and program selections will increase. It will promote a strengthening of timeliness, a quicker response to political and artistic events in every field.

Speaking of timeliness, I would especially like to mention the fact that our broadcast system -- which thelistener up to now could not easily figure out -- will become clearer in the new program structure. On the Kossuth Radio --leaving the program "Jo reggelt" [Good morning] untouched -- we will broadcast news every even hour between 8 am and 10 pm. (except that at 6 pm. and 8 pm there will not be this kind of broadcast, though one of them will be compensated for with "Esti magazin" [Evening Magazine], which will be heard at the same time as before, whereas on the Petofi Radio our news will appear every odd hour after 8 am. A new item on Program Three will be the news broadcast on weekdays at 9 am., which will be followed by similar programs at 1 pm., 7 pm., and 11:30 pm.

[Question] An old Latin proverb says that repetition is the mother of knowledge. But radio listeners are not pupils, so radio programs should not be repeated on that basis. A much better reason is that with a single transmission it is not possible to satisfy all wishes, since even at times with greatest audiences, not everyone is near a receiver or listening to a particular wave-length. And it is also necessary to repeat because listeners do not give complete attention, and a radio program cannot be played back. For this reason every radio station in the world repeats, the "big"radios even more than we do. Our practice of repeating also needs to be examined, our experience shows.

[Answer] The listener have been able to witness the experiments we have been making on Saturday mornings in recent weeks: we are trying out various forms and variations of repetition. Because besides simply rerunning a certain program on another day or another time of day, it is possible -- though not done often enough -- to have repetition by extracting the most important, most interesting components and parts of programs that have already been run and making out of them a new program. The experimentation is continuing, therefore, and we will introduce its results -- at least in part -- along with the change in structure.

[Question] The listener also could witness some other experimenting. During one week in the spring, every weekday morning there appeared "Napkozben." For 4 hours the Petofi Radio gave out words -- a little too many words -- and matters of everyday interest, important, useful information.

[Answer] This experiment has already had its results: Starting 1 October, Monday through Friday, a new Napkozben will be heard -- not for four hours, but 3 -- with far fewer subjects and much more music. Another result of the experiments is that the Friday and Saturday "Melodiakoktel" [Melody Cocktail] will move to the Petofi Radio, strengthening its individual character. The place for variety programs has also been established: Monday's cabaret show will be repeated the following Sunday morning, and the Karinthy Theater will appear on Saturday.

[Question] Since we have mentioned new programs, let's not forget about one significant undertaking, the "Kulturalis magazin." Though we understand that this is just a "working title" so far.

[Answer] This new program, which is produced by the educational-political section, will appear Sunday -- every Sunday -- probably between 11 am and 12 noon. The musical department and the literary department will also be cooperating in it. We will provide every possibility so that this will become one of the most significant and most listened-to Sunday programs.

[Question] We could also mention the "eternal" problems of Monday evenings: the radio wants to put everything into the television-free day, and thus the program is often too full and heavy at these times. We hope the new program structure will bring a change in this too. The structure of news broadcasts has also changed somewhat -- they are trying to make good the

old wish that different news forms and reception will help the Kossuth and Petofi Radios achieve individual styles -- and there will be many other changes, about which we will ask those participating in their direction in greater detail in future weeks under the heading "program production." Now we would just like to hear about one change that really represents a new era in radio: the "non-stop" Petofi.

[Answer] On 1 October we too will be added to the list of radios that speak every hour of the day. So the four-hour program break will end. Those who work nights -- in the kind of job where one can listen to the radio, who are on duty, traveling, or who just can't sleep, will be able to receive a program throughout the night and early morning -- on the UH frequencies. It will be mostly music, entertaining music appropriate to the time of day. According to our plans this will only be interrupted by news broadcasts, at 1 am and 3 am. This too is a kind of service beyond concrete programming perhaps, because it is good for a person to know that even at night he is not alone; just a click, and our radio speaks to him and for him.

9611
CSO: 2500/613

## BRIEFS

TELECOMMUNICATIONS ADVANCES--Changes are underway in all major segments of the industry. These innovations are increasing productivity and changing the type of labour requirements in the two basic processes involved in telephone communication--call switching and signal transmission, as well as in other operational tasks and in management and accounting functions, the electronic computer is used extensively. In telephone call switching electronic switching systems utilize highspeed computer to handle the growing share of local and long distance calls with some countries anticipating total conversion by the year 2000. In signal transmission, sharp gains in long-distance volume have led to two innovative and important technologies--The millimeter waveguide and fiber optic cables which were recently introduced to Barbados. This technology is undergrowing field tests with future diffusion dependent upon call volume growth. Fiber optic cables for signal transmission are expected to become a major transmission medium. [Text] [Bridgetown SUNDAY ADVOCATE in English 30 Sep 84 Magazine p 4]

CSO: 5540/005

# PROGRESS IN TELECOMMUNICATIONS SECTOR IN AMAZON DISCUSSED

Rio de Janeiro MANCHETE in Portuguese 27 Oct 84 pp 98, 99

[Article by Milano Lopes]

[Text] Porto da Balsa do Careiro is a small community whose population does not exceed 50 inhabitants, located along the Solimoes river, on the route of travelers who use the ferryboat to get to Manaus or highway BR-319 to get to Porto Velho. It is completely isolated, but Rita de Cassia Sales Lopes, owner of the only store in the area, has no trouble talking at any hour of the day or night with her relatives in Manaus: she uses the community rural telephone, connected to a single-channel VHF radio and a solar-energy generating system that feeds the battery charger.

Rita is a good illustrative example of how the Amazon region is rapidly being integrated in the era of communications, and discovering that this is the best way of occupying that large piece of Brazil territorially and economically. A few hundred kilometers upstream, on the left bank of the Javari River, which forms the border with Peru, in Estirao do Equador, headquarters of the army's Special Border Company, soldier Manoel de Oliveira was inaugurating the Inter-urban Service Station, built through an agreement signed between TELEAMAZON (Amazonas Telecommunications Inc.) and the Army Ministry, transmitting the good news to his relatives in Rio de Janeiro.

At the same time, in his office at the Army Ministry in Brasilia, in the presence of Communications Minister Haroldo Correa do Mattos, Army Minister Gen Walter Pires is communicating with the commanders of the 1st Special Border Platoon, in Palmeira, on the border with Peru; the 2nd platoon, in Ypiranga, on the border with Colombia, and the 3d platoon, in Vila Bittencourt, also on the border with Colombia.

These two illustrations demonstrate the two basic characteristics of the presence of telecommunications in the Amazon region: the social aspect, in the sense of assuring immediate contact between persons thousands of miles apart, and the national-security aspect, permitting instantaneous communication among the garrisons along the 11,000 kilometers of the Amazon region's border with any unit of the army, anywhere in the country.

Waiting for Satellite

If communications in the Amazon region have already reached such a high degree of penetration with the resources now available, what is to be said of the changes that will occur after launching next February of the first domestic Brazilian satellite, the Brasilsat? As a matter of fact, besides increasing human contact within and outside of the Amazon region, the satellite will lead to setting up national programs for education, health and agriculture, besides expanding the coverage of radio and television broadcasting to the most remote areas of the national territory.

For Cristovao Marques Pinto and other owners of the thousands of vessels that day and night ply the rivers of the Amazon region, Brasilsat is being awaited with great eagerness. With resources now available, the owners of these vessels that cruise the 20,000 kilometers of navigable rivers of Amazonas, Para, Acre, Amapa, Roraima and Rondonia are already communicating with each other and with persons on shore. From his small boat, anchored in one of the inlets among the thousands along the right bank of the Negro River, Cristovao is accustomed to speaking with friends and relatives in Brasilia, Rio de Janeiro and Sao Paulo, using the coastal stations maintained by EMBRATEL [Brazilian Telecommunications Company] along the Amazon River between Manaus and Belem.

With Brasilsat, which will be kept above the equator at a height of 35,800 kilometers, accompanying the rotation of the earth and covering the whole national territory, receiving and transmitting communications signals by means of an antenna, Cristovao's task will be even easier, as will that of all those who navigate through the Amazon region's rivers.

At present the land portion of the Brazilian Telecommunications System has 21 small-scale stations, which operate by using channels leased from communications satellites of the Intelsat consortium. They are located in the Amazon region and one is on the island of Fernando de Noronha. This figure should be greatly increased with operation of the Brazilian satellite. The small antennas for reception via satellite, produced by domestic industry, are inexpensive and will be widely accessible.

Speaking By Sea

But the advance of telecommunications in Brazil is not characterized only by the occupation of the Amazon region and expansion and modernization of services in the large metropolitan centers. EMBRATEL has just delivered to the nation an efficient system of maritime communications via satellite, including telephone, telex, facsimile, telegram, high-speed and low-speed data transmission; data-communications services such as Transdata, Interdata, Findata, Airdata and, shortly, RENPAC [National Network for Commutation by Packages]. They are acronyms for the modern language of informatics, whose semantics extend from the simple communication of data at the national and international level to access to the information of the world financial market.

It was with a great deal of emotion that Cearense sexagenarian Raimunda da Conceicao, resident of a Fortaleza suburb, learned of the existence of the

maritime communications system, in recognizing the voice of the son she had not seen for months and who was speaking from a ship in the middle of the Atlantic Ocean, on the way to Europe. Conceicao had trouble understanding how the "miracle" had occurred, and Aluisio saved a part of his seaman's pay for future connections.

In Sao Paulo, meanwhile, students, professors and housewives are using the Videotext pilot project administered by TELESP [Sao Paulo Telecommunications?] and, through the telephone line, a connector and a television set, have access to a data bank that supplies them the most varied information, from the time of day to the complicated negotiations of the open market. These are the telecommunications that in Brazil are reaching their majority, catching up technologically to the most advanced nations of the world.

