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Worldwide Report

TELECOMMUNICATIONS POLICY, RESEARCH, AND DEVELOPMENT

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WORLDWIDE REPORT

TELECOMMUNICATIONS POLICY, RESEARCH AND DEVELOPMENT

CONTENTS

ASIA

WEST EUROPE

/9987

HONG KONG

MONITORS FIND GROWING INTERFERENCE ON RADIO, TV RECEPTION

Hong Kong SOUTH CHINA MORNING POST in English 16 Apr 86 p 20

[Article by Jimmy Leung]

[Text]

The telecommunications branch of the Post Office is now receiving a greater number of complaints from the public about radio interference on television.

The senior telecommunications engineer at the Post Office's spectrum monitoring section in Kun Tong, Mr Melvyn Wong, put this down to publicity about the complaints hotline (3-898131).

Said Mr Wong: "We used to get between 70 to 80 complaints a month, but the figure now is three to four times higher."

He said the section receives an equal number of complaints every month about interference on radio broadcast reception.

However, he said, just under half of the total number of complaints about radio interference on television were found to be non-existent.

And this wastes a great deal of the monitoring section's time and effort.

The chief telecommunications engineer (spectrum management), Mr Au Man-ho, said that before making a formal complaint viewers should first call in a technician to carry out a simple check on their television sets.

They can also ask their neighbours if they are also getting interference on their sets.

Mr Au said the Post Office is looking into the possibility of charging for its services, as in other countries.

"We are monitoring the situation closely," he said.

He said it has been established that the main cause of interference to reception is faulty television aerial amplifiers, known as TV boosters.

Other causes are poor maintenance of radio transmitters, the operation of plastic welding machines nearby and the illegal use of cordless telephones.

Between April 1, 1984 and March 31 last year a total of 229 faulty boosters were detected and removed.

"We collect all kinds of television boosters to test their quality," said Mr Wong.

According to the 1984-85 departmental report, the Post Office received a total of 2,441 complaints about radio interference.

About 45 per cent were related to interference to radio systems used by Government departments, 35 per cent to radio interference to TV reception and 15 per cent were from licensed mobile radio system operators.

The remaining five per cent were complaints about interference to radio broadcast reception.

The spectrum monitoring section is responsible for indoor monitoring of radio interference and outdoor investigations, measurement of interference levels, type approval of radio equipment (including radio pagers) submitted by manufacturers and servicing of its own radio equipment.

One of its prime tasks is to ensure there is no interference to distress radio signals and messages from ships and aircraft.

It is also vital that the radio reception of the Fire Services, police, Marine Department, Civil Aviation Department, Independent Commission Against Corruption, Towngas and the electric companies are not affected by interference.

The section's other responsibility is to investigate the illegal use of radio frequencies and to monitor the operational discipline of mobile radio users to ensure they do not infringe the conditions of their licences such as using foul language on the airwaves.

/9317
CSO: 5540/066

BBC OFFICIAL VISITS, BACKS INDEPENDENT LOCAL BROADCASTER

Hong Kong SOUTH CHINA MORNING POST in English 4 Apr 86 p 22

[Text]

Plans for an independent public broadcaster in Hongkong were yesterday welcomed by the head of the pioneer in that field.

British Broadcasting Corpn chairman Mr Stuart Young gave his seal of approval to the recommendation of the Broadcasting Review Board during a three-day visit to the territory.

"I think it is a very good idea to set up a board of governors and make RTHK more independent of government, modelled on the BBC style," he said.

"It is a very sensible recommendation – but it would be a bad idea to take advertising."

Mr Young was speaking before leaving for China, where he is due to sign an agreement for the sale of radio and television programmes.

He noted: "It would not be that similar to the BBC because it would not have its own channels."

But, a more independent RTHK, free from commercial pressure, would help keep broadcasting standards high.

He explained that many steps have to be taken before any changes of that kind are made.

"There are the new franchises to be worked out and so much more has to take place.

"RTHK is just one small part of a very complex package."

During his stay in Hongkong, Mr Young paid a visit to the BBC's new transmitter site in the New Territories by helicopter.

A $100 million, five-mast relay station is under construction in Tsang Tsui in Tuen Mun facing Deep Bay.

Mr Young said the building would be finished by June and then the electricians will move in to install the wiring.

The transmitter is designed to improve reception in Hongkong and beam the BBC's World Service into northern China – along with its putonghua and Cantonese services – and into the Soviet Union.

It is expected to start operating in November next year and Mr Young said the Chinese authorities had encouraged construction of the transformer.

/9317
CSO: 5540/066

DATABASE COMPANY CHIEF RESIGNS; PLANS FOR PRC WORK AIRED

Hong Kong SOUTH CHINA MORNING POST in English 15 Apr 86 Business News p 1

[Text]

Mr Leslie Collings, chairman of DataBase Asia Ltd, has resigned his post on completion of his three-year tenure with the company.

The firm's chief executive and managing director, Mr P. Viswa Nathan, orchestrated the announcement of Mr Collings' departure to coincide with the news that DataBase, known to have been short of cash for many months, has received an injection of fresh capital from existing shareholders.

The announcements do much to dispel earlier speculation that Mr Collings' recent trip to the United States was part of a scheme to find a good outside source for a hefty dose of capital.

The new funds are to assist the company's planned expansion into China.

For more than a year, Mr Collings had been devoting most of his time to developing business opportunities on the mainland, and in October signed a 10-year contract with state-owned China Hua Yang Technology and Trade Corpn under which both firms are to create an extensive business and investment information network in China.

Mr Nathan said work with China Hua Yang subsequent to signing the agreement has progressed to "the right stage to make a strategic shift from being a purely Hongkong information group to becoming an international player in the electronic information industry."

The strengthening of the capital base, the China programme, and a sizeable expansion of the firm's marketing channels in the US underpin Mr Nathan's prediction of a period of "dynamic growth" for DataBase.

Mr Nathan recently told Business News the move into China, and the new products which will flow from it, are the key to solving the firm's persistent cash-flow problems.

Mr Collings, in his farewell speech to DataBase yesterday, said he plans to continue using Hongkong as a base of operations for his business activities.

/9317
CSO: 5540/066

PEOPLE'S REPUBLIC OF CHINA

SHANDONG HOLDS CONFERENCE ON RADIO, TELEVISION WORK

SK260419 Jinan Shandong Provincial Service in Mandarin 2300 GMT 25 Mar 86

[Excerpts] At the 25 March Third Provincial Conference on Radio and Television Broadcast Work, Lu Maozeng, deputy secretary of the Shandong Provincial CPC Committee, delivered an important speech, urging radio and television units to serve as a mouthpiece of the party, the government, and the people.

Lu Maozeng said in his speech: Since the 3d Plenary Session of the 11th CPC Central Committee, radio and television undertakings throughout the province have shown new development, and significant results have been achieved in radio and television propaganda. Radio and television units have done a great amount of work in disseminating and reporting the building of the two civilizations, publicizing the policy of opening to the outside world and enlivening the domestic economy, advocating the reforms in the economic and other fields, reporting party rectification and the efforts to resist and oppose unhealthy trends, strenghtening the propaganda on democracy and the legal system, spreading political, economic, and cultural information, and publicizing the current international situation, and have achieved very good results.

Comrade Lu Maozeng said: Radio and television broadcast is the mouthpiece of the party and the government, as well as the people. Shouldering the great trust placed by the party and the people, radio and television departments hold heavy social responsibilities, and therefore, should further correct the ideology guiding their professional work, and persistently take social benefit as the only criterion for their work. They should further foster and enhance a sense of party spirit, of the overall interest, of serving the audience and the viewers, and of discipline, unswervingly uphold the four basic principles of the party, wholeheartedly serve the party's general line, general task, and general objective, and the building of the two civilizations. In doing everything, they should submit themselves to the long-term basic interests of the country and the nation, take their prosperity and strength into account, and give consideration to the people's prosperity and happiness. Through radio and television propaganda, they should instill the people with confidence and strength. In short, they should loudly sing the socialist song for our era and people to inspire their spirit. This is the keynote and the major decisive force of radio and television propaganda.

Comrade Lu Maozeng stressed: Radio and television broadcast is a new undertaking with great prospects for development. CPC committees and governments at all levels should strengthen leadership over radio and television broadcasting work, successfully readjust and organize the leading bodies of radio and television departments, and grant them proper preferential treatment in finance. Radio and television departments at all levels should take the initiative in subjecting themselves to the leadership and supervision of CPC committees, and make timely reports to the CPC committees on the new problems and experiences in their practical work so that they can act successfully as the ears and eyes of CPC committees.

At the conference, 35 advanced collectives and 60 advanced individuals emerging from the radio and television units throughout the province were commended and given commendatory banners and certificates.

/12858
CSO: 5500/4156

PEOPLE'S REPUBLIC OF CHINA

INTERFERENCE OF FM TV SYSTEM STUDIED

Beijing TONGXIN XUEBAO [JOURNAL OF CHINA INSTITUTE OF COMMUNICATIONS] in Chinese Vol 6 No 4, Oct 85 pp 83-88

[Article by Wu Zhiyuan [0702 1807 0337], Gong Zhenghao [7895 2973 3185], and Chang Shengyi [1603 516B 3015] of the Department of Postgraduates of the Academy of Posts and Telecommunications Science, Beijing: "An Experimental Investigation of Interference Effects of FM TV Systems"]

[Abstract] The interference effects of single frequency, digitally modulated signal and radar signal on FM TV systems are studied by means of subjective and objective measurements. On this basis, weighting networks and weighting functions of the interference noise power are obtained and a method for evaluating the protection ratio is derived. The reliability of the evaluation method is confirmed by the fact that the evaluated values coincide very well with the subjective measurements.

I. Introduction

In the transmission of television signals using satellite and microwave relay systems, the interference effects due to other communication systems on the same frequency band must be considered. Both theoretical and experimental efforts are required in the study of the interference effect. The interference theory and computation algorithm of frequency modulated television system have been reported in Ref (1) and (2). In this paper we concentrate on the experimental study of interference effects and report the subjective and objective measurements, the interference noise weighting function and the computation of the protection ratio. The results of the subjective measurement are the degradation of image and the protection ratio of barely discernable interference. The result of the objective measurement is the bandwidth weighted interference noise power. In the past, a random noise weighting network[3] is used in the objective measurement, but the subjective effects of interference cannot be accurately assessed. In this work, we derived a weighting function for the interfering noise and calculated the interference reduction factor. By doing so the protection ratio obtainable from a subjective measurement can be more accurately estimated.

The subjective measurement of interference has been described in detail in CCIR Reports 449-1 and 634-1 and the interfering sources include FM and AM

television. Reports on the objective measurement have been sparse. An empirical expression of the objective measurements in Canada was given in CCIR Report 449-1 but the express is valid only when the carrier frequency difference of the signal and the interference is zero. None of the reported measurements have considered the interference by digitally modulated signals and radar signals; these two cases are treated in the present work.

II. Subjective Measurement of the Protection Ratio

The subjective measurement of the protection ratio is made for the PAL frequency modulated television signal and for the interference by signal frequency signals and by PSK, ASK, and radar pulse signals on the same frequency band. The subjective measurements are conducted in accordance with the CCIR 500-2 and 600 recommendations. On this basis the protection ratio P_r is the C/I ratio (ratio of the unmodulated carrier amplitude and interference (4.5 level). When the observations are made by trained professionals, the results have relatively small scattering and are quite reproducible. Such data are valuable in establishing interference standards.

The subjective measurement originally calls for the SMPTE No 1 and No 14 slides. However, since such slides are incompatible with the Chinese-made scanning projector, we used the standard graphs produced in China. Since the interference depends on the image and the standard Chinese images have a relatively large area of uniform light background color behind the subjective figure (quite different from SMPTE No 1 and No 14), we selected a second image and used the average of the two measurement results. Subjective measurements are also made for the color bars but such results are not used as criteria. Figures 1, 2, and 3 show the measurement results. The rate of the PSK interference signal is 5 Mb/s, the pulse width of the radar interference signal is 2 ms, and the filling factor is 1:10.

III. Subjective Measurement and Weighting Network of Interfering Noise

The useful signal and the ratio frequency interference signal received by an FM television receiver are demodulated to produce the video signal and the base band interference signal. Since the video signal is far greater than the interference noise, it must be eliminated first and then the interference noise power is measured with video frequency noise. This is a difficult task and the cancellation can never be complete. After careful tuning, the rms value of the sum of the residual signal and the thermal noise is 0.13-0.15 mV, with 0.05-0.07 mV attributable to thermal noise.

As stated earlier, in the objective measurement of the interference noise the random noise weighting network does not provide the visual effects of the interference. One should therefore find the interference noise weighting network and the corresponding weighting fucntion on the basis of subjective measurement and then measure or compute the weighted noise power in order to evaluate the visual degradation of the image. Specifically one can optimize the weighting network or weighting function by iteration until the weighted noise power does not change with the carrier frequency.

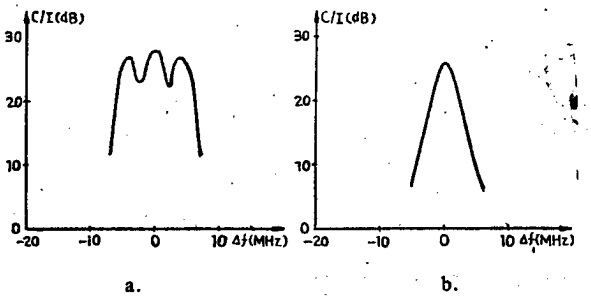


Figure 1. Single frequency interference
(Note: In Figures 1, 2, and 3, a is for color image and be is for black-and-white image.)

