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- WORLDWIDE DX CLUB homepage in the Internet at: http://www.wwdxc.de
- Weekly "TopNews" by Wolfgang Büschel at: http://topnews@wwdxc.de (available also free of charge by E-Mail to our members on request)
- Latest DRM schedule at: http://www.wwdxc.de/drm.htm

WORLD RADIO TV HANDBOOK 2004

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DX MAGAZINE No. 8-9 Vol. XXXIX August/September 2004

Hello again,

Welcome to the annual summer double issue of our DX MAGAZINE. Like in the past years you will find our normal monthly sections, several articles and in addition our annual "List of Members".

The 14th Broadcast India 2004 Exhibition will be held from 28 - 30 October at World Trade Centre Mumbai. More than 300 world's leading companies from 30 countries will showcase their products and latest technology in the conference. The exhibition will be preceded by a two-day symposium from 26 - 27 October. More than 21000 trade personnel from India as well as its neighboring countries are expected to visit the three-day exhibition, making this event the biggest and the best in India. All the leading manufacturers of the world like JVC, Panasonic, Apple, Seagate, Leitch/DPS, Matrox, Panther, Genelec, Canon, Benchmark, Da Vinci, AMS Neve, Cartoni, Cooke, Fujinon, Ciprico, AVID, Ikegami, Digidesign, Tascam, Yamaha, Tannoy, Softimage, Amek, Fairlight, Radio Computing Services to name just a few will exhibit wide range of products catering to the film, broadcast & multimedia Industry in three days of the exhibition. The world's best professionals will speak on various topics covering the fields of television, radio, video, audio, film, music, lights, Cable, satellite, multimedia, transmission, computer graphics, animation, broadband, internet and all the leading innovations from the infotainment industry in the two day symposium, which is attended by the crème de la crème of the professionals of the Indian trade, said an official release. For the fourth time this show will incorporate a technical Awards ceremony sponsored by Seagate International. On the evening of 28 October, 2004 "Seagate Technical Awards for Excellence in Digital Technology in the field of Cinema and Television" will be given to the best of professionals in this field, added the release.

(via Alokesh Gupta, New Delhi, India)

Für alle, die einmal das Betriebssystem Linux ausprobieren möchten, hat Hubert Fink, DG7MGY, eine **Amateurfunk-Knoppix-CD** zusammengestellt, basierend auf Knoppix V3.3 vom 24.09.03. Diese enthält neben der von der CD startenden Knoppix-Version (Voraussetzung ist, daß Ihr PC von CD booten kann) auch diverse Amateurfunk-Programme für Linux. Nähere Informationen zur CD finden Sie auf der Homepage von Hubert: http://hubert.fink.bei.t-online.de/knoppix.html. Ein ISO-Image dieser CD (700 MB) kann über folgenden Link geladen werden: http://www.afu-knoppix.de/download.php. Alle Mitglieder, die nicht über einen schnellen Zugang zum Internet verfügen, können aber auch von mir ein Exemplar dieser CD erhalten, die ich gerne für Sie brenne. Bei Interesse senden Sie bitte 2 Briefmarken à € 0,55 an unsere Klubadresse.

Am 25. September 2004 findet in Frankfurt ein Hörertreffen von Radio China International statt. Eine ausführliche Informationsseite von Siegbert Gerhard hierzu finden Sie in diesem DX MAGAZINE.

And with this best wishes and good DX until October from

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NEWS ABOUT BROADCASTING (+other) STATIONS Dr. Juergen Kubiak · Goltzstr. 19 · D-10781 Berlin · GERMANY

ALASKA: KNLS, Anchor Point, Alaska - season schedule A04. Seasonal schedule valid August 29, 2004 to September 06, 2004:

UTC	kHz	Language	1300	11870	English
0800	11765	English	1400	9615	Mandarin
0900	11765	Russian	1500	9615	Mandarin
1000	11765	Mandarin	1600	9615	Mandarin
1100	9795	Russian	1700	9615	Russian
1200	11765	Mandarin			

(KNLS schedule at the web modified on 25. July 2004, via JKB)