8834
CSO: 5500/2005

## BRIEFS

RADIO STATION'S LICENSE RENEWED--The Panamanian Ministry of Government and Justice, in accordance with the applicable bylaws, has decided to renew the operating license for radio station La Voz del Baru in David, Chiriqui Province, now that the station has corrected the technical difficulties it had experienced. Through Resolution No 981 of 5 October 1984, Government and Justice Minister Rodolfo Chiari de Leon and Deputy Minister Erasmo Pinilla have granted the use of frequency 1030 kHz to that station. An investigation by the ministry's Directorate of Communications and its Telecommunications Technical Advisory Board concluded that La Voz del Baru has corrected its technical difficulties and that the reasons that prevented it from broadcasting no longer exist. Therefore, the Ministry of Government and Justice, on the basis of an Executive Decree No 155 of 28 May 1955, has granted the use on the above-mentioned frequency to the radio station. [Text] [Panama City LA REPUBLICA in Spanish 7 Oct 84 p 1 PA]

CSO: 5500/2008

TELEMATIC CENTER'S DESIGN POLICY FINALIZED

Calcutta THE STATESMAN in English 15 Sep 84 p 15

[Text] NEW DELHI, Sept. 14--The Centre for Development of Telematics, created three months ago to design, develop and engineer digital electronic exchanges, has already finalized the basic system architecture and design policy.

Announcing this here the Deputy Minister for Electronics, Dr M.S. Sanjeevi Rao, said that the system was expected to be ready for commercial production by mid-1987.

"Based on a distributed concept, the system architecture's initial thrust is towards developing a concentrator and 'stand alone' exchanges of small medium and large capacities," he told a Press conference.

The Centre was now ready to go ahead with its hardware and software design activities, and had finalized the details of the technical support infrastructure.

Dr Rao said that the system being developed indigenously would be based on state-of-art concepts. Technological advances would not necessitate redesigning of such exchanges and software changes would, therefore, be avoided. It would also have the capability for smooth transition into an integrated services digital network.

The system was being designed to cater to Indian traffic and environment, characterized by low telephones density and high traffic. It would ensure maximum utilization of indigenous components and circuits being designed and fabricated at the semi-conductor complex at Chandigarh.

The system Dr Rao added, would increase telephone accessibility, improve overall reliability and develop rural communication.

The system would incorporate sophisticated maintenance aids which would enhance the testing and monitoring facilities and contribute in an indirect way towards improving the degree of satisfaction to telephone consumers. The system would also expedite introduction, in a phased manner, of the emerging telematic services and provide modern means of communication progressively.

The system would also be cost-effective. The cost of indigenous software would, for instance, be a tenth of the cost of the imported kind.

Also, since the telecommunication situation was the same in all developing countries, the system could well capture the export market in these countries for digital electronic exchanges.

Answering questions, Dr Rao explained that the basic reason for deciding against going in for foreign tehnology was the inherent disadvantage of a heavy continuous foreign exchange outflow, in addition to the systems not being optimized for Indian conditions.

"The activities at the Centre have been so initiated as to achieve self-reliance much faster than acquiring technology even through reputed foreign collaboration."

The Centre, Dr Rao mentioned, was named by a team of over 30 engineers drawn from the Telecommunication Research Centre and the Tata Institute of Fundamental Research.

CSO: 5550/0008

PLAN PROVISIONS FOR SPACE PROGRAM REPORTED

Calcutta THE STATESMAN in English 11 Sep 84 p 9

[Text] NEW DELHI, Sept. 10--The principal thrust of the space programme during the Seventh Plan period would be to accelerate its transition from competence-building, useful demonstrations and experimental missions, to semi-operational and operational systems aimed at self-reliance in space technology for national development, it is learnt.

This will include satellite communication for various national uses, satellite remote sensing for resources survey and management, environment monitoring and meteorological services, and development and putting into operation indigenous satellite and launch vehicles for providing these services.

In addition, the foundation will be laid for the development of advanced space systems through detailed directed studies and research and development.

It is claimed that already the national space effort is in transition from the competence-building experimental phase to the implementation of nation-wide space services.

A notable progress during the next Plan will be the development of a polar satellite launch vehicle with the capability of launching 600 kg class satellites into sum-synchronous polar orbits. With such a vehicle, India will become self-reliant in the field of launching remote sensing and meteorological satellites.

According to the space profile for the 1980s, the first development flight of the PSLV should take place in 1986 with a proto remote sensing satellite as its payload. A second development flight of the PSLV should take place in 1987, with a proper remote sensing satellite as payload.

There will be a parallel programme to improve the present SLV-3, the augmented satellite launch vehicle, and using it regularly to launch 150 kg class satellites for scientific, technological and application purposes.

Also on the cards are proto INSAT satellites, which will be test versions of the second generation INSAT, to test, demonstrate and prove indigenous designs of these spacecraft. These will be a major step towards enhancing

self-reliance in respect of the INSAT space segment, through indigenous development of operational geo-stationary space-craft for communications and meteorology.

The objective is to eventually replace the foreign-procured INSAT spacecraft with indigenously designed, developed, tested and qualified operational satellites with a high reliability and long life.

National user agencies of the INSAT system will be involved in defining service requirements of the proto-INSAT satellites. The proto-INSAT space segment would either comprise multi-purpose spacecraft like INSAT-1 or be a multiple-satellite system.

With the current projections on the space programme, the first proto-INSAT spacecraft will probably be launched from abroad in 1986 by a procured launcher.

Also scheduled is the launching of the INSAT-IC by an American space shuttle in 1989.

CSO: 4600/1035

# PLANS TO EXPAND TV TRANSMISSIONS TO NEIGHBORS TOLD

Calcutta THE TELEGRAPH in English 12 Sep 84 p 4

[Article by Tania Midha]

[Text] New Delhi, Sept. 11: Sri Lankan Tamils in Jaffna may soon receive programmes telecast by Delhi Doordarshan. In keeping with the emphasis on "border and strategic areas," the draft Seventh Five-Year Plan for Doordarshan includes setting up a high-power 10 kW transmitter in the coastal region near Palk Bay.

While the exact location is yet to be finalised, sources in Doordarshan said the choice was between Rameswaran and Pokoddikarai in Tamil Nadu which are the points closest to Sri Lanka along the southeastern coast.

Although the transmission would not reach beyond the northern tip of Sri Lanka, a Doordarshan official said, "Having covered Jaffna, we would have reached much of our target audience."

On the northeastern border, the Seventh Plan will further the efforts of the Sixth Plan to cover a major portion of Bangladesh.

By the end of the Seventh Plant period, while 90 per cent of the Indian population would have been brought into the Doordarshan map, 60 per cent of Bangladesh would be covered too.

Transmitters are being set up all along the Indo-Bangla border under the special expansion plan undertaken by Doordarshan this year, together with those slated under the special Rs 36-crore northeastern expansion plan to be completed over the next three years.

The transmission centres close to the Bangladesh border will be set up at Kurseong, Agartala, Silchar, Tura and Murshidabad besides Calcutta. The outlay for north-east expansion under the annual Plan for 1984-85 has reportedly been increased from Rs 4 crores to Rs 6 crores.

As far as Pakistan is concerned, Doordarshan has already succeeded in crossing the frontier. With five high-power transmitters to be stationed along the border by the end of the current financial year, Doordarshan will be able to telecast well into Pakistan. All major cities, including Lahore, Karachi, Islamabad, Rawalpindi and parts of the Northwest Frontier and Punjab provinces, would be covered and may even reach as far as Multan.

CSO: 5550/0006

PAPER TOLD DETAILS, PLANS FOR SECOND TV CHANNEL

Calcutta THE TELEGRAPH in English 13 Sep 84 p 5

[Article by Tania Midha]

[Text]

**New Delhi, Sept. 12:** The much-publicised second channel of Delhi Doordarshan will initially be a mere makeshift arrangement rushed through since "a date had been given to the Prime Minister."

The channel will be commissioned by Mrs Indira Gandhi on Monday with the help of a nine-year-old much-overused 1 MW transmitter instead of the planned 10 kW high-powered transmitter. It will be replaced later when the equipment is available.

The channel will also not be run on a commercial basis despite reports to that effect. Asked about this, the director-general of Doordarshan, Mr Harish Khanna, told **The Telegraph** that rumours to that effect were "just gossip." The second channel would also not be a "political platform for any party," he maintained.

The new channel would comprise a two-hour transmission from 7 pm to 9 pm initiall, and all local Delhi programmes like the 7.30 pm news bulletin and *Chahal Pahal*, at present relayed by all transmitters, will be shifted to this channel.

While no official comment is forthcoming, sources say the transmission is unlikely to exceed beyond 9 pm as "no option can be given during the national programme."

The transmitter being commissioned on Monday has a range of just 25 km, and has travelled from Mussoorie to Jalandhar, to Nagpur and Allahabad before being earmarked for the second channel here.

It was first purchased by Doordarshan for relaying its programmes in Mussoorie and was discarded there soon after the microwave link was established.

It was then used to start the TV transmission in Jalandhar before the centre was established there. Once the Jalandhar production centre was set up, the transmitter its way to Nagpur where the Doordarshan authorities were faced with considerable political pressure to begin transmission before the equipment was available. From Nagpur, the transmitter was once again shifted on the commencement of regular transmission, and was set up in Allahabad.

It has now been brought back to help the Doordarshan authorities keep their commitment. However, contrary to earlier plans, ttransmission on this equipment would not be able to reach the far flung suburbs of the capital and adjoining districts. The programme package for the new channel will also be finalised only once the new equipment is installed, sources said. Yet tentative plans include one Urdu and one Punjabi programme, besides the explicit Delhi emphasis.

Meanwhile, the proposal for the second channel in Calcutta, Bombay and Madras which had earlier formed part of the comprehensive package to begin the second channel in the four metropolitan cities together has now been pushed down to the Seventh Plan. However, the directorate officials admit receiving "tremendous pressure" from Bombay.

