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**Research into the
high frequency
broadcasting system
: final report
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FINAL REPORT

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2 / RESEARCH INTO THE HIGH FREQUENCY BROADCASTING SYSTEM *2*
final report

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ABSTRACT

Preparations for the two session World Administrative Radio Conference for the Planning of HF (High Frequency) Bands Allocated to the Broadcast Service to be held in Geneva in January-February 1984 and 1986 continue with a focus on the technical aspects and planning methods. This report highlights some of the areas of potential conflict during the WARC and provides a compilation of basic information on broadcasting activities in Central/South America as well as feedback from a short-wave listeners questionnaire.

As the first session of the World Administrative Radio Conference for Planning the High Frequency (HF) Broadcasting Service (WARC HFBC) draws closer the pace of preparations for this landmark conference is increasing at both the national and international level.

In Canada, draft proposals for the Conference are about to be published in the Canada Gazette for public information and other aspects of the work to the preparatory Canadian Interdepartmental Committee (CIC) continue. Particular attention of the CIC has been on the development of a computer based planning method that will use broadcast requirements as its prime input. At the international level, CCIR Interim Working Parties have been considering some of the technical issues of the conference and will be reporting later in 1983. In addition, IFRB activities relating to the Conference will be increasing during 1983, including specific Conference preparatory seminars in October 1983.

As indicated in last year's project report,
"The fundamental question facing this WARC is whether
or not the international community can agree to some
form of "planning" for those segments of the radio
spectrum allocated to the broadcasting service. Past
attempts have failed and the result has been a situa-
tion which today is near chaos in most of the high
frequency broadcasting bands. If this conference also
fails, an occurrence within the realm of possibility,
, then the outlook for the future of this service is
indeed bleak." (1)

At this point in time it is difficult to forecast the
likelihood of success for WARC HFBC 84/86, but the criti-
cal nature of the Conference, in terms not only of this
service but as a forerunner of other service negotia-
tions, remains evident.

The main potential areas of conflict during the
preparatory process and at the Conference itself remain
those identified in last year's report:

- (1) developing country vs developed country
requirements
- (2) national vs international requirements
- (3) large vs small, have vs have nots
(in broadcasting terms)
- (4) prior consent
- (5) jamming
- (6) unofficial broadcasters (2)

In addition, there is the overriding issue of the concept of "a priori planning" versus the "first come, first served" principle (in one of its many variants).

Jamming (or the deliberate transmission of an interfering signal) continues to be a particularly sensitive issue that adds a major level of political and ideological complexity to all discussions of future planning of the HF broadcasting service. Many parts of the existing HF broadcasting spectrum allocations are rendered largely useless in vast areas of the world for prolonged periods of time due to the creation of deliberate interference (i.e. jamming) of other broadcast signals.

(3)

There was a marked increase in the level of jamming activity during the early 1980s, primarily in three areas: affecting broadcasts beamed to the Soviet Union after 1980, those to Afghanistan early in 1981 and those to Poland later in 1981. The primary targets for jamming are the broadcasts of Radio Free Europe, Radio Liberty, the Voice of America, BBC External Services and Deutsche Welle. This "flareup" of jamming represented a resumption of an activity that had been conducted at a much lower level for several previous years.

By its very nature, jamming raises a number of technical, political, ideological, philosophical and moral issues. The technical implications are quite evident and include,

- * wasteful use of the spectrum
 - by destroying the utility of a specific frequency
 - by destroying the utility of adjacent frequencies
 - by transmitting unsuppressed harmonics
 - by causing others to use more power
 - by causing others to use additional frequencies
- * "spillover" effect on innocent parties (such as those with nearby frequencies)
- * inhibits the use of particular frequency assignments as broadcasters will want to stay clear of potential jamming "victims"
- * inhibits the broadcasters from agreeing to any frequency planning method that they feel will not give the flexibility required to respond to jamming.

The Covenant on Civil and Political Rights, adopted unanimously by the United Nations General Assembly on December 16, 1966, includes an article which, on the surface, would appear to prohibit such attempts to block the flow of information across frontiers or even within a nation:

- "1. Everyone shall have the right to hold opinions without interference.
2. Everyone shall have the right to freedom of expression; this right shall include freedom to seek, receive and impart information and ideas of all kinds, regardless of frontiers, either orally, in writing or in print, in the form of art, or through any other media of his choice." (4)

However, the next section of this article provides a potential rationale or possible "justification" for undertaking the jamming of what a state may consider "hostile" broadcasts:

- "3. The exercise of the rights provided for in paragraph 2 of this article carries with it special duties and responsibilities. It may therefore be subject to certain restrictions, but these shall only be such as are provided by law and are necessary:
- (a) For respect of the rights or reputations of others;
 - (b) For the protection of national security or of public order (ordre public), or of public health or morals." (5)

In addition, the following article states:

- "1. Any propaganda for war shall be prohibited by law.
- 2. Any advocacy of national, racial or religious hatred that constitutes incitement to discrimination, hostility or violence shall be prohibited by law." (6)

Thus we can see that there are a series of political dimensions to jamming activities including,

- * cultural sovereignty
- * national security
- * protection of public "morals"
- * protection from external interference in home affairs
- * the "open" society versus the "closed" society
- * the "free flow" of information
- * the "moral right" of access to information

The technical aspects of jamming are relatively clear. There is no question that it creates inefficient and ineffective use of the HF spectrum and violates both the spirit and letter of a number of basic international

telecommunications agreements. However, when one includes the political aspects, the situation becomes less clear cut and increasingly shrouded in ideological and philosophical premises.

In the context of the forthcoming WARC HFBC the existence of (and, alternatively, the perceived necessity for) jamming provides a major inhibiting factor to the development of a widely acceptable planning method for the High Frequency broadcasting service. As an "operational reality" the practice of jamming is unlikely to disappear suddenly, in the near future. Some means of "accomodating" the situation may well therefore be necessary if there is any hope for the Conference to succeed.

While every area of the world has its own pattern of high frequency broadcasting activity, Appendix A provides some indication of the extent of such broadcasting, for domestic and foreign audiences, being undertaken in Region 2, the Americas (excluding Canada and the United States). The latter broadcasts in excess of 1950 hours per week to international audiences while Canada, through Radio Canada International, broadcasts approximately 143 hours per week plus additional high frequency broadcasts to Northern Canada through the Northern Service of the Canadian Broadcasting Corporation. (7)

As can be seen from the data in Appendix A, there is the potential for direct conflict between the domestic and international requirements since both types of services are operated by many states in Region 2 and elsewhere. The Radio Regulations of the International Telecommunication Union are silent on the relative priority of the two types of services but the potential for conflict must be recognized. Examples of new broadcast requirements of both types can be seen in announcements from Venezuela and Peru. On August 1, 1982 the Ministry of Information and Tourism in Venezuela announced that a new high frequency broadcasting station which would "project the image of our country to America and the world" had begun operations. (8) A few months later authorities in Peru announced the development of a new radio network project (in co-operation with the Federal Republic of Germany) to install a new main broadcasting station in Lima and eight regional stations, all equipped with medium and short-wave transmitters. (9)

One participant group in the high frequency broadcasting system that is seldom directly consulted during the policy/regulatory development process is the listening audience. Unlike amateur radio operators, satellite system operators, communications carriers or many other telecommunications user groups, "short-wave listeners" (SWLs) or "DXers" have no internationally recognized representation. A large number of short-wave listener/DX

clubs do exist, some with substantial (and often overlapping) membership, but their impact on the international telecommunications policy development process is informal and appears to be very limited. They "represent" only a fraction of the total audience and have nothing that could even approach the highly successful and visible "ham radio" pressure group activity. Altering this situation would not be easy and would necessitate a degree of national and international recognition that would take some time and effort to effect. Nonetheless, the need to develop some means to involve this important sector of the HF broadcasting "system" is evident even though the means to achieve this goal is far from clear.

One limited, but certainly interesting, attempt to at least solicit some constructive listening audience comment on the existing HF broadcasting situation and the future WARC HFBC was the ten point questionnaire transmitted in a March 15, 1982 broadcast. A summary of responses to that questionnaire is included in Appendix C and indicates the breadth and substance of audience interest in the technical and policy aspects of high frequency broadcasting.

In general terms, public discussion of the issues of the WARC HFBC, throughout the world, has been quite limited to date. Most published references to the upcoming conference have been in the context of analyses of the 1979 WARC, general ITU matters or other pending WARCs

such as the Conference on the Geostationary Orbit. It can be anticipated, however, that some increased public interest and comment will be forthcoming from many countries after national proposals for the WARC HFBC have been submitted to the ITU within the next few months. These submissions will, naturally, serve to indicate the concerns, approaches and concepts of the participants in the Conference itself.

As indicated in last year's report, for the realization of long term Canadian interests in high frequency broadcasting and other telecommunications sectors, it is vital that this Conference be successful. The Canadian proposals, to be sent to the ITU within a few months, will provide a sound basis for positive negotiations. Achieving a successful outcome in the face of some of the conflicts outlined above will be a challenge to all involved.

NOTES

- (1) Final Report, Research into the High Frequency Broadcasting Service, by John B. Black, for Department of Communications, Ottawa, under Department of Supply and Services Contract Serial Number 03SU.36100-1-0256, p. 1.
- (2) Ibid., p. 2.
- (3) Many accounts exist of the technical and operational aspects of jamming. For example, see Leinwoll, Stanley, "New Developments in Jamming", Radio-Electronics, March, 1981, pp. 45-48.
- (4) Section 19, Covenant on Civil and Political Rights, United Nations General Assembly, December 16, 1966, reprinted in Yearbook of the United Nations, 1966, New York, Office of Public Information, United Nations, 1968, p. 426.
- (5) Ibid. Article 19 of the 1948 Universal Declaration of Human Rights, approved by the General Assembly (with 8 abstentions, including the USSR) was virtually identical to Paragraph 2 but did not include paragraph 3.
- (6) Ibid., Article 20
- (7) See Appendix B.1
- (8) World Broadcasting Information, Number 30, August 19, 1982, p. A2.
- (9) Ibid., Number 41, October 14, 1982, A2.

APPENDIX A

High Frequency Broadcasters
in Region 2

This information has been compiled from the World Radio TV Handbook, 37th Edition, 1983 (WRTH) and from the World Broadcasting Information, published weekly by the BBC Monitoring Service, Caversham Park, Reading, Berks (WBI). These publicly available services provide invaluable basic information on world-wide broadcasting articles.

ANTIGUA

T: UTC-4h — Pr.L: English — E.C: a/c 50, 110V.

ANTIGUA BROADCASTING SERVICE (Gov/Comm.)

ADDR: P.O. Box 590, St. John's, Antigua. Te: 20112.

able: Broadcasts, Antigua. Telex: 89245.

Pr. Ag. Gen. Mgr (Radio): A.E. Bird. Mgr. Ops: C. Matthew. Chief Eng: Denis Leandro.

STATION: 620kHz 10kW.

PRGRS. in English: 0930-0400 (Sun 1500-0300). N: 1100.

300*, 1400+, 1600*, 2000*, 2310. *) BBC; +) AFRTS.

by letter.

BBC CARIBBEAN RELAY (Antigua)

2250kW SW-tr's for relays of BBC World Service and Latin American Service in Portuguese and Spanish.

kHz	kHz	kHz	kHz	kHz
1175	6195	9510	9765	11775

Full details of tr's are included in the BBC schedule under United Kingdom.

The station is also shared with Deutsche Welle for relay of DW-prgrs (see below).

DEUTSCHE WELLE ANTIGUA

(Transmitter facilities shared with BBC)

kHz	kHz	kHz	kHz	kHz	kHz	kHz
6040	9545	9735	11810	15205	17715	17810
6085	9690	11785	15105	15410	17795	17860

Full details given under D. Welle, Germany.

WRTH.
p. 283

ARGENTINA

W R T H
p. 315

LT: UTC-3h — Pr.L: Spanish — E.C: a.c 50, 220V (yes).

MINISTERIO DE OBRAS Y SERVICIOS PUBLICOS
Subsecretaría de Comunicaciones
Dirección Nacional de Telecomunicaciones
Departamento de Asignación de Frecuencias
Sector Radiodifusión

ADDR: Subsecretaría de Comunicaciones, Sarmiento 151, 1041 Buenos Aires. **Te:** Sector Radiodifusión: (01) 30-5031. **L.P:** Subsecc: General de Brigada (RE) Eduardo Oscar Corrado.

COMITE FEDERAL DE RADIOFUSION (COMFER)

ADDR: Suipacha 765, 1008 Buenos Aires.

L.P: Pres: General de Brigada (RE) Roberto Emilio Fereglio, Dir. Programación y Desarrollo: Teniente Cnel. Norberto Sonetti.

COMFER controls certain technical aspects of broadcasting along with Subsecretaría de Comunicaciones, and also controls the prgs. transmitted over all kinds of broadcasting stations.

STATIONS: All privately owned commercial st's exc: a) National State owned non-comm. st's (exc st. 8 which is comm) — b) National State owned comm st's — c) Provincial and Municipal owned non comm st's — st. 128) operated by COMFER, comm

Shortwaves

Call		kHz	kW	Name, h. of tr.
38) LU14	c	3245	—	R. Provincia de Santa Cruz: irr.
58) LRS2	b	5958v	10	R. Splendid. 0900-0400
9)	—	r6060	—	R. Continental, Buenos Aires: irr.
51) LRA31	a	6060	50	R. Nac. Buenos Aires: 2300-1100
38) LU14	c	6080	—	R. Provincia de Santa Cruz: irr
59) LRY1	b	6090v	40	R. Belgrano: 2100-0100v: Sat 2100-0330v; Sun 1700-2200v.
41) LRX1	b	6120	10	R. El Mundo: 0900-0700
72) LV19	b	6160	1	R. Malargue: 1000-0400
13) LT17	c	6160	1	R. Provincia de Misiones: 1100-0100
60) LRA34	a	6160	1	R. Nac. Mendoza: 0900-0500
51) LRA31		9690	50	R. Nac. Buenos Aires
41) LRX2	b	9710v	7.5	R. El Mundo: 0100-1500
58) LRS1	b	9740	1	R. Splendid: 0900-0400
51) LRA35	a	11710	50	R. Nac. Buenos Aires: Mon-Sat 1200-1500, Sun 1100-2300
41) LRX	b	11755	7.5	R. El Mundo: 0100-0830
59) LRY2	b	11780	8	R. Belgrano: 1500-2100v irr.
58) LRS	b	11880	1	R. Splendid: 0900-0400
41) LRU	b	15290	0.5	R. El Mundo: 0830-0130
51) LRA31	a	15345	50	R. Nacional, Buenos Aires

INTERNATIONAL SERVICE

RADIODIFUSION ARGENTINA AL EXTERIOR (RAE)

Operated by Servicio Oficial de Radiodifusión (SOR)

ADDR: Ayacucho 1556, 1112 Buenos Aires (Postal addr: Casilla de Correo 555, 1000 Buenos Aires). **Te:** (01) 84-2021.

STATION: (General Pacheco) (G.C: 58.22W 34.36S): 3x50kW SW-tr's.

I = Far East; II = So. Ce. and No. America; III = Europe; No Africa and Mid. East.

Freqs used: 1030-1200 & 2000-2400 on 11710kHz, 1900-2000 on 15345kHz, 0000-0500 on 6060 9690-11710kHz.

1030-1100	Japanese	I	2330-2400	French	II
1100-1130	English	I	0000-0030	Portuguese	II
1130-1200	Japanese	I	0030-0100	Spanish	II
1900-1930	Arabic	III	0100-0130	English	II
1930-2000	English	III	0130-0200	German	II
2000-2030	German	III	0200-0230	Portuguese	II
2030-2100	Spanish	III	0230-0300	English	II
2100-2130	French	III	0300-0330	Spanish	II
2130-2200	Arabic	III	0330-0400	French	II
2200-2230	German	III	0400-0430	German	II
2230-2300	English	II	0430-0500	English	II
2300-2330	Italian	II			

ARGENTINA (EXTERNAL SERVICES)BUENOS AIRESRadiodifusion Argentina al Exterior (RAE)

<u>GMT</u>		<u>kHz</u>
0000-0030	Portuguese (not M.)	11710, 9690, 6180, 6060
0030-0100	Spanish (not M.)	11710, 9690, 6180, 6060
0100-0130	English (not M.)	11710, 9690, 6180, 6060
0130-0200	German (not M.)	11710, 9690, 6180, 6060
0200-0230	Portuguese (not M.)	11710, 9690, 6180, 6060
0230-0300	English (not M.)	11710, 9690, 6180, 6060
0300-0330	Spanish (not M.)	11710, 9690, 6180, 6060
0330-0400	French (not M.)	11710, 9690, 6180, 6060
0400-0430	German (not M.)	11710, 9690, 6180, 6060
0430-0500	English (not M.)	11710, 9690, 6180, 6060
1030-1100	Japanese (not Su.)	11710
1100-1130	English (not Su.)	11710
1130-1200	Japanese (not Su.)	11710
1900-1930	Arabic (not Su.)	15345.4
1930-2000	English (not Su.)	15345.4
2000-2030	German (not Su.)	11710
2030-2100	Spanish (not Su.)	11710
2100-2130	French (not Su.)	11710
2130-2200	Arabic (not Su.)	11710

ARGENTINA

W.B.I

ARGENTINA Radio Nacional, Buenos Aires, reported on 7th October that its new channel, LRA37 (Ed Note: currently 99.1 MHz) had inaugurated a new transmitter beamed mainly to the border regions. It was the "largest and most modern 100-kW short-wave transmitter in Argentina". The frequency was not given. *

OCT. 15 1981
NO. 41/A4

ARGENTINA A recent partial survey of news bulletins, broadcast by Buenos Aires-based radio stations on the shortwave band, shows that the following newscasts are available:

NOV. 5 1981
NO. 44/A2

Radio Splendid	11880 kHz	NEWS at 1500 and 2400
Radio Belgrano	11780 kHz	NEWS at 0130
Radio El Mundo	9710 kHz	NEWS on the hour every hour with main newscasts at 1500 and 0100
Radionoticias Argentinas	6060 kHz	NEWS and Information service round the clock with relays of Radio Nacional news at 1030 and 2330. *

ARGENTINA The Radiodifusion Argentina external service has been re-organized and a schedule resulting from monitoring observations over the past month will be published next week.

The new service is on the air from 1030-0300 Mondays to Saturdays on 11710 kHz and (from 2300) on 9690 kHz. Broadcasts include a relay of Radionoticias Argentinas from 1200-1500 and 30-minute external-service programmes in English, French, German, Italian, Japanese, Portuguese and Spanish. The English programmes are heard at 1100, 1530, 1630, 1730, 1930, 2200 and 0100. The 1200-1500 relay of Radionoticias Argentinas includes a newscast in English from 1330-1335 for listeners in Patagonia, Tierra del Fuego, the Antarctic and the islands of the South Atlantic.

DEC. 10 1981
NO. 49/A2

On Sundays the external service presents 16 hours of broadcasts on 11710 kHz for Argentines abroad. This comprises relays of Radio Nacional, Radionoticias Argentinas and Radio Belgrano, as well as a Radiodifusion Argentina service from 1500-1930. The latter is mainly in Spanish, but includes a 10-minute news bulletin in English (1800-1810), French, German, Italian, Japanese and Portuguese. **

ARGENTINA

W.B.I

ARGENTINA Radiodifusion Argentina's external foreign-language service continues to be broadcast on Sundays (local time) (cf WBI No. 15 1982). These external service programmes now appear to be broadcast seven days a week and the Sunday only transmissions in Spanish, intended primarily for Argentinians abroad, no longer take place (cf. Schedule No. 50/E 1981).

APRIL 22 1982
NO. 16/A2

A report by the Argentine news agency Telam stated that as from 1800 on 9th April the Private Radio Stations' Association of Argentina (ARPA) had been broadcasting the "National Sovereignty Network". This network would broadcast news bulletins every 30 minutes from LS5 Radio Rivadavia an LS10 Radio Del Plata in Buenos Aires until the present confrontation with the United Kingdom is over. The President of ARPA and Director of LU25 Radio Tres Arroyos said that this is a contribution that ARPA is making to "safeguard the sovereignty of the country".

A further Argentine news agency report stated that the "National Sovereignty Network" had been operating since 8th April and that it consisted of stations associated with ARPA and with government stations which "under the current circumstances" had joined the network. *

ARGENTINA An Argentine news agency reported on 15th May that the LRA Radio Nacional transmitter which carried the news service for the border areas (of Argentina) and other Latin American countries on 9600 kHz (Ed. Note: possibly an error for 9690 kHz) was subject to interference on 15th May, "apparently from a powerful transmitter located in the northern zone of the continent". Earlier, according to the Argentine news agency, the official British radio service, the BBC of London, had "superimposed" its broadcasts for Latin America on top of those which RAE (the Argentine external service) puts out on 11710 kHz (Ed. Note: In fact, the BBC is using 11715 kHz from 2315-0315, but Radio Moscow's English service to the east coast of North America is occupying 11710 kHz from 2300-0300).

MAY 20 1982
NO. 20/A2

ARGENTINA According to the Argentine newspaper 'La Prensa' on 3rd June a press conference was recently held at Radio Nacional during which some details were given about the activities of RAE (Radiodifusion Argentina al Exterior). The National Director of the official radio broadcasting Service stated that it was evident that "we do not have powerful enough equipment for our broadcasts" despite the power output of 100 kilowatts, due to the equipment dating back to a time when "the official radio broadcasting service was not adequately serviced from the viewpoint of its importance". He noted that engineers had been making the most of the broadcasting stations since the improvements which had been made to the antennas.

JUNE 10 1982
NO. 23/A3

The National Director went on to say that until a few days earlier RAE had been broadcasting on only one frequency, but that frequency "was being interfered with by the BBC" (cf. WBI No. 20 1982) and so, therefore, RAE had begun broadcasting on four frequencies: 15345, 11710, 9690 and 6060 kHz; and from "last Tuesday" also on 6180 kHz, which emanated from "a broadcasting station located in a province in the western part of the country" (cf. WBI No. 22 1982).

ARGENTINA RAE, the Argentine external service, announced that from 21st June, its English broadcast from 2200-2230 would be retimed to 2230-2300.

Monitoring observations of the 11710 kHz channel from 2200-0500 on 21st June show that RAE is now broadcasting as follows:

2200-2230	German	0130-0200	German
2230-2300	English	0200-0230	Portuguese
2300-2330	German	0230-0300	English
2330-2400	French	0300-0330	Spanish
0000-0030	Portuguese	0330-0400	French
0030-0100	Spanish	0400-0430	German
0100-0130	English	0430-0500	English

At 0500, the domestic service Radio Nacional is relayed on 11710 kHz.

ARGENTINA The former Radionoticias Argentinas radio service (cf. schedule No. 50/E 1981) appears to have been renamed the LRA Radio Nacional News Service (Spanish: El Servicio de Noticias de LRA Radio Nacional). It is on the air daily from 1100-2400 and its programmes include national and international news, interviews, commentaries, sports and other informational programmes. It is available on 9690 kHz and 99.1 MHz throughout its transmission span and also from 1500-1900 on 15345 kHz and from 1500-2400 on 6060 kHz. *

ARGENTINA RAE, the Argentine external service, announced on 27th November that on 29th and 30th November it would broadcast on 9690 and 6060 kHz only, because alterations were being made to a transmitter (Ed. Note: presumably the one which operates on 11710 kHz - cf. schedule No. 32/E 1982). RAE, however, would return to its normal frequencies and time-table from 1st December.