ALBANIA: The new 2 x 100 kW SW Transmitter in Shijak radio station will be ready on August 5, 2004. (BC-DX #677 & DXLD #4-107, July 13, 2004)

Last week, all *Radio Tirana*'s txions via our Cerrik radio station are already transferred to our Shijak r/station, where the Chinese installed two new HF Tx, each 100 kW. Therefore, we are interested to receive from you, some new reception reports on Radio Tirana txions via Shijak r/station. We have always highly appreciate them. Cerrik r/station is totally rent by CRI for 15 years, where they will install soon six new HF Tx, each 150 kW, as I was told from the head of Cerrik r/station sometime ago. (Drita Cico, via Rudolf Krumm, via BC-DX #680, 2004 Aug 11)

But OM Wolfgang Bueschel logged only the 50 kW transmitters Cerrik-Durres. (WB, 2004 Aug 5)

ARMENIA: The Voice of Armenia A04 current external schedule.

Mon to Sat to Eu: 1745-1805 in F, 1805-1825 in G, 1825-1845 in E at 4810 and 9960 (1000 kW).

Sun in G at 0750 on 15270 kHz

[Web server at http://www.armradio.am/eng is unbelievable awful slow, Ed.]

(OBSERVER via Kai Ludwig 5.7.2004, Christer Brunstroem via Thomas Nilsson in GH's DXLD 1.7.2004, via HJB ntt 0407-2)

Sp Mon-Sat 0230-0245 on 9965 (Rumen PankovL, BC-DX #678, 2004 July 20)

AUSTRALIA: An Australian defense lobby group has called for significant extra funding for the Australian Broadcasting Corporation's international service, Radio Australia, to promote national security. The Australian Defense Association says opinion polling in several Muslim countries has found ridiculous conspiracy theories about the 11 September terrorist attacks on the United States. The association says conspiracy theories help the spread of bigotry by Muslim extremists. It says the best counter to the views of extremist groups such as Al-Qa'idah is the truth, as offered by respected services such as Radio Australia. However, the Defense Association says Radio Australia is heard much less throughout the region because its best transmitters have been sold off. (RA via BBCM at ©RNMN June 30, 2004; via JKB)

Australian short wave broadcaster *Voice International* updated A04 schedule via Darwin, NT AUS (12S25 130E38) 250 kW. Christian Voice is a British based religious broadcaster which operates SW stations in Zambia (*1994), Chile (*1998) and Australia (* July 2000) and also applied for a local FM license in the UK Midlands. At World-Wide-Web http://www.voice.com.au. Postal address is: Voice International Ltd., Killick St, Kunda Park, QLD 4556, Australia. Program from Zambia and Australia is produced at the organizations headquarters in West Bromwich near Birmingham and fed to the stations by satellite. The Spanish programs from Chile are produced in Miami (Florida-USA). Christian Voice (Australia) Ltd. Postal Site Address: Cox Peninsula Transmitter Site, Via Darwin NT 0800, Australia. Fax # +61 (8) 8981 2846. Postal Address: PMB 5777, Darwin NT 0801, Australia.

Frequenc	y Start	Finish	Target	13685	0900	1400	China
Chinese				13635	1100	1800	India
17830	0700	0900	China	6115	1800	2100	India
13770	0900	1400	China	Indones	ian		
13660	1400	1800	China	17820	0600	1000	Indonesia
15165	2200	0100	China	15365	1000	1300	Indonesia
English				7180	1300	1700	Indonesia
11955	0900	1100	India	15250	2300	0200	Indonesia

(Voice Int. Website via JKB, 18 Aug 2004)

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BELARUS: Details of current Kalodzicy operation: Belarussian Radio.