CSO: 5550/0007

## BRIEFS

SAMBHAL TV TRANSMITTER--A TV transmitter was commissioned on 22 October at Sambhal in Uttar Pradesh. It is the 162d TV transmitter in the country and 23d in the state. It will cover an area of 1,600 square km with a population of over 150,000. [Excerpt] [Delhi Domestic Service in English 1530 GMT 22 Oct 84 BK]

BHOPAL TV TRANSMITTER--A high-powered TV transmitter was commissioned 23 October at Bhopal in the central state of Madhya Pradesh. It has a range of 120 square km. It will cover 8 districts of the state with a population of over 4.8 million. [Text] [Delhi General Overseas Service in English 1330 GMT 23 Oct 84 BK]

TELECOMMUNICATION AGREEMENT WITH BHUTAN--India and Bhutan on 22 October signed an agreement for expanding and improving the scope of telecommunication services between the two countries. Under the agreement, an India-Bhutan microwave system will be commissioned later this year. [Excerpt] [Delhi Domestic Service in English 1230 GMT 22 Oct 84 BK]

BHUSAWAL TV TRANSMITTER--A TV transmitter was commissioned today at Bhusawal in Maharashtra. It is the 163d TV transmitter in the country and the 21st in the state. It will cover an area of 1,600 square km with a population of over 4 lakh. [Text] [Delhi Domestic Service in English 1530 GMT 27 Oct 84 BK]

LOCAL RADIO STATION--The first in the proposed five local radio stations will start functioning from Nagercoil in Tamil Nadu from tomorrow. These stations are being set up as part of the All India Radio's program of starting a 3-tier system of broadcasting--national, regional, and local service--in an effort to remove the imbalances in the existing setup. The other sites of the local radio stations are: Adilabad, Kota, Sholapur and (Kendrajhar). [Text] [Delhi Domestic Service in English 1530 GMT 29 Oct 84 BK]

NEW TELECOMMUNICATION SERVICES--In Bombay, two new international telecommunication services were inaugurated today. The Maharashtra chief minister, Mr Vasantrao Patil, inaugurated the international high-speed facsimile service. This service, available between Bombay-Delhi and Singapore-Hong Kong, provides facilities to transmit documents such as drawings, blueprints and charts in any script, including Chinese, within a minute to the other end. The other service, known as international conference on telephone, was inaugurated

by the minister of state for communication, Mr V. N. Gadgil. Through this service, four people located anywhere in the world can establish contact simultaneously over the telephone and conduct a conference. The inaugural call was made by Mr Gadgil to the Indian ambassadors in the Federal Republic of Germany, Japan, Switzerland, and the Indian high commissioner in Britain at the same time. [Text] [Delhi General Overseas Service in English in English 1330 GMT 29 Oct 84 BK]

COIMBATORE TV RELAY--COIMBATORE, Sept. 7--The industrial city of Coimbatore was put on the television map of India today with the inauguration of a Doordarshan relay centre by Mr. P. Venkatasubbiah, Minister of State for Home Affairs. This is the fourth relay centre--low-power transmitter--of its kind to be opened in Tamil Nadu and the 120th in the country. [Text] [Madras THE HINDU in English 8 Sep 84 p 12]

NEW FM TRANSMITTER--The Frequency Modulated (FM) transmitter of the Delhi's All India Radio station was inaugurated by Information and Broadcasting Minister H K L Bhagat on Friday. Built at a cost of Rs 22 lakh, the new transmitter will serve 1.5 crore listeners. Programmes on 107.1 meghortz can be heard from 6 p.m. to 11 p.m. everyday from Delhi AIR. The commencement of the FM transmission from Delhi completes the provision of these transmitters in all the metropolitan cities of the country. Superior to the conventional amplitude modulated (AM) transmission, the FM was capable of transmitting a wider range of frequencies, thereby increasing the fidelity of music broadcasts, Mr Bhagat said. Expressing the hope that more emphasis would be laid on the FM broadcasting in the successive five-year Plans, Mr Bhagat also appealed to the electronics industry to go in for large scale manufacture of FM sets. [Text] [New Delhi PATRIOT in English 8 Sep 84 p 3]

AIR SHORTWAVE UNITS--Information and Broadcasting Minister H K L Bhagat inaugurated the twin unit of 100 kw shortwave transmitters of All India Radio on Monday, reports PTI. Set up at a cost of Rs 2.1 crore, the transmitters will be used for external broadcasting to neighbouring countries and for carrying nationals news and programmes. Speaking on the occasion, Mr Bhagat said that these shortwave transmitters would be able to reach the areas which were not covered by medium wave transmitters. They could especially serve the people in the far-flung and inaccessible hilly areas. They would be used for carrying external programmes to neighbouring countries also. Second channel: The second channel of Doordarshan Delhi will be inaugurated by the Prime Minister on 17 September. The channel will be operational for two hours from 1900 hrs to 2100 hrs daily and will carry a Hindi news bulletin and other programmes, including some sponsored ones. The inauguration coincides with another important broadcasting event--the celebration of the silver jubilee of Indian Television. The channel will be launched with a live telecast of a silver jubilee concert from the Siri Fort Auditorium. Zubin telecast: Delhi Doordarshan will telecast live the concert of the New York Philharmonic Orchestra to be conducted by Zubin Mehta on Wednesday. Doordarshan sources told UNI that the telecast will be from 1900 hrs to 2030 hrs. [Text] [New Delhi PATRIOT in English 11 Sep 84 p 3]

CSO: 5550/0009

# SPACE TECHNOLOGY AGREEMENT WITH FRANCE

Karachi DAWN in English 14 Oct 84 p 10

[Text]

KARACHI, Oct 13: Pakistan Space and Upper Atmosphere Research Commission (SUPARCO) has recently entered into an agreement with the French National Aerospace Agency for scientific collaboration.

This was disclosed here on Saturday by Salim Mahmud, Chairman SUPARCO while speaking at the Alliance Francaise at a meeting organised by the Le Club Actim.

Mahmud visited France as guest of the French Government to witness the launching by Ariane 3 of the telecommunication satellite Telecom 1 in August last.

He said scientists had been exchanged between the two organisations for collaboration in scientific fields. He hoped this cooperation would be further strengthened in the years ahead.

He said relationship between SUPARCO and the French National Aerospace Agency has existed for nearly two decades now.

Giving his impressions of the launching of Telecom satellite, Mahmud said it was an ideal launching from a site in French Guiana which was near the equator.

He said the communications satellites were becoming more and more complicated and congested in outer space. However, a new technology has been devised recently under which a number of communication satellites can use the same frequency, he added.

Paul Barraud, French Trade Commissioner and Principal Adviser of Alliance Francaise, and Safdar Rizvi, President, Le Club Actim, also spoke on the occasion.—PPI.

CSO: 5500/4707

## BRIEFS

SOLAR POWERED RADIO STATIONS--The company Telediffusion de France (TDF) will assist Cape Verde with the installation of solar powered radio rebroadcasting stations. These stations, the first to be installed in Africa, should begin operation during this year on some of the islands which cannot receive radio and television broadcasts because of their topography. [Text] [Paris AFRIQUE DEFENSE in French Aug 84 p 16] 11,023

CSO: 5500/12

## BRIEFS

PANA AGREEMENT RATIFIED--PANA has widened its ranks. Ghana this morning ratified the PANA agreement, thus becoming its 34th member. One of the reasons that motivated the Accra government is to find an alternative to the biased information disseminated by the dominating countries. This is the view of Ghana's ambassador to Guinea, who came to Dakar for the occasion and signed the agreement with the PANA director general. [Excerpt] [Dakar Domestic Service in French 1300 GMT 24 Oct 84]

CSO: 3419/85

PRESENT, FUTURE OF NATION'S COMPUTER TECHNOLOGY DISCUSSED

Antananarivo MADAGASCAR MATIN in French 19 Sep 84 pp 1, 7

[Interview with Narijaona Rakotomahaly by Roland Solonirina Ramboatiana]

[Text] His shy countenance gives the impression of someone who would not be bold enough to speak about himself. But as the conversation proceeds, we can glimpse behind his glasses a pair of smiling eyes in a pleasant face.

In his thirties, on the staff of Madagascar Information Processing System (STIM)--an organization connected with the Madagascar Innovation Institute (IMI)--Narijaona Rakotomahaly is one of the pioneers of microcomputer technology in our country. Graduated in telecommunications from the Polytechnic Higher Education Establishment, he continued his studies in France by specializing in computer technology at a Grenoble university.

Back in his country, Narijaona Rakotomahaly did not hesitate to gather together a team of young people at IMI, which then formed STIM.

How does he perceive the present microcomputer situation and its future in a developing nation such as ours? Narijaona Rakotomahaly was kind enough to answer our questions.

[Question] Since you are part of the pioneering class in this new technology, tell us about the present microcomputer situation in Madagascar.

[Answer] When I returned to Madagascar, I was very surprised to find that many sectors are not computerized, meaning that the flow of information is relatively slow, so that most of the time, the information received no longer reflects actual conditions. This is especially true in administration and the administrative management of companies. Moreover, I also observed that one piece of information, in administration for instance, must cover many routes before reaching a central point, with a consequent great loss of time. And lastly, I noted a tendency to be satisfied with manual labor. To illustrate, I will use the example of someone working in a ministry. If the ministry wishes to establish a information file on that person, it will require a long

time to create this personnel file by manual means. But with microcomputer technology, all the information about the person needs only to be entered on a small diskette. The information will thus circulate more rapidly and the ministry's employees will save a lot of time.

[Question] But other systems had already been used before microcomputerization.

[Answer] That is true, since IBM, Honeywell-Bull, and NCR systems had already been used in Madagascar for a long time. But these large systems are not accessible to everyone since they require experts and specialists to operate them. Their high cost is also a problem. But I can tell you quite frankly that anyone can easily operate a microcomputer after two months of training. Moreover, the IBM, Honeywell-Bull, and NCR systems require centralized processing in Antananarivo, so that only data collection machines are available in the provinces. This means that the provincial machines merely register the information, which then still has to be sent to the central. There is thus some extra motion which leads to a slight loss of time. But with microcomputerization, any machine, namely a microcomputer, can be totally independent. In addition, it is also possible to transmit data with a microcomputer, which means that two persons in two places, say Antananarivo and Mahajanga, can communicate to each other data they have stored on their own diskettes. This is equivalent to a rapid flow of information.

[Question] Would you therefore be against the large systems used by IBM, Honeywell-Bull, and NCR?

[Answer] Not at all, on the contrary, since microcomputers can be connected to these systems. But as I said, these machines require experts and specialists to operate them. The potential users of microcomputers are especially the small and medium-sized enterprises and industries. In any case, there is a great need for computerization in Madagascar, particularly in the financial and administrative areas.

[Question] Do you mean that computerization has a promising future in a developing country such as ours?

[Answer] Definitely. In Grenoble, our teachers and our African colleagues have already recognized that Madagascar is a country strongly dedicated to computerization, which is good, considering that the arrival of the technical revolution which is being discussed at present, will certainly involve computers. I am very confident of the future of computers in our country, especially since the computerization project that we have studied was well received by all the financial and administrative circles. And I want to take advantage of this opportunity to encourage the young to become interested in it, because in a short time we will need the students from the Fianarantsoa National Computer School and from the Toamasina Management School, to work with the thousands of microcomputers which will be distributed throughout the country, both as software and equipment.