On 24th November, Radio Nacional in Buenos Aires quoted the Public Information Secretary as saying that the process of turning government-managed radio and television stations over to the private sector would continue. Pressure had been exerted by several sectors to stop the process, but a decision to carry on was made after an in-depth study of the problem. Initially the possibility of suspending the process had not been ruled out. The Public Information Secretary added that the President of Argentina had personally expressed his desire that the process be concluded by mid-1983. Open bidding would be solicited for Channel 13 television, just as was done for Channel 11 (cf. WBI No. 44 1981). *

ARGENTINA The Argentine external service RAE recently announced details of frequency changes which took place at the beginning of February:

15345 kHz was in use from 1900-0500
11710 kHz was in use from 0000-0500, 0730-1030
6060 kHz was in use from 0000-0500

The use of 9690 and 6180 kHz had been discontinued.

The Radio Nacional news service "Radionoticias Argentinas" appears to have been discontinued. LRA1 Radio Nacional is now observed carrying two different services, Programme 1 and Programme 2.

Programme 1, which features sport, music, variety, educational and cultural programmes appears to be broadcast on 870 kHz and 96.7 MHz 24 hours a day, seven days a week and also in accordance with the following schedule:

15345 kHz	1700-1900
9690 kHz	0500-1230, 1600-1700, 2300-0000
6060 kHz	0500-1230, 1330-1700, 2300-0000
99.1 MHz	1100-1700, 2300-0500

JUNE 24 1982
NO. 25/A2

AUGUST 12 1982
NO. 32/A1

DECEMBER 2 1982
NO. 48/A4

FEBRUARY 17 1983
NO. 7/A2

ARGENTINA : RADIO LIBERTY

W.B.I

"LIBERTY" A station broadcasting in English has been observed since 22nd April on 25680 and 17740 kHz with transmissions of between 40 and 50 minutes duration at 1800, repeated at 2000, 2200 and 2400. Although no formal station identification is given, the woman announcer says "I am Liberty and talking to you from the heart of the Malvinas, Sandwich and South Georgian Islands" and "I am a voice, a spirit, a country and who can proudly say today the world listens when Argentina speaks". The programmes consist of talks of an informal nature expressing the Argentine point of view, with references to specific listeners and to persons who are purported to be members of the British task force and their families; interspersed with pop music.

APRIL 29 1982
No. 17 /A4

The location of this station cannot be confirmed by monitoring observations but there is no evidence of Argentina or the Falkland Islands having used either the 25 or 17 MHz bands for broadcasts in recent years. However, the Argentine news agency Telam, in a despatch on 22nd April datelined Madrid, claimed that these broadcasts had been monitored there and stated that Spanish communications experts considered that "given the content of the messages, the broadcasts could come from Buenos Aires, although it was not possible to obtain more details". The Telam report went on to state that "Liberty programmes are broadcast in English and say they are broadcasting to all English-speaking people, especially the British".**

"LIBERTY" The Argentine news agency Telam on 6th June, quoting a "reliable source" in Buenos Aires, said that the "Liberty" broadcasts, being transmitted from an unknown place, have been shown to be effective by the appearance of a British station on Ascension Island, "which does not really merit analysis". The source declined to give details of "Liberty", but he gave assurances that "the truth of the Argentine cause" was continuing to reach Europe, the United States and the British fleet. The reason that "Liberty" could not be heard in the region of Buenos Aires was because the techniques of transmission ensured it reached the northern hemisphere with maximum strength, he said (cf. WBI No. 18 1982 and Schedule No.19/E1 82).

JUNE 10 1982
No. 23 /A5

"LIBERTY". This radio station, which has broadcast material in English on 17740 kHz hostile to the British Government and supporting the Argentine occupation of the Falkland Islands, has made what appears to be its last broadcasts. An approximately 40-minute farewell transmission was observed starting at 2000, 2200 and 2400 on 21st June. The same broadcast was also heard at 2200 on 22nd June. However, at 2400 on 22nd June, although the station's usual theme tune (Lennon & McCartney's "Yesterday") was heard and the style of the broadcast was the same, the language used was Spanish and not English. Very poor reception precluded any detailed translation.

JUNE 24 1982
No. 25 /A2

BARBADOS

W.B.I.

BARBADOS A CANA news agency report from Bridgetown on 10th February states that the Barbados-based Caribbean Broadcasting Union (CBU) had announced that it was on the verge of restoring regional electronic-media co-operation to the high levels of the early 1970's. The CBU included radio and television organizations in the English- and Dutch-speaking Caribbean.

Recent meetings in Surinam of the CBU's management committee and television programme planners had set the pace for the implementation of a number of projects "to enable the CBU to function as one of the pillars of the regional mass communications infra-structure". Its success would depend on the member-organizations' commitment to regional co-operation and "on some of them graduating from a persistent level of nonchalance which on occasions had resulted in serious embarrassment to the CBU and some of its officials. The management committee insisted that member-organizations, which did not show any desire to live up to their commitments to the CBU would have to be left behind, now that the CBU was making efforts to move forward. The CBU Secretary General said that it had approached international organizations for assistance in undertaking projects which ranged from the production of programmes on the economic, political, social and cultural development of the Caribbean to the training of broadcasters of the region. One such approach had been made to UNESCO.

FEB. 18 1982
NO. 7/A2

BARBADOS According to a report on 22nd March from the Barbadian news agency CANA, a new local commercial radio station - the Barbados Broadcasting Service (BBS) - is expected to be on the air by September. An agreement for a licence to operate an AM-FM service was signed last June by the Ministry of Information and the Directors of the company. The station is to have three studios, library and programming offices, a news room, reception area and a lunchroom with patio as well as administrative offices. In the initial stages BBS plans to employ about 22 people. It will be located in St. Michaels Parish, about three miles southeast of Bridgetown.

APRIL 13 1982
NO. 13/A4

BARBADOS The Caribbean news agency CANA reported that a new radio station, the Barbados Broadcasting Service (BBS), would start broadcasting on 27th September. The service would start at 1700 hours (local time). Listeners would be provided with six hours of broadcasting daily. A BBS spokesman said that the radio was a music station, but it wouldn't be a "national juke box". The hours of broadcasting would be increased after the BBS had overcome initial programming problems. News and features would be incorporated gradually. The BBS was an entirely Barbadian-owned station and would be located in the central parish of St. George. The BBS was the third radio service in Barbados, the other two being the state-owned Caribbean Broadcasting Corporation and Rediffusion Barbados Ltd., a wired service.*

SEPT. 30 1982
NO. 39/A1

BOLIVIA

WRTH

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L.T: UTC-4h — Pr.L: Spanish Quechua, Aymara
E.C: a/c 50, La Paz 110-220V, Santa Cruz 220-380V.

DIRECCION GENERAL DE TELECOMUNICACIONES

La Paz. Cable: Gentel. Te: 368788. Telex: 2595 Gentel BV
L.P: Dir. Gen: José Zurita Eguino.

ASOCIACION BOLIVIANA DE RADIODIFUSORAS (ASBORA)

ADDR: Casilla 7958, La Paz.
L.P: Pres: Enrique Costas Salmón. Vice-Pres: Miguel A. Duen.

Shortwaves: r=reported, nom=nominal freq, v=varying,
* =inactive.

Call	kHz	kW	Name, location and h. of tr.
35) CP195	3280	1	R. Chaco, Yacubá: 0945-0200 (Sun 1100-2300)
117) CP189	*3285	0.3	R. Bolivariana, Copacabana
118) CP114	v3310	1	R. San Miguel, Riberatta (n. 3320): 1000-1630, 2030-0200
119) CP206	*3330	0.3	R. Charcas, Monteagudo
120) CP99	*3340	1	R. Viloco, Viloco
99) CP103	3350	1	R. 27 de Diciembre, Villamontes: 2230-0200 (Sun 2230-0100)
66) CP173	*3360		R. Agricultura, Portachuelo
121) CP209	3370	1	R. Florida, Samaipata. 1100-1800, 2100-0200 (Sun 1100-2300v)
122) CP167	*3380	1	R. Cumbre, "La Voz del Trabajador del Bismuto", Tazna
123) CP175	3390	1	R. Camargo, Camargo: 2230-0200
124) CP-	v3480	0.5	R. Padilla, Padilla: 2300-0200
124x) CP-	r3885	—	R. Libertad, Reyes, Beni: 2300-0100v
125) CP-	3958	0.5	R. Comarapa, Comarapa: 1130-0300
76) CP-	v4415	1	R. Agricultura, Achacachi
126) CP142	v4472	1	R. Movima, Sta. Ana de Yacuma: 1100-0300v (nom. 4835, r4478 4482)
85) CP-	v4638	—	R. 23 de Marzo, Tupiza (nom. 4640)
127) CP117	v4697	0.5	R. Riberalla, Riberalla (nom. 4775): 1100-0400
31) CP168	*4708	0.5	R. La Voz de la Frontera, Pto. Suárez
128) CP136	v4730	0.5	R. Abaroa, Riberatta (nom. 4760): 1000-0430v
129) —	*4730	—	R. Frontera, Cobjia
130) CP147	v4739	1	R. Mamoré, Guayamerín (nom. 4750): 1100-1730v, 2100-0200v
89) CP62	v4755	5	Radioem. Bolivia, Oruro (nom. 4760): 0900-0400 (Sat 0300, Sun 0200)
49) CP84	v4775	3	R. Los Andes, Tanja: 1100-0300 (Sun 2400)
23) CP120	4775	1	R. Tropicó, Trinidad
103) CP152	v4785	0.5	Radioem. Ballivián, San Borja: irr.
15) CP73	v4797	1	R. Nueva América, La Paz (nom. 4795): 1000-0400 (Sun 0200v)
59) CP131	*4806	0.25	R. Frontera, Yacuiba (nom. 4805)
77) CP144	4817	1.5	R. Nai. de Bolivia, La Paz (n. 4815)
68) CP70	v4830	5	R. Grigota, Sta. Cruz (nom. 4825): 1000-0300 (Sun 1100-2400)
60) CP72	4845	5	R. Fides, La Paz: 1100-1730, 2230-0100v (Sun 1230-1730, 2230-0100v)
37) CP66	*4853	2	R. Centenario, Sta. Cruz (n. 4855)
16x) CP185	4865	5	R. Pailiti, Guayamerín: 1100-1730r 2130-0200v
8) CP75	4875	10/1	La Cruz del Sur, La Paz: 0920-1230, 2200-0030v (Sun 0930-1400)
43) CP89	v4887	1	R. Santa Ana "La Voz de Yacuma", Sta. Ana de Yacuma (n. 4885): 1200-?, 2230-0200
48) CP77	v4886	1	R. Sararenda, Camiri (nom. 4885): 1100-2100v (Sun 1800-1930)
50) CP88	*4915	1	R. Amoro, Sta. Cruz
30) CP110	v4940	1.5	R. Norte, Montero (nom. 4935): 1000-0300 (Sun 1100-1130v-0200)
26) CP7	4945	10	R. Illimani, La Paz: 1000-0400
55) CP100	r4959	1.5	R. Iberá, Trinidad (nom. 4885)
16) CP90	v4965	3	R. Juan XXIII, San Ignacio de Velasco: 1000-1400, 1900-0015 (Sun 1100-2200)
45) CP162	4980	1	R. Batallón Topater, Oruro: 1000 (Sun 1100)-0500 (Sat 0400, Sun 0030)
131) CP151	4990		Radioem. Beni, Magdalena: v1200-0200v
132) CP163	*4991	1	R. Animas, Chocaya
11) CP48	v5005	1	Radiodif. Cristal, La Paz: 1100-0300 (Sun 1000-0200)
133) CP109	5020	0.5	R. Dos de Febrero, Rurrenabaque: 1100 (Sun 1130)-&-0230 (Sat 0300v)
134) CP178	5020	0.25	R. Cuarto Centenario, Tupiza (nom. 5030 1100-1800 2330-0230)
14) CP38	*5045	5	R. Altiplano, La Paz
82) CP-	*5312	0.15	R. Robore, Robore
135) —	*5430		R. Machupe, San Ramon de la Ribera
136) CP-	5503	—	R. Centinela, Tupiza 1200-0200
137) —	*5511	0.08	R. Galaxia, Guayamerín
138) CP-	5582	0.5	R. San Jose, San José de Chiquitos: 1130-0200 (Sun 1130-1600v)
139) —	*5870	—	R. Corocoro, Corocoro
107) CP60	5955	1	R. Pio Doce, Siglo Veinte: 1100-1300 1500-?
140) CP177	*5965	2.5	R. Nacional, Huanuni
52) CP40	v5975	1	R. Nacional, Cochabamba: 1000-
61) CP51	5995	1	R. Loyala, Sucre 0930-2300v
33) CP58	6005	4	R. Progreso, La Paz
26) CP5	6025	10	R. Illimani, La Paz: 1000-0400
11) CP64	r6045	1	R. Cnstal. La Paz (nom. 6195)
38) CP18	*6069	2	R. El Cóndor, Oruro (nom. 6070)
1) CP92	6105	7.5	R. Panamencana, La Paz: 1030-0030v (Sun 1100-2300)
21) CP32	v6135	1/0.5	R. Santa Cruz, Sta. Cruz: irr.
141) CP181	v6146	0.6	R. Luis de Fuentes, Tanja: 1200-2200 (Sun 1200-1600)
60) CP12	6155	1	R. Fides, La Paz: 1100-1730, 2230-0100v (Sun 1230-1730, 2230-0100v)
51) CP74	6175	10	R. Indoamerica, Potosí: 1000-0400
86) CP61	*6185	3	R. Battallon, Cokorados, La Paz
73) CP161	6195	10	R. Stentor, La Paz
142) —	*6293v	—	R. Nuevos Horizontes, Tupiza
26) CP6	*9555	10	R. Illimani, La Paz
25) CP97	*9605	1.5	R. Pirai, Sta. Cruz
47) CP21	v9715	1	R. La Plata, Sucre: v1330-1800v

BOLIVIA

W.B.I

BOLIVIA Recent observations of station announcements from Radio Illimani indicate that the station describes itself as the Voice of Bolivia and broadcasts from La Paz on 6025, 4945 and 1020 kHz as well as on 94 MHz.*

JAN. 15 1981
NO. 2/A3

BOLIVIA A partial monitoring survey of radio stations following the end of the recent uprising (cf. WBI No. 32 1981) showed that the following stations are now operating with normal programming:

AUGUST 20 1981
NO. 33/A2

Radio Luis de Fuentes, Tarija	6146 kHz
Radio Santa Cruz, Santa Cruz	6137 kHz
Radio Panamericana, La Paz	6105 kHz
Radio Illimani, La Paz	6025, 4945 kHz
Radio Nacional, Cochabamba	5975 kHz
Radio Centenario, Tupiza	5265 kHz
Radio Cristal, La Paz	5005 kHz
Radio Batallon Topater, Oruro	4980 kHz
Radio Juan XXIII, S. Ignacio de Velasco	4965 kHz
Radio Norte, Montero	4938 kHz
Radio Grigota, Santa Cruz	4830 kHz

BOLIVIA Radio Illimani reported that the Armed Forces Government had decided to suspend the (official) radio network. The announcement to this effect stated that the decision would become effective on 10th December. The Minister Secretary General of the Presidency said that it had been expressly stated that radio stations throughout the country should carry out their activities responsibly and in compliance with broadcasting rules and regulations. According to the Information Minister, the suspension of the official radio network was a "clear demonstration" that the Armed Forces Government, with its plan of gradually moving towards the full restoration of liberties, was keeping its word (Ed Note: Radio Illimani was the key station of the official radio network - (cf WBI No. 49 1981)).

DEC. 17 1981
NO. 50/A3

At 1129 on 10th December, Radio Panamericana on 6105 kHz said that it would begin its newscast in 60 seconds for the radio stations authorized by Panamericana to rebroadcast it. Following the newscast, Radio Panamericana stated that it would be broadcasting its newscasts daily at 1130, 1700 and midnight.
*

BOLIVIA

W.B.I.

BOLIVIA Radio Fides has recently been observed broadcasting again (cf. WBI No. 8 1982). It is heard on 6155 and 4845 kHz. News bulletins in Spanish are broadcast at 0200, 1130, 1630 and 2330. *

APRIL 1 1982
NO. 13/A4

BOLIVIA A recent check of Bolivian shortwave stations shows that the radios listed below are operating as follows:

Radio La Plata	Sucre	9715 kHz
Radio Indoamerica	Potosi	6175 kHz
Radio Fides	La Paz	6155, 4845 kHz
Radio Fuentes	Tarija	6145 kHz
Radio Panamericana	La Paz	6105 kHz
Radio Illimani	La Paz	6025 kHz
Radio Norte	Montero	4939 kHz
Radio Sararenda	Camiri	4886 kHz
Radio Grigota	Santa Cruz	4830 kHz

MAY 13 1982
NO. 19/A2

BOLIVIA According to a report from the Cadena Panamericana on 20th September, the Bolivian Radio Broadcasting Association (ASBORA) had publicly protested over the wave of violence unleashed in the country in recent days, with particular reference to its affiliate Radio Maritimo of Santa Cruz, which had been badly damaged. It had been the target of a terrorist attack on 19th September. Its studio was destroyed and station building damaged, thus preventing further broadcasts. *

SEPT. 23 1982
NO. 38/A2

BOLIVIA The following Bolivian radio stations have recently been observed broadcasting:

Radio Frontera, Yacuiba	4806 kHz
Radio Grigota, Santa Cruz	4830 kHz
Radiodifusora 21 de Diciembre, Potosi	6080 kHz
Radio Indoamerica, Potosi	6175 kHz
Radio Batallon Topater, Oruro	4980 kHz

JAN. 20 1983
NO. 3/A2

On 15th January, Radio Panamericana, La Paz, reported that a strike called by the Federation of Radio and Television Workers of the district had been observed by 98 per cent of radio and television stations since 0000 on 14th January. *

BRAZIL

L.T.: Eastern (Coastal) UTC-3h (Su: UTC-2h) Western. UTC-4h (Su: UTC-3h). Acre: UTC-5h (Su: UTC-4h)
Pr.L.: Portuguese — E.C.: a/c 50-60, 110-127/220V

DEPARTAMENTO NACIONAL DE TELECOMUNICAÇÕES (OENTEL)

Ministério das Comunicações, Esplanada dos Ministérios, 70.044 Brasília, D.F. — Cable: Dentel.
L.P.: Dir. Gen. Cel. Antônio Fernandez Neiva. Dir. of Radio: Roberto Blois Montes de Souza.

ASSOCIAÇÃO BRASILEIRA DE EMISSORAS DE RÁDIO E TELEVISÃO (ABERT)

ADDR: Hotel Nacional, Salas 6&7, 70332 Brasília, D.F. (C.P. 040-280). Te: 2238113. Cable: Abertrio.
L.P.: Paulo Machado de Carvalho Filho. Exec. Dir: Antônio Abetlin.

SEARA-SERVIÇOS ASSOCIADOS DE RÁDIO LTDA.

ADDR: Rua do Livramento 189, 20021 Rio de Janeiro.
Te: 243-2225.

RADIOBRAS

ADDR: SCR N 702 703 Bloco 2 lote 2. 4e6. 70710 Brasília, DF
Te: 226-9100 (C.P. 04-0340)
L.P.: Pres Lounival Massa da Costa Dir: Fausto Weiller. Dir. Adm: Laumar Melo Vasconcelos. Dir. Tec: Jorge Alberto Scanduzzi.

Shortwaves: * = inactive

Call	kHz	kW	Name, location and h. of tr.
59) ZYG480	2310	0.25	R. Progresso, Souza:
140) ZYF	2340	1	R. Dif Itacoatiara. 1000-0100
323) ZYG852	2380	0.25	R. Educ. de Limeira: 0800-0300
608) ZYG361	2400	1	R. Educ. São José, Macapá: 0830-0200
1036)	r2410	1	R. Transamazônica, Senador Guimard, AC
728) ZYG862	v2420	0.5	R. São Carlos: 0830-0300
553) ZYF692	2420	0.5	R. Carajá, Anápolis: 0800-0300
599) ZYG854	2450	0.5	R. Cultura de Araçatuba: 0830-0400
446) ZYG851	2470	1	R. Cacique, Sorocaba, irr.
519) ZYF272	2490	1	R. Educ. Rural, Coari: 0845-1530, 2045-0130
1037) ZYG866	2490	0.25	R. Oito de Setembro, Descalvado. 0900-0200
45) ZYG861	3205	1	R. Ribeirão Preto: 0800-0400
332) ZYG859	3225	1	Lins R. Clube, Lins: 0730-0400
382) ZYG880	3235	0.5	R. Clube, Marília: 0800-0400
134)	3245	1	R. Educ. Palmares de Alagoas: 0755-0400
486) ZYG225	3245	1	R. Clube, Varginha: 0900-0130
780) ZYF905	3245	1	R. Aruana, Barra do Garça
319) ZYF533	3255	1	R. Educ. de Cariri, Crato: 0800-0300
485) ZYG205	v3255	1	R. Difusora, Uberlândia: 0800-0300
240) ZYK21	3265	1	R. Tamandaré, Recife: 0900-1300, 1800-0300
609) ZYV50	3265	1	R. Cultura, Poços de Caldas: 0800-0300
289)	3275	1	R. Dif. de Alagoas, Maceió
482) ZYG856	3275	1	Bauru R. Clube. 0800-0400
748) ZYF901	3275	1	R. Dif Cáceres, 24h
133) ZYG22	3285	1	R. Clube, Teresina. 0800-0300
129) ZYG223	3285	1	R. Atalaia, Obidos
343)	3295	1	R. Tapuia, Mossoró: 0800-0300
66) ZYF531	3315	2.5	R. Assunção, Fortaleza: 1430-0100
1038) ZYG	*3325	2.5	R. Dif. Universitaria, Guarulhos