1st Program
0300-2200 daily
6115 kHz, 75 kW, non-directional (for local listeners)
6080 kHz, 150 kW, to Ukraine
0400-0600 daily
11735 kHz, 250 kW, directed to Russia
0900-1000 daily
11960 kHz, 250 kW, directed to Russia
1500-1700
7105 kHz, 250 kW, directed to Russia
1500-1600, Mo-Fr, regional radio broadcasts instead of BR1
(open dx - Sergey Alekseychik, Hrodna, Belarus, Signal July 15 2004 via DXLD 4-108)
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<u>CANADA:</u> New additional transmission of Radio Canada International to SoEaUSA/ Cuba/ Haiti:

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1000-1200 Mon-Fri French 17765 SAC 250 kW / 227 deg,co-ch DW
                                                              Turkish 1030-1100
                         17765 SAC 250 kW / 227 deg,co-ch DW Turkish 1030-1100
1000-1300 Sat/Sun French
                         17765 SAC 250 kW / 227 deg,co-ch VOA Kurdish 1600-1700
1500-1900 Mon-Fri French
1600-1900 Sat/Sun French 17765 SAC 250 kW / 227 deg,co-ch VOA Kurdish 1600-1700
1900-2200 Daily
                 English 17765 SAC 250 kW / 227 deg
                 French 15300 SAC 250 kW / 227 deg
2200-2400 Daily
New schedule of Radio Canada International in Portuguese to Brasil:
2000-2030 Friday on 15225 and 17765 both SAC 250 kW / 163 deg >> cancelled
2100-2130 Friday on 15165 and 17740 both SAC 250 kW / 163 deg >> new txion
2330-2400 Sat/Sun on 11825 and 15455 both SAC 250 kW / 163 deg >> new txion*
* repeat Friday txion
(Ivo Ivanov and Angel Datzinov in OBSERVER # 320, via WB, 2004 July 13)
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CHINA (Peoples Rep.): China Radio International (CRI) says it will expand its Urdu service from one hour to three hours daily for Pakistani listeners from Thursday 15 July. The Urdu service will be on the air for one-hour in the morning and two hours in the evening. "We have decided to expand our Urdu network in view of the growing Sino-Pakistan relations and the interest, being shown by the listeners," said an official of the CRI. Two additional high-powered transmitters have been installed near Pakistan's border in Xinjiang region to ensure clear reception. The new schedule is not yet on CRI's Web site. (©RNMN July 12, 2004; via JKB)

<u>CUBA / VENEZUELA:</u> Schedule of Radio Nacional de Venezuela in Spanish, via Radio Habana Cuba, valid until 10/30/2004. Postal address R. Nacional Venezuela "Canal Internacional\, Sr. Director de la Onda Corta, Apartado 3979, Caracas 1010-A, Venezuela. E-mail: <ondacortavenezuela@hotmail.com>.

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TARGET
   UTC
              KHZ
1800 - 1900
              13740
                        San Francisco
1900-2000
               9550
                        Carib
2005-2105
               6000
                        Washington
2205 - 2305
               9820
                        Chicago
2100-2200
              11875
                        Chile
2000-2100
              15230
                        Buenos Aires
2000-2100
              17705
                        Rio de Janeiro
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(Marcelo A. Cornachioni in CONEXION #276 via WWDXC-HQ; August 14, 2004)

<u>DRM:</u> Deutsche Welle is broadcasting 24 hours a day in DRM mode to Europe since mid August. Below please find a comprehensive schedule of all current DRM transmissions (except low power and regional transmissions on mediumwave and shortwave):