[Question] Do you wish to add anything?

[Answer] We must recognize that the microcomputers which we currently use must still be imported from abroad before being sold to users. But the ideal situation would be to design our own microcomputers for our own needs, which is not impossible since we are already examining this avenue. With this, Madagascar would be able to achieve what we call computer independence.

11,023
CSO: 5500/12

## BRIEFS

INSTALLATION OF RADIO GUIDANCE STATIONS--About 50 tons of equipment have arrived in Mauritius aboard the ship Ville de Marseille. This equipment is designed to be installed in four radio-assisted air navigation stations commonly called NAVAIDS. Another load of about two tons of equipment is expected next week. This load includes electronic components and metal structures. The radio guidance stations will be emplaced at Grand-Baie, Bigara, Nouvelle-France, and Plaisance. At Plaisance, the guidance station has been located along the axis of the landing strip. A small building was erected to house each guidance station. The guidance stations will be delivered by the end of this year. Six Mauritians are currently being trained in France to maintain this equipment. The training is being carried out at Thomson-CSF, which produces this equipment. [Text] [Port Louis L'EXPRESS in French 18 Sep 84 p 7] 11,023

CSO: 5500/12

BOP-TV PETITION

Johannesburg THE STAR in English 9 Oct 84 p 1 M

[Article by Shirley Woodgate]

[Text]

**Armed with more than 56 000 signatures, the organisers of the Bop-TV petition are urgently seeking an appointment with the Minister of Foreign Affairs, Mr Pik Botha.**

**The names were collected over a period of 10 weeks mainly by a handful of volunteers manning tables at selected shopping centres on the Reef on Saturday mornings.**

**According to Mr Steve Roos, one of the organisers, it was agreed that 50 000 would be the cut-off point. The number of signatures collected would then be of sufficient significance to merit official comment.**

**The petition was launched in July in protest against the SABC blackout of Bop-TV reception in certain white spillage areas.**

**But a broader issue, that of freedom of choice, emerged during the campaign, said Mr Roos.**

**It was found that while many protesters signed the petition simply against the blackout, most felt strongly about being forced to watch only SABC-TV.**

**Another frequently voiced complaint was that the SABC was wasting effort and money on erecting screens to block signals. It was felt this money could have been better spent on upgrading inferior SABC-TV programmes. He commented specifically on the dated Saturday night films.**

**A total of 1 049 000 whites (more than a third of the white viewers in South Africa) watch TV-1 on the Witwatersrand.**

**The latest figures for Bop-TV indicate 227 000 viewers on the Reef, comprising almost the full viewership of 316 000 for all races on weekdays and 294 000 on weekends.**

**According to the August survey of All Media and Products (Amps) Bop-TV had 81 000 white viewers on weekdays and 65 000 on Saturdays.**

CSO: 5500/12

## BRIEFS

INTERNATIONAL TELEPHONE EXCHANGE--"With telecommunications, the world has become very small. You just need a few seconds to get some world capitals that are very far away from Kinshasa. With telecommunications, you can speak to any part of the world because they have reduced the distance between men all over the world," "Henceforth, you can call any part of the globe from Kinshasa and this will be more true as from November when the already installed Kinshasa International Telephone Exchange Center is made operational." [Summary from poor reception] [Kinshasa Domestic Service in French 1130 GMT 9 Oct 84]

CSO: 5500/6

NEW PHONES IN LINE FOR EXPORT

Harare THE HERALD "Business Herald" Supplement in English 4 Oct 84 p 4

[Text] WRS Electronics, Zimbabwe's wholly indigenous telecommunications company, is set to launch a new range of 32-line electronic private automatic branch exchanges (EPABXs) and accompanying electronic telephone sets.

WRS received Government approval to make the new equipment earlier this year and completed and fully tested systems will soon be available to the private sector on rental or on outright purchase basis. Later this year larger systems with up to 128-line capacity (extensions and PTC lines) will be added to the product line.

Great interest in the project has already been shown in the project by several PTA countries and exports are expected soon. Local content will be maximised to 50 percent and more.

The advantages of the new equipment include reliability as there are no moving parts on the solid-state design, resulting in less wear and tear.

Among the many new features which improve efficiency are the "follow me," which temporarily diverts calls to a particular extension to another; "call pick up," where a call heard ringing on a nearby extension can be answered from another; and "call back busy," where the system calls you back as soon as an engaged extension is free.

In addition, the direct cost benefits and returns on investment in an EPABX include five levels of trunk access barring to enable really tight control over PTC line usage. At the lowest level, extensions can be restricted to internal use only, thus reducing unauthorised outgoing and even incoming calls.

The other four levels range from controls over internal and external calls via the operator to restrictions on STD dialling within and outside Zimbabwe.

The EPABX is designed for easy expansion and the updating of new facilities in line with international trends. When the larger systems are available, the system could be expanded on-site from any of the smaller capacities (32, 64 or 96 lines) up to the full 128.

In keeping with its tradition of good after-sales service and back-up for all its products, WRS has invested $80 000 in new test equipment for the new line and to equip a central service centre for Zimbabwe, SADCC and PTA countries.

On-site servicing will be simplified by the system being fully modular in design.

At the moment, two types of telephone sets are in production--the conventional rotary dial type and a modern push-button dialling version, both with an ultra-slim line design. The push-button type also features re-try of the last number dialled on a single button, very useful for busy STD calls.

CSO: 5500/18

SHORTWAVE BROADCASTS, JAMMING DEBATED IN GENEVA

PM281453 Moscow SOVETSKAYA ROSSIYA in Russian 24 Mar 84 First Edition p 3

[Report by Candidate of Historical Sciences A. Ilin: "Poisoners of the Air"]

[Text] Geneva-Moscow--Keen debates on questions of allocating shortwave broadcasting frequencies have been underway at the Geneva International Center for over a month. Representatives of over 120 countries belonging to the International Telecommunication Union took part in the work of the 1984 World Administrative Radio Conference.

Obviously anxious to preserve the former procedure which enabled the West to flood the air with tendentious, sometimes overtly subversive information representing impudent interference in the internal affairs of sovereign states, a number of delegations, primarily the U.S. delegation, tried to foist on the meeting's participants a discussion of questions irrelevant to its immediate tasks. Only that can explain the fact that representatives of various radio "voices," "liberties" and "waves" conducting overt slanderous, immoral radio propaganda against countries building a new life flocked to the conference, which was to draft mutually acceptable proposals for resolving complex technical questions, as though the conference were Bulgakov's Satan's ball.

The intentions of this category of participants in the conference were voiced by the INTERNATIONAL HERALD TRIBUNE, hypocritically complaining of the alleged jamming of the Western "voices." Then Leonard Marks, head of the U.S. delegation, took his turn. Addressing a briefing at the U.S. mission in Geneva, he tried to persuade his audience that the practice of jamming prevents "the free exchange of ideas" and unfoundedly accused a number of Asian, African, and European countries of deliberate jamming.

Why does Mr Marks need so badly to exchange ideas "freely" on a worldwide scale? Is it to create an image of the United States as a country epitomizing supermight, superjustice, and superdemocracy? To try to present the socialist world as "the source of evil"; "an erroneous page of history." And, finally, to disseminate "mass" culture extensively. The aim of the so-called "exchange" of ideas is to persuade the populations of other countries of the attractiveness of the American way of life and thus achieve support in these countries for Washington's foreign policy course.

How the gentlemen from Washington understand "free exchange" is well illustrated by a talk in the corridors of the 1984 World Administrative Radio Conference between members of the Soviet and U.S. delegations.

USSR representative: VOA broadcast an interview recently with a Marine corporal who said that in Grenada, Americans were carrying out combat operations against Soviet units. It is well known that there has not been a single Soviet soldier on the island. That is not the free exchange of ideas, but the deliberate dissemination of lies, is it not?

U.S. representative: I believe the corporal was sincere and perhaps it seemed to him there were Soviet servicemen there.

USSR representative: But VOA knew that there were no Soviet soldiers there.

U.S. representative: But the interview was not given by a VOA employee but by a corporal, who said what he thought.

There is no point in commenting on this dialogue: The interlocutors' understanding of age-old human truths--of good, evil, and truth--diverged too far.

The "Defense Guidance for Fiscal 1984-1988" drafted on instructions from the U.S. President sets the aim of "destroying socialism as a sociopolitical system." The propaganda apparatuses of the United States and some of its NATO allies today use international broadcasting to achieve the aims formulated in this official document.

Propaganda of this sort is a direct violation of universally recognized norms and principles of international law, including accords concerning international information exchange. And, naturally, the problem of defending sovereign states' territory against inflammatory, slanderous radio propaganda arises. The problem first arose over 50 years ago. In 1933, Austria, like several other European states, began to jam broadcasts from Nazi Germany. This was an attempt by the Austrian Government to counter Hitler's propaganda aimed at Austria's enforced union with Germany. In 1936, the League of Nations convened an international conference on the use of radio broadcasting in the interests of peace.

The conference set itself the task of drafting legal measures with a view to halting the subversive radio propaganda from Germany and Italy against some West European countries unleashed on the eve of World War II. The conference drafted an international convention on the use of radio broadcasting in the interests of peace, which outlawed militarist and inflammatory radio broadcasting.

Signing the convention, a number of states made statements reserving the right to stop by every possible means propaganda which could harm the internal system in a country and which is conducted in contravention of the convention. At the document's ratification, the USSR made the following statement: "The USSR states that it retains the right to take any steps to protect its interests both in the event of the nonobservance of the

convention's provisions by other states and in the event of other actions violating the USSR's interest."

Radio Liberty, Radio Free Europe, and VOA have become bogged down in the quagmire of lies, slander, and misinformation. Hence, the appropriate reaction: In recent years new states have been acceding to the international convention on the use of radio broadcasting in the interests of peace.

...The developing countries did not succumb, in Geneva, to the Western countries' provocative venture and they took a firm stance. An important result of this was the conference's reaching of a compromise between the interests of the countries with a developed network of shortwave radio broadcasting and the developing countries.