Call	kHz	kW	Name, location and h. of tr.
585) ZYG	3325	5	R. Liberal, Belém
347) ZYF392	3335	1	R. Clube de Conquista, Vitória: 0800-0300
291) ZYG641	3335	5	R. Alvorada, Londrina: 0800-0300 (Sun: 0825-0255)
378)	3335	2.5	R. Educ. Rural, Natal: 0800-0400
186) ZYF224	3345	1	R. Educ. Uberlândia: 0800-0500
708)	3345	5	R. Caiari, Porto Velho: 0800-0300 (Nom. 4785)
101) ZYG830	3345	2.5/10	R. Cultura de Sergipe Aracajú: 0800-1100, 1200-1800, 2000-0300 (Nom. 4775)
360) ZYG200	3355	1	R. Industrial Capital, Juiz de Fora
487) ZYE7	3365	0.5	R. Euc Parnaíba: 0800-0100
631) ZYG855	3365	1	R. Cultura, Araraquara: 0800-0300
53) ZYF275	3375	5	R. Nacional, São Gabriel de Cachoeira: 0800-0100
145) ZYF907	3375	5	R. Clube, Dourados: 0900 (Sun: 1000-) 0400
527)	3375	5	R. Educ. Guajara, Minm. RO
1035) ZYG207	3385	1	R. Congonhas, 0900-0100
464) ZYF393	3385	1	R. Juazeiro: 0800-0300
548) ZYF271	r3385	1	R. Educ Rural, Tele
1039)	r3406v	1	R. Educ. 6 de Agosto, Xapuri: 1000-0400
1040)	r3570		R. Treze de Junho, Brasileira, Acre. -0200
1041)	r4115	1	R. Dif. Cruzeiro do Sul
115) ZYF810	4755	2	R. Dif. do Maranhão, Sao Luiz: 0700-0400
37) ZYF904	4755	1	R. Educação Rural, Campo Grande: 0800-0400
139) ZYF200	4765	10	R. Nacional, Cruzeiro do Sul: 0800-0100
620) ZYG363	v4765	10	R. Emiss Rural, Santarem. 0700-0400
433) ZYF640	4765	2 5/5	R. Espirito Santo, Vitória: 0800-2100
101) ZYG830	4775	2.5	R. Cultura de Sergipe, Aracajú: 0730-0400
434) ZYF902	4775	1.5	R.A. Voz d'Oeste, Curitiba: 24h
462) ZYF812	4785	5	R. Ribamar, São Luiz. 0800-0300
544) ZYG857	4785	1	R. Brasil, Campinas: 0700-0400
708) ZYG790	4785	1	R. Caiari, Porto Velho: 0730-0300
389)	v4795	1	R. Tabaraja de Parnaíba, Joao Pessoa: 0730-0400
605) ZYF900	4795	1	R. Dif. de Aquidauana. 0800-0300
57) ZYG209	v4805	0.5	R. Itatiaia, Belo Horizonte: 24h (r4812)
461) ZYF273	v4805	5	R. Difusora de Amazonas, Manaus: 2230-0300
126) ZYG640	4815	0.5	R. Difusora, Londrina: 0800-0300
107) ZYF272	4815	10	R. Nacional de Tabatinga: 0800-0300
557) ZYF532	r4815	1	R. Iracema, Fortaleza: 0900-0300
228) ZYJ459	4825	10	R. Mundial, Rio de Janeiro: 0800-0400
655) ZYG364	4825	5	R. Educ Bragança: 0830-0200
48) ZYG810	v4835	10	R. Nacional, Boa Vista: 0900-0300v
1042) ZYF	4835	5	R. Evangélica, Corumbá
628) ZYU8	4845	0.5	R. Dif. Teresina: 0700-0400
221) ZYG202	v4855	1	R. Por um Mundo Melhor Gov Valadares: 0800-0300
294) ZYF390	4865	1	R. Sociedade, Feira de Santana: 0730-0400
260) ZYJ453	4875	10	R. Jornal do Brasil, Rio de Janeiro: 0900-0530
9)	*4875	10	R. Nacional, Manaus
658) ZYF201	4885	5	R. Difusora Acreana, Rio Branco: 0900-0500

WATH
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Call	KHz	KW	Name, location and h. of tr.	Call	KHz	KW	Name, location and h. of tr.
680 ZYG362	4885	5	R. Clube de Pará, Belém. 0800-0300	473) ZYE335	6105	5	Ceará R. Clube, Fortaleza: 0900-1900
722) ZYF270	4895	1	R. Bare Manaus: 0900-0430	246) ZYE765	6115	10	R. Tupi, Rio de Janeiro
311) ZYF391	4895	10	R. Cultura da Bahia, Salvador 0800-0100	388) ZYE968	6125	7.5	R. Globo, São Paulo: irr.
36) ZYJ465	4905	5	R. Relógio Federal, Rio de Janeiro. 0800-0300	55) ZYE851	6135	7.5	R. Gaúcha, Porto Alegre: 24h
234) ZYF693	4905	1	R. Araguaia. Araguaia: 0800-0300	311) ZYE298	6155	10	R. Cultura da Bahia: 0800-2000
72) ZYG360	4915	10	R. Nacional: Macapá	470) ZYE959	6165	10	R. Guarani, Belo Horizonte: 24h
493) ZYF691	4915	10	R. Anhangüera. Goiânia: 0900-0400	215) ZYE956	6185	10	R. Bandeirantes, São Paulo: 0800-0400
125) ZYF530	4925	5	R. Dragão do Mar, Fortaleza: irr.	328) ZYE	6195	7.5	R. Capital/Continental, Rio de Janeiro: 0815-1900
28) ZYG864	4925	1	R. Dil Taubaté: 0830-0400	307) ZYE951	9505	7.5	R. Record, São Paulo: 1000-2200
338) ZYI203	4935	1	R. Capixaba, Vitória: 0730-irr.	1045) ZYE	9515	10	R. Educ. da Bahia, Salvador
922) ZYF693	4935	2.5	R. Difusora, Jataí: 0900-0200	292) ZYE	9520	1	R. Caiçara, Porto Alegre: 24h
596) ZYF811	4935	0.25	R. Difusora, Mearim, Caxias	57) ZYE	*9520	5	R. Itatiaia, Belo Horizonte
1043) ZYF274	4935	5	R. Independência, Manaus	476) ZYE727	9545	7.5	R. Universo, Curitiba: 0900-2200
511) ZYF208	4945	1	R. Dif. Poços de Caldas	388) ZYE969	9585	10	R. Globo, São Paulo: irr.
156) ZYI780	v4945	2	Emiss. Rural, A Voz do São Francisco, Petrolina: 0755-0300	311) ZYE297	v9595	10	R. Cultura da Bahia: 0900-2000
391) ZYJ471	4955	10	R. Marajoara, Belém: 0900-0300	246) ZYE	v9608	10	R. Tamoio, Rio de Janeiro
266) ZYF906	4955	2.5	R. Clube, Rondonópolis	205) ZYE954	9635	10	R. Aparecida: 0900-0300
532) ZYI21	v4965	1	R. Pot. Natai: 0800-0430	215) ZYE957	9645	10	R. Bandeirantes, São Paulo: 0800-0400
654) ZYF	4965	5	R. Soc. Triângulo Mineiro, Uberaba 0800-0300	302) ZYE365	9665	250	R. Nacional, Brasília: 2345-0100
641) ZYF275	4965	5	R. Alvorada, Parintins: 0900-0100	1046) ZYE890	9675	10	R. Marumbi, Florianópolis: W: 0830-0300, Sun: 0900-2200
551) ZYF813	4975	2.5	R. Timbira, São Luz: 0900-0300	237) ZYE963	9685	10	R. Gazeta, São Paulo: 0230-1700
855) ZYG865	4975	1	R. Iguatemi, Osasco (r3296): 0900-0300	554) ZYA245	9695	7.5	R. Rio Mar, Manaus: 0900-2100
531) ZYF690	4985	10	R. Brasil Central, Goiânia. 24h	303) ZYE	9705	10	R. Nacional, Rio de Janeiro: 0800-0300
113) ZYJ680	v5015	1	R. Copacabana, Rio de Janeiro: 0600-0430	470) ZYE960	9745	7.5	R. Cultura, São Paulo: 1130-0230
432) ZYG595	5015	1	R. Pioneira, Teresina: 0700-0400	531) ZYE440	9755	7.5	R. Brasil Central, Goiânia: 0800-0500
560) ZYF903	5015	5	R. Cultura de Cuiabá: 24h	192) ZYE766	9770	7.5	R. MEC, Rio de Janeiro
606) v5025	1		R. Borborema, Campina Grande: 0800-0300	57) ZYE	*11705	10	R. Itatiaia, Belo Horizonte
82) ZYI204	5025	2	R. Vitória, Vila Velha: 0800-0500	577) ZYE441	11735	1	R. Clube Goiânia: 1000-0300
109) ZYG365	v5026	5	R. Jomal Transamazônica, Altamira	337) ZYE966	11765	10	R. Tupi, São Paulo
205) ZYG853	5045	2.5	R. Aparecida: 0900-0300	302) ZYE365	11780	250	R. Nacional da Amazonia, Brasília: 0500-1200, 1500-2400
243) ZYG850	5045	1	R. Difusora Presidente Prudente: 0800-0300	141) ZYE853	11785	7.5	R. Guaíba: 0900-0300
1044) ZYG360	5045	10	R. Cultura do Pará, Belém. 0700-0300	490) ZYE	11805	10	R. Globo, Rio de Janeiro: 0800-0330v
901) ZYG861	5055	1/5	R. Mauá, São João de Meriti: 24h	531) ZYE440	11815	7.5	R. Brasil Central, Goiânia: 0900-0400
237) ZYE962	5955	10	R. Gazeta, São Paulo: 0230-2200	205) ZYE	11855	5	R. Aparecida: 0900-1200, 2000-0300
141) ZYE852	5965	7.5	R. Guaíba, Porto Alegre: 24h	146) ZYE	11865	1	R. Clube de Pernambuco: 0900-0400
685) ZYE891	5975	10	R. Guarujá, Florianópolis: 0900-0300	159x) ZYE296	11875	10	R. Soc. Bahia, Salvador: 1700-0300
192) ZYE766	5990	7.5	R. MEC, Rio de Janeiro	292) ZYE	11895	1	R. Caiçara, Porto Alegre: 24h
236) ZYE521	6000	25	R. Inconfidência, Belo Horizonte: 0700-0300	476) ZYE	11905	1	R. Universo, Curitiba: 1000-0100
205) ZYE954	6010	25	R. Aparecida: 0900-0300	55) ZYE850	11915	10	R. Gaúcha, Porto Alegre: 0900-0300
146) ZYE	6015	10	R. Clube de Pernambuco	215) ZYE958	11925	10	R. Bandeirantes, São Paulo: 0800-0400
476) ZYE727	6020	10	R. Universo, Curitiba: 1000-1200, 2100-0300	700) ZYE726v1	11935	25	R. Clube Paranaense: 0800-0300
1045) ZYE	6025	10	R. Educ. da Bahia, Salvador	192) ZYE766	11950	7.5	R. MEC, Rio de Janeiro
490) ZYE	6035	10	R. Globo, Rio de Janeiro: 0800-0330	307) ZYE952	11965	7.5	R. Record, São Paulo: 1000-2200
700) ZYE725	v6045	7.5	R. Clube Paranaense, Curitiba 24h (nom. 6030)	302) ZYE365	15125	250	R. Nacional, Brasília: 1800-2030
307) ZYE950	6055	7.5	R. Record, São Paulo: 1000-2200	159x) ZYE296	15125	10	R. Soc. Bahia, Salvador: 0900-1700
302) ZYE368	6065	10	R. Nacional, Brasília: 0900-0300	307) ZYE953	15135	7.5	R. Record, São Paulo: 1000-2200
292) ZYE	6080	10	R. Caiçara, Porto Alegre: 1000-2200	179) ZYE	15145	15	R. Jornal do Comercio, Recife: irr.
57) ZYE	*6080	5	R. Itatiaia, Belo Horizonte	337) ZYE967	r15155	7.5	R. Tupi, São Paulo
179) ZYE	6085	15	R. Jornal do Comercio, Recife: 0900-2328	473) ZYE336	r15167	5	Ceará R. Clube, Fortaleza: 1900-0300
287) ZYE965	6095	10	R. Dif. São Paulo: 0700-0300 (relay R. Tupi)	215) ZYE	15175	7.5	R. Bandeirantes, São Paulo
198) ZYE	*6100	5	R. Cultura, Foz de Iguaçu	236) ZYE522	15190	5	R. Inconfidência, Belo Horizonte: irr.
				551) ZYE480	15215	2.5	R. Timbira, São Luz
				302) ZYE369	15245	250	R. Nacional, Brasília

BRAZIL (EXTERNAL SERVICES)BRASILIARadio Nacional of BrazilRadiobras International Service

<u>GMT</u>		<u>kHz</u>
0000-0100	Spanish - Latin America	9665
0145-0200	Portuguese - Central and North America "Brazilian Reporter" - NEWS prepared by the Ministry of External Relations	17830, 15290
0200-0300	English - Central and North America	17830, 15290
1745-1800	Portuguese - Europe "Brazilian Reporter" - NEWS prepared by the Ministry of External Relations	15390
1800-1900	English - Europe	15390
1900-2000	German - Europe	15390
2045-2100	Portuguese - Africa, Europe & South Asia "Brazilian Reporter" - NEWS prepared by the Ministry of External Relations	15280
2100-2200	German - Europe	17720
	Portuguese - Africa, Europe & South Asia	15280
2345-2400	Portuguese - Central and North America "Brazilian Reporter" - NEWS prepared by the Ministry of External Relations	9665

BRAZIL

w.B.I.

BRAZIL Current observations show that Radio Aparecida, the Sao Paulo commercial station, broadcasts a thirty-minute news programme in Portuguese at 1430 on 9635 kHz.

Radio O'Globo, Rio de Janeiro, broadcasts a five-minute news summary in Portuguese at 1555 on 11805 kHz.

Radio Brasil Central in Goiania on 11815 kHz carries a five-minute news summary in Portuguese at 1500.

Radio Inconfidencia in Belo Horizonte has been observed broadcasting a 25 minute news bulletin in Portuguese at 1505 on 15188 kHz. *

MARCH 12 1981
No. 10/A2

BRAZIL According to announcements on 9th October the National Radio's external service schedule has been revised. The schedule is now as follows:

OCT. 15 1981
No. 41/A4

1900-2000	English - Europe	17855, 15125
2100-2200	Portuguese - Africa	15280
0200-0300	English - North and Central America	17830, 15290

BRAZIL A recent survey of the Radio Nacional of Brazil external service shows that a daily news bulletin in Portuguese prepared by the Ministry of External Relations is now broadcast daily from 1800-1815 on 17805 and 15125 kHz, from 2045-2100 on 15280 kHz, from 2345-2400 on 9665 kHz and from 0145-0200 on 17830 and 15290 kHz.

AUG. 19 1982
No. 33/A1

BRAZIL Radio Nacional da Amazonia has recently been observed broadcasting on 15445 and 11780 kHz from 0800-1500 and 1800-0300.

JAN. 6 1983
No. 1/A2

News bulletins are broadcast as follows:

1000-1050	"Jornal Nacional"
1335-1400	"Jornal da Manhã"
1920-1950	"Jornal da Tarde"
0030-0100	"Ultima Edicao"

The station announces that the following stations are part of its national network:

- Radio Nacional de Brazillia, Distrito Federal
- Radio Nacional da Boa Vista, Roraima
- Radio Nacional de Macapa, Amapa
- Radio Nacional da Amazonia (medium wave)
- Radio Nacional de Cruzeiro do Sul, Acre
- Radio Nacional de Tabatinga, Amazonas
- Radio Nacional de Sinop, Mato Grosso
- Radio Nacional de Alta Floresta, Mato Grosso
- Radio Nacional de Fernando de Noronha
- Radio Nacional de Sao Felix, Araguata, Mato Grosso
- Radio Jornal do Comercio, Porte Alegre, Rio Grande do Sul
- Radio Ouro Verde, Curitiba, Parana
- Radio Colmeia, Cascavel, Parana
- Radiodifusora de Alagoas, Alagoas
- Radio Borberema, Campina Grande, Paraiba
- Radio Tabajara, Joao Pessoa, Paraiba

- Radio Ribamar, Sao Luiz, Maranhao
- Radio Cajari, Porto Velho, Rondonia
- Radio Trairy, Natal, Rio Grande do Norte
- Radio Educadora, Espinosa, Minas Gerais
- Radio Progresso, Corrente, Piaui
- Radio Nacional, Rio de Janeiro

CHILE

WRTH
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L.T: UTC-4h — Pr.L: Spanish — E.C: a/c 50. 220/380V(yes).

SUBSECRETARIA DE TELECOMUNICACIONES

ADDR: Amunátegui 139, Santiago. Postal Addr: Clasificador 120, Correo 21, Santiago. Te: 69131. Cable: Subtel. Telex: 40200.

L.P: Jefe de la Adm: Jaime Machuca Blanco. Jefe. Adm. de Frecuencias: Italo Mazzei H.

ASOCIACIÓN DE RADIO DIFUSORAS DE CHILE

ADDR: Cas. 10476, Santiago de Chile. Te: 34509. Cable: Archi. L.P: Pres: Ricardo Bezanilla Renovales. Secr. Gral: Carlos Wilson Marin.

STATIONS: SW: Call letters CE are used for all zones.
MW: Call letters CA, CB, CC and CD indicate: A=No. Zone, B=Central Zone, C=So. Zone and D=Antarctic Zone. The figures indicate the freq in kHz minus one cipher. f. inst.
CB82 = Central Zone 820kHz.

Call	kHz	kW	Name, location and h. of tr.
133) CB157	1570	0.1	R. Transandina, Los Andes
134) CC157	1570	1	R. Nueva O'Higgins, Rancagua: 1100-0625
135) CD158	1580	0.25	R. Acuarela, Nueva Imperial
136) CA158	1580	0.25	R. Guacolda, Huasco
137) CC158	1580	0.25	R. Colchagua, Santa Cruz
138) CD158A	1580	0.5	R. Millaray, Cañete
139) CD158B	1580	0.5	R. Continental, Collipulli
140) CB159	1590	0.25	R. Aconcagua, San Felipe: 1045-0300
141) CC159	1590	0.25	R. Rengo, Rengo
142) CC159	1590	0.1	R. El Roble, Parral
143) CB160A	1600	0.25	R. Chronos, Santiago: 24h
144) CB160B	1600	0.25	R. Reloj, Viña del Mar
145) CC160A	1600	0.25	R. Reloj, Concepción: 1000-0400
Shortwaves: Location: Santiago exc. where indicated.			
36) CE595	5955	1	R. Nuevo Mundo: 1100-0500
63) CE602	6020	1	R. Diego Portales: 1030-0400
52) CE607	6075	2	R. Minería: 1000-0530
43) CE608	6080	1	R. Patagonia Chilena, Coihaique: 1040-0300
41) CE610	6100	1	R. Calama: 0930-2200
13) CE613	6135	10	R. Universidad de Concepción: 1100-0300
61) CE615	6150	5	R. Nacional de Chile, Santiago: 1100-0500
61) CE819	6190	10/1	R. Nacional de Chile
61) CE619	6195	10/1	R. Nacional de Chile: 1000-1510, 1810-0350
146) CE622	6225		R. Emis. Manantial, Chile Chico: 0000-0300v
61) CE951	9510	30/1	R. Nacional de Chile: 1000-1510, 1810-0350
71) CE953	9530	1	R. Nal. de Chile, Arica: 1100-0600
61) CE955	9550	10	R. Nacional de Chile: 1100-2300
63) CE957	v9572r	10	R. Diego Portales: 1030-0400 (n. 9570)
3) CE963	9630	10	R. Agricultura, Santiago: 1000-0400
12) CE963	9630	5	R. El Loa, Chuquicamata
52) CE975	9750	5	R. Minería: 1000-0500
36) CE1173	11730	5	R. Nuevo Mundo: 1100-0500
61) CE1181	11810	30/1	R. Nacional de Chile: 1810-0350
52) CE1196	11960	5	R. Minería: 1000-0500
61) CE1515	15150	100	R. Nacional de Chile: 1100-2300

COLOMBIA

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LT: UTC-5h — Pr.L: Spanish — E.C: a/c 60, 110 120V (yes).

MINISTERIO DE COMUNICACIONES: Dirección General de Radiocomunicaciones, Edificio Murillo Toro, Bogotá, D.E. L.P: Ing. Osvaldo Rodrigues Cadena.

Shortwaves: Call: HJ--: * = inactive, v = varying frequency; h. of 1100-0500 exc. where indicated.

Call	kHz	kW	Name and h. of tr.
27) EU	v4755	5	Caracol, Bogotá: 24h
249) KW	v4775	1	La Voz de Maria "R Kennedy", Bogotá: 1145-0400
273) —	r4782	1	R. Tres Fronteras, Pto. Asis
52) LW	v4785	5	Ecos del Combeima, Ibagué: 24h
64) VG	r4818	1	R. Guatapurí, Valledupar: irr.
152) AM	4835	1	R. Buenaventura: 24h
166) PI	v4835	1	R. Tamboral, Riosucio: 1200-0200
30) GF	4845	10	R. Bucaramanga: 1000-0400
97) FV	4855	1	R. Neiva, Neiva
67) LZ	v4865	1	La Voz del Cinaruco, Arauca: 0900-0400 (Sun 0200)
14) GB	4875	2	R. Super, Medellín (nom 4825)
58) BV	4875	5	La Voz del Norte, Cúcuta: 0915-2
131) IG	v4885	1	Ondas del Meta, Villavicencio
108) OT	v4896	1	Bnsas del Citará, Quibdó: irr.
73a) AG	4905	2	Emis. Atlántico, Barranquilla: 24h
163) TM	4915	1	R. Sonar, Ocaña: 24h
119) JU	v4925	2.5	Em. Meridiano 70, Arauca: 1100-0200
87) DE	4935	1	R. Villavicencio, Villavicencio
45) DH	4945	20	Caracol Neiva Colosal, Neiva: 24h
2) CQ	4955	50	R. Dif. Nacional, Bogotá: 0930-0500
74) AE	4965	5	R. Santa Fé, Bogotá: 24h
112) QA	4975	1	Ondas del Orteguaiza, Florencia: 1000-0300
126) OX	5010	2.5	R. Cult. Surcolombiana, Neiva: 24h
232) FW	v5020	2	Ecos del Atrato, Quibdó: 1000-0600
258) IC	5035	1	La Voz del Caquetá, Florencia: 1000-0500
160) OW	v5040	2	R. Cinco, Villavicencio: 24h
210) PV	v5051	1	La Voz de Yopal, Yopal
5c) GC	5075	25	R. Sutatenza, Bogotá: 0900-0400
5c) GG	5095	50	R. Sutatenza, Bogotá: 0900-0400
2) —	r5932	25	R. Dif. Nat., Bogotá
101) OQ	v5962	5	La Voz de los Centauros, Villavicencio: 0930-0500
3) HA	*5985	10	Transm. de la Independencia, Turja
130) OY	6015	2.5	R. Mira, Tumaco: 1100-0500
52) LW	r6026	5	Ecos del Combeima, Ibagué
2) ZJ	v6030	25	R. Dif. Nacional, Bogotá
121) WA	v6035	1	R. Transamazónica, San José del Guaviare
29) LB	6040	10	La Voz del Tolima, Ibagué
Call	kHz	kW	Name, location and h. of tr.
16) —	r6045	5	R. Melodía, Bogotá
59) AX	6065	5	R. Super, Bogotá: 24h
5c) ID	6075	10	R. Sutatenza, Bogotá: 1000-0400
269) TF	6085	1	Ondas del Darién, Turbo: 1000-0500
69) IW	6095	5	La Voz del Centro, Espinal: 0900-0530
19) —	r6105	1	R. Visión, Medellín
49) IA	6115	1	La Voz del Llano, Villavicencio: 0900-0500
135) —	v6120	10	R. Super, Cali: 24h
10) KE	*6125	1	R. Continental, Bogotá: 24h
219) EQ	*6145	1	La Voz del Cauca, Popayán
138) FR	6150	2	La Voz del Huila, Neiva: 24h
1b) KJ	v6160	10	Emis. Nueva Granada, Bogotá: 24h
79) KF	6170	1	La Voz de la Selva, Florencia
2) OO	6180	25	R. Nacional, Bogotá
101) OQ	6190	5	La Voz de los Centauros, Villavicencio: 24h
11) —	6195	1	La Voz de Cali, Cali
2) ZM	v9635	25	R. Dif. Nacional, Bogotá: 0930-0500
2) ZK	v9685	25	R. Dif. Nacional, Bogotá
2) ZN	11795	25	R. Dif. Nacional, Bogotá
2) ZO	*11825	25	R. Dif. Nacional, Bogotá
2) ZP	15335	25	R. Dif. Nacional, Bogotá
2) —	15500	3	R. Dif. Nacional, Bogotá (SSB)

COLOMBIA Observations of Radio Sutatenza, Bogota, on 30th May indicated the following frequency usage and programming:

			Programme
Bogota	6075 kHz	10 kW	2
Bogota	5095 kHz	50 kW	1
Bogota	5075 kHz	25 kW	2
Barranquilla	1010 kHz	10 kW	1
Magangue	960 kHz		1
Bogota	810 kHz	250 kW	1
Call	700 kHz	120 kW	1
Medellin	590 kHz	100 kW	1

JUNE 4 1981
NO. 22 /A1

The station was heard on 5095, 5075 and 960 kHz.