	•			· ·				,	
UTC	Days	kHz	Beam	Target	Power	Programme	Language	Site	Country
0100-0200	daily	6140	268	NE USA	70	China Radio	English	Sackville	Canada
0100-0200	daily	15525	320	N America West	10	RNW	English	Bonaire	Neth. Antilles
0300-0400	daily	11955	285	West USA	70	BBCWS	English	Sackville	Canada
0400-0500	Sat/Sun	15400	230	NZ + SE Australia	10	RNW	English	Bonaire	Neth. Antilles
0600-0900	daily	15780	240	W & C Europe	35	VoR	English	Taldom	Russia
0600-1000	daily	5975	ND	Europe	200	DW	various	Wertachtal	Germany
	-	21675	300	•	90	DW		Trincomale	•
0600-1000	daily			Near East			English		Sri Lanka
0600-2400	daily	5990	ND	Europe	50	RTL DRM 2	French	Junglinster	Luxembourg
0600-2400	daily	6095	ND	Europe	50	RTL	various	Junglinster	Luxembourg
0700-1530	daily	15790	60	Europe	31	TDF	French	Issoudun	France
0800-1100	daily	15440	40	W & C Europe	90	DW Radio M	Music	Sines	Portugal
0900 - 1000	Sat	9815	ND	Europe	40	RNW	English	Flevo	Netherlands
0900-1100	Sun-Fri	9815	ND	Europe	40	RNW	English	Flevo	Netherlands
0900-1200	daily	15545	40	W & C Europe	90	DW	German	Sines	Portugal
0900-1200	daily	15780	240	W & C Europe	35	VoR	German	Taldom	Russia
0930-1300	daily	13620	310	Europe	120	Radio Kuwait	Arabic	Sulaibiyah	Kuwait
1000-1100	daily	6140	120	Europe	40	DW Radio M	Music	Juelich	Germany
1000-1100	Mon	9760	110	W & C Europe	33	Christian V.	English	Rampisham	Great Britain
1000-1100	Sat	9815	ND	Europe	40	TDP Radio	Music Mix	Flevo	Netherlands
1000-1500	daily	7320	105	Europe	33	BBCWS	English	Rampisham	Great Britain
1100-1200	daily	6140	120	Europe	40	DW	German	Juelich	Germany
1100 1200	daily	9815	ND	Europe	40	RNW	Dutch	Flevo	Netherlands
	daily	15440	40	W & C Europe	90	DW		Sines	
1100-1200	-			Europe	35		German		Portugal Great Britain
1200-1230	Sun	9565	95			HCJB Just Jazz	English	Rampisham	
1200-1300	daily	6140	120	Europe	40	DW Radio M	Music	Juelich	Germany
1200-1300	daily	9655	ND	Europe	200	DW Radio M	Music	Wertachtal	Germany
1200-1300	daily	9815	ND	Europe	40	RNW	English	Flevo	Netherlands
1200-1300	daily	15440	40	W & C Europe	90	DW Radio M	Music	Sines	Portugal
1300-1330	daily	9815	ND	Europe	40	RCI	English	Flevo	Netherlands
1300-1355	daily	15440	40	W & C Europe	90	DW	English	Sines	Portugal
1300-1359	daily	9655	ND	Europe	200	DW	English	Wertachtal	Germany
1300-1400	Sun	9565	95	Europe	35	BYU Radio	English	Rampisham	Great Britain
1300-1400	daily	15780	240	W & C Europe	35	VoR	Russian	Taldom	Russia
1315-1730	daily	9880	282	N Africa, Near Eas	t 120	Radio Kuwait	Arabic	Sulaibiyah	Kuwait
1330 - 1400	daily	9815	ND	Europe	40	RNW	English	Flevo	Netherlands
1400-1414	daily	9815	ND	Europe	40	Vatican Radio	German	Flevo	Netherlands
1400-1410	Fri	9770	95	Europe	35	RFI	English	Rampisham	Great Britain
1400 - 1430	Sat	9770	95	Europe	35	R. New Zealand Int.	•	Rampisham	Great Britain
		15780	240	W & C Europe	35	VoR	•	Taldom	