The preamble to the International Convention on Radio Broadcasting (Nairobi, 1982) stresses that radio broadcasting must promote the consolidation of peace and the growth of mutual understanding among the peoples, and assist social and economic progress. And the International Telecommunication Union should probably define its position with regard to those who are violating the basic principles of the union by flooding the air with lies, slander, and immorality.

The general normalization of the air is possible only if the political climate warms and the principles of mutual understanding are asserted in relations between states with different sociopolitical systems. But we cannot count on trust when enmity and hatred are being preached, "crusades" are being organized, and increasingly refined militarist doctrines and concepts of nuclear war are being elaborated.

Common sense in international relations should prevail. At the CPSU Central Committee February Plenum Comrade K. U. Chernenko said: "The USSR will collaborate fully with all states ready to help by their practical deeds to reduce international tension and create an atmosphere of trust in the world...and we believe that to the same end full use should be made of all existing levers, including, of course, the United Nations..." The International Telecommunications Union which is one of the United Nations' specialized institutions, must take its place in this process.

CSO: 5500/1008

PRAVDA ASSESSES DEVELOPMENT OF SATELLITE TV

PM250946 Moscow PRAVDA in Russian 19 Oct 84 First Edition p 1

[Editorial: "Television's Technical Base"]

[Text] Television has taken firm root in our everyday life and become a powerful medium of ideological influence and of the political and moral education of Soviet people and an important factor in shaping public opinion and organizing cultural leisure.

The Communist Party is constantly concerned to improve television broadcasting and develop its material and technical base. These questions, as has already been reported, were examined at a CPSU Central Committee Politburo session.

In recent years, television's material and technical potential has expanded greatly. New cable and radio relay lines have been built, powerful TV stations have been commissioned, and the Orbita, Ekran, and Moskva space systems, which make it possible for TV broadcasts to reach all the country's cities and most rural regions, are in operation. The population's total number of television sets has expanded. Television broadcasting is conducted in 42 languages of the peoples of the USSR.

The achievements of scientific and technical progress are opening up new horizons for further developing multiprogram color television broadcasting and significantly improving its quality. A recently adopted CPSU Central Committee and USSR Council of Ministers resolution outlined a range of measures for the construction, expansion, and modernization of TV transmitter stations and TV and radio broadcasting centers, the development of satellite TV systems, and for increasing production of various types of TV equipment.

In the near future it is planned that virtually the country's entire population will be able to receive television. It is primarily a question of Central Television's First All-Union Program. Implementation of the measures outlined by the party and government will make it possible to significantly expand its audience by 1990. Further dissemination of the Second All-Union TV Program is also planned. It will be a large job since many regions, mainly remote rural areas, are still unable to receive TV programs. An analysis of working people's letters to PRAVDA and the State Committee for Television and Radio Broadcasting proves that this problem is posed most acutely in the regions of the North

Caucasus, the southern Urals, and the Non-Chernozem Zone of the RSFSR, and in certain oblasts of Uzbekistan and Kazakhstan. Color picture quality still gives rise to many complaints, in particular from Yerevan, Orenburg, Murmansk, Krasnovodsk, Novorossiysk, and the resorts of the Crimea and the Caucasus. The effectiveness of TV broadcasting in the decimeter wave band is low, since the reception network has not been prepared in a number of regions. These questions must be more persistently resolved by the USSR State Committee for Television and Radio Broadcasting, the USSR Ministry of Communications, and other interested ministries and departments.

The creation of a new multiprogram satellite TV broadcasting system requires particular attention. The Ekran single-program space system serving Siberian regions has proved that space provides the most reliable and rational way of bringing television to villages. Several years ago, the Moskva space-based TV system, whose main task is to "deliver" the First All-Union TV Program to remote population centers in the European part of the country, the Transurals, Central Asia, and the Far East, began to be developed. Several receiving stations for it are now in operation. However, many settlements and villages in those areas have been deprived of television or have poor-quality reception from distant transmitters. This means that we must significantly increase production of these stations, reduce their cost, and simplify servicing.

One cannot fail to notice that certain ministries responsible for deliveries of equipment and components for TV broadcasting are not fulfilling the set targets efficiently enough. Television centers are experiencing acute shortages of portable [malogabaritnyy] TV reporting apparatus, TV movie projectors, and studio video recorders with electronic montage panels. There are many complaints about the quality of home-produced color film and videotape. The party committees of the relevant ministries and enterprises must assiduously monitor the resolution of these questions and increase the responsibility of leaders and specialists for the fuller satisfaction of television's need for modern hardware, equipment, and materials.

It is a point of honor for Communists to set examples of conscientious highly productive labor and a creative attitude toward the job and to skillfully and persistently rear a young generation of workers in the sector capable of competently handling its potential.

Considerable funds are being allocated for the construction and modernization of TV, radio, and communication centers. It is important to assimilate capital investments in full and on schedule. Unfortunately, work is being conducted extremely slowly on a number of projects now under construction in Frunze, Sukhumi, Ashkhabad, Khaborovsk, and Vladivostok.

Most viewers' complaints about poor color picture quality are caused by the unsatisfactory state of collective TV antennas, especially in large cities with buildings of different heights and in mountainous areas. In order to resolve this problem, we must primarily create large collective reception systems for TV transmissions with up to several thousand subscribers. The operation of these systems requires high technical standards from communications workers and TV repair shops. Leaders of communications enterprises, consumer services, and local ispolkoms must see to this in advance.

The development of the material and technical base of television broadcasting opens up broad possibilities for further improving the creative work of USSR State Committee for Television and Radio Broadcasting studios. Their duty and mission is to respond by their actions to the party's concern and the CPSU Central Committee's October slogan:

"Working people on the ideological front! Take the party's ideas to the masses with conviction and passion and reveal more deeply and vividly the achievements of the society of developed socialism! Actively expose subversive imperialist propaganda!"

"Ideological work is a matter for the entire party and every Communist!"

CSO: 5500/1009

RENOVATION WORK ON TASHKENT TV CENTER BEGINS

OW260123 Moscow Television Service in Russian 0500 GMT 25 Oct 84

[From Novosti newscast; report by correspondent Abdukhalikov]

[Text] Start-up and adjustment work has begun on the new Tashkent radio and television tower project.

[Begin Abdukhalikov report] Today, the Tashkent Television Center is one of the largest in the country. Broadcasts are transmitted from here on four programs, 24 hours a day. This is the tallest radio and television tower in Central Asia, the construction project of the year. Its height is 380 meters, and the latest, third generation television equipment is now being installed here. With its commissioning, the broadcasting radius will increase almost five times.

A powerful television material and technical base is being established in Uzbekistan. On your screens is the Tashkent "Azimut" Space Communications Station. Its commissioning has afforded an opportunity for Uzbekistan to receive Central Television's Second Program and also conduct direct transmissions from the republic's capital to any point in the world.

CSO: 5500/1009

# EUROPE COMES CLOSER TO AGREEING ON DBS TRANSMISSION STANDARDS

Paris ELECTRONIQUE ACTUALITES in French 28 Sep 84 p 13

[Text] Following similiar actions on the part of two large European television manufacturers, Thomson and Philips, Simavelec (Union of Electronic Audiovisual Professionals) is now declaring itself in favor of the MAC D2 packet standard which will define the European method for direct television satellite transmission. England's reticence is the last obstacle to the adoption of this standard by UER (European Radio Broadcasting Union).

The existence of various television standards being used in the European countries makes it necessary to formulate a definition for the structure of signals transmitted by satellite (sound, chrominance, and luminance). The latter have to be decoded upon reception and channeled into receivers operating according to the standards prevailing in each country. At the urging of the English, the MAC standard was formulated two years ago. Faced with the complexity of adapter circuits, a variant of this standard, MAC C packet, was accepted by UER one year later, and approved by the British institutions. But France and FRG did not adopt it, deeming it incompatible with cable network distribution from collective antenna reception in urban areas.

## Third Version

The third version of MAC, under the name MAC D2 packets, is approved by the two countries that recommend it. On the other hand, the British are proving reticent for reasons which are seemingly not founded on technical arguments. Despite this, TDF (Television de France) is optimistic about the outcome of the discussions during the coming months, because MAC D2 Packets (which has also attracted the interest of the United States) has two technical advantages. First of all, in addition to better image quality than PAL or SECAM, the new specification will enable cable network transmission with a minimum bandwith of 7 MHz.

The second feature affects the construction of decoders, which will actually not be ready in 1986, when the TDF 1 satellite, whose launching is planned for 1985, will be placed in service. This is due to the time required to develop specific integrated circuits, which is three years. The first transmissions will thus be by means of PAL or SECAM, with the simple addition of a card in the adapter to receive MAC D2 broadcasts.

Lastly, this specification stipulates four high quality sound channels, to which are added data transmission channels. The latter for instance, offer the possibility of sound or video sub-titling of the transmitted images. With an output of 20 Mbits, which is twice that of the satellite Telecom 1, these channels would enable the transmission of a large flow of digital information.

The individual MAC decoder box could be sold for about 2000 F. For collective installations, the demodulator would cost about 15,000 F. Continuing the the TDF/TV SAT program, manufacturers have been contacted to build a TDF 2 identical to its older brother TDF 1, which would provide 4-5 channels and would be intended to backup the first direct television satellite. We should point out that Sweden with Tele X, Italy with L SAT, and of course FRG with TV SAT, will also have their own satellite of this type.

11,023
CSO: 5500/2510

## BRIEFS

1985 EUTELSAT F3 LAUNCH--Paris--The council of the European organization Eutelsat announced in Paris on 26 September, that in the autumn of 1985 Europe will have a third telecommunications satellite. Meeting in Paris on 24-28 September, the council of the organization that represents the mails and telecommunications agencies of 20 European countries, and to which four more countries have applied for membership, decided to launch a third satellite, the ECS 3, which once accepted for utilization by the organization, will be renamed Eutelsat F3. It will complement the services offered by its forerunners, Eutelsat F1, launched in June 1983 by Ariane, and Eutelsat F2, launched on 4 August, also by the European launcher. Andrea Caruso, secretary general of Eutelsat, stated that this decision "would meet the demand existing in Europe, especially for television distribution." "This should put an end to various private initiatives announced by several European countries," he added. In recent months, Eutelsat had indeed stated its opposition to any other telecommunications system (even indirectly competitive) than the one it operates, namely, the GDL system proposed by Luxembourg. Eutelsat F3, whose construction is already well underway, is part of a five-satellite program (with a total budget of more than 2 billion francs). Its tasks will be comparable to those of its predecessors: telephones, television rebroadcasting, and specialized connections. [Text] [Paris AFP SCIENCES in French 27 Sep 84 p 25] 11,023

CSO: 5500/2510

KTAS FIRM INTRODUCES 'WORLD'S MOST ADVANCED PHONE'

Copenhagen BERLINGSKE TIDENDE in Danish 30 Sep 84 p 11

[Article by Sv. Aa. Jensen: "The Telephone Which Can Talk"]

[Text] KTAS [Copenhagen Telephone Company] is introducing the world's most advanced telephone, which will cost between 4000 and 5000 kroner. It can replace a telephone operator and it is designed so that the user can for a time set up a secret number. It will be a big export item; the USA especially is interested.