All transmitters link every half-hour to relay Mundonoticias (World News) and news bulletins. Mundonoticias is carried by Programme 1 at 0130-0200 and 0330-0400, and by Programme 2 at 1130-1245, 1800-1845 and 0100-0130. The linked service is also relayed by Ecos de Pasto, Pasto; La Voz de los Andes, Manizales; La Voz de Pamplona, Pamplona; La Voz del Petroleo, Barrancabermeja; Ondas de Macondo, Valledupar; Radio Sonodisco, Caicedonia; Radio Las Lajas, Las Lajas Narino; Radio Tres Fronteras, Puerto Asis Putumayo; Radio Melodia and Radio Nacional Espejo, Quito (Ecuador), and stations affiliated to Cadena Amarillo, Azul y Rojo. *

COLOMBIA Radio Nacional de Colombia was observed on 2nd October broadcasting on 15498.9 kHz. The transmitter was operating in double sideband mode with reduced carrier. *

OCT. 8 1981
NO. 40 /A5

COSTA RICA

W R T H
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L.T: UTC-6h — Pr.L: Spanish — E.C: a/c 60, 120/220V(no.)

CONTROL NACIONAL DE RADIO

ADDR: Ap. 3483, San José. Te: 213658. Cable: Radcontrol.
L.P: Dir: Alexis Acuña.

CAMARA NACIONAL DE RADIO (CANARA)

ADDR: Ap. 6574, San José. Te: 224820.
L.P: Pres: Rigoberto Urbina Pinto. Secr: Carlos Daría Angulo Zeledón.

RADIO CADENA NACIONAL S.A.

ADDR: Ap. 4318, San José. Te: 219022. St's: 7), 11), 14).

Shortwaves:

7) HB	4832	1	R. Reloj, San José: 24h
18) FC	5055	5	Faro del Caribe, San José: 1100-0400
19) Q	5954	1	R. Casino, Limón: 1100-0600 (English: 0500-0600)
7) HB	6006	1	R. Reloj, San José: 24h
3)	6035	2	R. Nat. de Costa Rica, San José: 1000(Sun 1200)-0600
1) CAL	v6075	1	R. Rumbo, Cartago: 24h
20) PJ	r6082	0.25R.	Nueva Victoria, Heredia: 1100-0500
12) UCR	r6098	10	R. Universidad S. Pedro Montes de Oca(nom. 6105)
Call	KHz	kW	Name and h. of tr.
15) RS	6150	1	ABC Radio, San José: 1100-0500
18) FC	6175	2.5	Faro del Caribe: 1100-0400
18) FC	9645	1	Faro del Caribe: 1100-0400

COSTA RICA The French news agency, AFP, reported on 7th March that Radio Noticias del Continente had ceased transmissions following a decree issued by President Rodrigo Carazo. The temporary closure of Radio Noticias del Continente had been ordered until the completion of investigations following a raid on the station when police had found weapons.

MARCH 12 1981

NO. 10/A2

A communique, issued by the radio, claimed that since it went on the air in June 1979 it had been the target of a systematic campaign to destroy the station. The communique added that Radio Noticias would try all possible means to have the closure order rescinded. In the meantime, beginning on 9th March, the stations which form part of the network of solidarity would broadcast a news programme prepared by the newsroom staff of Radio Noticias. The communique mentioned Radio Sweden, Radio Mexico, and Radio Canada International, amongst others, as forming part of the network of solidarity. (See WBI No. 7 1981).

COSTA RICA According to Radio Reloj (San Jose) on 26th January, the National Chamber of Radio has asked the Government to intervene in the problem "provoked by radio stations from other countries that interfere with local radio stations and introduce their ideology in Costa Rican territory". In the north of Costa Rica, broadcasts from Nicaragua were clearly heard and these broadcasts included information "not in line with the Costa Ricans' way of life or with their political system".

FEB. 4 1982

NO. 5 /A2

COSTA RICA Radio Reloj quoted the Minister of Information as telling the meeting of Inter-American Radio Broadcasters that ended in San Jose on 25th October that the Costa Rican government would exercise its full right of sovereignty over radio broadcasting. Analysing the problems faced by Costa Rica and the developing countries due to radio "penetration" from other countries, he said that efforts must be made to achieve respect for the right of radio broadcasting sovereignty. Communities distant from the capital were justly demanding their right to have their own radio broadcasting infrastructure "to permit them to participate in the democratic dialogue that is the basis of our way of life".

NOV. 4 1982

NO. 44 /A2

Costa Rica's economic progress made it advisable, according to the Minister of Information, to increase the use of frequencies and power so that the frequency spectrum (particularly the medium-wave band) would be more rationally utilized. The recent establishment of a "revolutionary" regime in Nicaragua, which had begun an ambitious radio and television development programme presented an unprecedented challenge to Costa Rica in this important field. The Information Minister disclosed that, in accordance with information supplied by the International Telecommunications Union, Nicaragua planned to install 67 new medium-wave stations by 31st December 1985. If Costa Rica did not rapidly develop its radio broadcasting system within three and a half years, Nicaragua would have 105 medium-wave stations with a total power of 1,074 kilowatts, while Costa Rica would be at a disadvantage with 52 stations and power totalling 509 kilowatts. Costa Rica was already at a dramatic disadvantage in the area of medium-wave broadcasting. He said that Costa Rica was making efforts to expand its coverage and achieve the recovery of "radio sovereignty" (cf. WBI No. 40 1982).

CUBA

WRTH
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RADIO HABANA, Cuba

ADDR: Apartado 7026, La Habana. **Te:** 7-4954.

STATIONS (G.C: 82.30W-23.00N): 50/100kW. Frqs marked * are relays via USSR tr's.

kHz	kHz	kHz	kHz	kHz	kHz	kHz
6060	9720*	9770	11760	11950	15385	17710*
9525	9730	11705*	11835	15230	15385*	17750
9550	9750	11725	11930	15340	17705	17795
9685						17835

I = No. Europe — II = Mediterranean/Africa — III = No. America — IV = Caribbean — V = So. America — VI = No. Ce. and So. America.

NB: No recent information received.

English	Area	kHz	Guarani	Area	kHz
1700-1800	II	17710*	2200-2300	V	15340
2010-2140	I	15365	Quechua		
2050-2150	VI	11725	1000-1050	V	9750
		17750	2200-2300	V	15230
2200-2300	I	11705*	Portuguese		
0100-0450	VI	11930	0730-0830	II	15230
0100-0600	VI	11725	0900-1000	V	11930
0330-0600	VI	11760	2000-2100	II	15385*
0630-0800	III	9525			17710*
French			2300-2400	V	15340
0830-0930	II	15230	Arabic		
1600-1700	II	17710*	1500-1600	II	17710*
1700-1840	II	15230	2040-2140	II	11950
		11950			15230
1900-2010	I	15365	Spanish		
2100-2200	III	11705*	0630-0730	II	15230
		17795	0930-1045	II	15230
0300-0330	III	11760	1800-2000	II	15385*
Creole					17710*
1100-1200	IV/V	6060	1840-2040	II	11950
0200-0300	IV/V	6060			15230

Spanish to the Americas

Times	kHz
1100-1645	9550, 11725, 11760, 15230, 17705, 17750
1645-1830	11725, 11760, 17750
1830-2050	17725, 17750
2200-2300	6060, 9685, 9730, 9770, 11760
2300-2400	6060, 9685, 9730, 9770, 11760, 15230
0000-0050	6060, 9685, 9730, 9770, 11760, 15230, 15340
0050-0200	6060, 9730, 9770, 11760, 15230, 15340
0200-0300	9730, 9770, 11760, 15230, 15340 (to 0245)
0300-0600	6060, 9525, 9730, 9770, 15230

V. by QSL-card — **PUB:** Prgr. schedule free on request.

CJBA (EXTERNAL SERVICES)HAVANA"Radio Havana"

Broadcasts/frequencies marked * comes from transmitters in the USSR

<u>GMT</u>		<u>kHz</u>
0000-0050	Spanish - the Americas	17760, 17705, 15335, 11970, 11760, 9770, 6080, 6060
0050-0200	Spanish - the Americas	17760, 17705, 15335, 11760, 9770, 6080, 6060
0100-0450	English - the Americas	15300, 11930
0200-0300	Creole - Haiti	6060
	Spanish - the Americas	17760, 17705, 15335, 11760, 9770
0300-0330	French - the Americas	11760
0300-0600	Spanish - the Americas	17760, 17705, 9770, 6080, 6020
0330-0600	English - the Americas	11760
0400-0925	Spanish - the Americas ("Voice of Cuba")	1160 (to 0900), 720, 690, 650, 630
0450-0600	English - the Americas	15300
0630-0730	Spanish - Mediterranean Area & Africa	11970
0630-0800	English - the Americas	6020
0730-0830	Portuguese - Mediterranean Area & & Africa	11970
0830-0930	French - Mediterranean Area & Africa	11970

Cuba (External Services)

<u>GMT</u>		<u>kHz</u>
0900-1000	Portuguese - Brazil	11930
0930-1045	Spanish - Mediterranean Area & Africa	11970
1000-1050	Quechua - Bolivia, Peru & Ecuador	11760
1100-1200	Creole - Haiti	6060
1100-1645	Spanish - the Americas	17880, 17760, 17705, 15300, 11760, 9545
1500-1600	* Arabic - Mediterranean Area & Africa	11765
1600-1700	* French - Mediterranean Area & Africa	11765
1645-1830	Spanish - the Americas	17880, 15300, 11760
1700-1800	* English - Mediterranean Area & Africa	11765
1700-1840	French - Mediterranean Area & Africa	17705, 11890
1800-2000	* Spanish - Mediterranean Area & Africa	11765, 9720
1830-2050	Spanish - the Americas	17880, 15300
1840-2040	Spanish - Mediterranean Area & Africa	17705, 11890
1900-2010	French - Europe	11950
2000-2100	* Portuguese - Mediterranean Area & Africa	17765, 9720
2010-2140	English - Europe	11950
2040-2140	Arabic - Mediterranean Area & Africa	17705, 11890
2050-2140	English - the Americas	17880, 15300
2100-2200	* French - Europe	9550, 7135
2200-2300	Guarani - Paraguay	15335
	* English - Europe	7135
2200-2300	Quecha - Bolivia, Peru & Ecuador	17705
	Spanish - the Americas	17760, 11970, 11760, 9770, 6060
2300-2400	Portuguese - Brazil	15335
	Spanish - the Americas	17760, 17705, 11970, 11760, 9770, 6060

Cuba (External Services)LANGUAGE AND TARGET SCHEDULE"Radio Havana"BROADCASTS TO EUROPE

English
2010-2140
2200-2300*

French
1900-2010
2100-2200*

BROADCASTS TO THE MEDITERRANEAN AREA & AFRICA

Arabic
1500-1600*
2040-2140

English
1700-1800*

French
0830-0930
1600-1700*
1700-1840

Portuguese
0730-0830

Spanish
0630-0730
0930-1045
1800-2000*
1840-2040

BROADCASTS TO THE AMERICAS

Creole - Haiti
0200-0300
1100-1200

English
0100-0450
0330-0600
0450-0600
0630-0800
2050-2140

French
0300-0330

Guarani
2200-2300

Portuguese - Brazil
0900-1000
2300-2400

Quechua - Bolivia, Peru
& Ecuador
1000-1050
2200-2300

Spanish
0000-0050 1645-1830
0050-0200 1830-2050
0200-0300 2200-2300
0300-0600 2300-2400
0400-0925 ("Voice of Cuba")
1100-1645

Note: Broadcasts marked * come from transmitters in the USSR

CUBA Radio Havana reported on 15th July that the Minister of Communications said at a Ministry meeting on the quality of services that Cuba would spend a large amount of money on "international radio broadcasting and communications" during the current five-year period. He went on to announce the proposed expansion of Cuban circuits via the Intelsat and Intersputnik space communications systems. He also dealt with past administration of communications and the prospects for the coming years.

JULY 23 1981
NO. 29/A1

CUBA On 9th September Radio Havana quoted the magazine of the Cuban Armed Forces 'Verde Olivo' as stating that plans to create an official anti-Cuban radio station in the United States represented a "new provocation" against Cuba. The magazine stated that, while the governments of the USA and Cuba were holding talks about mutual radio interference in Washington on 1st September, a US State Department spokesman announced that work was being carried out to install a powerful radio station called "Free Cuba" which would be used to "harass" the government of Cuba.

SEPT. 17 1981
NO. 37 /A2

(Ed Note: This is not a reference to the "Radio Free Cuba" station which operates daily from 0300-0330 on 6990 kHz (cf. WBI No. 36 1981). *

CUBA Radio Havana reported that the Vice President of the Council of Ministers opened the Second Non-aligned Radio Festival at the Palace of Conventions in Havana on 5th October. Delegates to the Festival came from non-aligned, socialist, Latin American and Caribbean countries. During his opening speech, the Vice President said that the (non-aligned) radio broadcasting organizations had outlined a programme of action to "rescue" the frequency spectrum. He stressed that only equal access to the frequency spectrum could ensure a balanced and equitable development of the radio broadcasting infrastructure. The Vice President went on to say that the "imperialists" did not think that taking over the earth's surface, subsoil and seas was enough. They also wanted to take over a resource (the frequency spectrum), which, like oil, was finite and must be equally distributed. "Whereas the United States had taken over the frequencies of a large part of America and used repeaters all over the world, interfering with signals of stations with less power or taking over others, the non-aligned countries had no access to that universal patrimony".

OCT. 8 1981
NO. 40 /A5

Radio Havana added that the Vice President was referring to the "new and gross imperialist aggression in the area of radio broadcasting (specifically, the use of frequencies)" when he reported the forthcoming appearance of a "counterrevolutionary" radio station which would have directional transmission antennas beamed to Cuba (cf. WBI Nos. 37 & 38 1981). *

CUBA/LAOS Cuban Television reported that the first co-operation agreement between the Laotian and Cuban radio-broadcasting organizations was signed in Havana on 13th October. The documents, which included technical assistance and the exchange of information over the next three years, were signed by the Director General of the Laotian National Radio Department and the Vice-President of the Cuban Institute of Radio and Television. *

OCT. 22 1981
NO. 42 /A3

CUBA/MOZAMBIQUE Radio Mozambique reported that it had signed a co-operation agreement with the Cuban Institute of Radio and Television. It was signed by the latter's Deputy President and a representative of the Central Information Department of Radio Mozambique who was in Havana to attend the International Radio Festival of the Non-aligned Countries. *

OCT. 22 1981
NO. 42/A3

CUBA/CZECHOSLOVAKIA According to a Radio Havana report, the President of the Cuban Institute of Radio and Television and the Director General of Czechoslovak Television signed a co-operation protocol for the 1982-83 period in Havana on 23rd October. *

OCT. 29 1981
NO. 43/A3

USSR/CUBA According to a recent survey, Radio Moscow's English-language external services are relayed from transmitters in Cuba as follows:

Radio Moscow World Service	0400-0500	9600, 600 kHz
	1000-1100	9600 kHz
	1100-1300	9600, 600 kHz
	1300-1400	11840, 600 kHz
	1400-2200	11840 kHz
North American Service	2300-2400	600 kHz
	0000-0400	9600, 600 kHz

NOV. 12 1981
NO. 45/A3

The above transmissions are heard with a one to two second delay compared with those originating from transmitters in the USSR.

The 600 kHz channel also carries Radio Havana's Voice of Cuba service in Spanish from 0500-1100. The English-language "Voice of Cuba" service is carried on 550 kHz from 0500-1000. *

CUBA/VIETNAM The Vietnamese news agency VNA and Radio Havana reported that Cuba and Vietnam had signed a radio and television co-operation agreement in Havana on 21st November. The agreement, which was signed by the President of the Cuban Institute of Radio and Television and the Chairman of Vietnam's central Radio and Television Commission, provides for the exchange of films, tapes, information and expertise. *

DEC. 3 1981
NO. 48/A2

CUBA Radio Havana's external service transmission beamed to the Middle East and Africa from a transmitter in the USSR is now heard on 17710 instead of 17765 kHz. The programmes in Arabic, French and English are broadcast from 1500, 1600 and 1700.

JUNE 10 1982
NO. 23/A3

A domestic service report from Havana announced that a solemn ceremony had taken place in Havana on 22nd May to commemorate the 20th anniversary of the Cuban Radio and Television Institute. In addition "numerous activities" were continuing throughout the country to mark this occasion. At the ceremony a member of the Party Secretariat condemned the United States' plan to put on the air a radio station which had been named "Radio Jose Marti" (Ed Note: this is presumably a reference to the proposed radio station reported under the heading United States of America/Cuba in WBI No. 13 1982). The member of the Party Secretariat added that "relying on the efforts of the Cuban broadcasting workers, we can counter the ideological venom spread by this imperialist station". *

CUBA Since 7th August the Radio Havana external service has been carrying a special transmission concerning the Central American and Caribbean Games on 11760 and 9550 kHz. The regular Radio Havana external service in Spanish has been heard since the start of the Games as follows:

AUG. 12 1982
NO. 32/A1

1100-1645	17750, 17705, 15230, 11725 kHz.
1645-1830	17750, 11725 kHz.
1830-2030	17750, 11725 kHz.

Other Radio Havana external Spanish services are unaffected (cf. schedule No. 27/B 1982). *

CUBA Radio Havana announced that from 6th September its morning Quechua service (Ed. Note: presumably from 1000-1050) would be broadcast in the 45-metre band on 6700 or 6710 kHz.

SEPT. 9 1982
NO. 36/A2

The 2300-2350 Quechua service continues to be heard on 15230 kHz (cf. Schedule No. 27/B 1982). *

CUBA/UNITED STATES OF AMERICA The French news agency AFP quoted official sources in Havana as confirming that on 30th August a transmission from a Cuban radio station had "blanked out" commercial radio stations in at least four states of the USA - Texas, Missouri, Iowa and Tennessee. The transmission, consisting of a Cuban music programme alternating with an English-language newscast called the "Voice of Cuba" and broadcast on several medium-wave frequencies, was said to be "a small test". The "sources" consulted by AFP in Havana declined to say whether what they described as "small tests" would continue on a regular basis, but said that the "Voice of Cuba" was an old programme beamed abroad (cf. WBI No. 22 1982). "Small tests" had also been conducted on 26th August.

SEPT. 9 1982
NO. 36/A2

CUBA Since 8th November Radio Havana's external Spanish service to the Americas has been observed on the following frequencies:

0000-0050	17760, 17705, 15335, 11970, 11760, 9770 kHz
0050-0200	17760, 17705, 15335, 11760, 9770 kHz
0200-0245	17760, 17705, 15335, 11760, 9770 kHz
0245-0300	17760, 17705, 11760, 9770 kHz
0300-0600	17760, 17705, 9770, 6020 kHz
1100-1645	17880, 17760, 17705, 11760, 9545 kHz
1645-1830	17880, 11760 kHz
1830-2050	17880 kHz
2200-2300	17760, 11970, 11760, 9770 kHz
2300-2400	17760, 17705, 11970, 11760, 9770 kHz

NOV. 18 1982
NO. 46/A2

DOMINICAN REPUBLIC

LT: UTC-4h — Pr.L: Spanish — E.C: a/c 60, 110V (yes).

**DIRECCION GENERAL DE CORREOS Y
TELECOMUNICACIONES**

ADDR: Calle Isabel la Catolica, Santo Domingo. Te: 682-2244.
Cable: Telcom — L.P: Dir. Gen: William Soto Medina.

Shortwaves: Call: HI--.

4) AU	v3205	5	La Voz de la Libertad, Pto. Plata: irr.
14) AQ	v4800	1	R. Norte, Santiago (nom. 4750): irr.
56) BE	r4930	1	R. Mil, Sto. Domingo (n. 4940)
58) CV	4930	5	R. Barahona, Barahona: irr.
6) SD	v5967	50	R. TV Dominicana, Sto. Domingo, (nom. 5970): irr.
62) —	r6190	0.5	La Voz de la Libertad, Pto. Plata: irr.
6) SD	9505	50	R. TV Dominicana, Sto. Domingo: irr.
24) UA	v11700	50	R. Clarin, Sto. Domingo: 1100-0500

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DOMINICAN REPUBLIC

W.B.I.

DOMINICAN REPUBLIC Radio Clarin was heard broadcasting on 11700 kHz on 2nd October. On 3rd October the station signed on at 2215 announcing that it was beginning its "International short-wave broadcasting" from its 50-kilowatt transmitter on 11700 kHz and a three-kilowatt one on 4850 kHz. Radio Clarin identifies itself in Spanish and English and describes Santo Domingo, where its studios are located, as the "Gateway of the first civilization to the New World".

OCT. 8 1981
NO. 40/A6

Programmes consisted of music and commentaries and included a service in Spanish from 0100-0125 called "The Voice of Independent Cuba". Its material was hostile to the present Cuban government.

Radio Clarin signed off at 0130 on 4th October. However, it announced that its total broadcast time was six hours. *

DOMINICAN REPUBLIC Further observations of HILR Radio Clarin's transmissions on 11700 kHz show that its international shortwave broadcast addressed to listeners "in the Dominican Republic and the entire World" signs on at 0000. This Spanish service ends at 0100 although Radio Clarin continues to mention a six-hour broadcasting span and the additional use of 4850 and 860 kHz as well as 105.5 MHz. From 0100-0130 Radio Clarin addresses itself to listeners in Cuba with a programme in Spanish called "The Voice of Independent and Democratic Cuba" (Spanish: La Voz de Cuba Independiente y Democratica). This programme is also referred to as "La Voz del Cid". The 11700 kHz channel signs off at 0130 (cf. WBI No. 40 1981).*

OCT. 22 1981
NO. 42/A3

L.T: UTC-5h — Pr.L: Spanish, Quechua — E.C: avc 60, 110,220V (yes).

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INSTITUTO ECUATORIANO DE TELECOMUNICACIONES (IETEL)

ADDR: Casilla 3066. Quito. Cable: Ietel. L.P: Dir. of Frequency Division: Victor Zabala Cmel. Chief Plan Dept: Ing. César Lara P.

ASOCIACION ECUATORIANA DE RADIODIFUSION

ADDR: Esmeraldas 865. Quito. Te: 243666.

Table listing radio stations with columns: Call, kHz, kW, Name and h. of tr. Includes entries like 229) SE7 3210 10 R. Federación, Sucúa: 1100-0300 and 240) GM7 4870 5 R. Rio Amazonas, Macuma: 1030-1300, 1700-0400.

20) LA VOZ DE LOS ANDES (HJCB)

ADDR: Casilla 691. Quito. Cable: Vozandes (USA Office. Voice of the Andes, Box 3000, Miami, Florida 33055) L.P: Pres. Ron Clinton. Dir. of Communications: Tom Fulghum Field Dir. Ben R. Cummings. Frequency Mg: Roger Stubbe Head of Spanish Sce: José Reinoso. Head of English Sce: Phil Sandael Head of French Sce: Rosemarie Manney Head of German Sce: Peter Hübert. Head of Portuguese Sce: Victor Arndt Head of Russian Sce: Alexei Kushnikov Head of Nordic Sce: Mats Gunnarsson. Head of Japanese Sce: Kazuo Ozaki.

Table with columns kHz, kHz, kHz, kHz, kHz, kHz, kHz. Values: 6050 6095 9720 11810 11915 15160 17825...

HOME SCE. in Spanish: 1030-0500 on 428 and 49 m.b.: 1030-1600 in 25, 31 m.b. 1600-2200 in 19 m.b.; 2230-0500 in 25 m.b.