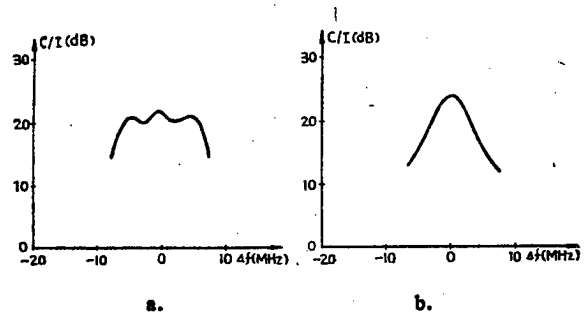


Figure 2. PSK interference. The ordinate values of 0, 10, 20 and 30 in Figure 2(a) should be respectively 3, 13, 23, and 33 dB.

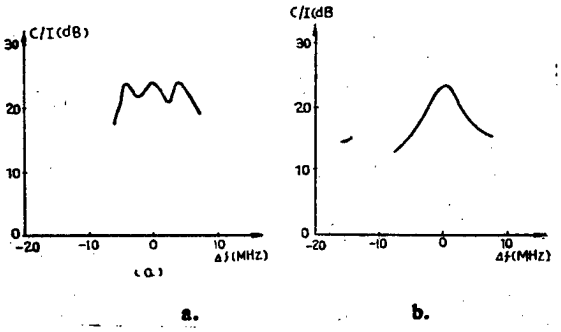


Figure 3. Radar interference

Since the weighted interference noise power computed by the method in Reference 2 agrees with the measured value, the weighted noise power may be computed for cases where measurements cannot be made. We denote the base band weighted interference noise power for the single frequency, the PSK interference, and the radar interference by P_n, P_p, and P_R respectively.

We than have

$$P_n=\frac{2A_2^2}{75A_1^2F^2}\sum_{n=1}^{1405}[nf_0g(nf_0)h(nf_0)]^2|C_n| \tag{1}$$

where $$C_n=\frac{1}{4}(C_{n-k}+C_{n+k})$$

using $$C_m=f_0\int_{-1/2f_0}^{1/2f_0} e^{-\sum_{r=1}^{R}E[X_r^2]\sin^2\frac{\omega_r\tau}{2}}e^{-j2m\pi f_0\tau}d\tau$$

$$m=0,1,2,\cdots$$

We may compute C_{n-k} and C_{n+k}. Here f_o is 1/4 the running frequency, kf_o is the carrier frequency difference in MHz, F is the deviation of the marked peak frequency, A_2/A_1 is the amplitude ratio of the carrier before demodulation, $g(nf_o)$ is a weighting factor, $h(nf_o)$ is a deemphasis factor, X_r is the phase modulation index of the pre-emphasized video spectral line r of the signal, and ω_r is the angular frequency of spectral line r.

$$P_P=\frac{1}{75\pi}\int_{-11\pi}^{11\pi}W(\Omega)\left[\frac{\Omega}{M}h\left(\frac{\Omega}{2\pi}\right)g\left(\frac{\Omega}{2\pi}\right)\right]^2\left[S_{\lambda Pn+}(\Omega)+\frac{1}{2}S_{\lambda Po}(\Omega)\right]d\Omega \tag{2}$$

where $M = 2\eta F$, $W(\Omega)\begin{cases}=1 & 1\Omega 1>0.02\pi \\ =0 & \text{other}\end{cases}$

The excess phase shift power spectral density due to interference is

$$S_{\lambda P}(\Omega)=\left(\frac{A_2}{A_1}\right)^2T_s\sum_{n=-\infty}^{\infty}\left[|C_n|S_a^2\frac{T_s}{2}(\Omega-n\omega_0)\right]$$

$$=S_{\lambda Pn+}(\Omega)+S_{\lambda Pn-}(\Omega)+S_{\lambda Po}(\Omega)$$

where $S_{\lambda Pn+}(\Omega)$ and $S_{Pn-\lambda}(\Omega)$ are the sum of terms in $S_{\lambda P}(\Omega)$ when n is positive and negative, respectively; $S_{\lambda Po}(\Omega)$ is the n = 1 term, and T_s is the width.

$$P_R=\frac{1}{\pi}\left(\frac{A_2}{A_1}\right)^2\sum_n\sum_P|C_n|\left[\left(\frac{P\omega_R+n\omega_0}{M}\right)g\left(\frac{P\omega_R+n\omega_0}{2\pi}\right)h\left(\frac{P\omega_R+n\omega_0}{2\pi}\right)\frac{\sin P\omega_R\tau_R/2}{P\pi}\right]^2 \tag{3}$$

where the summing range of n and p is $0.02\pi<p\omega_R+n\omega_0<11\pi$, ω_R is the angular frequency of the repetitive pulse, and τ_R is the pulse width.

Using P_n, P_p, and P_R, the base band weighted S/N for different interference may be computed. $(S/N)_{Pr}$ is a function of the carrier frequency difference and the weighting function.

Subjective measurement show that:

1. The weighting function of a black and white television interference noise may be written as

$$g(f)=\left(\frac{f^4+a_1f^2+a_3}{f^4+a_2f^2+a_3}\right)^{1/2}\sqrt{G} \quad \text{Single frequency and PSK interference} \tag{4}$$

$$g(f)=(a_4/1+4.3f^2)^{1/2} \quad \text{radar interference} \tag{5}$$

2. For a color television, the weighting functions for low frequency and high frequency should differ in form. For $f < 3$MHz, the weighting functions are taken to be those in (4) and (5). For $f \geq 3$MHz, the weighting function takes the following form.

$$g(f)=a_5 e^{-(f-f_c)^2/a_6} \qquad (6)$$

where f_c is equal to or slightly less than the auxiliary color carrier frequency.

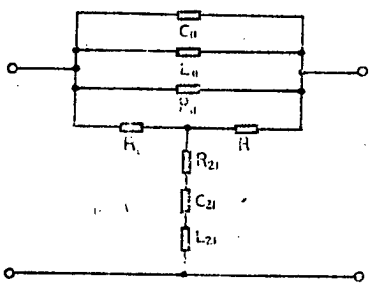
After repeated adjustments of coefficients $a_1 \sim a_6$, we have

$$E_r=\sum_{kf_0=1}^{5} |(S/N)_{Pr}-50| \qquad (7)$$

The optimization process is to make E_r approach zero or sufficiently small. A computer may be used for this optimization. After the coefficients are determined, it is not difficult to achieve the weighting function with simple weighting networks. By making the asymptotic value of the base band weighted S/N ratio for interference threshold 50 dB in Eq (7), the weighting factor G of the black and white television interference noise spectrum will be unity. In the case of color television reception, G is a measure of the visual effects of low frequency interference for the various colors.

To correct for the small difference between the computed weighted interference noise power and the actually measured noise power, a weighting network may be used to finetune the component values to further reduce the dependence of the threshold weighted noise power on the difference of carrier frequency. For a black and white television, the optimization may be achieved by directly adjusting the component values of the weighting network and then compute the corresponding weighting function. For a color television, since the weighted interference noise power cannot be measured directly, the weighting network cannot be optimized directly. However, since the weighted noise power can be reliably computed, the method for optimizing the weighting function is also reliable. This is verified by the close agreement between the actually measured protection ratio shown in Table 3 and the estimated value.

Figure 4 shows the interference noise weighting network for a black and white television and the component values. Table 1 shows a comparison of the attenuation measured by the weighting network and the attenuation computed from the weighting function.



Interference source	Single frequency	PSK
R_{11}	11056 Ω	2408.66 Ω
C_{11}	30.17 pF	34.9 pF
L_{11}	28.93 μH	22.64 μH
R_{21}	0.51 Ω	2.34 Ω
C_{21}	5143.5 pF	4024.2 pF
L_{21}	169.7 nH	196.5 nH
R	75 Ω	75 Ω

Figure 4. Interference noise weighting network and component values for a black and white television

Table 1. A comparison of the measured and computed attenuation in dB

Frequency (MHz)		1	2	3	4	5
Single frequency	Measured	9.12	15.46	20.56	26.47	37.64
	Computed	8.88	15.34	20.56	26.42	37.64
	Difference	0.24	0.12	0	0.05	0
PSK	Measured	6.94	12.96	18.06	22.94	28.52
	Computed	7.39	13.44	18.06	22.66	28.52
	Difference	−0.45	−0.48	0	0.28	0

The interference noise weighting functions $g_n(f)$, $g_p(f)$, and $g_R(f)$ for the single frequency, PSK, and radar interferences are given below.

1. Black and white image

$$g_n(f)=\left(\frac{f^4-63.01f^2+976.79}{f^4+6084.92f^2+976.79}\right)^{1/2} \tag{8}$$

$$g_P(f)=\left(\frac{f^4-83.07f^2+1708.22}{f^4+7204.87f^2+1708.22}\right)^{1/2} \tag{9}$$

$$g_R(f)=(2.51/1+4.3f^2)^{1/2} \tag{10}$$

2. Color image

when $f < 3$ MHz

$$g_n(f)=\left(\frac{f^4-63.01f^2+976.79}{f^4+6084.92f^2+976.79}\right)^{1/2}10^{0.1} \tag{11}$$

$$g_P(f)=\left(\frac{f^4-83.07f^2+1708.22}{f^4+7204.87f^2+1708.22}\right)^{1/2} \tag{12}$$

$$g_R(f)=(2.51/1+4.3f^2)^{1/2} \tag{13}$$

when $f \geqslant 3$ MHz

$$g_n(f)=0.042e^{-(f-4)^2/1.6} \tag{14}$$

$$g_P(f)=0.056e^{-(f-4)^2/0.8} \tag{15}$$

$$g_R(f)=0.10\,e^{-(f-4)^2/0.8} \tag{16}$$

IV. Estimation of the Protection Ratio

Based on the subjective measurement results and the measured weighted interference noise power of a black and white image using the weighting network, we found that the carrier frequency difference varies in the 0-5.5 MHz range when the interference sources are single frequency or PSK signals. Also, the threshold base band weighted S/N ratio is close to 50 dB, as shown in Table 2. Therefore, a base band weighted S/N ratio of 50 dB corresponds to barely detectable interference and the carrier noise ratio at this time is the protection ratio.

Table 2. C/I and S/N (dB) for barely noticeable interference

Interference Source	Single frequency		PSK 5Mb	
Carrier freq. diff.	C/I	S/N	C/L	S/N
− 5 MHz	7	50.4	16	50.0
− 4	12	49.5	18	49.9
− 3	17	49.5	20	49.7
− 2	21	50.1	22	49.9
− 1	24	49.9	23	50.0
0	26	50.9	24	50.0
1	23	50.4	23	49.9
2	20	50.6	22	50.0
3	16	50.4	20	49.9
4	11	50.8	18	50.5
5	7	48.1	16	50.5

Using the results of Reference 2 and the values of B computed from the weighting function in this paper, the protection ratio for didferent interference signals may be obtained from the following equation

$$C/I = S/N - B = 50 - B \qquad (17)$$

Since an ASK interference is the superposition of a single frequency and a PSK interference, and a PSK interference is the superposition of two ASK interferences, their protection ratio may be estimated from $g_n(f)$ and $g_p(f)$. Table 3 shows a comparison of the estimated and measured protection ratio using the weighting function method described here. The estimated values are generally greater than the measured values. Table 4 shows a comparison of the measured and the estimated protection ratio using an interference reduction factor[4] computed from the random noise weighting fucntion. As can be seen, the protection ratio estimated from the weighting function can indeed reflect the dependence on the carrier frequency difference. This estimation method of the protection ratio allows a unified calculation of the protection requirement, provides a method to compute the allowable values of the inter-station distance and interference carrier in a microwave relay communication system, and allows effective usage of the stationary orbit communication satellite and the frequency spectrum.

V. Conclusions

Subjective measurement results show that the protection requirements of a frequency modulated television system against single frequency, PSK, and radar interferences are the highest when the carrier frequency difference is equal to zero. The protection requirements of a color image are also high when the carrier frequency difference is lcose to the auxiliary color carrier frequency.

The protection ratios computed from the interference noise weighting function based on subjective measurement results and from the interference reduction factor given in Reference 2 are close to the actually measured protection ratio. The method of estimation can account for the modulation mode of the interference signal and the effects of modulation rate and carrier frequency difference; as a result, the algorithm is useful for the design and planning of communication systems.

Table 3. Protection ratios (dB) estimated from the weighting function

Image / Interference	Black and White image						Color image					
	Single Frequency		PSK 5 Mb		ASK 5 Mb		Single Frequency		PSK 5Mb		雷达 2 ms 1/10	
Carrier Frequency diff.	Measured	Estimated	Measured	Estimated	Measured	Estimated	Measured	Estimated	Measured	Estimated	Measured	Estimated
−5MHz	7	7.4	16	17.4	13	11.8	26	26.6	23	23.3	22	19.0
− 4	12	15.1	18	19.8	15	15.0	27	27.7	24	24.3	23	23.2
− 3	17	18.7	20	21.6	17	17.4	25	23.9	23	24.8	21	19.8
− 2	21	21.5	22	22.9	20	19.2	23	23.5	23	25.1	21	21.1
− 1	24	25.1	23	24.6	22	21.8	27	27.0	24	25.2	23	23.5
0	26	25.8	24	25.0	23	22.4	28	27.8	25	25.2	24	23.5
1	23	25.1	23	24.6	21	21.8	26	27.0	24	25.2	23	23.5
2	20	21.5	22	22.9	19	19.2	22	23.5	23	25.1	21	21.1
3	16	18.7	20	21.6	17	17.4	25	23.9	23	24.8	20	19.8
4	11	15.1	18	19.8	15	15.0	27	27.7	24	24.3	24	23.2
5	7	7.4	16	17.4	13	11.8	26	26.6	23	23.3	23	19.0

Table 4.