1400-1500	daily		ND	•	200		English		Russia
1400-1559	daily	6180		Europe		DW Radio M	Music	Wertachtal	Germany
1430-1500	Fri	9770	95	Europe	35	Wales Radio Int.	English	Rampisham	Great Britain
1430-1500	Sat	9770	95	Europe	35	Radio Australia	English	Rampisham	Great Britain
1500-1600	Sat	6015	ND	Europe	40	TDP Radio	Dance Music	Juelich	Germany
1500 - 1600	Fri	9770	95	Europe	35	Radio Taiwan Int.	English	Rampisham	Great Britain
1500-1600	daily	15780	240	W & C Europe	35	VoR	German	Taldom	Russia
1500-1800	daily	13790	40	Europe	90	DW	German	Sines	Portugal
1600-1630	daily	6140	120	Europe	40	DW Radio M	Music	Juelich	Germany
1600-1630	daily	7125	40	Europe	200	DW Radio M	Music	Wertachtal	Germany
1600-1700	Sat	11900	240	NE USA	70	TDP Radio	Dance Music	Sackville	Canada
1600-1700	Fri	9770	95	Europe	35	NHK	English	Rampisham	Great Britain
1600-1700	daily	15780	240	W & C Europe	35	VoR	French	Taldom	Russia
1600-1915	daily	1296	96	Netherlands .	70	BBCWS	English	Orfordness	Great Britain
1630-1700	daily	6140	120	Europe	40	DW	English	Juelich	Germany
1630-1700	daily	7125	40	Europe	200	DW	English	Wertachtal	Germany
1700-1730	Sat	11900	240	NE USA	70	NASB	English	Sackville	Canada
1700 - 1730	daily	5955	ND	Europe	40	Radio Sweden	English	Flevo	Netherlands
1700-1759	daily	7125	40	Europe	200	DW	German	Wertachtal	Germany
1700 - 1900	daily	6140	120	Europe	40	DW	German	Juelich	Germany
1730-1800	daily	5955	ND	Europe	40	Radio Sweden	German	Flevo	Netherlands
1800-0600	-	3995	ND	Europe	200	DW Sweden	German	Wertachtal	Germany
	daily			•					
1800-1900	daily	15215	61	Russia	33	BBC	Russian	Rampisham	Great Britain
1800-1955	daily	15435	40	W & C Europe	90	DW	German	Sines	Portugal
1955-2030	daily	9800	268	NE USA	70	Vatican Radio	English	Sackville	Canada
2000-2100	Sat	7370	240	Europe	35	TDP Radio	Dance Music	Taldom	Russia
2030-2100	daily	9800	268	NE USA	70	RNW	English	Sackville	Canada
2100-2200	daily	9800	268	NE USA	70	RCI	English	Sackville	Canada
2100-2200	daily	15150	50	Europe	10	RNW	English	Bonaire	Neth. Antilles
2100-2200	daily	5980	40	W & C Europe	90	DW	German	Sines	Portugal
2115-2400	daily	1296	96	Netherlands	70	BBCWS	English	Orfordness	Great Britain
2200-0200	daily	11675	350	N America East	120	Radio Kuwait	Arabic	Sulaibiyah	Kuwait
2200-2230	daily	9800	268	NE USA	70	Deutsche Welle	English	Sackville	Canada
2200-2300	daily	15525	350	N America East	10	RNW	English	Bonaire	Neth. Antilles
2230-2300	daily	9800	268	NE USA	70	Radio Sweden	English	Sackville	Canada
2300-2400	daily	9800	268	NE USA	70	BBCWS	English	Sackville	Canada
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<u>EUROPE:</u> Radio Free Europe - RFE / Radio Liberty - RL updated language schedules, unchanged language schedules see prior issue of DXM. Cause of a lot of changes, hard to compare each item, given the complete language schedules:

		_		
Afghan Service	0300-0400 7155	Su	1000-1100 11860	MoTuWeThFrSa
0230-0330 11945 Every day	0300-0400 7155	MoTuWeThFr	1000-1100 11860	Su
0230-0430 17670 Every day	0300-0400 7155	Sa	1000-1100 15130	Su
, ,				
0330-0530 17670 Every day	0300-0400 7175	Su	1000-1100 15130	MoTuWeThFrSa
0330-0430 19010 Every day	0300-0400 7175	MoTuWeThFr	1000-1100 15460	MoTuWeThFrSa
0330-0830 19010 Every day	0300-0400 7175	Sa	1000-1100 15460	Su
		MoTuWeThFr	1000-1100 17730	MoTuWeThFrSa
0530-0630 17710 Every day				
0630-0830 17685 Every day	0300-0400 7220	Sa	1000-1100 17730	Su
0730-1030 17685 Every day	0300-0400 7220	Su	1000-1100 17810	MoTuWeThFrSa
0730-1030 19010 Every day	0300-0400 9520	MoTuWeThFr	1000-1100 17810	Su
, ,				
0930-1430 17685 Every day	0300-0400 9520	Su	1000-1100 17890	MoTuWeThFrSa
0930-1330 19010 Every day	0300-0400 9520	Sa	1000-1100 17890	Su
1330-1430 12140 Every day	0300-0400 11725	MoTuWeThFr	1100-1300 13745	Every day
1330-1430 17605 Every day	0300-0400 11725	Sa	1100-1300 15130	Every day
1330-1430 17685 Every day	0300-0400 11725	Su	1100-1300 15205	Every day
North Caucasus Service	0400-0500 5995	MoTuWeThFr	1100-1200 15460	Every day
0400-0500 9850 Every day	0400-0500 5995	SaSu	1100-1300 17730	Every day
0400-0500 11780 Every day	0400-0500 7220	SaSu	1100-1300 17890	Every day
0400-0500 15350 Every day	0400-0600 7220	MoTuWeThFr	1200-1300 15215	Every day
, ,				
0400-0500 15460 Every day	0400-0500 7295	SaSu	1400-1500 9595	Every day
1700-1800 9805 Every day	0400-0500 7295	MoTuWeThFr	1400-1600 11725	Every day
1700-1800 11705 Every day	0400-0500 9520	SaSu	1400-1500 11880	Every day
, , ,				
, ,	0400-0600 9520	MoTuWeThFr	1400-1600 11895	Every day
Iraqi Service	0400-0500 9760	SaSu	1400-1600 13755	Every day
0100-0300 7205 Every day	0400-0600 9760	MoTuWeThFr	1400-1500 15130	Every day
0100-0600 9730 Every day	0400-0500 11725	SaSu	1400-1600 15205	Every day
0100-0600 9865 Every day	0400-0500 11725	MoTuWeThFr	1400-1500 15215	Every day
0300-0400 11910 Every day	0500-0600 7220	SaSu	1500-1600 9725	Every day
0400-0600 11930 Every day	0500-0600 9520	SaSu	1500-1600 11885	Every day
, ,				
1400-1700 9825 Every day	0500-0600 9760	SaSu	1600-1700 7220	Su
1400-1500 13755 Every day	0500-0600 11815	SaSu	1600-1700 7220	MoTuWeThFrSa
1400-1700 15170 Every day	0500-0600 11815	MoTuWeThFr	1600-1700 9520	MoTuWeThFrSa
1400-1700 17740 Every day	0500-0600 12015	MoTuWeThFr	1600-1700 9520	Su
1500-1900 11805 Every day	0500-0600 12015	SaSu	1600-1700 9725	MoTuWeThFrSa
1700-1800 9865 Every day	0500-0600 17695	SaSu	1600-1700 9725	Su
1700-1800 15135 Every day	0500-0600 17695	MoTuWeThFr	1600-1700 11725	MoTuWeThFrSa
1800-1900 9505 Every day	0500-0600 17730	SaSu	1600-1700 11725	Su
1800-1900 9740 Every day	0500-0600 17730	MoTuWeThFr	1600-1700 11885	MoTuWeThFrSa
Romanian Service	0600-0700 9520	Every day	1600-1700 11885	Su
1500-1530 7160 MoTuWeThFr	0600-0700 9635	Every day	1600-1700 13755	MoTuWeThFrSa
		, ,		
1500-1530 11905 MoTuWeThFr	0600-0700 9760	Every day	1600-1700 13755	Su
1500-1530 15380 MoTuWeThFr	0600-0700 11815	Every day	1900-1930 3965	MoTuWeThFrSa
1800-1900 7130 MoTuWeThFr	0600-0700 15130	Every day	1900-2000 3965	Su
1800-1900 12025 MoTuWeThFr	0600-0700 17695	Every day	1900-1930 6105	MoTuWeThFrSa
Russian Service	0600-0700 17730	Every day	1900-2000 6105	Su
0000-0100 6095 Every day	0600-0700 17810	Every day	1900-1930 7220	MoTuWeThFrSa
0000-0100 7120 Every day		MoTuWeThFrSa	1900-2000 7220	Su
0000-0100 7170 Every day	0700-0800 9635	Su	1900-2000 9520	Su
0000-0100 7220 Every day	0700-0800 11815	MoTuWeThFrSa	1900-2000 9520	MoTuWeThFrSa
0000-0100 9520 Every day	0700-0800 11815	Su	1900-1930 11865	MoTuWeThFrSa
0200-0300 6105 MoTuWeThFr	0700-0800 11860	Su	1900-2000 11865	Su
0200-0300 6105 SaSu	0700-0800 11860	MoTuWeThFrSa	1900-2000 11885	Su
0200-0300 7155 MoTuWeThFr	0700-0800 15130	MoTuWeThFrSa	1900-2000 11885	MoTuWeThFrSa
0200-0300 7155 SaSu	0700-0800 15130	Su	1930-2000 3965	MoTuWeThFrSa
0200-0300 7170 MoTuWeThFr	0700-0800 17810	MoTuWeThFrSa	1930-2000 6105	MoTuWeThFrSa
0200-0300 7170 SaSu	0700-0800 17810	Su	1930-2000 7220	MoTuWeThFrSa
0200-0300 7220 MoTuWeThFr	0700-0800 21705	MoTuWeThFrSa	1930-2000 11865	MoTuWeThFrSa
0200-0300 7220 SaSu	0700-0800 21705	Su	2000-2100 3965	Every day
0200-0300 7275 MoTuWeThFr	0800-1000 11860	Every day	2000-2100 5955	Every day
0200-0300 7275 SaSu	0800-1000 15280	Every day	2000-0000 7220	Every day
0200-0300 9520 MoTuWeThFr	0800-1000 17810	Every day	2000-2200 7260	Every day
0200-0300 9520 SaSu	0800-0900 21705	Every day	2000-0000 9520	Every day
0300-0400 6105 Su	0900-1000 17730	Every day	2000-2100 9860	Every day
0300-0400 6105 MoTuWeThFr	1000-1100 11725	MoTuWeThFrSa		
				Every day
0300-0400 6105 Sa	1000-1100 11725	Su	2100-2200 7155	Every day