INTERNATIONAL SERVICE:

4 x 50kW, 3 x 100kW, 1 x 500kW SW trs (G C: 78.20W 00 14S) I= Europe. II= No Ce America. III= So. America. IV= So Pacific V= Japan. VI= Middle East, VII= Eastern Siberia. L= Local Mediumwave R= Regional (to 1500KM). a) Mon-Fri b) Sat Sun

Table listing international services with columns: Czech Area kHz, English Area kHz, German Area kHz, Russian Area kHz, Quechua, Japanese, Nordic, Portuguese, Spanish, Romanian, Russian. Includes frequencies like 0530-0600, 1800-1830, 0630-0700, etc.

ECUADOR (EXTERNAL SERVICES)QUITO

World Radio Missionary Fellowship, Inc.
H.C.J.B. "Voice of the Andes"

A low power transmitter on 26020 kHz is used for some services at varying times.

<u>GMT</u>		<u>kHz</u>
0000-0030	German - South America	15175
0030-0130	English - the Americas	17885, 15175, 15155, 9745
0130-0200	French - North America	15295, 11810
0130-0500	English - North America	17885 (to 0200), 15155, 9745
	Spanish - the Americas	15175 to 0230, 11960, 6090 from 0200, 6050, 3220 from 0200
0230-0430	Russian - Europe	11810 to 0400, 11835, 9515 to 0400
0400-0500 (to 0430 Sa.Su.)	Romanian - Europe	11835 (not Sa.Su.), 11810 to 0430, 9515 to 0430
0430-0530	Russian (USSR) - Europe	11835 (Sa.Su. only to 0500), 11810, 9515
0500-0600 (to 0530 Sa.Su.)	Nordic - Europe	11835
0500-0700	English - North America	11915, 9745, 6095
0530-0600	Czech - Europe	11835 (Sa.Su.), 11810 9515
0600-0645 (to 0630 Sa.Su.)	German - Europe	11835 to 0645 not Sa.Su., 9720 to 0630
0630-0700	French - Europe	11810, 9720
	Nordic - Europe (Sa.Su.)	11835

Ecuador (External Services)

<u>GMT</u>		<u>kHz</u>
0700-0830	English - Europe from 0645 Sa.Su.	11835 from 0645 Sa.Su. 9720
0700-1100	English - Pacific	11925, 9745 (to 1030), 6130
0900-0930	Quechua - South America	9720, 6070
0930-1000	German - South America	9720, 6070
1000-1030	Portuguese - South America	9720, 6070
1030-1130	Quechua - South America	9720, 6070
1030-1530	Spanish - South Americas and North America	15395 (to 1315), 11910 9765, 6050, 690
1100-1130	Russian - Pacific	11925, 6130
1130-1200	Japanese - Japan	9715, 6075
1200-1530	English - the Americas	17890, 15115, 11740 to 1430
1530-2145	Spanish - the Americas	17890, 15160, 6050, 690
1730-1800	English - Europe	21480, 17825
1800-1830	Czech - Europe	21480, 17825
1830-1900	German - Europe	21480, 17825
1900-2000	English - Europe	21480, 17825
2000-2030	Nordic - Europe	21480, 17825, 15295
2030-2100	French - Europe	21480, 17825, 15295
2100-2130	German - Europe	21480, 15295
	Nordic - Europe	17825

Ecuador (External Services)

<u>GMT</u>		<u>KHz</u>
2130-2200	English - Europe	21480, 17825, 15295
2145-2245	Spanish - South America	6050, 690
2200-2230	Spanish - Europe	21480, 15295
2200-2300	Japanese - South America	17745, 15295
2200-0030	Quechua - South America	11900, 9745
2245-0130	Spanish - the Americas	11960, 6050, 690
2230-2300	Russian - South America	15175
2300-2330	German - South America	15175
2300-0130	Portuguese - South America	17745, 15295 15175 (2330-0000)

Regional services for Ecuador and neighbouring countriesTransmission time: 0900-1430; 2100-0200

0900-1030	Quechua	6090, 6050, 3220, 690
1030-1300	Quechua	6090, 3220
1300-1430	Quechua	6090
2100-2130	Quechua	6090
2130-0200	Quechua	6090, 3220

Ecuador (External Services)LANGUAGE AND TARGET SCHEDULEBROADCASTS TO EUROPE

<u>Czech</u> 0530-0600 1800-1830	<u>English</u> 0700-0830 (fr.0645. Sa.Su.) 1730-1800 1900-2000 2130-2200	<u>French</u> 0630-0700 2030-2100
<u>German</u> 0600-0645 (to 0630 Sa.Su.) 1830-1900 2100-2130	<u>Romanian</u> 0400-0500 (to 0430 Sa.Su.)	
<u>Russian</u> 0230-0430 0430-0530	<u>Spanish</u> 2200-2230	<u>Nordic (mainly Swedish)</u> 0500-0600 (to 0530 Sa.Su.) 0630-0700 (Sa.Su.) 2000-2030 2100-2130

BROADCASTS TO THE FAR EAST

Japanese
1130-1200 - Japan

BROADCASTS TO THE PACIFIC

<u>English</u> 0700-1100	<u>Russian</u> 1100-1130	<u>Spanish - & S.Am. to</u> 1030-1100 1600, N.Am. from 1100
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BROADCASTS TO NORTH AMERICA

<u>English</u> 0030-0130 & South 0130-0500 0500-0700 1200-1530 - & South America	<u>French</u> 0130-0200	<u>Spanish - & S. Amer.</u> 0130-0500 1030-1530 1530-2145 2245-0130
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Ecuador (External Services)BROADCASTS TO SOUTH AMERICAEnglish - & North

0030-0130

1200-1530

German

0000-0030

0930-1000

2300-2330

Japanese

2200-2300

Portuguese

1000-1030

2300-0130

Quechua

0900-0930

1030-1130

2200-0030

Russian

2230-2300

Spanish

0130-0500 - & North

1030-1530 - & North

1530-2145 - & North

2145-2245

2245-0130 - & North

Regional Service for Ecuador and neighbouring countriesQuechua

0900-1030

1030-1300

1300-1430

2100-2130

2130-0200

ECUADOR The Voice of the Andes announced in its Spanish service on 15th February that the President of Ecuador would be inaugurating the Voice of the Andes new 500-kilowatt shortwave transmitter on 18th February.

FEB. 26 1981
No. 8/A1

ECUADOR In a broadcast in Spanish on 19th February the Voice of the Andes announced that its new 500 kW computerised transmitter had been brought into operation. This shortwave transmitter, which is to beam broadcasts to various parts of the world, was specially modified to work at Quito's high altitude and was of the modern "energy efficient" type.
(see WBI No. 8 1981).*

MARCH 12 1981
No. 10/A3

ECUADOR A relay of the Radio Nacional de Ecuador domestic service, normally broadcast on 640 kHz medium-wave, has been observed on 15115 kHz from 2155-0030. News headlines in Spanish are heard at 2200 and 2233 and a one-hour news magazine "En La Noticia" from 2300-2400. This includes national news and a news summary in Quechua and Spanish, international news, news of the United Nations and an international commentary.

FEB. 24 1983
No. 8/A2

The broadcast which is believed to be from a transmitter owned by HCJB, the Voice of the Andes ended with a 30-minute programme for Ecuadorians abroad. **

ECUADOR The relay of the Radio Nacional del Ecuador domestic service on 15115 kHz from 2155-0030 is announced as being for listeners abroad. Reception reports were requested to be sent to Box 82, Quito, Ecuador (cf. WBI No. 8 1983). *

MARCH 3 1983
No. 9/A2

EL SALVADOR

L.T: UTC-6h — Pr.L: Spanish — E.C: a/c 60, 110/220V (yes).

**ADMINISTRACION NACIONAL DE
TELECOMUNICACIONES, ANTEL**

ADDR: Centro de Gobierno, San Salvador. Cable: Presantel.
L.P: Pres: Tte. Cnel. Nicolás Carranza H.

**ASOCIACION SALVADOREÑA DE EMPRESARIOS
DE RADIODIFUSIÓN**

ADDR: Ap. Postal 210, San Salvador — Pres: A. Rivas C.

Shortwave:

5) S 5980 — R. El Salvador, San Salvador
5) S r9553 10 R. El Salvador, San Salvador (n. 9555)
FM: 54) 92.1, 23) 93.7, 10) 96.1, 5) 96.9, 55) 99.3, 56) 100.1, 29)
102.5, 23) 103.3, 10) 104.0MHz.

WATH
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EL SALVADOR Radio Nacional de El Salvador has been observed again on 9552 kHz since 2130 on 12th January. It had been off the air since 29th December. *

JAN. 15 1981
NO. 2 /A3

EL SALVADOR According to a report from "Radio Venceremos" on 24th February, a "commando group" from the Farabundo Marti National Liberation Front had put Radio Seniorial off the air. Its installations had been completely destroyed. (Ed. Note: Radio Seniorial operated from San Salvador on 540 kHz.) *

MARCH 5 1981
NO. 9 /A2

EL SALVADOR According to the newspaper 'Diario Latino' on 3rd November, a new clandestine radio, expressing views opposed to those of "Radio Venceremos", was heard in San Salvador on 1st November, interfering with the transmissions of "Radio Venceremos" (cf. WBI No. 44 1982). On 6th November "Radio Venceremos" itself carried a statement issued by a member of the FMLN General Command on 4th November which said that the "poorly-named" Radio Reorientacion had begun interfering with the broadcasts of "Radio Farabundo Marti" and "Radio Venceremos" of the FMLN. It was "spreading its venom and misinformation as an instrument of the Salvadoran government's fascist psychological warfare". "Radio Venceremos" added that the radio was using the same frequencies, schedule and style as the revolutionary radio stations.

NOV. 11 1982
NO. 45 /A2

According to monitoring observations since 30th October, the 0230 and 1200 transmissions of "Radio Venceremos" on 6717-6720 kHz have been observed being accompanied by a transmission by two unidentified announcers reading commentaries in Spanish related to the popular liberation forces and criticizing "yankee imperialism". *

"RADIO GUAZAPA"/EL SALVADOR According to a report from the Cuban broadcasting station Radio Liberacion, a new radio station belonging to the Salvadoran guerrillas called "Radio Guazapa" will be going on the air on 21st February on 100 MHz and on 9816 kHz (31 metre band). It will broadcast twice daily at 1830 and 0130. "Radio Guazapa" will be giving information on the activities of the guerrilla forces fighting in Cuscatlan Department, laying siege to Suchitoto garrison and controlling parts of the road between Suchitoto and San Salvador (cf. WBI No. 4 1983). *

FEB. 24 1983
NO. 8 /A3

Monitoring observations on 22nd February traced the station on 9831 kHz at 0140. It identified itself as "Radio Guazapa, the voice of Cuscatlan". *

GRENADA

WRTH
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L.T: UTC-4h — Pr.L: English — E.C: a/c 50, 220V.

RADIO FREE GRENADA (Gov/Comm.)

ADDR: P.O Box 34, Mome Rouge, St. George's, Grenada.

Te: 4351 **Cable:** Broadcasting Grenada

LP: Mgr. Colville (Kamau) McBarnette Chief Eng: D. Lashley, Dir. of Prgrs. Lewellyn Smith, News Dir. P. David Admin. Dir: Thelma Campbell

STATIONS (Mome Rouge) (G.C: 61.46W 12.01N).

535kHz	1kW	all times
990kHz	75kW	all times
15045kHz	5kW	2130-2400 (to No. America)
15105kHz	5kW	1945-2115 (to Europe)

G R E N A D A (EXTERNAL SERVICES)ST. GEORGES"Radio Free Grenada, the Voice of the Revolution"

15105 kHz)
 15045 kHz) variable

<u>GMT</u>		<u>kHz</u>
1945-2115	English - Europe (relay of domestic service) Including 2030-2035 NEWS (not Sa.Su.)	15105
2130-0030	English - North America (relay of domestic service) Including 2300-2330 NEWS (not Su.)	15045

GRENADA A recent survey shows that a summary of Caribbean news is broadcast (in English) by Radio Free Grenada on 15104 kHz at 2030 every day except Saturdays and Sundays.

DEC. 3 1981
No. 48 /A3

GRENADA The shortwave relay of Radio Free Grenada on 15045 kHz is currently heard from 2130-0030 approximately. Programmes include "The World Tonight" from 2300-2345. *

JAN. 28 1982
No. 4 /A4

GRENADA The Barbadian news agency CANA reported that the People's Revolutionary Government of Grenada would officially open a new 50-kilowatt transmitter on 11th March. It was a gift from Cuba to the government-controlled Radio Free Grenada. The opening ceremony formed part of the activities marking the third anniversary of the Grenada revolution. The medium-wave transmitter had been provided under a technical and scientific co-operation agreement signed between Grenada and Cuba last year, in which Cuba agreed to up-grade the power and the facilities of the station (cf. WBI No. 43 1980 and Nos. 9 and 22 1981). The new equipment would enable the radio station to boost its transmission throughout Grenada and to be heard in neighbouring countries.

MARCH 18 1982
No. 11 /A4

An earlier CANA report stated that six Grenadians had gone to Cuba to study the operation and maintenance of the transmitter's antenna and electronic equipment, and a Cuban electronics technician would remain (in Grenada) for several months to assist in maintenance and further training. Within a year, according to the Cuban embassy, it was expected that Grenadian personnel would be fully qualified to run the transmitter.

A Radio Havana report on the inauguration of the 50-kilowatt medium-wave transmitter added that it was connected to a 117-metre high (antenna) tower. *

GUATEMALA

WRTH

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L.T: UTC-6h — Pr.L: Spanish — EC: a/c 60. 110/120/127/220V (yes).

**MINISTERIO DE COMUNICACIONES Y OBRAS
PUBLICAS
Direccion General de Radiodifusión y Televisión
Nacional**

ADDR: 5a Ave. 13-18, Zona 1, Guatemala. **Te:** 25-0-45.
Cable: Digera. **L.P:** Dir. Gen: Mario Monterroso Mirón. Vice. Dir. Gen: Rodolfo Chenal Luna.

Shortwaves: Call: TG —. Location: Guatemala City exc. where indicated.

87) TZ	2340 1	R. Tezulutlan, Cobán: 1100-1530, 2100-0230
88) BA	2360 0 25	R. Maya de Barillas. Huehuetenango: 1000-1500. 2200-0400
16) NC	3300 10	R. Cultural: 1100-1500, 2245-0430
88) BA	3325 1	R. Maya de Barillas: as 2360kHz
90) VN	3360 1	La Voz de Nahualá, Nahualá: 1130-1400, 2100-0230
91) CH	3380 1	R. Chortis Jocotán, Chiquimula: 2200-0300
92) MN	4825 1	R. Mam. Cabrican: 2000-2400
87) TZ	4835 3	R. Tezulutlan, Cobán: 1100-1530, 2100-0230
16) NA	5955 10	R. Cultural: as 3300kHz
66) MUA	r5978 10	Union R AWR, Guatemala (nom. 5980): 1330-0500
66) MUB	*6090 10	Union R AWR, Guatemala
8) WB	6180 10	R. Naf. "La Voz de Guatemala", Guatemala: 1100-0600 Sat/Sun

Call	kHz	kW	Name, Location and h. of tr.
8) WA	9760	10	R. Naf. "La Voz de Guatemala", Guatemala

WBI

- 32/C1 -

12th August 1982

GUATEMALA (EXTERNAL SERVICES)

GUATEMALA CITY

TGW La Voz de Guatemala

6180 kHz

GMT

kHz

1800-2300	Spanish (not Sa.Su.) - Central America	6180
	1815-1845 "The Press Today"	
	2030-2100 "Guatemala and the World"	
	2100-2110 "The Press Today"	

Inaugurated on 15th June, 1981. At other times the 6180 kHz channel carries domestic service programmes in parallel with 9760, 1000 and 640 kHz

GUATEMALA Since 15th June La Voz de Guatemala has been broadcasting programmes in Spanish for listeners outside Guatemala. According to an announcement first broadcast at 1800 on 15th June, TGW La Voz de Guatemala would be broadcasting its external service transmissions from that day on 6180 kHz. They would be on the air from 1800-2300 Mondays to Fridays.

JUNE 25 1981

NO. 25/A2

Previously the 6180 kHz channel carried the domestic service of La Voz de Guatemala. The external service broadcasting output amounts to 25 hours per week. *

GUATEMALA A schedule for the recently inaugurated La Voz de Guatemala external service is published this week. Although all programmes are in Spanish, the station has been heard to carry identification in English during a musical programme from 2230-2255 (cf. WBI No. 25 1981). *

JULY 2 1981

NO. 26/A3

GUATEMALA/MEXICO The Guatemalan commercial television company Trecevision quoted Mexican officials on 8th June as saying that Guatemalan insurgents had taken over a radio station in Comitán Tapachula (Ed. Note: in south-east Mexico near the Guatemalan border) and had broadcast a message against the Guatemalan Government (cf. WBI Nos. 16 & 18 1982). This was the first incident of its kind (in Mexico). *

JUNE 24 1982

NO. 25/A2

GUATEMALA The television service Trecevision reported on 2nd July on the new emergency measures announced by the Government. Inter alia, it stated that radio and television stations in Guatemala would be controlled by the General Directorate of National Radio and Television Broadcasting. *

JULY 8 1982

NO. 27/A2

GUIANA (French)

LT: UTC-3h — Pr.L: French — EC: a.c.50, 127/220V (no).

FRANCE REGIONS 3 (FR3)

ADDR: B.P. 336, 97305, Cayenne. Te: 311500.

L.P: Dir: J.C Turjman Dir. Tec M. Gauthier.

STATIONS: Matoury (G.C: 52 20W 04 54N): 1070kHz 20.4kW
3385kHz 4kW — 4972kHz 1kW — 5055kHz 10kW — 6170kHz
4kW; St. Laurent du Maroni 1090kHz 0.05kW.

FM: Cayenne 94MHz, Kourou 96.3MHz.

D.PRGR. in French: 0900 (Sun 1000)-0100 (Sat 0300, Sun 0200,
on MW 4972kHz - FM: 0900-1200, 2100-s off on 3385kHz; 0900-
1100, 2000-s off on 5055kHz; 1115-2030 on 6170kHz.

WRTH
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GUYANA (Republic)

L.T: UTC-3h — Pr.L: English — E.C: a c 50 60, 120 220V (yes:

GUYANA BROADCASTING CORPORATION (Gov.)

ADDR: P.O. Box 10760, Georgetown. **Te:** 69231 5. **Cable:** GUY-CAST.

L.P: Gen. Mgr: Terry Holder. Chief Eng: Ron Case.

STATIONS: a) Linden, b) Tumatumari, others Georgetown (G C 58.05W 06.49N).

kHz	kW	Ch						
560	10	2	1010b	50	2	5950	10	2
700a	10	2	3265*	2	1	5980*	2	1
760	10	1	3290*	10	2			

*) inactive.

WRTH
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GUYANA In a report from Georgetown on 11th October, the Caribbean news agency CANA stated that people living in remote areas of Guyana had been unable to receive local radio programming during the past month because the state-owned Guyana Broadcasting Corporation's short-wave transmissions had been off the air. The Corporation said that efforts to manufacture some parts locally had met with little success because of a scarcity of raw materials and parts ordered from abroad had not yet arrived.

OCT. 14 1982
NO. 41/A2

HAITI

L.T: UTC--5h — Pr.L: French, Creole — E.C: a/c 50/60, 110/
220V.

WRTH
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**CONSEIL NATIONAL DES
TELECOMMUNICATIONS, (CONATEL)**

ADDR: B.P. 2002, Port-au-Prince.

Cable: Telepo — L.P: Dir. Gen: Antonio Rimpel.

STATIONS: all st's comm. exc 1), 2), 3), 16) (Cult/Rig): 13) (Cult/
Gov.)

Shortwaves: *) inactive.

3) E	*3345 0.25	R. St. 4VEH, Cap Haïtien
15) EB	*6015 1	R. Caraïbes, Port-au-Prince
25) MD	*6030 1	La Voix du Nord, Cap Haïtien
14) WA	*6156v 2	R. Citadelle, Port-au-Prince
3) EH	9770 2	R. St. 4VEH, Cap Haïtien
3) EJ	11835 2	R. St. 4VEH, Cap Haïtien

HONDURAS (Rep.)

LT: UTC-6h — Pr.L: Spanish — EC: a.c/60, 110V.

**DIRECCION GENERAL DE
TELECOMUNICACIONES**

Tegucigalpa. Cable: Gentel.
L.P: Dir. Gen: J.E. Alcerro Prudouth.

WRTH

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Shortwaves: Call HR—.

Call	kHz	kW	Name and h. of tr.
87) CP	r3251v	0.25	R. Luz y Vida, San Marin' 1230-1630, 2230-0430
63) RZ	v4780	0.5	R. Juticalpa: 1040-0400
75) VC	4820	5	La Voz Evangelica, Tegucigalpa. 1030-0600
79) RD	v4840	2	R. San Isidro, La Ceiba: (nom. 4845): 1200-0500
88) VL	4890	1	R. Lux, Olanchito: 1200-0300
89) XK	4910	1	La Voz de la Mosquita. Puerto Lempira: 1200-1400. 0000-0300
76) —	r6000	—	El Eco de Honduras, "Cadena Z", San Pedro Sula

HONDURAS According to announcements heard on 21st September on 6000 kHz, Radio Variedades in Tegucigalpa broadcasts on 1180 kHz in network with Radio Eco in San Pedro Sula on 6000 kHz. This service is described as the new Network Z. *

SEPT. 30 1982
NO. 39/A1

HONDURAS/NICARAGUA According to a "Radio Venceremos" report on 2nd October, a pro-Somoza radio station "created by the Central Intelligence Agency CIA" has begun transmitting from Honduras to interfere with the broadcasts of Nicaraguan stations. Quoting from the Honduran newspaper 'La Prensa', "Radio Venceremos" said that the station had been heard in Honduras for the past 15 days and it devoted its transmissions to criticism of the Sandinist Revolution (in Nicaragua). There were now two "counter-revolutionary" (Ed. Note: anti-Nicaraguan government) stations operating from Honduras. *

OCT. 7 1982
NO. 40/A4

MÉXICO

WATH
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L.T: UTC-6h in all states except: UTC-7h (Sonora, Sinaloa, Nayarit, Baja California Sur; and during summer Baja California Norte); UTC-8h (Baja California Norte, winter) — Pr.L: Spanish.
EC: a/c 60, 110/220V (yes).

DIRECCIÓN GENERAL DE TELECOMUNICACIONES

Departamento de Frecuencias, Av. Niño Perdido y Cumbres de Acultzingo, Mexico 12, D.F.
L.P: Dir.Gen: Ing. Luis Valencia P.

DIRECCIÓN GENERAL DE CONCESIONES Y PERMISOS

Depto. de Estadística y Programación Económica.
ADDR: Edif. Rafael, Av. Eugenio 198, México 12, D.F.
L.P: Chief: Lic. Manuel González Díaz de León. Dir.Prgr: Lic. Elioth Galves Aviles. Dir.Dept: Lic. Lucero Caballero Hernandez.

CAMARA NACIONAL DE LA INDUSTRIA DE LA RADIO Y TELEVISION DE MÉXICO

L.P: Pres: Lic. Juan José Espejo Puente. Sec: Lic. Carlos Aguirre Gómez.