Image / Interference	Black and White image			
	Single frequency		PSK 5Mb	
Carrier Frequency diff.	Measured	Estimated	Measured	Estimated
− 5 MHz	7	22.3	16	20.8
− 4	12	22.9	18	22.3
− 3	17	23.3	20	23.6
− 2	21	24.2	22	24.5
− 1	24	26.6	23	25.1
0	26	26.5	24	25.3
1	23	26.6	23	25.1
2	20	24.2	22	24.5
3	16	23.3	20	23.6
4	11	22.9	18	22.3
5	7	22.3	16	20.8

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9698/12232
CSO: 5500/4151

PEOPLE'S REPUBLIC OF CHINA

BRIEFS

GUANGZHOU TELECOMMUNICATIONS SYSTEM --Guangzhou, 14 March (XINHUA)-- A 1,800-channel microwave telecommunications system linking Guangzhou, capital of Guangdong Province, and Haikou city was officially put into operation today. The system, 595 km long, can provide direct dialing services for 3,600 people between Guangzhou, Beijing, Shanghai, Hong Kong, and Macao. The system is "important" to telecommunications between Hainan Island, China's mainland, Hong Kong, Macao and foreign countries, said local officials. Another 1,800-channel microwave telecommunications system between Guangzhou and Shantou was put into operation last December. [Text] [Beijing XINHUA in English 1830 GMT 14 Mar 86 OW]

CHONGQING IMPROVES TELECOMMUNICATIONS SERVICE--Chongqing, 22 March (XINHUA)--Chongqing, China's most populous city, is installing an advanced telephone system to ease its shortage of public and office telephones, officials here said today. With a population of about 14 million, this city in southeast Sichuan Province has only 33,000 telephone lines, according to officials of the local telecommunications administration. The new system will add 10,000 new lines once installation is complete in October, they said. In addition, the officials said, by June Chongqing residents will be able to use a 480-channel, six-kilometer optical fiber communication line, the first in southwest China. Other fiber optic lines have been planned for radio facsimile, digital transmission and video signals. Over the next five years, the city plans to use foreign Imans to import a 50,000-line system. [Text] [Beijing XINHUA in English 1137 GMT 22 Mar 86 OW]

DIGITAL SCATTERING MICROWAVE COMMUNICATIONS--Chongqing, 7 Apr (XINHUA)--China's first digital scattering microwave communications system for civil use was put into operation yesterday in Sichuan province. The system, between Chengdu, the provincial capital and Chongqing, the province's major industrial center, is used for electric power distribution for the southwest China power grid. It is expected to further tap local hydroelectric power resources, according to officials here today. The system, developed in recent years, so far has been used mainly for military purposes. [Text] [Beijing XINHUA in English 2019 GMT 7 Apr 86 OW]

POLISH TELECOMMUNICATIONS AGREEMENT--Beijing, 13 April (XINHUA)--The Chinese Ministry of Posts and Telecommunications and the Polish Ministry of Posts and Telegraph signed a cooperation agreement here today. Vice-Chairman of China's National People's Congress Standing Committee Zhu Xuefan attended the

signing ceremony. Chinese Minister of Posts and Telecommunications Yang Taifang and Polish Minister of Posts and Telegraph Wladyslaw Majewski signed the agreement. The agreement provides that the two ministries will carry out cooperation in post and telecommunication services, development of related sciences and technologies and production of telecommunication equipment. Zhu Xuafan met a Polish delegation led by Majewski after the ceremony. [Text] [Beijing XINHUA in English 1307 GMT 13 Apr 86 OW]

TELECOMMUNICATIONS THROUGH SATELLITE--China successfully launched its first telecommunications experimental satellite on 1 February. After the satellite position was fixed in the sky on 20 February, people in Xinjiang could directly receive programs broadcast by the Central Television station via transmission from the satellite received by the satellite ground station. Recently, comrades of the Xinjiang satellite ground station successfully conducted a telecommunications experiment. As a result, people in Urumqi can now directly talk to people in Beijing by telephone through the satellite. [Summary] [Urumqi Xinjiang Regional Service in Mandarin 1300 GMT 19 Mar 86 HK] /12858

AUTOMATIC TELEGRAPH RELAY--Nanjing, 21 Mar (XINHUA)--The Telecommunications General Bureau under the Ministry of Posts and Telecommunications declared at the National Automatic Relay Work Meeting, which ended on 21 March, that this year the China-made 256-circuit automatic relay equipment will be installed in the telecommunications bureaus in Xian, Changchun, Hefei, Wuhan, Hangzhou, Harbin, Zhengzhou, Taiyuan, Shijiazhuang, and Lanzhou. The general bureau also declared that it planned on disseminating the equipment to all provinces, municipalities and autonomous regions before the end of 1987, so that telegraphic communications throughout the country can thoroughly get rid of the backward artificial relay. [Excerpt] [Beijing XINHUA Domestic Service in Chinese 1517 GMT 21 Mar 86 OW] /12858

GUANGDONG RADIO COMMUNICATIONS REPORTS--Beginning today, the province's and Guangzhou radio stations will report each day the latest information about Guangzhou's communications, including air services, traffic conditions on highways, railroads, and waterways. The report will also cover the communications conditions of main highways, railroads, air services, and telephone lines throughout the province. It will also provide information on road safety and weather forecasts, as well as tourist services provided by the transport departments and suggestions by the public on improving traffic conditions. The report will last 5 minutes. The program is scheduled at 0610 and 1855 on Guangdong station No 1; at 1135 on Guangdong station No 2; and at 0650, 1305, and 1810 on Guangzhou radio station No 1. [Summary] [Haikou Hainan Island Service in Mandarin 0400 GMT 1 Apr 86 HK] /12858

XISHA ISLANDS GET ANTENNA--According to a JIEFANGJUN BAO report, the first antenna for receiving satellite-relayed television programs was completed on Yongxing Dao of the Xisha Qundao. The antenna is 6 meters high and 1.8 metric tons in weight. During its first try-out on 23 April, it functioned normally and produced clear pictures on television screens. It was formally inaugurated on 24 April. [Text] [Beijing Domestic Service in Mandarin 2230 GMT 24 Apr 86 OW] /12858

POSTAL, TELECOMMUNICATIONS MINISTRY SURVEY--Beijing, 22 Apr (XINHUA)--A survey of the composition of users of postal and telecommunications services--the first of its kind in China--will be conducted between 23 and 25 April across the country. The ministry of Posts and Telecommunications requests the close cooperation of users so as to make a success of this survey in the interest of improving postal and telecommunications services. The survey will be conducted simultaneously by some 50,000 post and telecommunications offices and stations throughout the country. According to the Ministry of Posts and Telecommunications, the purpose of the survey is to measure the volume of postal and telecommunications services used by different categories of users and the volume of such services required in different areas so that the amount of work involved in various kinds of postal and telecommunications services may be forecast. The survey will enable postal and telecommunications departments to reform and improve their management system and raise the level of their services. It will also provide a significant basis for the establishment of a reasonably located postal and telecommunications network and the formulation of a development program in this regard. [By correspondent Xu Dasheng and Reporter Jhang Jinsheng] [Excerpt] [Beijing XINHUA Domestic Service in Chinese 1441 GMT 22 Apr 86 OW] /12858

CSO: 5500/4156

PHILCOMSAT REDUCES LEASE SATELLITE RATES

HK240340 Quezon City BUSINESS DAY in English 23 Apr 86 p 15

/Text/ Philippine Communications Satellite Corp. (Philcomsat) yesterday reduced its lease satellite circuit rental rates by an initial 20 percent.

The Philcomsat board passed unanimously a resolution to this effect, specifying that benefits of the reduction would be passed on to the public in terms of lower telephone and telex rates, among other things.

Effectivity of the rates cut would have to coincide with a reduction in the rates of Philcomsat's clients upon approval by the National Telecommunications Commission. This was stressed during a Philcomsat board meeting.

Philcomsat has 602 fulltime circuits, of which 522 are rented by Philippine Long Distance Telephone Co., 44 by Philippine Global Communications, Inc., 25 by ITT Globe-Mackay, 22 by Eastern Telecommunications Philippines, Inc., and 7 by Capitol Wireless.

Philcomsat charges these clients an average of abour $2,400 per circuit monthly for points in the Asia-Pacific region and about $3,300 per circuit monthly for other points, including the United States mainland, Europe, and Africa.

With the initial 20 percent reduction, the effective monthly rates would be $1,920 per circuit for points in the Asia-Pacific and $2,680 for points outside the region.

A Philcomsat official told BUSINESS DAY in an interview that the cut in lease circuit rental should effectively result in a 20 percent decrease in international calls passing through the satellite. "There would not be any change in their (PLDT) operations, anyway, so we could accurately state a 20 percent decrease," the official explained.

Defense Minister Juan Ponce Enrile, Philcomsat chairman, told the board of directors that the 20 percent decrease was best "to see how the market will react, provided the effectivity of reduction is matched by a reduction in the rates of the telecommunications carriers in order that the reduction will benefit the endusers."

There were several possibilities mapped out by Philcomsat management concerning the amount of rates cut, but the company opted for reductions in the stages, starting with 20 percent.

Bulk of Philcomsat's revenues come from circuit rentals. The company leases its circuits to international record carriers which in turn serve the public.

Philcomsat operates two standard earth station antennae, one designated for the Pacific Ocean region and the other for the Indian Ocean region.

To accommodate the heavy Pacific traffic, Philcomsat has decided to buy a new antenna estimated to cost $9 million, including civil works and installation.

The management is considering applying for a supplier's credit, which is being encouraged by the Central Bank. Interest cost is estimated at 2 percentage points above the London interbank offered rate (LIBOR).

Enrile prodded management to seek a lower interest rate, considering Philcomsat's liquidity and ability to pay.

He said LIBOR plus two points, which he calculated at $180,000 per year "is a lot of money."

/12228
CSO: 5500/4329

BELL CANADA STRUCTURE, NEW PHONE SERVICE, RESEARCH EXAMINED

Holding Company Structure

Toronto THE TORONTO STAR in English 11 Apr 86 p E1

[Article by James Daw]

[Text] A $4.2 billion bid by TransCanada PipeLines Ltd. to grab Hiram Walker Resources Ltd. fits in with the ambitious growth objectives of Bell Canada Enterprises Inc.

Bell, which also owns the country's largest telephone company, has a controlling 48 per cent interest in TransCanada, the operator of the main natural gas pipeline from Western Canada.

When one of its companies grows, so does Bell. And, in case you hadn't noticed, it's been a few months since Bell found anything major to buy with all its money.

Bell chairman Jean de Grandpre has said Bell's objective for 1992 or 1993 is to make double the $1 billion in profit it earned last year. So the country's biggest money maker can't stand still for long.

This time, another company's urge for acquisitions provided the Montreal-based holding company with the inspiration and opportunity to make its move.

Hostile suitor

It's pitching in $200 million to help TransCanada pluck Hiram Walker from Reichmann-controlled Gulf Canada Corp., which Walker considered a hostile suitor.

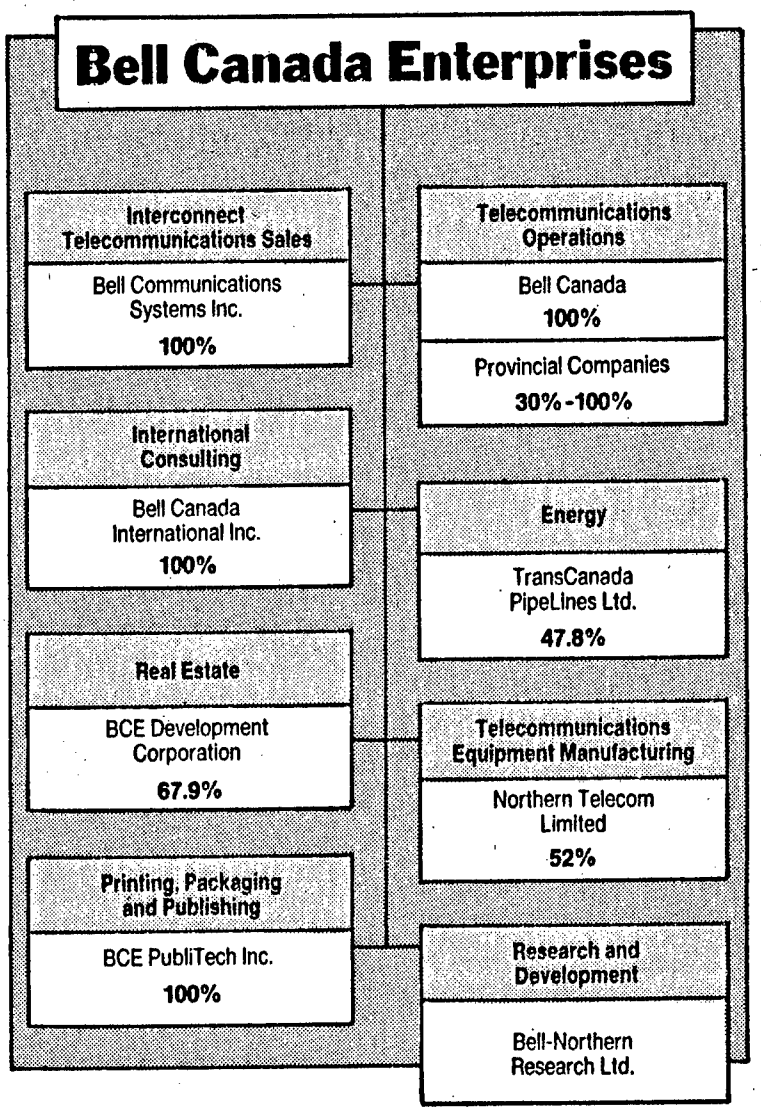
If TransCanada succeeds in getting Hiram Walker and selling the parts it can do without, it won't be such a huge acquisition or radical departure from Bell's previous diversification moves.

TransCanada has said it agrees with Walker selling its liquor business to the British conglomerate, Allied-Lyons PLC, and would sell the Consumers' Gas subsidiary, TransCanada's biggest customer, to avoid any conflict of interest.

What would be left in the end would be oil and gas producer Home Oil and a 34 per cent stake in the oil carrier Interprovincial Pipe Line, for an estimated net cost of about $900 million.

This would be the costliest takeover for Bell since it broke out of its shell in 1983 — the year management long-distanced itself from federal regulations applying to telephone companies.