The telephone which can talk, receive telephone messages, measure the length of a call on a stopwatch, sound an alarm when you have to get up in the morning or move your car, and which can be encoded so that for a time you get a secret number, and which is very easy to figure out, made a big hit when it was introduced yesterday by KTAS.

It is called the danMark 3 and is a nice little toy, but it is also a really useful item, especially for small businessmen, for it can function as a secretary when the boss is in town, and by means of a tape cassette provided with much knowledge which it can supply to people who call.

The new, intelligent telephone, which in the most literal sense speaks for itself, is just as flat but twice as long as the other members of the danMark family. It will come on the market in the spring and will cost somewhere between 4000 and 5000 kroner. But already next week people will be able to see it at the "Office and Computers 84" exhibition at Bella Center. KTAS plans on selling 20,000 of them here at home within a three-year period.

USA Interested

The danMark 3 is manufactured by the GNT Automatic telephone plant in Søborg, and its creator, Engineer Kurt F. Schou, has no doubt that it is right now the world's most advanced telephone.

If one wants to have a secret telephone number for a time, the owner codes in a four-digit number which is supplied only to those persons one wants to talk to. When the number is called, the telephone's synthetic voice asks for the

code word, and if an incorrect one is given, the voice says "wrong", and if the correct one cannot be given the next time the connection is broken.

World's most advanced telephone, the danMark 3, created by Engineer Kurt F. Schou.

The synthetic female voice is encoded on a tape which does not take up more space than a slide. The voice can also receive telephone messages. And the owner of the telephone can call home from out of town and by means of a code have the voice indicate who called while the telephone was home alone.

The danMark 3 is easy to operate, and those who cannot only need to ask the synthetic voice. There is room for a tape cassette in the telephone, and when it is hooked up to a computer it has undreamt of possibilities.

8985
CSO: 5500/2509

COUNTRY'S VIEWERS TO RECEIVE DBS SATELLITE TRANSMISSIONS

Copenhagen BERLINGSKE TIDENDE in Danish 5 Sep 84 p 7

[Article by Michael Rastrup Smith: "We Are This Close: Satellite TV for Everyone in a Year"]

[Text] Regardless of what the government and the Social Democratic Party agree to, Danes will legally be able to view satellite TV when the Germans send up the TV-SAT DBS satellite in September of next year.

As of September of next year Danes will completely legally be able to view satellite TV, when the Germans send the TV-SAT broadcast satellite up.

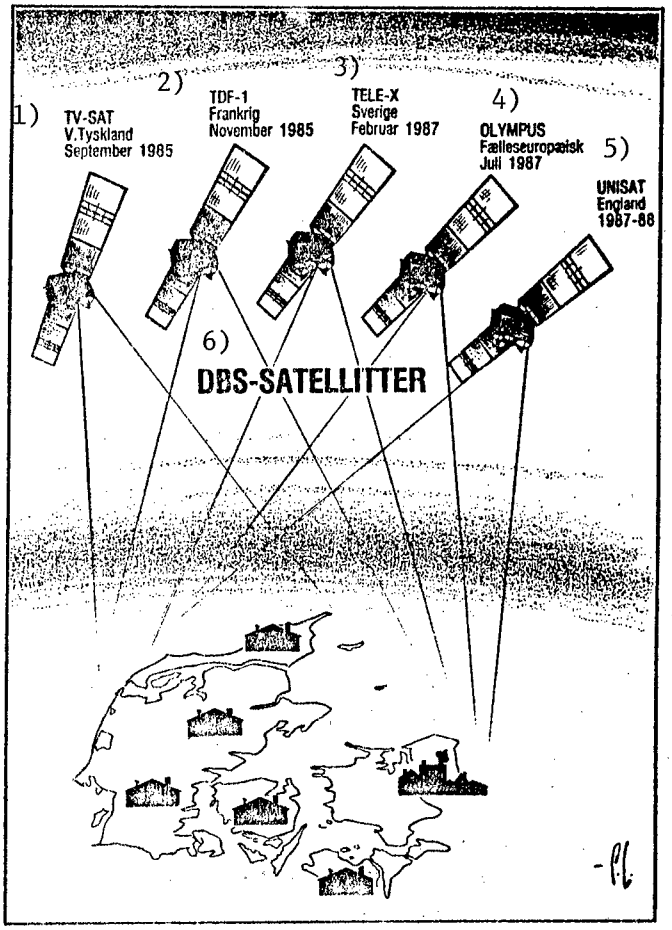
The German satellite is a so-called DBS satellite, which Danish laws cannot prevent people from receiving independently. The German satellite will be followed three months later in November by the French TDF-1 DBS satellite. Three more DBS satellites will be launched during the next couple of years.

"We are closer to the day when it will be legal to receive and rebroadcast TV from space than most Danes imagine. This holds true for signals in shared antenna systems, too," Telegraph Inspector P.V. Larsen of the Postal and Telegraph Service says.

"People normally mix communications satellites, which are already up there, together with DBS satellites, but the very big difference between these two types of satellites is that whereas present Danish law forbids private reception from communications satellites, there is nothing in the law to prevent people from themselves receiving broadcasts from DBS satellites," he says.

Bomb Under Debates

The DBS satellites are in the opinion of the experts a ticking bomb over the debates which the government is to have with the Radical Liberal Party and Social Democratic Party regarding a TV-2 in the fall. If the sides do not agree, it has up to now been the feeling that then Danes will also not get satellite TV. But regardless of the outcome of the debates, all Danes can legally receive satellite TV in precisely a year.




We are closer to TV from space than many surely imagined. Here Peer Lauritzen portrays the situation for the next few years.

Key:

1. TV-SAT, West Germany, September 1985
2. TDF-1, France, November 1985
3. TELE-X, Sweden, February 1987
4. OLYMPUS, joint European, July 1987
5. UNISAT, England, 1987-88
6. DBS satellites

"The equipment for reception from DBS satellites will cost 5000 to 6000 kroner," Director Henning Kjaer relates, who is the director of Luxor, one of the big producers of satellite reception equipment.

Latest Calendar

The latest calendar for launching of DBS satellites looks like this:

The German TV-SAT will be launched in September 1985, which will get three TV channels and up to 16 FM channels. The launching has already been scheduled in the ESA [European Space Agency] joint European space organization's launching program.

The French TDF-1, which will get three or four TV channels, will be launched in November 1985. One of the channels will be French, another will be broadcast from Luxembourg, and as of the moment the English Skychannel is negotiating regarding leasing one channel in this satellite.

The Swedish TELE-X, which will broadcast Scandinavian TV programs, will be launched in February 1987. However, at present Denmark is not a part of the project.

In July 1987 a joint European DBS satellite, the OLYMPUS, will be launched, which Denmark too is a co-owner of. It will broadcast an Italian TV channel and a joint European channel.

The English UNISAT, which is the satellite to which most uncertainty is attached today, will be launched in 1987 or 1988.

8985
CSO: 5500/2509

HIGH COURT BACKS AGENCY'S MONOPOLY IN SATELLITE TV

Copenhagen INFORMATION in Danish 28 Sep 84 p 7

[Article by nw: "TV From Satellites Still a P & T [Postal and Telegraph Service] Monopoly; Supreme Court Affirms Judgement Regarding Satellite Tapping"]

[Text] A majority of Supreme Court justices believe that it is still illegal to receive signals from so-called communications satellites and broadcast them in the form of TV broadcasts.

This is evidenced from a judgement in the Supreme Court, which has affirmed the High Court's judgement of 1000 kroner apiece against the Radiohuset Expert Radio radio firm in Århus and the Luxor antenna firm. These two firms, which were acquitted earlier in Århus Municipal Court, have according to the majority of Supreme Court justices overstepped the radio broadcasting legislation's paragraph 1, because without permission from P & T they received broadcasts from a Soviet communications satellite, the Gorizont 1, which is formally intended for communications purposes and not for TV broadcasting.

Nevertheless, the Soviet Union uses the satellite for broadcasting TV programs; but all the same the majority of justices find that it is formally a question of television tapping from a satellite which does not--in the words of the law--have "direct" radio broadcasting as its purpose.

On the other hand, a minority of two Supreme Court justices find that the concept of "direct radio broadcasting" is no longer a well defined concept, insofar as the communications channels of the satellites launched are /in actual fact/ [in italics] used for radio and TV broadcasting.

The judgement is fudamentally important, because it henceforth excludes private antenna associations from being able to receive programs from communications satellites outside of P & T. If the Folketing passes a law regarding the reception of TV from satellites and broadcasting via a so-called hybrid network, it will be P & T which gets exclusive rights for receiving TV signals. Minister of Transport Arne Melchior (Christian Democratic Party) has asserted this repeatedly.

8985
CSO: 5500/2509

FINNISH SCIENTISTS FIRST IN EUROPE TO DEVELOP VIDEOPHONE

Helsinki UUSI SUOMI in Finnish 22 Sep 84 p 5

[Article: "Europe's First Videophone From Finland"]

[Text] A videophone capable of transmitting a television picture along an ordinary telephone line has been developed in Finland. The apparatus was developed by the State Technical Research Institute (VTT) and is the first of its kind in Europe.

The possibilities for commercial exploitation of the apparatus are good, according to technician Pertti Haikonen.

"Enthusiastic manufacturers have been lining up at the door," says Haikonen.

Inadequacy of the telephone lines' information transmission capacity has been a difficulty in development of the videophone. In the VTT's solution, pictures are transmitted half as frequently as in ordinary television. This way there is room for the information on the telephone line.