Shortwaves:

35B) JN	r2390	0.5	R. Huayacocótlá
35B) RMX	5985	10	"R. México", DF: 1100-1530, 2200-0330 (Sun 0500)
19B) OI	6008v	0.25	"R. Mil", México: 1300-1500, 2300-2400, 0330-0430
112A) UW	6020	0.25	"La "U" de Veracruz" irr.
30B) XQ	6045	0.25	R. Universidad de San Luis Potosí, S.L.P.
302B) CMT	6090	1	Onda 145, Cd. Mante: irr.
129B) QM	6105	0.25	"Su Pantera", Menda, 1115-0500
93B) UDS	6115	1	"R. Universidad de Sonora", Hermosillo: 1500-0230 (Sun 0500).
1B) WW	6165	10	"La Voz de la América Latina", México: 1200-0600
156) EP	6185	1	R. Educación, México
1B) WW	9515	10	"La Voz de la América Latina", México: 1200-0600
247) QK	9555	0.5	"La Hora Exacta", México: 1400-2300 (irr.)
97) YU	9600	1 0.25	"R. Universidad de México: México: 1400-2400 (irr.)
359) RMX	9705	10	"R. México", México: 2200-0330 (Sun 0500)
359) RMX	11770	10	"R. México", México: as 9705KHz
21B) BR	11820	0.15	"La Pantera", Hermosillo: irr.
1B) WW	15160	10	"La Voz de la América Latina", México: 1200-0600
1B) WW	15175	10	"La Voz de la América Latina", México (alternate): irr.
359) RMX	15385	10	"R. México", México: irr.
359) RMX	15430	50	"R. México", México: 2000-0330 (Sun 0500)
359) RMX	17765	10	"R. México", México: as 5985kHz.

M E X I C O (EXTERNAL SERVICES)MEXICO CITY"XERMX Radio Mexico Internacional"

Frequencies listed in kilohertz

17765
15430
11770
9705
5985Transmission time: 2000-0330

All programmes in Spanish - see note below

GMT

2100-2200 "Radio Post Office of the Air"
(listeners' letters and music)

2215-2230 "NEWS and songs of Chile" (Tu.Th.)

0100-0200 "Radio Post Office of the Air"

0200-0230 "Notimex Informa" - NEWS

Note: Radio Mexico International also carries at varying times
a short educational broadcast "Mexico in one Minute" in
English, French, Italian, Japanese and Spanish.

MEXICO/GERMAN DEMOCRATIC REPUBLIC The East German news agency ADN reported on 16th April that a shortwave transmitting centre, which would improve Mexico's national and international radio broadcasting, was under construction near Tectihucan with assistance from the GDR. When completed, it would be "one of the most important installations of its kind in Latin America". The main supplier for the technical radio equipment was the Funk und Fernmeldeanlagenbau Berlin which was part of the Leipzig Nachrichtenelektronik Kombinat. The shortwave transmitters were being produced by the radio works in Berlin-Koepenick. The co-operation agreement concerning the construction of the radio broadcasting centre included the training of Mexican technicians in the GDR.

APRIL 23 1981

NO. 16/A5

MONTSEERRAT

WRTH

p. 307

LT: UTC-4h — Pr.L: English.

RADIO MONTSEERRAT (Gov.)

ADDR: P.O. Box 51, Plymouth, Montserrat. Te: 2451.
Cable: Radmon. L.P: St. Mgr: R. W. White.
STATION: 885kHz 1kW — D.PRGR: 1000 (Sun 1300)-0200
ANN: "This is ZJB. R. Montserrat (The Champion)".

RADIO ANTILLES (Priv, Comm.)

ADDR: P.O. Box 35, Plymouth, Montserrat, West Indies.
Te: 2755-8. **Telex:** 5717ARCMK
LP: Chmn: Klaus Schutz. Man Dir: Dr. H. Fellhauer. Gen. Mgr: Kristian Knaack.
STATIONS: 930kHz 200kW — 740kHz 20kW
Relay st: (St. Vincent) 1450kHz 10kW.
D.PRGR. English: 0900-0200 on 930kHz; French: 0930-0115 on 740/1450kHz; German: Sun 1800-1900 on 930kHz.
N: On the h in English & Spanish prgrs; German: D 1445.
ANN: E: "This is R. Antilles". F: "ici R. Antilles".
MT-SIG: Carillon (two notes) + "This is our Island in the Sun".
V. by letter with coverage map. (B).

DEUTSCHE WELLE MONTSEERRAT

STATION: 1x50kW tr (G.C. 62.11W.16.43N)

kHz	kHz	kHz	kHz	kHz
8545	11705	11715	11865	11965

For prgr. details see D. Welle, Germany.

NETHERLANDS ANTILLES

LT: UTC-4h -- Pr.L: Papiamento, Dutch, English.
E.C: w/c 50 + 60, 127/220V (yes).

WATH

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TRANS WORLD RADIO

(Cultural, Educational, Religious)

ADDR: Trans World Radio, Bonaire, Netherlands Antilles. Te: 8800 Cable: VOTAN: Telex: 1296.

L.P: Pres: Dr. Paul E. Freed. Dir: Stephen Freed. Dir. Tr. Operations: George Cooper. Chief Eng: Don Beans. Head Studio Tec: Lloyd McDonald. Prgr. Dir: Stan Hustad. Spanish Language Coordinator: Angel Bongiorno.

STATIONS (G.C: 68.28W-12.11N): 800kHz 500kW

Shortwaves: 1x50kW and 1x250kW tr's.

kHz	kHz	kHz	kHz
9560	9755	11890	15275
9655	11815	11895	15440

Shortwave Schedule: I = So. America, II = No. America, III = Ce. America, IV = Far East, V = Europe Mid. East.

Schedule Nov 1981-Feb 1982:

English	Area	kHz	Portuguese	Area	kHz
0400-0730	II	9755	2300-0045	I	11890
1115-1300	II	11815	Russian		
German			0050-0130	I	11890
1000-1030	I	11895	0245-0330	V	9655
2300-2330	I	15440	Spanish		
Norwegian			0930-1100	I	9560
2145-2200a	V	15275	2215-2300	I	11890
Portuguese			0045-0235	I	15440
0000-0045	I	15440	0130-0235	I	11890
0730-0930	I	9560	0255-0405	III	15440
0930-1000	I	11895	Ukrainian		
2300-2330	I	15440	0245-0300a	V	9655

RADIO NEDERLAND RELAY STATION

Bonaire RNW (G.C: 68.19W 12.13N): 2x300kW SW-trs.

kHz	kHz	kHz	kHz	kHz	kHz
6020	9590	9715	11790	15560	21640
6165	9630	9770	15315	17605	21685

For prgr. details see R. Nederland, Netherlands.

NICARAGUA

L.T: UTC-6h — Pr.L: Spanish — EC: a/c 60. 120V (main cities: yes).

DIRECCION DE MEDIOS DE COMUNICACION

ADDR: Ministerio de Cultura, Managua

L.P: Dir. Gen: Guillermo Rotchuh

STATIONS: 5) (Gov), 11 (rig)

Recent information not received

Shortwaves: Call YN— * = inactive

Call	kHz	kW	Name, location and h. of tr.
5) M	v5950	50	La Voz de Nicaragua, Managua
27) HC	6100	0.4	R. Hernandez de Cordoba, Ocotal
28) CA	v6120	1	R. Zinica, Bluefields
5) —	*11837	100	La Voz de Nicaragua, Managua

WRTH

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WBI

- 31/E1 -

5th August 1982

NICARAGUA (EXTERNAL SERVICES)

MANAGUA

The Voice of Nicaragua

5950 kHz

Transmission time: 0000-0600

All programmes in Spanish

GMT

0035-0040 NEWS ("This is Nicaragua")
0105-0115 NEWS
0130-0135 Commentary
0135-0140 NEWS
0200-0210 NEWS
0220-0230 NEWS
0230-0240 "Today, Here, Now" - news and commentary
0300-0310 NEWS
0310-0600 Repeats of most of the programmes in the 0000-0310
transmission period

This service was inaugurated on 24th February 1980

NICARAGUA On 10th March Radio Sandino in Managua was heard to carry from 0535-0555 a programme from the "International Network of Solidarity with Radio Noticias del Continente".

In introducing the programme Radio Sandino stated that its support of international solidarity was demonstrated by the fact that it was joining on this occasion "a vast network of radio stations in Latin America and the World". The programme began with the announcement: "This is Radio Noticias del Continente broadcasting from San Jose, Costa Rica, for the International Network of Solidarity with Radio Noticias del Continente". There then followed the text of a press release from the station's Director, which had been issued to journalists at a press conference on 9th March. It detailed the station's history and "deplored" the latest action of the Costa Rican Government (cf. WBI No. 10 1981). The press release also claimed that the following stations formed the "International Network of Solidarity":

MARCH 19 1981
NO. 11 /A2

Canada	Radio Canada International Radiocentre Virole of Montreal
Dominican Republic	Radio Popular de Santo Domingo.
Ecuador	Radio Exito (Quito) Radio Noticias (Quito) Radio Tarqui (Quito) Radio Canal Juvenil (Guayaquil) Radio Universal (Guayaquil)
Mexico	Radio Mexico International Radio Universidad Autonoma de Mexico Radio Azul de Michoacan
Nicaragua	Radio Sandino Radio Deportes
Panama	Radio ABC
Peru	Radio Cuzco Radio Corporacion
Spain	Radio Exterior de Espana

The press release went on to say that "later on this week the Voice of Germany - the official station of the Federal Republic of Germany - and other stations in Venezuela, Colombia and Panama are going to join the network". By the end of the month "more than 100 members of the media" will have joined the network. The programme ended with the announcement "This has been a special dispatch from San Jose, Costa Rica, for the International Network of Solidarity with TIRLR Radio Noticias del Continente". (Ed. note: Radio Noticias del Continente itself has not been heard to broadcast since 7th March. cf. WBI No. 10 1981)

NICARAGUA

w.B.I

NICARAGUA A communique issued by the Communications Media Directorate on 15th March and broadcast by Nicaraguan radio stations on 16th March stated that, as a result of the establishment of a state of national emergency, all radio newscasts, political party opinion programmes and those of any other organization would be suspended. All radio stations in the country must join in network with the Voice of Nicaragua at 0600, 1200, 1800 and 2400 for the transmission of the "Voice of the Defence of the Fatherland" newscast. All radio and written media would be ordered to submit their daily programmes or editions to the Communications Media Directorate to be reviewed before release. *

MARCH 25 1982
No. 12 /A3

NICARAGUA A survey of Radio Zinica in Bluefields shows that it broadcasts daily, mainly in Spanish, from 1100-0500 in 6120 kHz. The station carries a news bulletin relayed from Radio Sandino in Managua from 1200-1300 (Mon-Su.) and from 0000-0030. A musical programme with announcements in English is broadcast from 1730-1800 while a programme in Miskito is aired on Fridays from 2030-2100. Radio Zinica announces that it also broadcasts on 1090 kHz in parallel with 6120 kHz. *

SEPT. 23 1982
No. 38 /A2

PARAGUAY

WRTH
p. 358

LT: UTC - 4h Mar 1-Sep 30 (UTC - 3h Oct 1-Feb 28).
Pr.L: Spanish, Guaraní — E.C: a/c 50, 220V (Yes).

**ADMINISTRACION NACIONAL DE
TELECOMUNICACIONES**

ADDR: Administration General, Cas. Correo 84, Asunción.
Cable: Anetico. Te: 4-4001 — L.P: Pres: Ing. M. C. Guanes D.
Adm: F. F. Duarte. Dir. of Tech. Dept: Ing. J. C. Martinez R.

Shortwaves: *) inactive

Call	kHz	kW	Name and location, h. of tr.
14) A6	v5975	1	R. Guairá. Villanca: 1000-1800 irr.
2) A15	v5995	2	La Voz del Amambay. Pedro Juan Caballero: 1000-0200
30) A10	6015	3	Em. Paraguay Asuncion 0930-1630 & 2000-2400
17) A1	*6025	5	R. Nacional, Asuncion
27) A11	6110	1.5	R. Charitas, Asunción 1100-1300 (Mon-Fri only)
17) A1	v11915	100	R. Nacional, Asuncion as MW
10) A7	15210	0.5	R. Guaraní, Asunción irr.

FM.

W.R.T.H
p. 360

PERU

L.T: UTC-5h — Pr.L: Spanish, Quechua — EC: a/c 60, 220V (yes).

MINISTERIO DE TRANSPORTES Y COMUNICACIONES, Dirección General de Comunicaciones.

ADDR: Av. 28 de Julio 800, Lima 1. Cable: Digecom. L.P: Dir. de Telecomunicaciones: Percy Fernandez Pilco.

Shortwaves

Call	kHz	kW	Name and h. of tr.
122) —	r3220	1	R. Ayacucho. Ayacucho: 1100-0500
155) OBX7D	3230	0.4	R. El Sol de los Andes. Juliaca: 1000-0300v (r 3255)
49) OBX4U	3240	1	R. América. Lima
145) OCX7D	3250	1	R. Collasuyo. Juliaca: 1000-0300
130) OBX4V	3300	0.5	R. Junin. Huancayo
8) OBZ4I	3220	1	R. Estrella del Sur. Cañete: 1130-0430
124) OAX3Q	3330	0.5	Ondas del Huallaga. Huancayo. (nom. 3310) 1000-0500
16) OAX4G	3350	0.4	R. La Oroya. La Oroya
154) OAX3D	3360	0.25	R. Huánuco. Huánuco
47) OBZ4M	v3386	0.5	R. La Voz del Valle del Mantaro. Jaúa: 1000-0500
189) OBX7K	r3550v	1	R. Dif. la Convención. Quillabamba (nom. 3325)
190) —	r3725	—	R. Los Andes. Huamachuco
191) OBX5A	r3800	1	R. Esmeralda Huanta: 0900-0300 (n. 3285)
172) OAX5W	r4495	10	R. La Voz de Nazca. Nazca: 1000-0500
192) —	r4300	—	R. Moderna. Celendin
193) —	r4520	—	R. Via. Cinco
60) OAX3P	4760	1	R. Tingo Maria. Tingo Maria: 1100-0500
171) OAZ4A	v4776	0.5	R. Tarma. Tarma: 1100-1300. 2100-0500
83) OCX4Z	4785	1	R. Cooperativa. Satipo: 1100-0200
165) OAX8F	4790	1	R. Atlántida. Iquitos: 1030-0500 (Sun 1130-0400)
71) —	4810	1	R. Dif. San Martín. Tarapoto: 0930-0430
58) OAX8X	4815	1	R. Samarén "Amazonas". Iquitos: 1000-0500
72) OAX7K	4820	0.25	R. Puno. Puno
137) OAX7T	4825	0.35	R. Sicuani. Sicuani: 1000-0400 (Sun 0300)
22) OAX8R	v4825	10	La Voz de la Selva. Iquitos: 1000-0500
147) OBX5I	4830	0.4	R. Apurimac. Abancay
53) OBX5E	4840	0.8	R. Andahuaylas: 1100-0300
194) OBX5P	r4854	1	R. Pampas. Tayacaya: 1100-0300
195) OCY4X	v4855	1	R. Oriente. Satipo
13) OBZ4Z	4860	1	R. Chinchaycocha. Junin: 1100-0500v
196) OAX5V	4885	1	R. Huancavelica. Huancavelica: 1100-0500
70) OAZ4T	v4896	0.4	R. Chanchamayo. La Merced: 1030-0500 (Sun: 1100-0300)
187) —	r4915	—	R. Visión. Tarapoto
106) OBX7H	v4922	1	R. Ondas del Titicaca. Puno: 0945-
166) OAX5Q	4934	1	R. Municipal. Abancay: 1100-0300
120) DAX9E	4935	1	R. Tropical. Tarapoto: 1000-0500
139) OAZ4R	4940	0.5	R. San Juan de Tarma. Tarma: 1100-1800, 2300-0500
198) OAX8Y	4950	0.5	R. Ucayali. Contamana
96) OAX7I	v4951	5	R. Madre de Dios. Puerto Maldonado: 1100-0230
199) OAX5S	4955	1	R. Cultural Amauta. Huanta: 1100-0230
105) OCX4T	r4960	1	R. La Merced. La Merced: 1100-0500
137) OAX7T	4965	0.35	R. Sicuani. Sicuani: (nom. 4835) 0955-0400
10) OCX4H	4975	4	R. del Pacifico. Lima
200) OBX7R	4990	1	R. El Triunfo. Cuzco
113) OAZ4C	v4996	1	R. Andina. Huancayo: 1000-0500v
201) OAX2S	5005	0.25	R. Jaén. Jaén
184) OAX9G	r5015	1	R. Moyobamba. Moyobamba (n. 4825)
115) OAX7Z	v5017	1	R. Juliaca. Juliaca: 1000-0500
183) OAX5Y	5020	1	R. San Cristóbal de Huamanga. Ayacucho
89) OAX7Q	5025	5	R. Quillabamba. Quillabamba: 1030-0300 (Sun: 1100-0200)
202) OBX7F	5035	1	R. Ayaviri. Ayaviri: 1130-0400
125) OAX6U	5035	1	R. Ilo. Ilo
81) OAX9M	5035	1	R. Imagen. Tarapoto: 1030-0500
84) OCY4Y	5040	1	R. Libertad de Junin. Junin: irr.
203) OAX9L	5045	1	R. Rioja. Rioja
77) OAX8E	5050	1	R. Loreto. Iquitos: 1100-0700
131) OAX4J	5050	0.4	R. Tumbes. Tumbes
114) OBX7O	5055	1	R. Onda Imperial. Cuzco: 1100-0500
104) OAX8V	v5112	1	R. Eco. Iquitos. 1000-0600 (n. 5010)
204) OAX5L	r5300	—	R. Los Andes. Pampas (n. 6130)
205) —	r5340	—	R. Santa Cruz. Sta. Cruz
206) —	r5619v	—	R. Ilucán. Cutervo
50) OAX7L	r5616	1	La Voz del Altiplano. Puno (nom. 5960)
52) OAX6A	v5950	1	R. Arequipa. Arequipa: 1000-1330, 2230-0400
159) OAX4P	5955	0.5	R. Huancayo. Huancayo
37) OBX4Q	v5970	1	R. El Sol. Lima: 1000-0530
43) DBX4M	5980	5	R. Panamericana. Lima
80) OAX1W	5990	1	R. Nacional. Tumbes
92) OBX6M	5995	1	R. Melodia. Arequipa: 0900-0300
49) OAX4W	v6010	10	R. América. Lima: 24h
23) OAX4Q	6020	5	R. Victoria. Lima: 1000-0600
68) OAX8B	6028	1	R. Nacional. Iquitos
169) OCY4H	6045	10	R. Santa Rosa. Lima: 1000-0400
19) OAX6E	v6055	2	R. Continental. Arequipa: 1100-0700
207) OAX3L	6060	5	R. JSV. Huancayo: 1015-
45) OAX5U	v6070	3	La Voz de Huamanga. Ayacucho: 1000-1500, 2000-0200
31) DAX6F	6105	1	R. Nacional. Tacna
35) OBZ4O	6115	10	R. Unión. Lima: 1200-0500
104) OCX4A	*6123	1	R. La Crónica. Lima
59) OBZ4P	r6140	1	R. Huayllay. Huayllay
175) OAZ4E	6145	1	R. Minería. La Oroya
99) OAX8Q	6155	1	R. Pucallpa. Pucallpa
178) OBX4B	*6170	1	R. Corporación. Cerro de Pasco: 1100-0500
86) OAX7C	6175	5	R. Tawantinsuyo. Cuzco: 1000-0500
146) OAX8-	6190	1	R. Oriente. Yurimaguas: 1100-
161) OAX7A	6195	1	R. Cuzco. Cuzco: 1100-0400
208) —	r6297v	—	R. Chota. Chota
209) —	r6725v	—	R. Satélite. Santa Cruz
160) OAX6H	r9486	0.2	R. Tacna. Tacna: W 0900-0500 (nom. 9505)
49) OAX4V	v9510	10	R. América. Lima: 24h
117) OAX4J	r9524v	5	R. La Crónica. Lima: 1000-0600
31) OAX6G	v9532	2	R. Nacional. Tacna
80) OAX1Z	9558	2	R. Nacional. Tumbes
33) OAX4R	9562	50	R. Nacional. Lima: irr.
102) OAX5C	9590	0.2	R. Ica. Ica
118) OAX1R	9600	0.5	R. Talara. Talara
68) OAX8C	9610	2	R. Nacional. Iquitos
4) OAX8W	r9610	3	R. Sideral. Pucallpa (n. 9755)
107) —	r9655	—	R. Nor Peruana. Chachapoyas
10) OAZ4L	9675	5	R. del Pacifico. Lima: 1100-0430
120) OAX9D	9710	1	R. Tropical. Tarapoto: 1000-0500
27) OAX4R	9860	5	R. Nacional. Lima

PERU Radio Nacional reported on 6th October that the Director of the National Institute of Social Communications had briefed the Communications Commission of the Chamber of Deputies on the radio network project which would be carried out in co-operation with the Federal Republic of Germany. The latter had donated 1.3 billion soles worth of equipment. This would rise to 2.6 billion soles in the next few years. According to the agreement, the Peruvian Government would furnish towers, antennas and power supplies. The project included the installation of a main broadcasting station in Lima equipped with medium- and short-wave transmitters and eight (sic.) regional stations in Piura, Arequipa, Cajamarca, Huaral, Huancayo, Iquitos and Pucallpa. The regional stations would also be equipped with medium- and short-wave transmitters so that the whole national territory might be covered.

OCT. 14 1982

NO. 41/A2

PERU Radio La Cronica in Lima was observed on 1st March operating on 9520 kHz. From 1200-1330 the station relayed a news programme in conjunction with Radio Nacional. The programme was also broadcast simultaneously by 21 radio stations of Peruvian Radio-Television's Red and White network. *

MARCH 17 1983

NO. 11/A2

URUGUAY

L.T: UTC-3h — Pr.L: Spanish — E.C: a/c 50, 220V (yes)

ANTEL: Palacia de la Luz, 9 piso, Montevideo. Pres: Graf (R)
Juan F. Miguez.

**DIVISION CONTROL SERVICIOS
RADIOELECTRONICOS**

Sarandí 472. Montevideo — L.P: Dir. Cnel. Blas Denis.

**ASOCIACION NACIONAL DE BROADCASTERS
URUGUAYOS (ANDEBU)**

ADDR: Calle Yi, 1264. Montevideo Te: 900053. Cable: Andebu.
L.P: Pres: Raúl Fontaina — All st's affiliated exc 3), 21), 30), 75
All other st's carry "Cadena Andebu" prgr. D 1448-1500.

Shortwaves: Call CX—

Location: Montevideo exc. where indicated.

18) A2	*6000	5	Radiomundo: 0915-0300v
16) A30	v6035	1	La Radio. Montevideo: 1500-0300
8) A61	6045	1	R. Sport R. El Espectador 1000-0300
6) A3	*6075	5	R. Continente: Sat & Sun: 1000-0300
10) A13	*6155	10	R. Carve: 0900-1700, 2130-0200
30) A21	*6170	1	R. Fenix: 1700-1900, 0100-0500
3) A6	*9515	10	S.O.D.R.E: 1100-0300
3) A6	9620	2	S.O.D.R.E: 1200-0300
8) A19	11835	5	R. El Espectador: 1000-0300
3) A10	*11885	10	S.O.D.R.E: 1100-0300
3) A14	15275	1	S.O.D.R.E: 1850-0300

WRTH
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VENEZUELA

W R T H
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L.T: UTC-4h — Pr.L: Spanish.
E.C: a/c 50 - 60, 120 240V (yes).

MINISTERIO DE COMUNICACIONES

ADDR: Dirección de Telecomunicaciones. División de Radiodifusión, Esq. Carmelitas, Edif. Ramia, Caracas. Cable: Diteleco.
L.P: Dir. of Telecommunications: F. Pérez Zambrano. Dir. Gral Sectoral de Comunicaciones: Luis Leáñez Lugo.