The formation then of a holding company that would own Bell Canada suddenly gave de



Grandpre and his team much greater freedom to wheel and deal.

Initially, the stated objective of the new structure was to give Bell's high-tech gem — telephone and switching equipment giant Northern Telecom Ltd. — greater flexibility to expand.

But within months of its corporate restructuring, Bell had launched a $440 million bid to get 43 per cent of TransCanada. It later increased its holding to 48 per cent.

Since then, Bell has spent $123 million to acquire 69 per cent of Vancouver real estate developer Daon Development Corp., later renamed BCE Development Corp.

Other smaller acquisitions included a merchandiser of home computers, Computer Innovations; a U.S. printer of corporate literature, Case-Hoyt Corp.; a computer maintenance company, TRW Data Systems.

Bell's latest acquisitions have generally proven successful.

There has not been a repeat of the major error made by Bell's Northern Telecom subsidiary in the late 1970s.

Northern spent $250 million in 1978 to buy two fast-growing U.S. computer companies and forced an uneasy marriage. By the next year, it wrote off $164 million of the investment and suffered a record loss.

Only sketchy explanations were ever given of why things went so wrong so quickly. But investors and analysts were willing to forgive and forget, as Bell and Northern went on to pile success on success.

Consolidated revenues grew to $13 billion last year from $8.8 billion in 1983, while profit rose to $1 billion from $829 million.

No other Canadian company has ever had $1 billion in profit.

The bulk of the profit earned by Bell Canada Enterprises — 62 per cent of the $1 billion earned last year — still comes from its regulated telephone subsidiary.

More than $6 billion of Bell's $13 billion in revenue in 1985 was from the telephone business.

IBM of North

Northern Telecom contributed 19 per cent of Bell's bottom line, TransCanada 16 per cent and Bell's international consulting business 12.4 per cent.

Northern, of which Bell owns 52 per cent, is considered the IBM of the North, Canada's premium electronics and communications manufacturing company.

It is a leader worldwide in digital telecommunications technology, making about $3.9 billion of its almost $6 billion in sales in the U.S.

A reflection of how big and important Bell has become to the investment community in Canada is the huge weighting given the Bell group of companies in the bellwether 300-stock price index of the Toronto Stock Exchange.

Movement in the price of shares of the various companies in the group has almost as big an impact as all shares of the Canadian banks combined.

Because of Bell's immense size and profitability, it attracts investors from around the world, particularly the United States. The shares are traded in Europe, and last year Bell became the first Canadian company to have its shares listed for trading in Japan.

Message Waiting Service

Ottawa THE CITIZEN in English 11 Apr 86 p A15

[Text]

Bell Canada filed an application Thursday with the Canadian Radio-television and Telecommunications Commission for approval of a new Centrex III, a telephone service called message waiting, which allows unanswered calls to be rerouted and received using specialized software. The feature routes calls not answered promptly to a central answering position. A call-request feature allows users to notify each other of the need to return a call.

Research with Hydro-Quebec

Toronto THE GLOBE AND MAIL in English 18 Apr 86 p B6

[Text]

Bell Canada of Montreal and Hydro-Quebec are pooling research activities in certain areas of fibre optics, network management and control, and automated cartography.

They will develop applications of Bell Canada's Integrated Services Digital Network, where one line handles voice, data, text and images. Most of the work will be done at Hydro-Quebec's international research institute at Varennes, near Montreal. Applications could be used by Hydro-Quebec in remote management and control of its power system.

/13104
CSO: 5520/76

CANADA

SCIENCE MINISTER OBERLE ON PRECEDENCE OF MSAT PROJECT

Toronto THE TORONTO STAR in English 15 Apr 86 p D2

[Text] OTTAWA (CP) — Science Minister Frank Oberle has signalled that a proposal to build an advanced Canadian communications satellite is closer to the government fast track than a competing plan to build a more expensive remote-sensing satellite.

Oberle told delegates to the semi-annual meeting of the Aerospace Industries Association of Canada yesterday that he hopes to announce soon "how we intend to invest in the launching of the mobile communications satellite."

The communications satellite — MSAT for short — is seen as leading the race for government approval over its competitor for federal dollars, the remote-sensing satellite Radarsat.

Ottawa torn

The race has pitted planners in the communications department against counterparts in the energy, mines and resources department. Communications designers are behind the MSAT project, while energy officials support Radarsat because of its potential as a tool for mineral exploration.

Oberle says he supports construction of both satellites, but the government's decision to spend at least $800 million to join the U.S.-led space station project has put the squeeze on funds for other space ventures.

Ottawa apparently favors MSAT because the communications satellite will initially be less costly to the federal treasury and because it has more potential for private-sector use.

Current estimates put the cost of MSAT at $250 million, but Telesat Canada Ltd., which would operate the device after launch, is seeking other investors to help pay for the satellite without any up-front money from Ottawa.

Oberle said the MSAT program has changed "from its status in 1980 as a government-financed demonstration system to a fully private-sector commercial undertaking."

Users of MSAT will be able to tune a tiny antenna mounted on anything from a truck or a ship to a dogsled, and be in touch by satellite with any place in North America. Planners say MSAT could have 60,000 subscribers by the turn of the century and earn $230 million a year in revenues.

/13104
CSO: 5520/77

CANADA

CNCP LAUNCHES FIRST LINK OF FIBER OPTICS NETWORK

Toronto THE SUNDAY STAR in English 13 Apr 86 p 6

[Text] MONTREAL (CP) — CNCP Telecommunications inaugurated the first link Friday in a fibre-optics communications network which it says has the potential to cut Canadians' long-distance telephone costs by 30 to 40 per cent.

The link between Montreal and Toronto consists of 12 strands of glass fibre, each the thickness of a human hair, and it will be capable of carrying 70,000 simultaneous telephone conversations, said CNCP offical Robert Gervais.

There's one problem — CNCP doesn't have legal authority to compete in long-distance phone service.

The $20 million investment is part of a $500 million plan to provide all of Canada with an alternative to conventional copper wire for many types of communications.

The CNCP effort is intended partly to persuade the regulatory authorities that the company is serious about competing with telephone companies, said Gervais.

The company has also begun work on a fibre-optic link between Calgary and Vancouver, and expects to spend $400 million to $500 million building a national network.

"We certainly hope that the people who make the decisions will see this as a proof of our sincerity," said Gervais.

The Canadian Radio-television and Telecommunications Commission last year rejected CNCP's application to enter the long-distance telephone business, but the company has asked for permission to appeal the decision.

Federal Communications Minister Marcel Masse officially opened the Montreal-Toronto link, flicking a switch and picking up a phone to congratulate CNCP president Jack Sutherland, who replied from Toronto in a conversation simultaneously transmitted by video.

Gervais said CNCP will be able to use its fibre-optics network even if it doesn't get permission to compete in phone service, although some industry observers question this.

The initial users of the system will be corporations with a high volume of data communications, said Gervais. The first customer is Hudson's Bay Co. Ltd.

He and other company officials remain convinced that their high-tech effort will pay off.

"When we get finished we'll be the largest company in North America with a single-ownership fibre-optics system," said Gervais.

/13104
CSO: 5520/77

INTERNATIONAL AFFAIRS

CSSR, GDR, POLAND PLAN SATELLITE TELEVISION SYSTEM

[Editorial Report] The Polish news weekly POLITYKA in its issue No 18 for 3 May 1986 carries a feature article on page 10 by staff writer Marek Henzler describing an ambitious new multilateral telecommunications venture slated to get under way in the near future. Henzler writes that some time within the "next several weeks" the governments of Czecholsovakia, the GDR, and Poland will sign an accord pledging them to share the costs of launching a TV relay satellite to give the national broadcast networks full coverage of their respective countries. The launch date for the Soviet-made satellite is said to be set for some time "during the next 4 years." Henzler reports that the satellite will be parked in a geostationary orbit "36,000 kilometers above the Gulf of Guinea. He offers additional information on the positioning of the satellite by noting that TV programming relayed by this satellite can be received by viewers equipped with 60-centimeter dish antennas aimed within the following angle-of-elevation and azimuth coordinate ranges in the following Polish locations, i.e., from 24 (Goldap area) to 30 (Zakopane) degrees angle of elevation and at azimuths from 198 (Swinoujscie) to 211 (Beskid Mountains area) degrees.

At present, Poland's two TV channels cover 96 and 77 percent of the nation's territory respectively. Henzler writes that it would cost less to pool resources with the CSSR and GDR in order to launch a satellite than to erect new ground transmitters and relays to achieve nationwide signal coverage. Furthermore, the quality of the video and audio signals would also be enhanced.

Under the terms of a 1977 Geneva accord among the European states Poland was allocated three satellite TV channels. Henzler reports that plans call for the retention of the gruond-based transmission system for regional TV programming and as a backup, since "there is no way we could afford to keep a backup satellite in orbit" in the event that the main satellite is permanently disabled or "deliberately shot down or 'blinded.'" Current plans also call for the installation of an uplink TV transmitter at Psary near the city of Kielce.

The article concludes with an overview of the history of satellite TV systems development in other countries and an analysis of some of the political and regulatory problems such a system will pose for Poland.

/12232
CSO: 5500/3008

HUNGARY

CB RADIO, CELLULAR PHONE USE RESTRICTED

Budapest MAGYAR NEMZET in Hungarian 7 Apr 86 p 5

[Interview with Jozsef Pete, head of the Frequency Control Group by 'Kertesz': "How Is the Post Office Trying to Eliminate the Disturbances Caused by CB's?"]

[Text] A blessing or a curse? These are the opinions concerning the widespread use of CB transmitter/receivers which supplement the telephone system. There are those who could not exist without them, for others it seems that for years the CB noise seems to be "dripping out of even the faucets." Raids often prove that many times the mobile units--mainly in private taxis--are broadcasting at significantly higher wattage than the prescribed 4 watts. Are there finally any results from the attempts to eliminate the disturbances that rattle the population's nerves? We asked Jozsef Pete, the head of the frequency control group.

First of all, I would like to draw public attention to the fact that today far fewer so-called crude complaints are received by our disturbance deterring places. On the average, we check out about 8,000 complaints annually, and of these only 5 percent are related to CB disturbances.

Kertesz: I think the reason for this is possibly that some of the complaintants have given up because their repeated protests have been for naught.

Pete: It is possible that there are these types of complaints too, but their numbers must however, be minimal. I should mention that many people often confuse CB disturbance with the so-called CP [Cellular] disturbance.

Kertesz: And what is this?

Pete: This is what the cordless telephone is called. Many sets of this technical innovation have been smuggled into the country and are being used without permission. To boot, they are being used on certain of the TV channels. Where we run across this we even confiscate the traditional telephone, too.

Kertesz: This is fine, but what is being done against the owners of radio-telephones who are taking the law into their own hands?

Pete: Since 1 February, every transport undertaking received a newly assigned channel on the lower band. With this we solved the protection of the broadcast programs on the so-called everyman's band. For this protection to be secure, all stationary and mobile CB sets have to be switched over, which obviously will take time.

Kertesz: Do you think that this change will bring about the desired results?

Pete: Of course, I am hoping, but I am not a prophet.

Kertesz: Then we have to agree with those who do not pay television use fees, who cite the "constant incursions" as the reason for not paying.

Pete: I have no intention of this. Television use fees are to be paid by all those who own an operational TV set.

/8309
CSO: 5500/8

BRIEFS

NEW MICROWAVE EXTENSION--Santa Cruz--The government has authorized the National Telecommunications Enterprise to carry out an intercommunication project using microwave on wide band between Santa Cruz and Puerto Suarez, on the border with Brazil. [Excerpt] [La Paz PRESENCIA in Spanish p 5, 6 Apr 86 PY] /12913

MICROWAVE SYSTEM INSTALLED--With an investment of more than $3 million in equipment, a microwave system between Argentina and Bolivia will be dedicated today. The conection will be made through the cities of Tarija and Campo Duran and it will permit communication between the countries of the River Plate Basin and the Andean group. This system has a capacity of 960 channels for telephone, telex, fascimile, computer data, and color television channel services. After the complementary communication systems are installed, international direct dial system with Argentina will be possible. [Excerpts] [La Paz La Red Panamericana in Spanish 1130 GMT 15 Apr 86 PY] /12913

CSO: 5500/2044

BRIEFS

NEW TV STATION--Globo network is today dedicating a new station in Sao Jose do Rio Preto. It will be called Northwestern Sao Paulo Television Globo. This station will serve 122 municipalities with a population of 1.6 million people and 226,000 homes. [Summary] [Rio de Janeiro O GLOBO in Portuguese 21 Apr 86 p 5 PY] /8918

NEW SATELLITE STATION--The Brazilian Telecommunications Company (EMBRATEL) will open another satellite communications station in (Morungama), Sao Paulo. It is scheduled to start operating during the Mexico soccer world cup. Embratel is investing 200 million cruzados in the project. When this station becomes fully operational, the (Engaba) station will take over the satellite telecommunications traffic for the southern region. This will account for half of the total traffic between Brazil and abroad. The (Tangoar) station in Rio will have a respite to enable it to cope with the expansion of the services planned for the next 10 years. [Text] [Brasilia Domestic Service in Portuguese 2200 GMT 2 May 86 PY] /8918

CSO: 5500/2045

COSTA RICA

SPAIN DONATES THREE 100 WATT RADIO TRANSMITTERS

PA291451 San Jose LA NACION in Spanish 24 Apr 86 p 2a

[Text] According to an announcement made by Information Minister Armando Vargas, Spain donated to our government, through an agreement, three 100-kilowatt radio transmitters which will operate in the shortwave range.

This agreement was reached in Madrid recently in a meeting in which Spanish officials, Minister Vargas, and future Culture Minister Carlos Echeverria participated.

The use of equipment will be made jointly by Radio Exterior de Espana and a station which, according to Vargas, will be called Radio International of Costa Rica, which will be created "very soon."