"Reduction of the pictures' changeability in an ordinary television causes scintillation. In a videophone, however, there is a special auxiliary device which restores the picture speed in the repeat phase. So half speed is used only during transmission," says Haikonen.

The intention is to market the apparatus especially in western Europe. Finnish firms are at the top of the list when it comes to choosing a manufacturing firm. In the VTT's opinion it is important that the future manufacturer be willing to contribute sufficiently to the further development of the apparatus.

The first version of the Finnish telephone was introduced last June. The first version's defects have now been corrected. Corresponding telephone exist in the United States, but adapting them to Europe's information transmission networks is difficult.

"At this stage, at least, we don't fear any serious competition for our videophone," states Haikonen.

12327
CSO: 5500/2506

# FRANCE OPENS INTEGRATED SERVICES DIGITAL NETWORK

Paris ELECTRONIQUE ACTUALITES in French 28 Sep 84 pp 1, 12

[Excerpts] Criticized for their large rate increases--telephone as well as Transpac--and victims of the government's repeated demands, DGT (General Directorate for Telecommunications) has responded on the only grounds on which it feels unassailable, namely technology. On 19 September, Mr Dondoux, the director general of the directorate, announced the commercial and operational opening of the Integrated Services Digital Network (RNIS); a good announcement at the most opportune time for marketing--at Sicob, made possible by the total success of Telecom 1, which completes the infrastructure of the French telecommunications network.

This major event for the technical and commercial development of telecommunications--which some will undoubtedly consider premature--confirms France's technical advances in the world of telecommunications. Enough to blithely anticipate the emergence of greater liberalization in the sector, or in other words, of a progressive deregulation of telecommunications.

## A Range of Five Services

DGT is taking one more step today in entering the RNIS era, thanks to Telecom 1, which in addition to its telephone and video functions provides a time division multiple access (TDMA) system, a digital technique designed to offer high speed data communication service. The digital ground network and the satellite are the two infrastructures that allow DGT to start the marketing of a full range of digital services for enterprises which are connecting to the already available packet network.

This range of services, which will be fully developed by the end of next year, hinges about five features: permanent digital links available on major traffic routes, which, as the Telecom 1 tests are completed, will be extended to the entire territory (this intermediate and high speed service--48 Kbits/s to 2 Mbits/s--is called Transfix); switching of digital information at 64 Kbits/s starting during the second half of 1985 (Transcom service); a

Transdyn service opening in December, with reserve functionalities at intermediate speeds (2.4-64 Kbits/s), which will be expanded to dynamic switching of data streams up to 2 Mbits/s by the end of 1985; the current teleconference service expanded to videoconferences at 2 Mbits/s; and video transmission, which acquires a new magnitude thanks to the flexibility provided by Telecom 1.

The rates for this range of network integrated services are very attractive; they are reflected in a significant reduction in price per transmitted bit. For instance, 64 Kbits/s connections are sold four times more cheaply than the cost of the same traffic routed through the analog telephone network. "We are shattering the prices," Mr Dondoux acknowledges, but it is being done so as to allow France to enter the "communications era."

For an International Standardization

Isn't there a risk that France's announcement of RNIS while all its parameters have not yet been defined by CCITT, will isolate our country into a specific standard (as in the case of SECAM for television)? Mr Dondoux definitely rejects this interpretation of the "Franco-French" standards, to assert that DGT already offers all the current standards (X 21, X 25, and so on), and will integrate into the French RNIS all standards that will be defined by CCITT.

The same pragmatic attitude will prevail in the marketing of digital services to enterprises. DGT has selected France Cables et Radio for the public service concession (however, part of the marketing could be carried out by DGT agencies). For added-value services (notably messaging), DGT "will not prevent private companies from entering these new fields."

Even more surprising: will DGT authorize the "wholesale" of digital channels to enterprises which will resell them to various users, in a manner similar to SBS in the United States, in order to make its satellite profitable? "I believe that it will happen in the next five years," answered Mr Dondoux without hesitation! Is this his private conviction or is it a strategy designed to cut the ground out from under the feet of deregulation partisans? DGT is careful to add that the problem of profitability does not arise for Telecom 1, since the satellite assures "two extremely profitable services with military traffic and telephone links with overseas territories and departments."

11,023
CSO: 5500/2510

BUDGETARY PROBLEMS BESET PTT MINISTER MEXANDEAU

Paris LE NOUVEL ECONOMISTE in French 1 Oct 84 p 53

[Article by Anne-Marie Rocco: "Louis Mexandeau's Cast-Iron Morale"]

[Text] Two thousand jobs fewer next year in the PTT [Posts and Telecommunications]; a 25 percent increase in the base telephone tax from January to August 1984; dissatisfied customers telling their story on television; it is not easy to be a cheerful PTT minister when the budget is up for a vote. Yet Mr Louis Mexandeau, a former history professor with a jovial manner of speaking and a resolutely leftist beard, maintains his customary cast-iron morale.

As a good party member, the Posts and Telecommunications boss could until recently defend tooth and nail his ministry's autonomy and then yield to political necessity when asked to. Yet he has his work cut out for him if he intends to convince people that the PTT is not just sawing off the branch it is sitting on.

Is the PTT's budget autonomy done for? For 3 years now a considerable share of telecommunications' revenues have gone to finance expenditures normally paid for out of the general fund. In 1985, the payback is estimated at Fr 14.9 billion. The gist of Mr Mexandeau's reply is, "Wrong." The extra effort required of the PTT actually falls within its field, because it makes it possible to give a "hand up" to the electronics industry, which is vital to the telecommunications sector.

The argument makes sense, but the figures are not there. In 1985 the PTT will devote Fr 4 billion to the electronics industry and Fr 3.2 billion to public organizations such as the National Center for Space Studies or the Data-Processing Agency, a total of Fr 7.2 billion.

The PTT will also contribute up to Fr 2.2 billion to the government "reserve fund." From 1985 on, the PTT will receive no more interest on funds collected by the CCP [postal checking accounts] (Fr 100 billion at 5.5 percent in 1984).

That is a Fr 5.5 billion loss that will have to be made up. It is a sum that will go not to benefit the electronics industry but right into the government's general fund. Not so long ago Mr Mexandeau was asking for a 1 percent increase on the interest paid to the CCP.

The PTT is awkwardly whipsawed. Postal traffic is stagnating, and telephone traffic is not growing as fast as it did after the last decade's "leap forward." It is clear that the PTT's revenues have reached a ceiling. Yet the PTT is having new charges imposed on it. This situation explains the recent rate hikes, which exceed the promises of moderation made by the PTT. The increases also threaten in turn to slow down usage and lower revenues. New financing formulas are, therefore, being studied.

Transfer

Local communities will soon be called upon to share in PTT expenditures for modernizing post offices; this is already the case for cable programming. "An initial agreement was signed 18 months ago by the regional council of Nord-Pas-de-Calais," says Mr Mexandeau, "and this has made it possible to build or renovate about 50 post offices." The procedure is to be extended to the rest of France in the next 2 years.

This time a (modest) part of the PTT's expenses will be transferred to local taxation. It is one more kink in the principle of PTT budgetary autonomy, and the PTT has always prided itself on not making users finance investments. This is the almost inevitable fallout from the patchwork-quilt financing pattern, which is now largely complete.

Telephones: For Whom Does the Bell Toll?

Telephone booths grew like mushrooms, from 50,000 in 1978 to 168,000 today. Yet the public telephone booth is now threatened. This has been confirmed by the PTT minister in an answer to a deputy's question.

The reasons for this turnabout: too much vandalism and too little profitability. As for vandalism, 10 percent of telephone booths (110,000 of them are on the streets) are ransacked every month, the ministry estimates. It is out of the question to go about fixing up all the phone booths that have been left to deteriorate. At Fr 20,000 apiece (Fr 12,000 for the telephone alone) the operation probably costs the PTT budget Fr 320 million.

Government officials can point to only one real hope: the increasing use of credit cards. If coins are no longer used, there will be no temptation to break into the cash box. Some 2,000 of these phone booths are being tested. Some 15,000 are planned for the erd of 1985. However, there is little chance they will stand up to "gratuitous" violence.

Vandalism is not the only trouble to beset public telephones. Except for possible damage, the cost of maintaining and operating a phone booth comes to Fr 3,600, while the average revenues come to Fr 12,000. Any phone booths not returning a minimum profit (at least Fr 3,600) are therefore liable to disappear from the roadside.

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SATELLITE TELEVISION PLANS OF RADIO LUXEMBOURG

Duesseldorf HANDELSBLATT in German 2 Oct 84 supplement p 17

[Article by Fernand Weides: "Tough Race for Good Positions on Promising German Television Market"]

[Text] Since 2 January of this year, a part of the FRG--the area covered extends from Saarland via Rhineland-Palatinate all the way to the periphery of North Rhine-Westphalia--has successfully been reached by a German-language television program from Luxembourg. This "refreshing" other program, called "RTL plus," is still behaving in a rather modest fashion but, among private-law experiments in the context of the two cable pilot projects of Munich and Ludwigshafen, it is considered quite a big fish in the rather quiet public-law television pond of ARD [Working Group of FRG Broadcasting Institute] and ZDF [Second German Television Program].

By putting this program on the air, the media giant from the Grand Duchy--the "Compagnie Luxembourgeoise de Telediffusion" (CLT) [Luxembourg Television Company]), called RTL for short--adopted the success concept of its rather loose radio program also in television. Of course, RTL did not exactly please ARD and ZDF with this terrestrial initiative. Some of the episodes in the fight for audience favor illustrate this.

Ever since the Luxembourg Company restored its antenna in Dudelingen which had been decapitated, as it were, by a Belgian jet, RTL has been involved in an antenna war. Sometimes the antenna is supposed to be too tall; sometimes the transmission intensity is questioned. Although internationally customary, the use of a Formula I autorace telecast on the Hockenheim racetrack was denied. Chicanery in the acquisition of movie rights and recently even an open challenge to the impact reported by RTL-plus in the audience area reached, by the ARW (Radio Advertising Working Group)--all of these are symptoms of a tense situation in the race for the good positions on the promising German television market.