CAMARA VENEZOLANA DE LA INDUSTRIA DE RADIODIFUSIÓN

ADDR: Ap. 3955, Caracas. Cable: Camradio.

Shortwaves:

Call	kHz	kW	Name and h. of tr.
34) PL	2340	1	R. Nueva Esparta, Porlamar: 1000-0355
21) QP	2370	1	R. Pto. La Cruz: 0955-0300
100) ZV	3215	1	Ondas Panamericanas, El Vgía
65) TC	3225	1	R. Occidente Tovar: 1000-0400
30) KT	3245	1	R. Libertador, Caracas: 0955-0400
42) QL	3255	1	R. 980 "Novecientos Ochenta": 1000-0300
32) MC	3275	1	R. Mara, Maracaibo
104) LE	3285	1	R. Puerto Cabello 1000-0400
102) OG	3295	1	R. Trujillo: 0955-0300
Call	kHz	kW	Name and h. of tr.
38) RA	3325	5	R. Monagas, Maturín
28) LC	3355	1	R. Impacto, Valencia
6) MI	r3375	3	La Voz de la Fé, Maracaibo (n. 3370)
61) QI	3385	1	R. Barcelona: 2100-0400
78) QJ	3395	1	R. Universidad, Mérida: 1100-0400
75) PP	4760	1	R. Frontera, San Antonio: 1000-0300
48) NW	4770	1	R. Mundial Bolívar, Cd. Bolívar: 0900-0400
54) LA	4780	1	La Voz de Carabobo, Valencia: 0900 (Sun 1000)-0400
9) MO	4800	10	R. Lara, Barquisimeto: 1000-0400
16) MG	4810	2	R. Popular, Maracaibo: 0955-0400
89) RC	v4820	1	La Voz de Apure
44) WJ	4820	1	R. Mundial Tricolor, Barquisimeto
45) OB	4830	1	R. Táchira, San Cristóbal: 1000-0500
92) OI	4840	1	R. Valera: 0900-0400
17) KX	4850	1	R. Capital, Caracas: 1000-0500
19) QE	4860	10	R. Maracaibo, Maracaibo: 0900-0500
43) KP	4870	2	R. Tropical "La Pantera", Caracas
9) MS	4880	10	R. Universo, Barquisimeto
9) NK	4900	10	R. Juventud, Barquisimeto: 1000-0400
74) NI	v4910	1	R. Carora, Carora: 1000-0400
6) MI	4930	3	La Voz de la Fé, Maracaibo
29) OT	4930	1	Radiovision 860, San Cristóbal
62) PA	4940	10	R. Yaracuy, San Felipe: 1000-0400
87) NM	4950	1	R. Coro, Coro
8) AO	v4960	1	R. Sucre, Cumaná: 1000-0400
5) LK	4970	10	R. Rumbos, Villa de Cura: 0900-0500 (Sun 1000-0400)
22) OC	4980	10	Ecos del Torbes, San Cristóbal: 0900 (Sun 1000)-0400
9) MQ	4990	15	R. Barquisimeto: 1000-0400
11) MK	5020	1	R. Nacional, Caracas
7) KM	5030	15	R. Continente, Caracas: 0900-0500 (Sun 1000-0400)
82) QH	5040	1	R. Maturín: 0900-0400
3) KD	5050	2	R. Mundial, Caracas: 1000-0500
72) RK	*5060	1	R. Ideal, Caraballeda: 1000-0400
59) KD	5070	10	R. Mundial Zulia, Maracaibo
27) NL	v6000	5	R. Sensación, S. Antonio de los Altos: 0900-0500
53) SB	6010	1	R. Los Andes, "R. Mil Cuarenta", Mérida
88) WK	6020	1	R. Anzoatégui, Barcelona
39) SR	6070	10	R. Mundial, San Cristóbal: 0950-0400
103) QV	6080	1	R. Zaraza, El Tamarindo
147) RJ	6090	1	R. Jardín, Boconó
125) PK	6090	5	R. Dif. la Pascua, Valle de la Pascua
66) SX	6120	1	R. Angostura, Cd. Bolívar: 0900-0430
51) TE	6130	1	R. Valles del Tuy, Ocumare del Tuy
83) WF	6140	1	R. Petrolera, Cd. Ojeda
123) NX	6150	2	R. Armónia, Charallave: 24h
11) KO	6170	20	R. Nacional, Caracas: 1900-2350
41) SD	6180	1	R. Turismo, Valera: 1055-0400
22) PC	6190	1	Ecos del Torbes, San Cristóbal: 1100-2200
9) —	9510	10	R. Barquisimeto "Internacional"
49) MZ	9530	2	R. Calendario: R. Mara, Maracaibo: irr
11) —	9540	50	R. Nacional, El Campo de Carabobo: 0100-0200, 0300-0400
11) —	9555	50	R. Nacional, El Campo de Carabobo: 0100-0200, 0300-0400
11) —	r9640	20	R. Nacional, Caracas
5) LM	9660	10	R. Rumbos, Caracas: 0855-0500
142) TH	9700	1	R. Sucesos, Táriba: 0955-0400
65) OS	9750	1	R. Occidente, Tovar: 1000-0400
11) —	11695	50	R. Nacional, El Campo de Carabobo: 1100-1200, 1800-1900, 0300-0400
11) RQ	15400	30	R. Nacional, Caracas: 1900-2350

VENEZUELA

W.B.I.

VENEZUELA In an end-of-year message broadcast by Radio Nacional on 31st December, the Venezuelan President stated, inter alia, that the Voice of Venezuela would soon go on the air. It would broadcast programmes in several languages and have a power of 1000 kilowatts enabling it to cover an extensive area to the north and south of Venezuela (cf. WBI No. 2 1979 and Nos. 21 and 47 1978). The President added that Venezolana de Television (Ed. Note: the government-owned television service) had continued to carry out its programmes and to reach the entire country, especially the border area. It would cover northern Falcon State and the Netherlands Antilles next year.

JAN. 7 1982
NO. 1 / A5

VENEZUELA In a State of the Nation address on 11th March to the Venezuelan Congress, broadcast by Venezuelan radio stations, the President said inter alia that, without neglecting the continued progress of Radio Nacional and its increasing coverage, maximum priority had been granted to the Voice of Venezuela project - the "super station" whose operation was planned for the second half of 1982 (cf. WBI No. 1 1982). *

MARCH 18 1982
NO. 11 / A5

VENEZUELA On 1st August the newspaper 'El Nacional' carried a Ministry of Information and Tourism announcement declaring that Radio Nacional de Venezuela had started the operation of a new station from El Campo de Carabobo on 29th July which would "project the image of our country to America and the world". The new station had a power of 50 kilowatts and was on the air in the 31 and 41 metre bands at 0100 and 0300 on 9540/9555 kHz and at 1100, 1800 and 0300 on 11695 kHz. Each transmission lasted one hour.

AUG. 19 1982
NO. 33 / A2

In an interview for the Radio "Media Network" programme in 12th August, a Radio Nacional de Venezuela spokesman stated that the transmissions were directed to the Caribbean and Central America. At present the service, which started at the end of July, was only in Spanish with programmes containing news, comment, music, items of Venezuelan folklore and features for tourists. However, the newspaper announcement, according to the spokesman, was "a bit premature". The transmitter was operating at present only on 9530 kHz. However, the technical department was working on the transmitter so that it could soon operate in the 25 metre band. Next year transmissions in English, French and Brazilian Portuguese would be added. There were currently four transmissions per day on 9530 kHz - from 0100-0200, 0300-0400, 1100-1200 and 1800-1900. Once the technical department had finished its work, these transmissions would be heard on 11695, 9555 or 9540 kHz. Meanwhile, a new 1-megawatt medium-wave transmitter had been introduced on 1240 kHz carrying the above external service programmes.

VENEZUELA The Radio Nacional de Venezuela external service in Spanish is now heard being broadcast on 11695 instead of 9530 kHz from 1100-1200 and 1800-1900. The 0100-0200 and 0300-0400 transmissions remain on 9530 kHz (cf. WBI No. 47 1982). *

JAN. 6 1983
NO. 1 / A4

Unofficial High Frequency Broadcasters

in Region 2

WBI

- 5/D1 -

4th February 1982

"RADIO FARABUNDO MARTI"

(supports the Farabundo Marti National Liberation Front)
hostile to the Salvadoran Government

Frequencies listed in kiloHertz

6896-6905
6000 (unconfirmed)

GMT

0100-0200	Spanish (not Su.M.)
0130-0230	Spanish (Su.M.)
1100-1200	Spanish

The Cuban news agency claimed that this radio station, which was first heard in January 1982, is located in northern Chalatenango Province, El Salvador

RADIO FARABUNDO MARTI

W.B.I

"RADIO FARABUNDO MARTI" A Spanish-language station calling itself "Radio Farabundo Marti" was intercepted at 0135 on 17th January on 6901 kHz beginning a test transmission "beamed to our militants". The radio stated that very soon it would be on the air regularly. The test transmission consisted of material supporting the Farabundo Marti National Liberation Front and hostile to the Salvadoran Government. The broadcast ended at 0215 with an announcement that it would be back on the air from 1100-1200 on 17th January and from 0130-0230 on 18th January on 6.9 and 6.0 MHz.

JAN. 21 1982
NO. 3/A3

"Radio Farabundo Marti" was heard again from 2203-2245 on 17th January and from 0135-0225 on 18th January on 6901 kHz only. On the latter occasion "Radio Farabundo Marti" announced that it could be heard again from 1100-1200 on 18th January and from 0100-0200 on 19th January when it would announce the date of the official inauguration of the station. (cf. WBI No. 1 1981 and Items concerning "Radio Venceremos" and "Radio Unidad"). *

"RADIO FARABUNDO MARTI" A Cuban news agency report on 20th January on the start of a "new guerrilla station" stated that "Radio Farabundo Marti" would be transmitting from Chalatenango Department (El Salvador) on the border with Honduras. The report indicated that the station would begin regular broadcasting on 22nd January (cf. WBI No. 3 1982).

JAN. 28 1982
NO. 4/A4

Further observations of "Radio Farabundo Marti" show that its frequency varies between 6896 and 6905 kHz. *

"RADIO FARABUNDO MARTI" This radio station, which broadcasts material hostile to the Salvadoran government, announced that it would be beginning new broadcasts from 1st March. They would be on the air from 1830-1930 Monday to Saturday and from 1500-1600 on Sunday. These would be in addition to the 0100-0200 and 1100-1200 broadcasts.

MARCH 4 1982
NO. 9/A3

A later announcement on 28th February added that "Radio Farabundo Marti" would be on the air on 27th and 28th March all day long "in order to give our people instruction on how to defeat the electoral farce and news of the political and military actions of the people against the electoral farce".

"RADIO FARABUNDO MARTI" This radio station has not been heard to broadcast on its 6935 kHz frequency since 21st March, although an unmodulated carrier was heard from 0100-0200 on 26th March. Announcements by this radio station on 18th March indicated that "technical problems" were being experienced.*

APRIL 1 1982
NO. 13/A5

"RADIO FARABUNDO MARTI" This radio station, which broadcasts in Spanish material hostile to the Salvadoran Government purportedly from Chalatenango province, returned to the air on 6940 kHz at 1900 on 26th April. The transmission ended at 1930 but no reason was given for its absence (cf WBI No. 13 1982). Further transmissions were announced for 1830 and 0100 daily.

MAY 6 1982
NO. 18/A6

During the 0100-0200 transmission on 27th April, the frequency drifted between 6915 and 6950 kHz. *

RADIO LIBERATION

W.B.I.

"RADIO LIBERATION" Since 6th January this radio, which describes itself as the official voice of the Farabundo Marti National Liberation Front (FMLN), has been observed on 8242 kHz with regular broadcasts in Spanish. They are heard approximately from 1200-1300 and 0100-0500. The 1200 transmission has been starting up to seven minutes late and lasting up to one hour 15 minutes. The 0100 transmission contains up to three repeats of the earlier one with the occasional additional item, and has been starting up to 10 minutes early. Station announcements give "Radio Liberation's" scheduled sign-on times as 1200, 0100 and 0330. (cf. WBI No. 1 1981).

JAN. 15 1981
NO. 2 / A3

In an item on its objectives, "Radio Liberation" said on 6th January that it was part of "the enormous joint effort of all the organizations that make up the FMLN to break the information cordon that has been placed around our people by Yankee imperialism and the oligarchy". The station also said that since "Radio Liberation" was a weapon of combat, our people must protect it and discuss our broadcasts as well as the proclamations and guidance coming directly from FMLN's unified revolutionary directorate".

A typical "Radio Liberation" broadcast consists of frequent station identifications and news, editorials and commentaries interspersed with revolutionary songs. On 8th and 9th January the 1200 broadcast contained a 10-minute item called "Revolutionary education and guidance section" which gave instructions on how to prepare and use a Molotov cocktail (8th January) and homemade Napalm (9th January).

On 12th January station identifications from "Radio Liberation" contained a call to the people to take up arms and fight "in the hour of definite liberation". The transmission which started at 1215 lasted until 1626. "Radio Liberation" was back on the air on 8242 kHz at 2100 on 12th January. *

"RADIO LIBERATION" This station, which broadcasts on 8242 kHz on behalf of the Farabundo Marti National Liberation Front (FMLN), continued to be heard until the early hours of 20th January.

JAN. 29 1981
NO. 4 / A3

Before that date, the station had been broadcasting erratically many hours per day with repeats of a transmission which began at 1200 (1100 from 15th January). While El Salvador switched to Summer Time (GMT minus 5 hours) on 11th January, "Radio Liberation" appeared not to do so until 15th January.

"Radio Liberation's" last sequence of programmes began at 1100 on 19th January. Subsequent transmissions were scheduled for 1700, 1900, 2400 and 0200. The station failed to appear at 1100 on 20th January. *

Radio Reloj broadcasting from San Jose (Costa Rica) reported on 15th January that the "guerrillas" had said that "Radio Liberation" was located in Morazan, El Salvador. However, the Voice of Honduras, quoting a communique issued by the Press and Information Committee of the Anti-Sandinist Democratic Armed Forces, stated on 22nd January that "Radio Liberation" transmitted from Nicaragua. It was located on the Cosihuina farm in Chinandega Province (Ed Note: In northwestern Nicaragua). *

RADIO MAMBI

W.B.I

"RADIO MAMBI" This radio station, which broadcasts material in Spanish hostile to the Cuban government, was heard again on 2nd January. Announcements repeat that "Radio Mambi" broadcasts daily at 1200 and 0100 on the 40-metre band between 7070 and 7080 kHz. The station gives its address as: "R.M., Box 68045, Caracas, Venezuela". *

JAN. 7 1982
NO. 1/A4

"RADIO MAMBI" On 15th January this radio station announced that it would be off the air temporarily, but would be broadcasting again on the same frequency at the same time after the completion of technical adjustments which would make the station more powerful and able to reach Cuba more clearly. A similar announcement was heard again on 7082.5 kHz on 16th January. However, on this occasion "Radio Mambi" was heard broadcasting from before 0958 until 1238 instead of from its announced transmission times - 0100 and 1200. "Radio Mambi" announces its frequencies as being between 7070 and 7080 kHz (cf WBI No. 1 1982). *

JAN. 21 1982
NO. 3/A3

WBI

- 8/C1 -

24th February 1983

"RADIO MISKUS"

(Spanish: Esta es Radio Miskus)

(This radio station describes itself as a new voice against
atheistic Communism - hostile to the Nicaraguan Government
and claims to broadcast from somewhere in Nicaragua).

<u>GMT</u>		<u>kHz</u>
0200-0300	Miskito and Spanish	6870 (variable)
1100-1200	Miskito and Spanish	6870 (variable)
1900-2000	Miskito, Spanish & English	6870 (variable)

This station was first heard on 20th January 1983.

RADIO MISKUS

W.B.I

"RADIO MISKUS" This station, reported in WBI No. 4 1983, was observed from 0200-0300 on 26th January on 6870 kHz replacing 6915 kHz.

The station announces "Nicaraguan brothers, brothers of the coast, this is Radio Miskus. Radio Miskus is broadcasting from some where in Nicaragua", and states that it is a new voice against atheistic communism which breeds hate and revenge.

Broadcasts are announced as being at 0200 and 1100 on 6870 kHz, although the 1100 transmission has not yet been confirmed. *

FEB. 3 1983

NO. 5/A4

RADIO 15TH SEPTEMBER

W.B.I.

"RADIO 15th SEPTEMBER" The Nicaraguan radio station in Managua, Radio Sandino, reported on 25th November that the clandestine "Radio 15th September", operated by a group of former Somozist guardsmen, was located in San Marcos de Colon (Honduras), only ten kilometres from the Nicaraguan border (cf. WBI No. 46 1981). *

DEC. 3 1981

NO. 48/A3

"RADIO 15th SEPTEMBER" This anti-Nicaraguan-Government radio station announced that from 1st March it would start broadcasting a special programme for all the Indian communities of the Atlantic Coast (of Nicaragua). The new programme to be broadcast at 0430 and 1830 is called "Unity of the Five - i.e. the unity of our Nicaraguan brothers, the Miskitos, Sumos, Ramas, Ladinos and Creoles of the Central Region and the Pacific". "Unity of the Five, united in one fist to defeat communism". (cf. Schedule No. 7/E 1982) *

MARCH 4 1982

NO. 9 /A3

"RADIO 15th SEPTEMBER" This radio station, which is hostile to the Nicaraguan government, stated in its 0300 broadcast on 17th March that it had had to suspend its transmission on the night of Monday 15th March and on the morning of 16th March. The radio station's "intelligence services", the report said, had stated that "genocidal troops of the Marxist-Leninist dictatorship" (Ed. Note: a reference to the Nicaraguan army) were conducting encirclement operations. For this reason, the personnel of "Radio 15th September" decided to move the station's equipment to a safer zone. *

MARCH 25 1982

NO. 12 /A3

"RADIO 15th SEPTEMBER" This radio station announced on 26th June that it was now broadcasting on a new (additional) frequency, 7415 kHz. However, this channel was not traced during monitoring checks. *

JULY 8 1982

NO. 27 /A2

"RADIO 15th SEPTEMBER" This anti-Nicaraguan radio station was observed on 27th January from 1130-1230 operating on 6900 and 5565 kHz. The 0200-0330 broadcast on 28th September was observed on 7000 and 6800 kHz, whilst the 1130-1230 broadcast of the same date was observed on 7000, 6800 and 5565 kHz (cf. WBI No. 48 1982 and Schedule No. 7/E 1982). *

FEB. 3 1983

NO. 5 /A4

"RADIO 15th SEPTEMBER" This radio station, which is hostile to the Nicaraguan government, now operates on 6510 kHz instead of 6800-6900 kHz. "Radio 15th September" also broadcasts on 7000 and 5565.3 kHz. Transmissions start at 0230, 0500 and 1130. *

MARCH 17 1983

NO. 11 /A2

WBI

- 5/E1 -

4th February 1982

"RADIO UNIDAD"

(hostile to the Salvadoran Government)

7000 kHz

GMT

0100-0200

Spanish (Sa.Su.)

This radio station was first heard broadcasting on 16th January 1982. The existence of this station was first reported in October 1981 by "Radio Venceremos" who claimed that it was located in Usulután Department (El Salvador).

WBI

- 5/C1 -

4th February 1982

"RADIO VERCEREMOS"

(Supports the Farabundo Martí National Liberation Front)
hostile to the Salvadoran Government

6905-6911 kHz

GMT

0000-0100 Spanish (not Su.M.)

0000-0130 Spanish (Su.M.)

1200-1300 Spanish

1400-1600 Spanish (Su.)

This radio station, which was first heard in January 1980, claims to be located in Morazan Department, El Salvador.

RADIO VENCEREMOS

w.B.T.

"RADIO VENCEREMOS" Recent observations of Radio Venceremos broadcasting in Spanish to El Salvador show that this station also broadcasts on Sundays from 1800-1900 on 7030 kHz. The programme, which consists of news, commentaries, announcements and music, is repeated at 2300 and again at 1200 on Mondays (see WBI No.7 1981). *

MARCH 12 1981
NO. 10/A3

"RADIO VENCEREMOS" This radio station, which broadcasts on behalf of the Farabundo Marti National Liberation Front, was found to be broadcasting its scheduled 1200-1300 transmission on 6980 kHz on 18th March. The same frequency was used for the transmission from 2300-2400. This schedule remained in force until 21st March.

MARCH 26 1981
NO. 12/A3

With Summer Time having been introduced in El Salvador, "Radio Venceremos" announced on 23rd March that it would be broadcasting at new times: 1200 and 2400.

Material carried by the station includes bulletins on the situation in northern Morazan Department of El Salvador. *

"RADIO VENCEREMOS" The Salvadoran newspaper 'El Diario de Hoy' reported on 3rd April that the army and "terrorist" groups had fought violent battles on 2nd April in Torola, Morazan Department. As a result, the armed forces dismantled one of the most important "subversive" camps in the area which contained inter alia a headquarters, hospital and radio broadcasting antennas. According to the authorities, the camp belonged to the Eastern Front of the Farabundo Marti National Liberation Front (FMLN). (Ed. Note: A similar report was carried by the Central American News Agency ACAN on 2nd April).

APRIL 9 1981
NO. 14/A5

In a broadcast at 1200 on 4th April, "Radio Venceremos" replied by saying that the "dictatorship" had sought to destroy "Radio Venceremos" in its "onslaught against the people of Morazan". But in 22 days of bombing day and night (cf. WBI No. 13 1981), it had been unable to silence "Radio Venceremos". In a "desperate effort" it concentrated its fire on areas where the transmitter site was thought to be. Yet the "dictatorship" was only able to cut a "simple electrical wire" which was repaired in "a matter of seconds" and "Radio Venceremos" was on the air again at 2200 (Ed. Note: no date given) "confronting the enemy still under its artillery fire". "Radio Venceremos was not an underground station. In Morazan peasants used its microphones daily".

By announcing the station's destruction, "Radio Venceremos" went on to say, the "junta" wished to "hoodwink" its troops and "demoralise" the people. However no-one could see better than "our people" that "Radio Venceremos, the voice of the Farabundo Marti National Liberation Front" continued as "the loyal expression of the people's power". "Radio Venceremos" was "still the guerrilla voice of the FMLN always fully convinced that we will win". *

"RADIO VENCEREMOS" Although on 4th May this radio station was found on 7022 kHz (cf. WBI No. 18 1981), since that date it has been observed to broadcast at 1200 and 2400 on varying frequencies between 6927 and 6995 kHz. *

MAY 14 1981
NO. 19 /A4

On 6th May "Radio Venceremos" addressed the "militias" of the Farabundo Marti National Liberation Front stating that the "dictatorship" had launched a campaign "to prevent our people listening to Radio Venceremos". Therefore, a vigorous propaganda campaign for "Radio Venceremos" must be launched. People must be told about the radio's frequency and transmission schedule. "Radio Venceremos" then instructed its "militias" to "go ahead and paint slogans on buses and walls everywhere throughout the national territory" (Ed. Note: El Salvador). *

"RADIO VENCEREMOS" This radio station which supports the Farabundo Marti National Liberation Front announced that, due to technical repairs to its transmitter, broadcasts would be temporarily suspended from 24th June while adjustments were carried out following "more than 300 transmissions" by the station. Listeners were requested to maintain a watch because "Radio Venceremos" would be back on the air immediately technical adjustments were completed.