Minister Vargas said that with the equipment, the value of which is estimated at 22 million colones, an attempt will be made at sharing the services of international broadcasting which will allow the country to show "abroad the real image of what Costa Rica is like." According to this agreement, Radio Exterior de Espana will retransmit from our country its programs in Spanish--the station has programs in other languages--for Latin America.

Other aspects that the minister stressed as part of the mission that he carried out in Spain are:

The signing of agreement through which Spain will grant 50 scholarships to Costa Rican journalists, at a rate of 10 per year, which will cover a 12-month period. The consolidation of the professional training of local reporters is sought with this scholarship program.

The reaffirmation of Costa Rica's official petition that the EFE news agency install its Latin American office in San Jose. This office is currently in Madrid. This could imply the opening of 70 jobs for journalists with pertinent possibilities for local individuals.

/8309
CSO: 5500/2043

PAPER DISCUSSES ISSUE OF CONTROL OF 'DISCOVERY TV'

St Georges THE GRENADIAN VOICE in English 22 Mar 86 p 13

[Text]

GRENADIAN VOICE had discovered that Discovery T.V is, up to now, a total American operation controlled by Mr. David McCourt, with no local company being established, no Grenadian involved in the decision making regarding the development and direction of the station and no proper arrangements being made about the occupation; by the station, of the Morne Jaloux building which formerly housed the Cuban Embassy.

Both Mr. McCourt, in a recent interview with the VOICE and Prime Minister Herbert Blaize, in a press conference last week, said that Discovery Foundation is a non-profit organisation set up to establish television facilities in developing countries (of which Grenada is the first) with equipment and funding solicited from corporations, funding agencies and individuals in the United States. This solicitation is being aided by a letter from President Ronald Reagan in which he said, "I commend the Discovery Foundation and my fellow Americans for assisting the Grenadian people in this vital endeavour."

McCourt told the VOICE that he had himself contributed a substantial amount of cash to the project and that rather than going the way of certain stations and spending more money on "reception" equipment to receive and trans-

mit programmes from other stations with no control over the content, Discovery had decided to put the most money in studio and transmission equipment and this have total control over the quality of programmes.

However, it has been discovered that the station has only a 10 watt transmitter located at Fort Frederick, which is unable to reach all households in the parish of St.George.

According to a fact sheet put out by the Foundation the "completed system will cost estimated $1.5 million in equipment and services provided by a variety of public and private individuals and organisations" and the "system is designed to be financially self-sufficient."

In only a partial answer to a question asked by the VOICE concerning the control of the station, and the arrangements for the use of the premises occupied, Blaize told the press conference that when the station is complete it will be handed over to the Government of Grenada. Further questioning was presented when the conference ended abruptly with the Prime Minister telling a reporter to "go to hell!"

/9274
CSO: 3298/422

BRIEFS

RADIO MANAGER--Mr Rawle Howard, a former staffer at Radio Grenada, was expected to arrive in Grenada on Friday April 3, and, according to information reaching the GRENADIAN VOICE, Howard will assume the position of Manager of Radio on Grenada. Meanwhile, the VOICE is also reliably informed that Mr Jerry Romain, whose last substantive post was that of Manager of Radio Grenada, has been confirmed in the post of Chief Information Officer. [Text] [St Georges THE GRENADIAN VOICE in English 5 Apr 86 p 3] /9274

CSO: 3298/422

ST VINCENT AND THE GRENADINES

GOVERNMENT PROPOSES 'STATUTORY' BROADCASTING CORPORATION

Kingston NEW TIMES in English 3 Apr 86 pp 1, 2

[Excerpts] "We could have followed the former Labour administration and ruled by decree," Minister John Horne said, "but that is not our style."

The Minister of Tourism, Information, Culture and Women's Affairs was addressing the House of Assembly today (Thursday) on the bill to set up a Statutory Corporation for Broadcasting in the country. Radio St. Vincent and the Grenadines (705) will be operated by the new Corporation, and cease to be a government department.

The Minsiter, in eloquent style, reminded the House that under the New Democratic Party Government, no opposition news has had to be submitted to the Ministry before airing, as was the case under the Labour Party.

The Labour Government had actually brought similar legislation before Parliament themselves, and had a first reading. But they got "cold feet", and never went through with it.

But their legislation though copied from St. Lucia's Corporation, contained changes to allow Parliamentarians to sit on the Board. The Minister pointed out that the new Board would have no Members of Parliament on it.

Radio 705 is one of the last stations in the Caribbean to still operate as a government department.

/13104
CSO: 5540/063

BRIEFS

SATELLITE GROUND STATION--President Julio Maria Sanguinetti on 21 March dedicated the Manga satellite ground station, which will give Uruguay total autonomy in the area of telephone and television communications. The station's antenna, 32 meters in diameter, receives signals from a satellite located 36,000 km above the earth. The ground station sends the signals to a microwave antenna, which in turn transmits them to the Aguada station. The ground station cost approximately $10 million. [Summary] [Montevideo EL DIA in Spanish 22 Mar 86 p 6 PY] /8918

ROK DONATION OF MICROCOMPUTERS--The Education and Culture Ministry yesterday distributed 400 microcomputers, donated to Uruguay by the ROK Government, to a number of research and educational institutions. [Summary] [Montevideo Radio Carve in Spanish 0930 GMT 5 Apr 86 PY] /8918

CSO: 5500/2041

GANDHI ADVISER STRESSES NEED FOR COMMUNICATIONS POLICY

New Delhi PATRIOT in English 13 Apr 86 p 5

[Text] **Bangalore, April 12 (PTI)**—The need for a credible national communication policy keeping in view the contemporary political, economic and social situation was emphasised by media experts at a seminar here today.

Presiding over the seminar, organised by the Mass Media Education Research and Information Centre, Mr H Y Sharada Prasad, information adviser to the Prime Minister, said such a policy was necessary since the political situation and the cultural needs of people change often.

He stressed that there should be greater flow of information and the Governments, both at the Centre and in the States, should learn to share more information with the people in order to educate them and make them self-reliant.

Mr Sharada Prasad also said the Government should recognise the right of the Press the function in its own way and felt the Constitution and the courts provide enough safeguards in this regard.

Mr Sharada Prasad, however, doubted if in matters like allocation of inputs, customs, excise and labour laws, the newspaper industry could claim a special dispensation.

He pointed out there were two sore points with the proprietors, one was the special concern shown by legislaters towards working journalists and the other the rate for government advertisements released through the directorate of advertising and visual publicity.

Exploring the communications scene for better understanding of the problems and potentialities, Mr Sharada Prasad said the Press was facing new problems everywhere, even in the advanced democratic societies.

Mr Sharada Prasad said the Indian Press was in an expansive mood, revelling in its new power and wealth and self-criticism was rare. The press had no time to ask itself whether it was doing its job well, whether it was fulfilling its responsibilities to the public.

'It is no longer the editors alone who editorialise. We have the flourishing post-emergency breed, the syndicated columnists. The Press also has its own band of public prosecutors in the form of investigative reporters. The credibility of the Press is very high in its own estimation. We have had no public opinion polls to find out what the people actually think of the Press, he added.

Turning to the television explosion in the cultural life in the last four years, Mr Sharada Prasad said TV was desired mainly for entertainment. Its potential for communication and education was yet to be exploited. Without deteriment to entertainment, he felt, it was possible to ensure that parts of TV were used for education and for providing information, which would enable people to improve their judgment, working skills and earning capacities.

/12851
CSO: 5550/0110

TELEPHONE OFFICIAL DISCUSSES INDIA'S EQUIPMENT NEEDS

Calcutta THE STATESMAN in English 10 Apr 86 p 15

[Text]

INDIA requires a telephone density of 12 per cent for the urban areas and about two per cent for the rural areas if the telecommunication has to reach a manageable level of operation, according to Mr K. P. P. Nambiar, chairman and managing director, Indian Telephone Industries Ltd, reports PTI.

Quoting experts at the annual conference of the National Institute of Personnel Management in Calcutta on Wednesday, Mr Nambiar said in his keynote address that in order to achieve this before the end of the present century, the country would require to establish six more switching facotries, expand the transmission equipment production and increase the cable routes to about 35 million kms conducting routes as against 3.5 million at present.

He said the present capacity of the subscriber lines in the country with 3 million exchange lines and 3.5 million telephone instruments would require an eightfold increase. The largest telephone density in India was in Bombay, which corresponded to about four per 100 persons as against 172.7 per cent in Washington D.C., 81.1 per cent in London, 143.8 per cent in Paris and 81.2 per cent in Tokyo, Mr Nambiar added.

Stressing the need for an action plan for human resources development, Mr Nambiar said the country should continuously put in, through human resources, a programmed action for diagnosing and building manpower skills to take care of new situations, both environmental and technological .

A major task, he said, would be to strengthen the research and development efforts, which alone would utilize a large reservoir of scientific and technological brainpower lying idle today.

Highlighting the important factors of human resources function, Mr Nambiar said the personnel managers must think seriously of changing over from traditional personnel management to the modern human resources management systems.

/12851
CSO: 5550/0109

BRITISH, INDIAN COMPANY COLLABORATE ON ELECTRONIC MAIL

Bombay THE TIMES OF INDIA in English 17 Apr 86 p 9

[Article by K. N. Malik]

[Text] LONDON, April 16.

WITH the signing here today of a collaboration agreement between one of the world's largest communications companies, British Telecom, and an Indian private sector company, Multitech International Ltd., India will soon have an electronic mail system.

The agreement was signed by the chief executive of British Telecom, teletrade division, and the chairman of the Indian company, Mr. Sanjay Dalmia.

The government of India has already approved the terms and conditions of the collaboration agreement and production of M2105 terminal system will commence shortly at the manufacturing facility in Dehra Dun.

It is the first private sector collaboration agreement for subscriber terminal equipment approved by the government of India. The two companies signed a memorandum of understanding last month.

The electronic mail system involves a simple home computer with predetermined memory capable of recalling a proforma letter to be filled up by the user and transmitted through a modem fixed with the public telephone network. It provides a secure transmission of messages and forms at 20 times the speed of telex messages.

A British Telecom representative claimed that the system provided a foolproof method for transmission of messages, eliminating possibilities of messages loss often experienced by teletext users. The system could be profitably used by city businesses as well as public networks.

British Telecom is seeking to develop ties with private sector and public sector companies for development of customer equipment as well as network and network services. In January, British Telecom signed a memorandum of understanding with another private sector company, Mahindra and Mahindra, for the development of telecommunications and information services.

The agreement committed the two companies to the task of assisting in the modernisation and expansion of Indian telecommunication services. The entire range of activities would be India-based and under local management.

/12851
CSO: 5550/0111

INDIA

BRIEFS

NEW TELEPHONE CORPORATION--New Delhi, April 7 (PTI)--The Mahanagar Telephone Nigam Limited, a single corporation comprising Bombay and Delhi telephones, was formally launched by the communications minister, Mr Ram Niwas, Mirdha, here today. The nigam will develop, maintain and operate telephone, telex and other telecommunication services, excluding telegraph, within the Union territory of Delhi and areas falling under the Bombay Municipal Corporation, the New Bombay corporation and the Thane Municipal Corporation. Speaking on the occasion, Mr Mirdha said the Nigam, like any other public sector enterprise, would have the autonomy to raise the much needed resources for the development of telecommunication services in Delhi and Bombay as well as to supplement the budget allocation for this in other parts of the country. Mr Mirdha said the government had decided to launch the nigam after a considerable deliberations as to how the telecommunication sector could be given a fillip in expansion as well as introduction of modern technologies and services. The minister said that though the telephone services had improved both in the matter of expansion and quality during the last several years, the Nigam should take adequate steps to see that a reliable service with higher customer satisfaction was provided. [Text] [Bombay THE TIMES OF INDIA in English 8 Apr 86 p 9] /12851

CSO: 5550/0112

BRIEFS

NEW RADIO TRANSMITTER IN 'ARAVA--Speaking at the inauguration ceremony of a new IDF radio transmitter (20 kw, AM) in Hayun in the 'Arava region, the chief of staff said: "We are inaugurating a new, additional IDF radio transmitter. This is a very important step because in order to serve the soldiers, the station must find a way to reach them wherever they are." The transmitter will provide the thousands of soldiers serving in the area, who have thus far been unable to receive the station's broadcasts, with proper reception. The new transmitter was dedicated by Chief Communications Officer Brigadier General Moti Bar-Dagan. Yosef Nevo, the chairman of the Soldiers Welfare Society which raised money toward this end via a telethon broadcast, also attended the ceremony. /Text/ /Tel Aviv HA'ARETZ in Hebrew 8 May 86 p 3 TA/ 12228

VOA TRANSMITTER SPECIFICS--Details have been released on construction of a Voice of America /VOA/ transmitter. The transmitter will be located in the 'Arava region on land that had been designated for Jewish settlement. About 8,000 square dunams will be appropriated for the transmitter; 150 workers will be employed to construct the station. The VOA antenna will stand 200 meters tall. The Interior Ministry estimates that the planning of the transmitter will go on for at least another 6 months. /Text/ /Jerusalem Domestic Service in English 1100 GMT 7 May 86 TA/ 12228

CSO: 5500/4503

PANA DIRECTOR LAUDS ACHIEVEMENTS OF PRESS AGENCY

AB142109 Dakar PANA in French 1643 GMT 13 Apr 86

[Text] Brazzaville, 11 Apr (ACI/PANA)--PANA has entered its stage of consolidation PANA director general Auguste Mpassi-Muba disclosed.

Addressing journalists of the CONGOLESE PRESSE AGENCY (ACI) who were meeting in Brazzaville, the PANA director general expressed his satisfaction with PANA's present production capacity which, over the past few months, has gone from 20,000 to 25,000 words per day.

Mpassi-Muba attributed his increase in wordage to the increasing efforts of the national press agencies which participate in the operations of PANA, by increasing the number of their dispatches. Thirty-five out of the 41 agencies which have ratified the PANA agreement take part in this cooperative action, he specified.