RTL-plus Off to a Good Start

For RTL, the German television experiment, which is now 9 months old, came off

rather well. Program manager Thoma confirmed for us that 65-70 percent of the population in the Saarland already have the additional antenna which makes it possible to receive RTL-plus. An April-May survey, he maintained, shows that they are getting close to the audience listening rates of the established transmitters, apart from the fact that the latter of course so to speak reach the entire television population.

TV movies, games involving dialogue with the audience but also the "News Show" "7 before 7" are well received by the audience whose members do not look down upon the regional "windows" of both newspapers (SAARBRUECKER ZEITUNG and RHEIN-ZEITUNG); this is true even though the public-law regional television network is being operated here with a great effort. Additional partners from the publication field are also involved in conversations here. On the other hand, Bertelsmann-Gruner + Jahr after all participate in the operating company of the RTL-plus program to the extent of 40 percent. Lessons are being learned here via the UFA [United Film Studios] Motion Picture and Television Company, Inc.

Away from the German cable highlands and in expectation of the implementation of the ambitious cable-installation program of the federal post office minister, the RTL-plus program is considered a proving ground for a large-scale satellite television program. In the meantime, the program-makers are refining their concepts. The new chief editor Egon Freiheit is to be in charge of the information division effective 1 October. Real innovations in the program layout cannot be expected until early 1985.

Around 400,000 viewers regularly tune in RTL-plus; the advertising division also reacted positively. In 1984, the company was able to earn more than DM10 million. That is a nice sum of money for such a small territory. But the program is still running in the red; nevertheless, the television managers working out of the Louvigny Mansion in Luxembourg do not want to leave anything to chance. Starting in 1985, Teleskopie GmbH [Inc.], an affiliate of INFAS [expansion unknown] in Bad Godesberg, IFD [expansion unknown] Allensbach, and AGB London, will be responsible for watching audience behavior in the transmission area. Final figures on the performance of public-law and private television programs--in other words, RTL-plus--will therefore, at the very earliest, within half a year give us detailed information about the developments in terms of audience behavior which can be expected in connection with the materialization of the next stage in satellite television on a larger scale.

Getting Tomorrow's Audience Today

The people at RTL realize clearly that the outfit must come out with a German and a French television program from outer space starting in 1986. The policy of small steps in the style of RTL-plus or of broadening the audience of the French television program in Belgium and France as well as Luxembourg, by means of ground facilities, is to be followed by the big leap into the satellite age.

Even the spectacular success, achieved on the first try, by the new program format for the French-language RTL program 2 weeks ago, does not conceal the

fact that, in heavily-cabled Belgium, a media-policy awakening in the future will trigger a stiff competition fight through the licensing of commercials in the national television programs--a financial challenge to the transmitter in Luxembourg which was able to assure itself of considerable revenue sources in the neighboring land with the help of a commercial ban on Belgian television.

For the Luxembourg transmitter, which gets two-thirds of its audience from the French-speaking area in Belgium, the watchword is now "hang in there" in order to create the best possible conditions for the acceptance of the subsequent satellite programs.

It is necessary to keep a close rein on the audience especially in still rather weakly-cabled France. The viewers must continue to be motivated in order, starting in 1986, if necessary, to buy the parabolic antenna that will be needed to receive the direct television satellite. A simple antenna for the purpose of receiving RTL-plus should cost only about DM300-500; but the TV-addicted citizen has to fork over at least around DM1,500 for a parabolic antenna.

Efforts aimed at "satellite television" of course are confined not only to the improvement of programs currently being telecast in order quickly to counter the competition; they are also being pursued parallel to a diversification of the activities of the parent company, CLT, which in the meantime has gathered umpteen branches and affiliates both in the production and in the sales, music, publishing, and advertising fields and which is gathering experiences in several countries, among others, also in Canada where, for example, it is participating in pay-TV experiments.

But the showpiece of the futuristic strategies of RTL boss Gust Graas of course continues to be satellite television. After the bitter disappointment of the company's own satellite plans, among other things, in conjunction with the German newspaper publishers (BDZV [West German Newspaper Publishing Association ?]), RTL put its money on partnership with France. Was this an emergency solution or was that the gilded road to the satellite age? Opinions continue to be divided in Luxembourg.

Lagging Satellite Projects

The certainly justified skepticism was sustained by additional delays caused by the French so that the mood changed among the Luxembourg public in the middle of 1983. The administration under Prime Minister Pierre Werner accepted the offer made by the American Clay T. Whitehead, to carry out a completely novel satellite project from Luxembourg territory. As reported already at the end of 1983, the Luxembourg government in August 1983 applied to the "International Frequency Registration Board" of the UIT (International Telecommunications Union) for three telecommunications frequencies to operate a telecommunications satellite with 16 channels.

The undertaking, which became known internationally under the name GDL/Coronet, was hardly taken serious during its initial phase; after all, not even the experts

believed in the new technology of the "medium-power satellite"[1]. But the situation changed very quickly. Both in international institutes and in some countries, for example, France and the FRG, this unexpected competition--which was supported by powerful media and finance groups from the United States and Europe--was treated in a rather rejecting manner.

A bitter foe of the enterprise, which was started with the knowledge of but not under the project management of RTL, turned out to be COP/RTL which had been settled in the Grand Duchy for the past 50 years. It used many arguments in its approach. To this very day, RTL has not yet abandoned its resistance Just recently, RTL appealed to the Luxembourg Council of State against the license which had been awarded in the meantime.

The French on the other hand did go along with the signs of the times. Through the resumption of satellite negotiations with Luxembourg, the interest of the Luxembourg government in the Coronet Project was to be reduced. To be sure, Luxembourg used this opportunity in order to issue, together with Paris, on 2 May 1984, a declaration of intention concerning the allocation of two channels for RTL on French TDF-1 [first French television chain], but the country did not drop its own plans.

Rise and Fall of Coronet

The American-Luxembourg Coronet Project was pursued in an ambitious manner. The ownership company, SLS (Luxembourg Satellite Company) was founded. The majority of the capital continued to be held by the Luxembourg government. In May of this year, in spite of the undisguised opposition of RTL, in spite of the more than psychological pressure from Paris against the "American" invader in media business, and in spite of warnings from the socialist opposition, the Christian-Social-Liberal administration granted a broadcasting license to the SLS Company in the end.

This did cause much excitement but SLS was unable to turn this license into anything specific in terms of contracts. The CORONET SA operating company was never established. Potential investors and possible program offerors suddenly became skittish. Coronet is officially not yet "out" but this has already been predicted on several occasions.

The political change on 17 June as a result of the parliamentary elections in Luxembourg hardly provided any further backup support for this undertaking. The government declaration states that the coalition, made up of Christian-Social and socialist politicians, would pursue both satellite projects parallel, although it was made absolutely clear that RTL would continue to be the center of Luxembourg media policy toward the outside world.

Accordingly, it was only logical that absolute priority was assigned to the completion of the satellite negotiations with France and both RTL channels on the TDF satellite. In the meantime, there has been some activity and both sides moved closer toward each other but the bilateral cooperation agreement

between the governments of Paris and Luxembourg was not ready for signature at the end of August 1984, as had been planned originally.

Frightened by the Coronet Project, the French for example want to be sure that Luxembourg will not transmit any French and German television programs via another satellite that might be licensed in the Grand Duchy. This again compromises the Coronet Project which, in addition to pay-TV also intended to air advertising-financed television programs on the basis of the 16 available transponders both for French and German viewers.

RTL-TDF-Cooperation Almost Perfect

In expectation of the contract backing the two RTL channels on the French direct satellite, the Luxembourg government now, in keeping with its declaration, did give priority to RTL-TDF cooperation; nevertheless, it wants to pursue both satellite projects in a parallel manner and it has picked up the widespread idea that the second-generation television satellites--in other words, the follow-on satellites of the direct satellites--could certainly be of the "medium-power satellite" type.

Rather soon, in other words, starting in 1986, television from outer space is to be transmitted directly from Luxembourg into European homes and in medium-range or long-range terms the Grand Duchy does not want to miss the bus in the development and materialization of the second generation. This is where the Coronet technology is to become Luxembourg's trump card--assuming that the two big neighbors--who have also been thinking along these lines and who are being addressed openly in the context of French-German satellite cooperation--can manage to see things the same way.

Initial feelers have already been sent out toward Bonn and Paris. Although both sides were not at all enthusiastic about the original Coronet Project, these new contacts made it possible for the prime minister of Luxembourg in the middle of September once again to confirm that the administration was very much interested in helping the projects to make a "good start."

Second "International" Starting Run For Coronet

It is certainly too early to estimate the chances of the second start for the Coronet Project--which, it seems, one cannot rule out any longer--but it appears to be almost certain that the Luxembourg government now wants to give this undertaking an "international" appearance in the context of German-French-Luxembourg technological cooperation with American assistance.

If RTL's dreams come true on the satellite sky starting in 1986, then it remains to be seen in what form Luxembourg will get into the second satellite generation during the 1990's. For little Luxembourg, border-crossing communication has been a tradition for many years and the new communications technologies are to remain pillars of the Luxembourg media branch also tomorrow and the day after tomorrow.

FOOTNOTES

1. MPS--larger transmitting cone, more channels than direct satellite because of lower energy expenditure and presumably lower rental per channel than in case of direct satellite, but doubtful reception with parabolic antenna below one meter.

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AGENCY BUYING DIGITAL COMMUNICATIONS EQUIPMENT FROM FINLAND

Helsinki HELSINGIN SANOMAT in Finnish 28 Sep 84 p 36

[Article: "Telenokia Made Deal With Sweden Worth 100 Million Marks"]

[Text] From 1985 to 1987 Telenokia will supply the Swedish telecommunications administration with communications equipment worth over 100 million marks. The 3-year agreement deals with so-called digital channeling, transmitting and conduction services.

Telenokia obtains about 35 percent of the market share for these products in Sweden, says Telenokia's export manager, Yrjo Sirkeinen.

The current transaction expands the first agreement made in 1982 with the Swedish telecommunications administration. Within its framework, equipment worth roughly 50 million marks has been delivered to Sweden.

With the help of the new agreement, Telenokia is in a position to seize a considerable part of the markets from the primary Swedish supplier, Ericsson. According to Sirkeinen, the deal was made with Finland because of price, high level of quality and certainty of delivery, among other things. The equipment is manufactured at the Nokia Electronics Haukipudas and Espoo factories.

Telenokia also has a strong position in Sweden as a supplier of radio equipment.

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