JULY 2 1981
NO. 26 /A4

"RADIO VENCEREMOS" During the 0000-0030 transmission on 24th August this radio station's political director informed its listeners and supporters of the Farabundo Marti National Liberation Front that for technical reasons "Radio Venceremos" had not been on the air on 22/23rd August. In order to keep the station operating, a series of technical problems have had to be faced. Since the station was located in the rural zone of Morazan department (El Salvador), "Radio Venceremos" was in fact "in the field where the actual war was taking place" and was at times at various strategic points. This required a series of moves which entailed a greater deterioration of the equipment and a greater effort from those in charge of the technical side of the operation to keep it functioning well. *

AUG. 27 1981
NO. 34 /A2

(Ed. Note: "Radio Venceremos" normally broadcasts at 1200 and 0000 on a frequency between 6900 and 7100 kHz.)

The 1200 transmission on 24th August gave details of how to organize "Radio Venceremos listeners' circles". Listeners were advised firstly to organize a group of three to five persons who were friends or relatives and secondly to take security measures while listening to "Radio Venceremos" by posting one person at the door or window of the house to warn of the arrival of unknown individuals or the enemy. At the end of the broadcast the reports and statements must be discussed and the instructions issued by the General Command implemented. Listeners should spread the news about "Radio Venceremos" by telling neighbours, friends and relatives about its existence and messages. Signs showing the time and frequency of the "Radio Venceremos" transmissions should be put up at job sites, factories and schools. The slogan should be: "Let's listen to Radio Venceremos from 0600 0700 (local time) and from 1800-1900 (local time) on the 40 metre band, 7 MHz". If possible, programmes should be recorded and cassettes distributed among friends, neighbours and relatives.

"Radio Venceremos" ended by asking listeners to look for a way to send reports, accusations or suggestions to Post Office Box 7-907, Mexico, Federal District. *

"RADIO VENCEREMOS" This radio station, operated by the Farabundo Marti National Liberation Front, announced on 4th November that it was reminding committees of solidarity with El Salvador, political parties, trade unions, universities and political, cultural and scientific personalities that "Radio Venceremos" would be opening a new channel for communicating with the world. At 1530 on Sundays, Radio Venceremos would be present on 14500 kHz in the 20-metre band "to talk with our brother peoples, to receive communiques, reports and all kinds of communications addressed to our people".

NOV. 12 1981
NO. 45 /A4

A similar announcement on 6th November described the above as a "guerilla channel" maintaining contact with all the world via amateur radios. *

At 1530 on 8th November, "Radio Venceremos" was heard to open communications on 14500 kHz with the announcement in Spanish that it was the official voice of the Farabundo Marti National Liberation Front. It was opening the channel "to communicate with the brotherly peoples of the world, solidarity committees....." "Radio Venceremos" ended its announcement by stating that any messages would be recorded so that they could be broadcast in its regular programmes. These announcements were repeated three times, interspersed by music.

The attempts to establish communications with the outside world, however, appeared to be less than successful because a voice was heard to reply in Spanish at 1550 "Assassins!". Following two more repeats of the "Radio Venceremos" announcement, a voice (possibly the same as the previous one) added: "Right now Reagan is coming to sweep you out! Only a bunch of feathers will remain. Reagan is coming and there will only be feathers to send back to Moscow". Nothing more was heard on 14500 kHz after that statement. *

"RADIO VENCEREMOS" This radio station, which claims to broadcast from Morazan Department in El Salvador, was heard from 1535 on 15th November on 14500 kHz attempting to "receive messages from all over the world, from trade unions, political parties" (cf. WBI No. 46 1981). At 1550 "Radio Venceremos" held a communications check with a station called "Planeta". This was followed by a contact with an unidentified speaker who was afraid that his transmission would be located. "Radio Venceremos" reassured him that it would be very difficult for the "enemy" to locate a shortwave transmission lasting only a few minutes. If the caller had a message, he could send it quickly without any danger. The unidentified caller then complained that announcers in the regular broadcasts of "Radio Venceremos" were speaking too close to the microphone and this resulted in distortion. The caller, however, refused to broadcast a message over the "guerilla radio" because it was dangerous.

NOV. 26 1981
NO. 47 /A4

"RADIO VENCEREMOS" On 28th March "Radio Venceremos" claimed that "imperialism's radar ship" in the Gulf of Fonseca was jamming its broadcasts with music. Therefore, it urged its listeners to keep track of "Radio Venceremos" as it would be shifting frequency at random. Later, according to monitoring observations, its frequency drifted from 6908 to 6738 kHz. On 29th and 30th March it was heard again on 6905-6907 kHz. *

APRIL 1 1982
NO. 13 /A5

"RADIO VENCEREMOS" This radio station, which supports the Farabundo Marti National Liberation Front, has been announcing since 11th May that "due to jamming" it would broadcast on two frequencies - 6.9 and 7.6 MHz.

MAY 20 1982
NO 20/A2

Since that date "Radio Venceremos" has been heard on a frequency between 6905 and 6950 kHz and irregularly on 7610 kHz. *

"RADIO VENCEREMOS" This radio station continues to be heard on 6952/6953 kHz. It announced on 3rd July that "for technical reasons" it would not broadcast its programmes scheduled for 0230 and 1200 that day but would carry a "special programme with important information" on 4th July.

JULY 8 1982
NO. 27 /A2

On 1st July Radio Havana carried a communique signed by Commander Mercedes del Carmen Letrona Luisa who was responsible for the Radio Venceremos system. In it, the Salvadoran people were exhorted to keep alert for the news and information that "Radio Venceremos" would transmit "in accordance with the conditions of war". On occasions, according to Radio Havana, "Radio Venceremos" had adopted a system of special transmissions at irregular intervals in response to offensives designed to silence the guerrilla station. *

"RADIO VENCEREMOS" "Radio Venceremos" has been observed broadcasting from 1830-1930 on 6860 kHz since 14th October. The station announces that "Radio Venceremos" will be transmitting on its two shortwave frequencies Monday through Saturday at the following times: 1200, 1830, 0000 and 0230. On Sundays, "broadcasts are as usual; and we will transmit daily at 0230 on FM 97.0 MHz to San Salvador and the central zone of the country" (cf. Schedule No. 5/C 1982).

OCT. 28 1982
NO. 43 /A3

Observations since 21st October indicate that the 6950 kHz frequency of "Radio Venceremos" has moved to 6685 kHz and that the delay in transmission reported in WBI No. 42 1982 is no longer apparent. Both the 6685 and 6850 kHz frequencies are subject to a variation of approximately 20 kHz. *

"RADIO VENCEREMOS" This radio station was heard on 27th January to broadcast on two short-wave channels - 6873.5 and 6210 kHz. The former channel was observed from sign-on at 1215 until sign-off at 1339. The 6210 kHz channel was observed from 1235 onwards, carrying a programme identical to that on 6873.5 kHz, but with a varying delay of around half a minute. After an unmodulated interval between 1320 and 1322, the 6210 kHz channel carried a direct relay of the programme on 6873.5 kHz. The transmitter on 6210 kHz became unmodulated between 1326 and 1328. When broadcasting resumed, it was some .80 seconds behind the broadcast on 6873.5 kHz. *

FEB. 10 1983
NO. 6 /A4

"RADIO VENCEREMOS" In a report on the importance of "guerrilla" radio stations, Radio Havana said on 21st February that "Radio Venceremos" - the official voice of El Salvador's Farabundo Marti National Liberation Front - came into being on 10th January 1981 when it began broadcasting from the mountains in Morazan Department. Its origin went back a further 12 months, when work was done to create a medium-wave radio station broadcasting to San Salvador. It began functioning on 22nd January 1980 identifying itself as "Radio Revolucionaria del Pueblo". *

MARCH 3 1983
NO. 9 /A2

"VOICE OF FREE NICARAGUA" A radio station broadcasting in Spanish and calling itself the "Voice of Free Nicaragua" (Spanish: La Voz de Nicaragua Libre) has been heard broadcasting from 0000-0030 on 6180 kHz since 7th January. The station describes itself as the official voice of ARDE - the Democratic Revolutionary Alliance. It also states that it is a "transmitter struggling to rescue the Sandinist Revolution" and a "radiophonic trench serving the truth and justice of a people temporarily downtrodden by a Stalinist state". The programmes of the "Voice of Free Nicaragua" consist of slogans and commentaries against the present Nicaraguan government. *

JAN. 13 1983

NO. 2/A3

WBI

- 30/D1 -

29th July 1982

"VOICE OF SANDINO"
(Spanish: La Voz de Sandino)
(hostile to the Nicaraguan Government)

6222-6228 kHz

<u>GMT</u>		<u>kHz</u>
0000-0030	Spanish	6222-6228
0400-0430	Spanish	6222-6228
1100-1130	Spanish (not confirmed)	6222-6228

This radio station was first heard on 7th June 1982 but its existence was originally reported by the Voice of Nicaragua on 17th May 1982.

ABO

APPENDIX B

External Broadcasting Output
of Major International Broadcasters

External Broadcasting

Estimated total programme hours per week of some external broadcasters

	1950	1955	1960	1965	1970	1975	1980	1981
USSR	533	656	1015	1417	1908	2001	2094	2114
United States of America	497	1690	1495	1832	1907	2029	1901	1959
Voice of America	497	843	640	831	863	789	877	935
Radio Free Europe	—	431	444	523	547	554	555	555
Radio Liberty	—	416	411	478	497	686	469	469
Warsaw Pact Countries								
<i>Other than USSR)</i>	386	783	1009	1215	1264	1449	1528	1460
East Germany	—	9	185	308	274	342	375	427
Poland	131	359	232	280	334	340	337	130*
Czechoslovakia	119	147	196	189	202	253	255	283
Bulgaria	30	60	117	154	164	197	236	289
Romania	30	109	159	163	185	190	198	204
Hungary	76	99	120	121	105	127	127	127
Chinese People's Republic	66	159	687	1027	1267	1423	1350	1304
German Federal Republic	—	105	315	671	779	767	804	786
United Kingdom (BBC)	643	558	589	667	723	719	719	741
North Korea	—	53	159	392	330	455	597	581
Albania	26	47	63	154	487	490	560	567
Egypt	—	100	301	505	540	635	546	518
Cuba	—	—	—	325	320	311	424	459
India	116	117	157	175	271	326	389	396
Nigeria	—	—	—	63	62	61	170	342
Australia	181	226	257	299	350	379	333	336
Netherlands	127	120	178	235	335	400	289	290
Japan	—	91	203	249	259	259	259	263
Spain	68	98	202	276	251	312	239	253
Portugal	46	102	133	273	295	190	214	214
Israel	—	28	91	92	158	198	210	210
Turkey	40	100	77	91	88	172	199	206
South Africa	—	127	63	84	150	141	183	205
Italy	170	185	205	160	165	170	169	169
Sweden	28	128	114	142	140	154	155	145
Canada	85	83	80	81	98	159	134	143
France	198	191	326	183	200	108	125	125
Yugoslavia	80	46	70	78	76	82	72	72

* Polish output, suspended after imposition of martial law on 13.12.81, was restored in limited form on 22.12.81. Previous output amounted to 338 hours per week.

i) The figures are for December (or the nearest available month). The BBC figure therefore includes Spanish and Italian broadcasts which were discontinued on 1.1.82.

ii) The list includes fewer than half the world's external broadcasters. Among those excluded are Taiwan, Vietnam, South Korea, and various international commercial and religious stations, as well as clandestine radio stations. Certain countries transmit part of their domestic output externally on shortwaves; these broadcasts are mainly also excluded.

International Broadcasting and Audience Research

BBC Annual Report and Handbook 1983, London, British Broadcasting Corporation, 1982, p59.

World radio and television receivers – 1981

All figures approximate

	Population in Thousands	Radio				Television		
		Number of Radio Sets (excluding wired receivers) in Thousands				Number of Television Receivers in Thousands		
		1981	1955	1965	1975	1981	1965	1975
World Figures (approx.)	4,446,000	237,000	529,000	1,010,000	1,380,000	177,000	398,000	583,000
Europe								
Western Europe	420,000	65,310	116,500	186,600	273,300	49,400	103,400	143,600
USSR & European Communist Group	381,000	20,260	59,700	92,600	130,800	24,000	87,000	111,800
Middle East (including North Africa)	198,000	2,200	12,300	29,300	44,100	1,250	6,000	13,000
Africa								
South Africa	28,000	875	2,600	4,800	8,500	—	500	2,500
Other African countries	329,000	360	4,800	18,500	31,800	100	600	5,000
Asia								
Chinese People's Republic	980,000	1,000	6,000	35,000	60,000	70	750	9,000
India	685,000	1,000	4,800	24,000	40,000	2	300	1,300
Japan	118,000	12,000	27,000	87,000	90,000	18,000	42,000	60,000
Other countries	656,000	1,800	13,300	49,700	89,000	700	8,950	22,600
Western Hemisphere								
United States of America	227,000	111,000	230,000	380,000	450,000	68,000	110,000	150,000
Canada	24,000	5,500	14,000	23,000	27,000	5,000	9,500	12,000
Latin America	366,000	12,600	29,400	62,800	111,200	7,400	22,600	42,800
West Indies	10,000	190	860	4,000	5,100	100	1,200	1,600
Australasia & other Ocean Territories	24,000	2,760	7,800	13,000	19,500	3,200	5,000	7,300

June 1982 *International Broadcasting and Audience Research*

BBC Annual Report and Handbook 1983, London, British
Broadcasting Corporation, 1982, p53.

APPENDIX C

CANADA AND THE FORTHCOMING HF BROADCASTING
PLANNING CONFERENCE OF THE ITU

In a March 1982 broadcast Radio Canada International (RCI) asked interested shortwave listeners their opinion in ten questions relating to HF Broadcasting conditions and related subjects. By late 1982, 147 responses had been received. They are of high calibre, very interesting and certainly useful to Canadian HF Broadcasting preparations. Replies have come from Australia, New Zealand, Denmark, Austria, Finland, Germany, Norway, Netherlands, Sweden, France, Italy, Greece, India, USA, Central America, Canada and Great Britain. Compilation of initial responses was done by RCI staff with subsequent analysis of all submissions completed by Linda Cracknell, a research assistant on the "Research Into the High Frequency Broadcasting Service" project.

The following summarizes the input received:

Q.1 What corrective action would you consider useful in resolving the present chaotic conditions on the International SW Broadcasting Bands?

- limit frequency and power (64 comments)
- time-sharing scheme (1 comment)
- use of more relay stations located closer to reception areas (1 comment)
- more economic and diplomatic sanctions against offenders (8 comments)
- divide frequency bands for national and international broadcasting; also by geography and by power (19 comments)
- have the ITU do an accurate survey on violations that exist (5 comments)
- return any false information submitted by administrations and verify all input data (1 comment)
- press strongly for an end to jamming (19 comments)
- seek international support for a cooperative improvement to chaotic conditions (14 comments)
- expansion of SW bands on each end (30 comments)
- greater participation at the ITU (1 comment)
- adoption of real time system for frequency coordination (1 comment)
- reduce use of SW bands for non-related broadcast services: i.e. over horizon radar, teletype (2 comments)
- establish better frequency coordination procedures through the IFRB using computers (2 comments)
- reduce needed bandwidth by changing to SSB (2 comments)
- immediate transmission on recently allocated broadcasting bands (1 comment)
- creation of experimental "low power band" for ITU members (1 comment)
- increase channel separation with adjacent channel protection, i.e. 10 kHz, 7 kHz, 5 kHz (3 comments)
- reduction of the parallel channels in use to one coverage area (1 comment)

Q.2 What action would you see as being necessary to make possible a world-wide, equitable allocation procedure for the SW Broadcasting Bands?

- sanctions against those in violation of the ITU Radio Regulations (18 comments)
- input administration requirements for the next 20 years and have the ITU assign suitable frequencies at least one year ahead (5 comments)
- frequency allocation centre for ITU which works with computers (3 comments)
- develop computer methods and use video screens for the conference planning exercise (4 comments)
- develop honest international dialogue and seek, on a world-wide basis, an equitable sharing arrangement (28 comments)
- more information in newsletter format between broadcasters (2 comments)
- limit the larger broadcaster and encourage the smaller broadcaster to operate in bands with similar powers (29 comments)
- have ITU advise offenders as well as all broadcasters, thereby create public pressure to violators (3 comments)
- one clear frequency for all countries after which a formula used to meet all requirements (6 comments)
- assignment of frequencies and time allotments to all international broadcasters (8 comments)
- an international code of conduct and/or international law with sanctions against those in violation (3 comments)
- establish an international regulatory or advisory commission to assign frequencies (other than ITU:IFRB) (2 comments)
- set aside a portion for each band for the exclusive use of countries, i.e. 5800-6000 kHz for domestic broadcasting; 6000-6500 kHz for international broadcasting (8 comments)
- take turns in using the "good" propagating channels (2 comments)
- limit stations to maximum of 6 frequencies and spectrum range of three HF broadcast bands for each transmission (1 comment)

Q.3 What procedure would you foresee as being necessary in any changeover to SSB for international SW broadcasting stations? What sort of timeframe should be involved?

- a)
- transmit simultaneously both SSB and DSB on parallel frequencies (1 comment)
 - allow the gradual introduction of SSB on a phased basis (29 comments)
 - use new WARC 79 bands only for SSB and gradually phase out the use of AM SW radio (3 comments)
 - SSB to be used on a voluntary basis only (6 comments)
 - SSB with 60% carrier (1 comment)
 - SSB use must be preceded by a thorough publicity program along with user education by broadcaster and receiver manufacturer (17 comments)
 - upgrade BFO stability of average receiver (2 comments)
 - against use of SSB for SW broadcasting (23 comments)
 - concern that changeover to SSB will lose audience in developing nations due to high costs (11 comments)
- b)
- SSB use beginning five years to 20 years from 1984 (47 comments)
 - SSB use immediately to five years (3 comments)

Q.4 What action do you anticipate might be necessary to achieve an agreement on power limits for international HF broadcasting? What should this transmitter power limit be?

- a)
- ITU to develop a variable power limit depending on path, season and time of transmission (7 comments)
 - negotiation and cooperation (19 comments)
 - withdrawal of cooperation upon countries who flaunt regulations (2 comments)

- b) - transmitter power to be carefully based on computer program and to include sufficient power to satisfactorily meet the reception area desired signal level (10 comments)
- range of power 100-500 KW (71 comments)
 - use of relay stations thereby shortening paths, and subsequent lower transmitter power (2 comments)
 - regroup all 10-100 kW transmitters in one section of band, 100-250 kW in a separate band and above 250 kW in another portion of band (5 comments)
 - 100 KW single hop, 250 KW multi-hop (2 comments)
 - new shortwave band just above current band with power limit of 500,000 watts to avoid problems of interference (2 comments)

Q.5 Do you consider it necessary for any SW broadcasting station to transmit the same program on more than one frequency in a given band, at any given time?

- no (39 comments)
- one frequency per band, but use of multi-band transmission acceptable where needed (45 comments)
- because of propagation and intentional interference, more than one frequency per band is required, but with limitations on number of frequencies (22 comments)
- because of propagation and intentional interference, more than one frequency per band is required (20 comments)

Q.6 How do you view the national, and international aspects of SW broadcasting?

- should be no international broadcasting on tropical bands (1 comment)
- need for both national and international broadcasting (27 comments)
- national service should only be used in countries that have large land mass and by developing countries (11 comments)

- promote shortwave broadcasting to increase listener population thereby obtaining larger market for receivers which will improve (5 comments)
- ban politics, religion and propaganda (15 comments)
- shortwave radio is an excellent means to create a better world-wide human understanding and should be expanded greatly (52 comments)

Q.7 What would you suggest as a solution to the problem of band broadcasting activities which are carried out by some 30 member administrations of the ITU?

- increase frequency bands for SW broadcasting (18 comments)
- resolve out-of broadcasting by diplomatic means (12 comments)
- impose sanctions (28 comments)
- direct the ITU to resolve problems, i.e. seek transmitters up and try and fit them into SW again (6 comments)
- ignore out-of-band problem as very few listen to illegal broadcasts (10 comments)
- loss of rights in the ITU for out-of-band broadcasting (3 comments)
- create a yearly prize for best performance, programming and obeying the ITU regulations (2 comments)
- cut down on duplication of programming (3 comments)
- censure by public letter (3 comments)
- out of band should be permitted (17 comments)
- go to SSB + carrier (1 comment)
- letters of complaint to the biggest offenders (2 comments)

Q.8 As an active SW listener, what receiver improvements or voluntary standards on the part of manufactures would you feel might be useful or necessary?

- shortwave receivers should be economical and improved in selectivity, stability, switchable filters, improved dynamic range, digital encoded, better warranties, more user information and schematics, fine tuning improvements, phase lock loops, better batteries and AC/DC feature, include 24-hour clocks, notch filters, better image rejection, SSB-separable, better tone quality, re-design front end for use of efficient external antennae, controls banked in rows and columns, miniature circuits to improve overall operation.

Q.9 Do you think that the existing HF broadcasting bands are being properly used at the present time? Do you think a World Administrative Radio Conference on HF broadcasting in 1984 would be useful?

- a) - No, bands not being used to the fullest. Political broadcasts result in intentional interference which causes excessive power, frequencies and repeat broadcasting which lead to chaotic band conditions (80 comments)
- separate high power and low power stations and assign better frequencies to the smaller broadcast (3 comments)
- set up international rules on program content (2 comments)
- develop international sharing rules (2 comments)
- HF used as effectively as expected under present overcrowded conditions (26 comments)
- b) - a WARC 84 would be useful to develop suitable regulations to allow HF Broadcasting to operate properly (69 comments)
- WARC 84 results must be binding on all nations to be successful (2 comments)
- hopeful that WARC 84 can be successful but ideological and political differences will make agreements difficult (20 comments)
- No (5 comments)
- HF used as effectively as expected under present overcrowded conditions (26 comments)

Q.10 What proportion of your radio listening activities is devoted to the following categories: SWLing; DXing?

- 36% mainly DX listeners
- 1% are equal SWL and DX listeners
- 63% mainly SW listeners

Other Comments:

- develop ISB techniques for SW Broadcasting
- ban the over-horizon-radars like the USSR Woodpecker and USA OTH radars
- DXers and SWLs listeners can provide useful information to the broadcaster and governments
- first time anyone has asked DX and SWL for comments on SW Broadcasting and hopefully this sort of thing will continue
- more independent SW broadcasting needed
- SW broadcasting in the HF bands is limited to 10-20 years as satellite techniques will replace SW
- mass response to the big broadcasters from listeners would be very useful towards improvement of band conditions
- SWL and DXers should inquire as to the possibility and usefulness of obtaining observer status at the ITU conference on HF Broadcasting similar to IARU
- believe immediate introduction, by compulsion, of H3EGN modulation will greatly assist present shambles on SW bands
- all people have the right to free access to all broadcasts, on all frequencies, unincumbered by jamming, fees, licencing, encoding or physical constraints.
- what about those countries broadcasting in the amateur bands? This practice hinders amateur operators communicating around the world.
- use of 120 metre-band for intra-European broadcasting
- sanctions against jammers
- kind words for RCI, especially Ian McFarland

By late 1982, 147 responses had been received to the questionnaire of March 15, 1982. A geographical breakdown of these responses is as follows: USA 73; United Kingdom 12; Canada 11; Germany 11; Finland 8; New Zealand 6; Sweden 5; Australia 3; Italy 2; Norway 2; Central America 2; Austria 1; Greece 1; Denmark 1; The Netherlands 1.

Demographically, the age breakdown is 16 (Australia and Great Britain) to 68 (U.S.A.) Three, out of the 147 respondees, are female. The span of listening years runs from 8 months to 50 years. Respondee professions ranged from students to academics, retirees, engineers, radio communication professionals. It may be of interest that one response came from a listener in the "Handicapped Aid Program" and another from a bedridden diabetic.