The direct assistance UNESCO gives to PANA and other national press agenices, by way of supply of technical equipment and scholarships for training, constitutes an important factor in the development of the Pan-African agency, even though it faces a few communications and transmission problems. These communications problems, which are either due to the colonial heritage which makes African countries remain attached to their former masters or to economic difficulties still prevent press agencies from easily transmitting or receiving information to or from PANA.

According to Mr Mpassi-Muba, for the moment PANA's major concern is to make operational the Kinshasa, Khartoum, Lagos, and Tripoli regional stations in order to prevent the agencies from paying heavy fees for the transmission of their news. The East African countries currently use the Lusaka (Zambia) station which is the only one of the five stations functioning well.

This willingness of the management of the Pan-African agency, coupled with the financial aid which it will soon receive from the Arab Bank for African Economic Development, will enable it to attain the objectives assigned it by the heads of state, especially to correct the distorted image given to Africa by foreign agencies, to promote a South-South news exchange program and to create a new world communications order.

The PANA director general, who arrived in Brazzaville on Wednesday [9 April] from Lagos, leaves the Congolese capital on Monday [14 April] for Luanda, (Angola).

/6662
CSO: 5500/65

GHANA

FLOOD DAMAGES ACCRA TELECOMMUNICATIONS SYSTEM

AB052208 Accra Domestic Service in English 2000 GMT 5 May 86

/Excerpts/ The chairman of the PNDC /Provisional National Defense Council/, Flight Lieutenant J.J. Rawlings, and all the service commanders of the Ghana Armed Forces were the first to respond to the initial call to aid victims of last night's flood in parts of Accra.

The National Mobilization Program and a team of military personnel are providing relief services to the people affected. The relief officials are still assessing the extent of damage. At Avenor, about 30 houses have been flooded. Ten of them collapsed and 15 were submerged. The relief team is providing tents at Avenor and Alajo to those rendered homeless. The National Mobilization Progrm has provided 50 tents and 400 blankets. The base of the Accra-Nswam railway line has been eroded at Achimota by the flood, making rail transport impossible. The swift currents swept away a 7-year-old daughter of the rail guard living nearby when they attempted to wade across the flood which had entered their home.

The flood also caused major disaster to the national telecommunications system. The P and T /Posts and Telecommunications/ international switching center at the Accra North Post Office on the banks of the Odo River was completely flooded. Millions of dollars worth of modern equipment for telephone and other communications facilities were submerged under 4 feet of water while the defense wall of the compound gave way under the force of the flood waters. First estimates by the corporation put the cost of the damage at about $10 million. The equipment was commissioned only 5 months ago. As a result of the damage, trunk calls in all parts of the country have [ceased]. Also, there cannot be any international telephone calls for Ghana. Television transmission to areas outside Accra has also been affected. However, international telex operations are still going on. The management of P and T has set up a task force to assess the real extent of damage and to try to retrieve equipment which may still be in good working conditions.

/12228
CSO: 5500/68

NEW RADIO STATION FOR COAST INAUGURATED

Bissau NO PINTCHA in Portuguese 1 Feb 86 p 3

[Excerpt] Last Tuesday at the Bandim Broadcasting Center, Comrade Mussa Djassi, minister of Information and Telecommunications, inaugurated Phase 1 of the new coastal radio station, a project which is an important undertaking in spite of its limitations in terms of covering the entire nation.

In Minister Djassi's opinion, the new coastal station will "make it possible to contact boats operating in Guinean territorial waters whenever necessary, providing any necessary information."

The installation of a more complete coastal station, i.e., a more versatile station, was also brought up by the minister of information and telecommunications, who asserted that a plan already existed to do so and has been under study by an unnamed Portuguese company. "In spite of its importance, I believe it is an undertaking which the country cannot realize on a short-term basis, Mussa Djassi explained, adding that "its cost is estimated at $2.5 million. There is no doubt that this project would yield far greater results, i.e., basically reaching the entire Guinean coast."

For the time being, various obstacles prevent the realization of this important project, which is budgeted under the 4-Year Plan, since telecommunications is considered to be one of the important considerations in policy for the socio-economic development of the country.

The minister pointed out that the two radio transmitters that had been providing communication services on the Guinean coast have not been operational since 1980, due to a lack of spare parts.

According to information provided by Technician Roque Lopes, "It is only with great effort that we are able to keep the terminals working."

One of these transmitters is located at Caio and rated at 500 kW and the other is at Alto Bandim and rated at 421 kW.

8844/12859
CSO: 5500/55

GUINEA-BISSAU

RDN ACQUIRES FM TRANSMITTER, ANTENNA

Bissau NO PINTCHÀ in Portuguese 11 Jan 86 p 4

[Text] RDN (National Radio Broadcasting) has just received a 2,000-kW FM transmitter and antenna under a UNESCO program, which will also include the installation of a beacon light on the tower at the Nhacra Broadcasting Center.

According to Engineer Tcherno Sanha, head of RDN's Technical Services, assembly of the new transmitter, which will take place in Nhacra, will have to await the arrival of an English technical team commissioned by UNESCO from ICOMTEL.

According to Engineer Sanha, its installation will provide better coverage of the nation and it will be a great improvement for RDN: at 2,000-kW, the new transmitter is more powerful than the current one, which is rated at 1,000 kW and barely reaches 30 km.

With the 2,000-kW transmitter, a broadcasting radius up to 45 km can be served. In radio, a larger broadcasting area means a larger listening audience.

Along with the new transmitter, RDN received other equipment which Engineer Sanha also considers to be important, such as the beacon to be installed on the 160-meter medium-wave antenna, which posed a serious danger to aircraft. The beacon will now enable pilots to avoid this danger.

The equipment also includes paint so that the tower can be painted in compliance with the international standards of the International Civil Aviation Organization.

According to Engineer Tcherno Sanha, the new antenna will be installed on the same tower as the medium-wave antenna.

8844/12859
CSO: 5500/55

MALI

BRIEFS

TV TRANSMITTER FROM LIBYA--Bamako, 12 Apr (AFP)--Mail will receive from Libya a second transmitter of 10 kilowatts meant for Malian television, a project implemented with the Libyan assistance, Mrs Fatou Gakou Niang, Malian minister of information and telecommunications, announced on Saturday upon her return from Tripoli. Mrs Gakou also stated that Mali and Libya had agreed to further strengthen and intensify their bilateral cooperation in the field of information. It is in this regard that, she pointed out, six Malian engineers will be trained in Libya in the television sector, and Libyan television will supply Malian television with cultural, musical, and sports programs. Moreover, the press agencies of the two countries will accredit permanent correspondents in Bamako and Tripoli, and an "information and cultural (Libyan) week" will be organized in Bamako this year. [Text] [Paris AFP in French 1230 GMT 12 Apr 86 AB] /6662

CSO: 5500/64

NIGER

BRIEFS

FIRST DISPATCH TO PANA--ANP, NIGER NEWS AGENCY, yesterday, 15 April, 1986, sent its first news dispatch to PANA [PAN-AFRICAN NEWS AGENCY] whose headquarters is in Dakar. It is a significant event because in the range of instruments for the collection and propagation of news items, the new agency is the only sector where we are lagging behind as compared with other countries of the subregion. [Text] [Niamey Domestic Service in French 1200 GMT 16 Apr 86 AB] /6662

CSO: 5500/65

NIGERIA

COMMENTARY EXAMINES PROBLEMS WITH SATELLITE STATIONS

AB061047 Kaduna Domestic Service in English 1700 GMT 5 May 86

/Mahmud Baba Ahmed commentary in the program "In Focus"/

/Text/ When he paid a courtesy call on the Emir of Kano, Alhaji Ado Bayero, last week, the assistant director of postal services, Mr Zomed, disclosed that his department would operate an aircraft service to facilitate speedier mail delivery throughout the federation. The use of the aircraft is part of the strategy the Ministry of Communications is considering to make postal services more effective by involving fast vehicles on the land and both in the maritime and riverine areas to deliver express mails. It is not the first time Nigerians have learned of the desire of the Ministry of Communications to improve its services which, despite their unique importance to our integrated development, have remained unsatisfactory. That was why in his response, the emir urged the ministry to improve its services so as to enhance its image and cultiave more public confidence. His plea was timely because the image of the ministry is now at stake.

The question (?is) that various arms of the Communications Ministry have been plagued by gross inefficiency and have undoubtedly failed to live up to expectation. Its image has therefore been dented while majority of Nigerians were disenchanted with it. What then are the factors responsible for projecting the ministry in poor light? These are numerous and varied. Chief among them are the delayed mails, unreliable telephone lines, malfunctioning telex, and inaccessibility to overseas partners by whatever medium. So, the credibility of the ministry was questioned when it allowed these conditions to persist and defy solution. But the solutions applied and the measures taken by the ministry to eradicate its problems were only superficial and not intended to serve as a long-term remedy. /Words indistinct/ the ministry explained its inability to avail itself of the services of domestic satellite stations, (Domstat), that it has been strategically located in all the state capitals. These stations are each (?served) with a powerful earth satellite programmed to a space satellite which in turn was linked with a giant satellite suspended over the Indian Ocean, covering the whole globe. The (Domstat) stations are replete wtih all types of communications facilities that could appropriately be used to overcome the inadequacies and shortcomings of our communications outfit. Regrettably, this is not the case. Built at a cost of 880 million naira 10 years ago, the stations have 10,000 lines each of telephone, telex, teletype and telegraph in addition to multiple radio and television signal carriers.

It was said the project, executed by an American /word indistinct/ firm, had not been handed over to the Ministry of Communications and could therefore not be put to use. It was also reliably learned that even if the project was handed over to the client, it could not immediately be beneficial to the nation without first providing the means of channeling the advantages of the (Domstat) station to the existing facilities in the telephone exchanges.

The building erected at /word indistinct/ premises in many towns and state capitals to accommodate the apparatus linking the (Domstat) stations with the exchanges were found to be unsuitable on account of structural defects and were consequently abandoned and together with the project left to lie derelict. Such buildings could be seen alongside the (Domstat) stations in places such as Kano, Zaira, Bauchi, Maiduguri among others and were said to have cost at substantial amount of money to construct.

It is a pity that the Federal Government does not seem to be taking any concrete measure to (?reinforce) or complete the buildings and to stimulate the process for the takeoff of this project. With the commissioning of this project, all telecommunication services will not only improve, thus making contacts simple and easy, but will also ensure that technical and financial constraints that have encumbered the present microwave system are permanently eliminated. As it is now, the only way the nation benefits from this white elephant project is through the application of a single advantage of the (Domstat) in transmitting and receiving television broadcasts. This is why it is possible to telecast the national network news of the NTA /Nigeria Television Authority/ nationwide.

Messages by telephone, telex and teletype across the country could be sent and received much more easily and conveniently if all subscribers could go through the (Domstat) stations. The Federal Government has invested so much in the field of telecommunications; yet the purpose has not been achieved. It therefore cannot afford to allow the (Domstat) project to suffer the fate of the Aeorostat balloon project which was unwisely cast aside after it devoured almost a billion naira. For a fast developing country, modern and reliable telecommunications facilities are a must. However, the tempo of our march to progress is hampered by our incapacity to propel it with adequate telecommunications technology. The only way to do this is to free the (Domstat) stations from all influences that tended to render them ornamental monuments or worthless acquisitions. As a first step, the Federal Government should hasten to take them over from construction firms and make them functional. They alone contain the whole range of the answers to our problems and by mobilizing their resources, the Ministry of Communictions could improve its services significantly. It will also enhance its efficiency and redeem its image. If that is done, then it can tell the nation loud and clear that it has won.

/12228
CSO: 5500/68

NIGERIA

BRIEFS

SATELLITE EARTH STATION MODIFICATION--The domestic satellite earth station of the Nigerian Telecommunications Limited, NITEL, is to undergo a 1-year modification for improved services. NITEL said in a statement that during this period, there would be intermittent interruptions in network programs in all the states of the Federation. [Text] [Lagos Domestic Service in English 1200 GMT 25 Apr 86 AB] /6662

CSO: 5500/67

SOUTH AFRICA

BRIEFS

BOESMANSKOP TRANSMISSION STATION--The SABC's Boesmanskop transmission station is to be linked to the corporations television network tomorrow. A 1-kilowatt transmitter will begin relaying TV1 programs on channel 23, and will be horizontally polarized. UHF reception antennas marked in red or white will have to be used in order to obtain best reception. The station will serve Boesmanskop, Zastron, Wepener, and surrounding areas. During the first month, test transmissions will be broadcast and programs may be disrupted without warning in order to carry out necessary technical work and repair faults. /Text/ /Johannesburg Television Service in Afrikaans 1545 GMT 29 Apr 86 MB/ 12228

TV TRANSMITTER AT GEORGE--Johannesburg, 28 Apr, SAPA--The South African Broadcasting Corp. announced today that an additional television transmitter at George would start operating on 1 May this year. "This transmitter (1-kilowatt output) will broadcast TV2 and the service area, which will be the same as that of the TV1 transmitter, includes George, Mossel Bay and surrounding areas," said a statement. It "will broadcast TV4 after the end of the day's TV2 transmission at 21h30." "The transmission would be on Channel 11 and vertically polarized. VHF receiving antennas, colour coded blue and presently used to receive the TV1 transmission, will suffice," it said. The first 5 months of operation would be considered as a test period during which transmissions may be interupted without warning or apology to carry out necessary adjustments or repairs. The statement said the long test period was required because of temporary arrangements being utilized to allow the transmitter to become operational "much sooner." /Text/ /Johannesburg SAPA in English 2250 GMT 28 Apr 86 MB/ 12228

CSO: 5500/69

UGANDA

BRIEFS

POLISH RADIO-TV AGREEMENT--Today the People's Republic of Poland and Revolutionary Ethiopia signed a radio and television cooperation agreement that will enable them to further strengthen their relations in the field of mass communications. The 5-year agreement was signed by Comrade Feleke Gedle Giorgis, member of the WPE Central Committee and minister of information and national guidance, and by Comrade Andrzej Konopacki, ambassador of the People's Republic of Poland to revolutionary Ethiopia. Under the agreement the two countries will exchange radio and television programs, cover general development activities in each others country and jointly coordinate films. They will also exchange television experts, radio reporters, information and experience. [Excerpt] [Addis Ababa Domestic Service in Amharic 1700 GMT 3 Apr 86 EA] /6662

CSO: 5500/64

ZAMBIA

BRIEFS

SATELLITE EARTH STATION PROJECT--A Canadian company has obtained a $7.5 million contract to build a satellite earth station near Lusaka. The station will give Zambia a direct telecommunications link with INTELSAT system avoiding the need to rely on South Africa for such things as international telephone hookups. /Text/ /Lusaka Domestic Service in English 0500 GMT 25 Apr 86 MB/ 12228

CSO: 5500/68

VOA RELAY STATION IN PUERTO RICO TO SPREAD 'SLANDER'

LD082133 Moscow TASS in English 1824 GMT 8 Apr 86

/Text/ Havana 8 Apr TASS--The United States started building in Puerto Rico a relay station of the subversive "Voice of America" radio, the PRENSA Latina News Agency reported today. The relay station is being built for the purpose of beaming propaganda programs to countries of South America. According to a statement of Puerto Rico's Secretary of Natural Resources Alejandro Santiago, the relay station is being built near the city of Cabo Rojo, on the territory leased by the United States for 25 years.

Relay stations of the "Voice of America" and other U.S. radio stations that are spreading slander have been springing up in various areas of the globe of late. Incendiary boradcasts to Cuba are now beamed by a radio station built in Florida. In Israel U.S. specialists started building relay stations to make propaganda broadcasts to countries of the Middle East.

Speaking in Congress of the United States, Director of USIA Charles Wick was advertising in every way his agency's activity and was asserting that USIA is on the frontline in the war of ideas. The White House intends to increase USIA's budget to nearly 1 billion dollars in the 1987 financial year.

Vast expenditures on slander show clearly that the Reagan Administration views the ideological expansion in the world arena as one of the most important instruments of the United States foreign policy. It is not accidental that Charles Wick speaks of the "war of ideas." Nuclear explosions at the test site in Nevada, the piratic sally in the Gulf of Sidra, preparation for an invasion of Nicaragua--these and other aggressive actions directed against developing countries that refuse to yield to U.S. diktat are the essence of Washington's neoglobalism. USIA and subversive radio stations of that agency are assigned the task of backing that militaristic course by propaganda.

/12228
CSO: 5500/1010

EUROPEAN AFFAIRS

NORDIC COUNTRIES' MOBILE PHONE SYSTEMS OVERBURDENED

Copenhagen BERLINGSKE TIDENDE in Danish 24 Apr 86 Sect III p 9

[Article by Thomas Larsen: "Mobile Telephones Wildly Successful, With Problems"]

[Text] There is not enough room: "We find ourselves in a rather grotesque situation. Quite simply, there are not enough channels for our customers. Therefore, in reality, we are operating on a rationing system at the moment. We are only allowed to sell a limited number of telephones per month, even though the demand is very strong." This is what director Carl Johan Morck from the firm Radiotelefon has told BERLINGSKE TIDENDE.

In 1978, the firm was taken over by the Philips concern. In the succeeding years, activities have increased ten-fold.

The firm's success has been handled clumsily. Not the least, it has brought forth problems: the sale of mobile telephones has now reached its upper limits. There no longer are telephone lines or channels enough for users. At the moment, the waiting time for potential purchasers is a month--they cannot get into the existing network earlier.

By and large, the situation is the same in the rest of the Nordic countries. The ceiling of 400,000 subscribers will be reached in 1987. In order to be able to continue the growth, the firm of Radiotelefon--which functions today as the product center for mobile telephones and navigational equipment for the entire Philips concern--has put up the sum of one million kroner for development of new systems and products in order that additional telephone lines can be established.

World Premier

At the end of April, the firm will introduce its new car telephone, NMT 4111, to the world market. The cost of product development is 50 million kroner.

In the fall, the firm will market a 900 megahertz car telephone--a telephone which can operate on the 900 megahertz frequency. Instead of the 180 channels of the current system, the 900 system will be able to carry 1,500 channels. The total capacity of subscribers can expand from the present 400,000 to about 1.4 million. And then, telephones again will be able to be sold to an increasingly growing market.

Last Friday, the firm delivered the new car telephone--the 900 model--for approval by the Post & Telecommunications authorities. "Notwithstanding that Post & Telecommunications will not put the new 900 megahertz network into operation until October, we must be ready with our products now. In order to be ahead of the others, we need to be ready to enter the market before it exists," says Bent Norholm-Jessen, plant director of the Philips firm, Radiotelefon.

12578
CSO: 5500/2659

EUROPEAN RESEARCH NET PLANNING WITHIN EUREKA

Amsterdam COMPUTERWORLD in Dutch 4 Mar 86 pp 1, 6

[Article by Willem Koole: "Political Support Bringing European Research Network Closer"; first paragraph is COMPUTERWORLD introduction]

[Text] Amsterdam--"I estimate that the political consensus reached last month in Bonn by the 18 countries involved in EUREKA accelerates by about 2 years the existing plans for a European research network," said engineer F.M.M. van Iersel, senior consultant in Amsterdam's James Martin Associates.

The fast growing office of British origin is temporarily in charge of the RARE (Associated Networks for European Research) secretariat. RARE groups specialists in infrastructures and telecommunications. With the European Commission it is now going to develop further plans involving the industries concerned and the PTT [Post, Telephone & Telegraph] organizations of the participating countries.

As a first example, the implementation of an electronic mailing system based on the X.400 standard is under consideration. "Just a consensus on the standard to be chosen is so important," says van Iersel, "because before long it will enable all the national networks, including the Netherlands SURF network, to function as one European facility."

Van Iersel points out that a genuine consumer standard is under discussion and that the consumer has been taken as the starting point. This can easily be done as the whole field is still so new that there are no vested interests as yet and thus no contradictions to be reconciled.

A Timetable

Now that the further development of plans has been given a green light, a timetable will be established in June during the third ministerial conference of the EUREKA countries in London. The project provides for the overall coordination of national plans such as the one being developed in the Netherlands by the Cooperative University Calculation Centers [SUR] under the direction of Doctor J. Rosenberg. The SUR also represents the Netherlands within RARE.

The intention is to give RARE a permanent secretary this year with financial support from the European Commission. Last October, the Netherlands Ministry of Science and Education made its provisional start in Amsterdam financially possible.

The important role of the computing centers does not imply that priority will be given to linking these centers. This is only regarded as an additional possibility. Most important is the creation of a new facility for scientific researchers to exchange messages rapidly. This capability already exists between, for example, scientists in high-energy physics and users of the European laboratory CERN [European Center for Nuclear Research], but it certainly need not be limited to those in the exact sciences.

When asked for an estimate of the network's utilization in 5 years, van Iersel answered that 20 to 25 percent of the scientists in the exact sciences and 10 percent of those in other scientific endeavors in Europe will be involved.

This is a very rough estimate and, moreover, it does not tell us much about the intensity of the traffic expected on the network. Because a cultural change comparable to the introduction of the telephone system is involved here, forecasting is extremely difficult indeed.

Luxembourg

The intention to create a European network for scientific researchers was clearly expressed for the first time during a workshop held in Luxembourg in May 1985. The discussion resulted in the establishment of a steering committee for RARE under the leadership of Peter Linington of the British Rutherford Appleton Laboratory. The Netherlands is represented on the steering committee by C.A.M. Neggers of the Computing Center of the University of Nijmegen.

A great deal of the communication between committee members takes place electronically. This also applies to decision making. By the end of May, another large workshop will take place in Copenhagen.

Karl Zander, a German professor associated with the Hahn Meitner Institute in Berlin, is also one of the initiators. In the past he has organized meetings to reach an accord on communication protocols. The starting points, such as the utilization of the X.400 on the recommendation of the CCITT [Consultative Committee of International Telephone and Telegraph], were determined in Luxembourg. Moreover, it was decided to use only connections based on the X.25 standard. In practice this implies the use of PTT facilities.

The OSI [Open Systems Interconnection] model also plays an important role in the development of ideas. After that of exchanging messages, priority is given to transferring files (i.e., transferring large quantities of information) and to the compilation of directories of information services. To realize these plans effectively, an application has been made to the European Commission for a subsidy of 400,000 ECU [European Currency Unit] (approximately 1 million guilders).

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EUROPEAN AFFAIRS

DBS PROGRAMMING CONTENT, TECHNOLOGICAL APPLICATIONS

Milan VIDICON in Italian No 3, Mar 86 pp 45-48

[Article by Carlo Gagliardi: "Satellite Television: Public Vs Private Competition Gets Stronger and Stronger"]

[Excerpts]

Olympus: Europe TV

On 21 November 1985, the RAI Board of Directors authorized the membership of the broadcasting body in the pool for the use of the Olympus satellite channel destined for the UER (European Broadcasting Union). Besides RAI, the following broadcasting bodies also belong to the pool, which is open to all UER members: the FRG (ARD), Ireland (RTE), the Netherlands (NOS), and Portugal (RTP).

The Olympus satellite will be launched in 1987. In the meantime, the Netherlands government has made available to ECS satellite (Eutelsat) transponder to allow the pool members to immediately start experimenting with television broadcasts received by various countries (first of all the Netherlands, which is particularly well equipped) through cable systems.

The Olympus TV (Paneuropean satellite channel) project experimental phase actually started on 4 October 1985.

The recent decision on this project goes together with the 5-year agreement between RAI and ESA (European Space Agency), which was signed in Rome on 23 November 1984. This agreement grants RAI exclusive rights to a direct broadcast channel for 5 years through the Olympus satellite, which would carry two transponders with their antennas, one reserved for RAI and the other, as granted by subsequent agreements, for UER.

RAI will first use its transponder for experiments connected with Eurikon project, which was started in 1982 by Italy and four other countries--Great Britain (IBA), the FRG (ARD), Austria (ORF), the Netherlands (NOS)--broadcasting "point-to-point" a multisource program relayed through the OTS (orbital test satellite) built by ESA and launched by NASA.

Olympus is the "stage name" of the experimental satellite L-SAT (Large Satellite) proposed by ESA after the failure in 1979 of the H-SAT (Heavy Satellite) project, which was caused by the withdrawal of France and the FRG.

L-SAT (Olympus) has a "multifunction space platform" which allows, in addition to DBS, other services such as data communications, videoconferences, and so on.

The project was created through the financial efforts of eight countries: Great Britain (34.3 percent), Italy (32.8 percent), the Netherlands (11.8 percent), Canada (9 percent), plus Belgium, Austria, Denmark, and Spain with lower percentages.

Italian industry plays a leading role in this project. ESA appointed Selenia as prime contractor for the entire electronic content of the Olympus satellite, while British Aerospace will be responsible for the "base satellite" or carriage.

Italy is responsible for the payload, the integrated telecom system including, among other things, the direct broadcast transponders. But let's go back to the Paneuropean television pool (Europe TV). How does it work? It is a pool based in Geneva, at UER, with a temporary operating center at Hilversum (at least until the end of ECS experiments).

ECS programs will be broadcast by cable or by earth transmitters in the authorized countries.

Olympus satellite programs will also be received by the most widespread viewing public. The pool funds include members' financial contributions as well as any other income such as advertising, sponsorship, or program sales.

The total investments of the four founders amount to 30.2 million Swiss francs (about 25 billion lire) and are divided as follows: Italy (RAI) 43 percent, Germany (ARD) 25 percent, the Netherlands (NOS) 22 percent, Ireland (RTE) 10 percent.

The pool decisionmaking body is the Board of Directors, which is formed by representatives of each member and the appointed chairmanship which rotates among the various countries.

The board appoints the executive committee for operational services and program scheduling. The board also appoints the chief executive and the managers (program scheduling, technical, administrative, general matters), makes decisions on general policy problems, issues planning and advertising laws and rules, and approves annual budgets and actual costs.

Finally, the board works out the entire schedule of vertical and horizontal sequences, time subdivision zones, and so on.

Multilingual Programs

Europe TV's fundamental programming aim is the European spirit and as far as possible, multilingual services. Broadcasting covers 5 hours per day (from 1900 to 2400) which could double in 2 years. The whole schedule is constituted as follows:

--programs directly bought by the pool;

--programs made available by members, from their own stocks or from other sources;

--original programs produced ad hoc for Olympus TV.

The experimental content includes a daily news bulletin which will be developed into the news program, a short children's program (supplied on a rotating basis by members as a meeting point for new generations), and a survey (e.g., ways of living, economy, culinary traditions, etc.). These will precede the Olympus TV News which will be designed to interest European viewers, in particular, without, however, being artificial, but trying to be complementary to the national news, and reflecting different shades of opinion, and agreements and disagreements between European states and peoples.

The original OTN project follows some fundamental criteria on the selection of news to be included:

1. Important international events taking place in the various European countries;

2. Main national events occurring in every European country;

3. News from all over the world influencing Europe or part of it;

4. Any other intrinsically relevant news.

After the news program the schedule foresees a program on a specific topic different every day: sports on Mondays, theater on Tuesdays, music on Wednesdays, and so on. The movie broadcast from 2130 to 2300 will also be related to the day's topic. This rigid and thematic structure takes into account advertisers needs, to whom are offered definite targets and optimized campaigns.

Production Community

Under the production profile, Olympus' philosophy will benefit programs coordinated, produced or coproduced or ordered by the pool. In addition, Eurovision programs, repeats of the best programs of individual partners, and productions from other UER members will be broadcast. Also, moving along this line of integration among European televisions is the European Community Television, which aims at counterbalancing traditional broadcasting flows (above all, from the United States). The community was founded in July 1985 to produce "long duration serials." The enterprise, which was proJoted by RAI and conducted by Massimo Fichera, was also supported by French Antenne 2, British Channel Four, Austrian ORF, Swiss SRF, and the German ZDF. It is the first common effort by important European televisions (among which is the commercial Channel Four) to increase their autonomy on international markets.

Improved Quality: MAC-C and MAC-D2

DBS consists of sending a TV signal to an orbiting geostationary satellite, which amplifies it and forwards it back to a widespread area on earth where it can be directly received by home TV sets through individual or community parabolic antennas (about 90 cm in diameter). Technical problems and marketing strategies, justifying user's additional costs to obtain a service coming from the sky, match together in involving other technologies. This explains the need to improve today's color system limits (PAL-SECAM-NTSC), which do not allow the use of the entire resolution, which is theoretically possible, in luminance channel, and which cause interference between luminance and color information. These inconveniences can be reduced thanks to new digital processing receiver techniques.

However, only a broadcasting standard change can produce a radical improvement.

It is difficult to improve television quality in the technical sense of the term through earthbound networks.

The opportunity of satellite direct broadcasting pushed European television bodies, including RAI, to elaborate a new system called MAC (multiplexed Analogue Components), which allows the separation of luminance from color, avoiding their interferences and obtaining better image resolution. The MAC system, proposed by UER as a European standard for satellite broadcasting, adds to video improvements the possibility of digital broadcasting (that is, with compact disk quality) of several audio channels; this is one of the ways to achieve multilingual television.

MAC's potential could also cover additional data communication services, such as Televideo.

More advanced solutions of MAC--MAC-C and MAC D2--have troubled the electronic and broadcasting industry for some time. Each European country does not agree on one of the two standards and often broadcasters disagree with manufacturers.

The most widespread disagreement concerns the maximum number of audio channels associated with the video one: 8 for MAC-C and 4 for MAC-D2.

Actually things are not so simple and are influenced by mutual interests, short and long term market perspectives, and non-European competition.

High Definition: HDTV

Finally, MAC is not the peak of the process for improvement of new TV systems since it applies the same scanning method of traditional systems.

Besides MAC, technology (see the Japanese one) proposes HDTV, (High Definition Television), which is characterized by almost twice the number of scanning lines and, as a consequence, by a higher resolution.

This standard is being carefully examined by the RAI Research Center in Turin, as it allows a panoramic image (ratio 5:3 instead of 4:3 of existing television) which gives a cinematic effect on the large HDTV screens.

RAI has already produced two experimental HD prototypes: the former, "Arlecchino" Montaldo, was presented in 1983 and the latter "Oniricon" by Enzo Tarquini, in 1985.

DBS broadcasting, together with improved receiving video, integrated with more audio channels and additional data, is destined to push that "multifunction television" which, already present in many houses thanks to the integration of HF, videorecorders, home computers, and so on, will keep its window open on the world and will give the illusion of being in the control room, at least sometimes.

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BRIEFS

SIEMENS-GTE JOINT VENTURE--Siemens and the U.S.-based telephone company GTE will be developing, producing and marketing public telephone exchange and transmission technology within the framework of a joint venture. The new company organization and the participation conditions will be determined in the course of the year. [Text] [Stuttgart ELEKTRONIK INFORMATIONEN in German Mar 86 p 32]

5500/ 2662-p

DENMARK

BRITISH FIRM TO DELIVER COMPUTERIZED TELECOMMUNICATIONS GEAR

Copenhagen BERLINGSKE TIDENDE in Danish 22 Apr 86 Sect III p 18

[Article by Thomas Larsen: "Multi-Million Kroner Contract for English Electronics for Telecommunications Companies"]

[Text] The English electronics firm, Micro Scope, is to deliver second generation telecommunications equipment to the Danish telecommunications administration. A multi-million kroner contract for delivering advanced computers just has been signed by KTAS on behalf of the domestic telecommunications firms. Several orders are to follow.

Electronic equipment worth 400,000 English pounds--about 5 million Danish kroner--is to be delivered to the domestic telecommunications firms within the next year.

The contract involves computers which are to be used for expanding Danish telecommunication traffic. The transmission time for sending data within Denmark will be cut in half. Later, a new data center will make possible direct connections with other countries. When the system is ready, it will be able to be used, among others, by banks, information services and data centers.

The many English pounds for the English firm of Micro Scope initially will be used for eight computers which will be placed in various places around the country. By means of the computers, it will be possible to quickly access the central data station. Later, it will be possible via the computer to call up other countries. Additionally, the eight computers will enable the overall telecommunications system to operate more rapidly and more flexibly. Shortly, there will be the possibility for electronic mail, enabling information to be sent over national boundaries--according to officials from the telecommunications directorate.

If the ambitious plans become a reality, additional large expenditures can be anticipated by the telecommunications administration: in all likelihood, additional computers will be ordered from England within a short time. At the same time, a central data station is to be established. It is not yet certain who will deliver the station.

Great English Victory

It was two happy Englishmen--Paul Shimell and Chris Sealy--who yesterday celebrated KTAS having signed the multi-million kroner contract. From the 25th floor of the SAS hotel, the two Titans could look forward to additional deliveries--which will not be small. In just seven years, they have promoted their company, Micro Scope, in European markets as well as in New Zealand and Australia.

In Norway, computers are being installed for the national telecommunications companies. And now eyes are being focused on the Danish market: if everything proceeds according to plan, the Danish telecommunications systems soon can be coupled together with the German systems.

"Electronic highways will be open for multinational companies as well as for small Danish firms. Not the least for a country of Denmark's size, it is important that communications between firms can occur quickly and effectively," one of the two directors, Chris Sealy, told BERLINGSKE TIDENDE.

The computer was developed less than two years ago. "Videotex access points" --as the computer or access points are called--will be tested soon by the Danish telecommunications companies. Now that the contract has been signed, the electronics will be delivered to Denmark and be ready for use within a year. In a related program, Danish engineers will be trained in the systems by experts from Micro Scope.

12578
CSO: 5500/2659

DENMARK

'WORLD'S MOST ADVANCED' BUSINESS TELEPHONE BY GN TELEMATIC

Copenhagen BERLINGSKE TIDENDE in Danish 24 Apr 86 p 12

[Article by Sv. Aa. Jensen: "Talking Telephone Available"]

[Text] A talking telephone--which is called the world's most advanced--costs 4,975 kroner and is particularly well-suited for leaders of large companies and for the smaller private businessman who can carry on a conversation without stopping work. With danMark 3, one need not have an unlisted telephone number.

The telephone--which can talk, receive messages, give out information when the owner is on another line, and which one can call to from a bar to hear who has called and what they have said--is now on the market.

It is called danMark 3, costs 4,975 kroner with value-added tax, and will be a good and usable gift for directors in big firms or for the smaller private businessman who cannot afford a secretary. DanMark 3 can manage secretarial functions to a great extent. An automobile painter who is busy spraying a car need not stop working, and can just set the apparatus to perform all these functions without the receiver being lifted.

With a danMark 3, one need not have an unlisted number. If one wants to be disturbed on a day at home by only certain people, one need only give them a code. Upon reaching the machine, a caller will be put through only if he knows this code--which the telephone's artificial voice, that of a woman, asks for three times. Otherwise, the connection will be broken without the telephone having made a sound.

DanMark 3 also has the capability of looking up and giving out telephone numbers to those who have called. It has a digital clock so that the automatic answerer can be activated at a particular time, an automatic memory which can store 29 numbers, and it has an excellent tape recorder and an adapter module for future advanced electronic equipment--and of course, the capabilities which already are found in danMark 1 and 2.

The new apparatus, which is twice the width of the two earlier models, has taken GN Telematics' technical staff 30 months and 10 million kroner to create. A year-and-a-half ago, the first of the models were presented, but they had many small problems which needed to be corrected and only now has danMark 3 been thoroughly tested and made available.

GN Telematic calls it the world's most advanced telephone and large exports are expected, primarily to the United States, England and Holland. DanMark 3 also can be rented. This costs 2,100 kroner by way of an advance payment and 330 kroner per quarter.

12578
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FRANCE

FRENCH RPR PROPOSES ALTERNATIVE TELECOMMUNICATIONS PLAN

Paris ZERO UN INFORMATIQUE in French 10 Feb 86 p 3

[Article signed by E.L.: The Future of Telecommunications According to the Opposition"; first paragraph is ZERO UN INFORMATIQUE HEBDO introduction; quotation marks as published]

[Text] The creation of a national telecommunications company and an arrangement for competition in providing basic (telephone) and value-added services, under the surveillance of a National Commission for Communications and Freedom [CNCL], are on the program.

Last Wednesday Jacques Toubon, general secretary of the RPR [Rally for the Republic], presented to the press the summary of the "Tomorrow's Communications" report drawn up under Elie Crespi. This report and program derived from it conform on all points to the guidelines established while drafting the opposition's platform, according to Jacques Toubon. It not only provides a framework for changes that the parties of the political right want in the field of audiovisual communications (privatization of two public service channels, review of the leasing contracts for channel 5 and channel 6, dismantling of Havas, etc.), but the report also provides a first sketch of how the telecommunications program landscape would look in the case of a March victory for the opposition.

"The creation of a national telecommunications company capable of investing liberally and of defending French interests in rapidly expanding markets and the introduction of competition for telecommunications services are the crux of a thorough reform that is necessary in view of technological evolution and international competition. Given its scope, this evolution is bound to be progressive."

"The Opening of All Services, Telephone Included..."

So much for the principles. Now for the concrete:

"Between the status quo, continuation of which seems unlikely, and a dismembering harmful to users, the evolution of the DGT [General Directorate of Telecommunications] should be directed by four principles (the two final principles being to give industrialists and the DGT initiative and freedom

of action in the areas where they have proven their competence by freeing them from pointless restraints and to allow new players to step in whenever lasting defficiencies appear and market conditions demand it.

"The DGT telecommunications monopoly should thus apply only to the construction and the operation of telecommunications networks and exclude services so that other operators may supply all services including telephone.

To extend the monopoly to basic telephone service would be increasingly senseless because of the digital multiplexing of most of the services (Editor's note: RTC [Telephone Switching Network] 64 Kb/s) on the same channels which renders the information conveyed indiscernible.

Deregulation of the telephone service will provide an element of added dynamism since this service will continue to represent 90 percent of the telecommunications turnover in the forseeable future.

"To play its new role entirely, the DGT could acquire the status of a national company with public capital, the National Telecommunications Company [SNT]. Under the aegis of the CNCL (see below), the SNT will be able to take part in value-added services in a spirit of fair competition and through subsidiaries, particularly Transpac, Telesystemes, or France Cables Radio, which will remain its property."

"Thus, the SNT will be much better armed to face competition in international data transmissions where foreign companies are placing ever increasing pressure on the French firms."

A case in point is the opening of services sought by IBM, among others, with great fanfare. In this connection the data processing giant recommended the foundation of a watchdog body like the FCC to "guarantee a spirit of fair competition."

There again IBM got what it wanted (with, of course, the obligatory "ifs").

The opposition proposes, in effect, the creation of a national committee for communications and freedom, i.e., an independent organization that would replace the present High Authority for Audiovisual Communications, but with expanded authority: "Within the framework provided by the law and in accordance with its principles, the CNCL will provide authorization to use hertzian frequencies....

"It will also provide authorization for telecasting and, in a very broad sense, for all communications services (interactive videotext, satellite, radiotelephony, etc.)." It will thus grant licences for value-added telecommunications services and will assure that the SNT is just another competitor in the service area. The members of the CNCL will probably be appointed by the political authorities who will select them from lists proposed by independent organizations.

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FRANCE

BRIEFS

ARIANE WINS JAPANESE CONTRACT--Europe has taken a stake in the Japanese market for space launches with the award of a contract to the French-led Ariane rocket to place in orbit two Japanese telecommunications satellites in 1988. The order, announced yesterday, gives Arianespace, the company commercialising Ariane flights, a conspicuous success in competition with the US over satellite launches. Arianespace has been mounting additional efforts this year to win launch contracts for 1987/1988 to capitalize on the problems of the accident-prone US space programme. However, the string of spectacular US space failures--in which the latest incident was Saturday's destruction of an unmanned Delta rocket--has also raised problems for Arianespace by increasing nervousness about commercial space prospects and pushing up launch insurance premiums. Under yesterday's contract, the new Ariane-IV rocket will launch two Japanese Space Communications Corporation satellites. [Frankfurt/Main FINANCIAL TIMES in English 7 May 86 p 10] /13104

CSO: 5500/2668

ITALY

BRIEFS

JOINT VENTURE WITH JAPAN--Italy and Japan have signed a comprehensive agreement for joint development of telecommunications products in the field of integrated circuits. The agreement for cooperation in the field of telecommunications integrated circuits was signed by the Italian SGS company, which is a world leader in microelectronics techonology, and the Japanese Toshiba company. According to this agreement, which will lead to joint production of telecommunications products, the SGS company in a first stage will grant the Japanese firm "second source" rights of production for three telecommunications products on a very large scale of integration. The devices produced by the Toshiba company under SGS license will be the PCM coder with a single M5913 chip, modem M9910, and communications matrix PCM M088, between them capable of connecting up to 256 telephone users. Products M5913 and M9910, that represent developments in already existing products, are completely compatible with present industrial standards, and communications matrix M088, if compared with similar devices, offers easier expansion to more complex communications networks. The agreement provides for the SGS company to supply the Japanese company with some diffusion masks, as well as pertinent technical information. For its part, the Agrate firm is considering the possibility of future agreements for second source Toshiba telecommunications products. It is expected that these products will be produced and sold independently by the two firms. In a second phase, the agreement provides also for the development, separately or jointly, of complementary products, in particular in the field of commutation and transmission. This cooperation entails a mutual access to new products to be exchanged under license. [Text] [Milan TECNICHE DELL'AUTOMAZIONE & ROBOTICA in Italian 2 Feb 86 p 26] 8255

CSO: 5500/2649

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