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7245
                                1800-1900
                                           9505
                                                                1700-1800 9855
2100-2300
                 Every day
                                                 Every day
                                                                                  Every day
2200-0000
           5985
                 Every day
                                1800 - 1900
                                           9855
                                                 Every day
                                                                1700-1900 11805
                                                                                  Every day
2200-0000
          6095
                 Every day
                                1800-1900 11715
                                                 Every day
                                                                1700-1800 12035
                                                                                  Every day
                                                                1700-1800 15115
                                1800-1900 15120
2200-2300
          9590
                 Every day
                                                 Every day
                                                                                  Every day
2300-0000
                                2000-2100
                                           5970
                                                 Every day
                                                                1700-1800 15135
          7120
                 Every day
                                                                                  Every day
2300-0000 7170 Every day
                                2000-2100
                                                                1800-1900 7165
                                           7165
                                                 Every day
                                                                                  Every day
South Slavic Service
                                2200-0000
                                           6130
                                                 Every day
                                                                1800-1900 11785
                                                                                  Every day
0730-0800 9555
                                2200-0000 9635
                                                                1800-1900 11875
                Every day
                                                 Every day
                                                                                  Every day
0730-0800 11970
                 Every day
                                2200-0000 11730
                                                 Every day
                                                                1900-2000 9615
                                                                                  MoTuWeThFrSu
                                                                1900-2000 11695
0730-0800 15260
                 Every day
                                Ukrainian Service
                                                                                  MoTuWeThFrSu
1300-1330 9555
                 Every day
                                0300-0400
                                           6065 MoTuWeThFrSa
                                                                1900-2000 11875
                                                                                  MoTuWeThFrSu
                                                                Uzbek Service
1300-1330 11795
                 Every day
                                0300-0400
                                           7115
                                                 MoTuWeThFrSa
1300-1330 15255
                 Every day
                                0300-0400
                                           9710
                                                 MoTuWeThFrSa
                                                                0200-0400 12015
                                                                                  Every day
                                0500-0600
                                           7115
1300-1330 17605
                 Every day
                                                 MoTuWeThFr
                                                                0200-0400 12110
                                                                                  Every day
1600-1700
          6040
                                0500-0600
                                           7165
                                                 MoTuWeThFr
                                                                0200-0400 21770
                                                                                  Every day
                 Every day
1600 - 1700
          7115
                 Every day
                                0500-0600 11780
                                                 MoTuWeThFr
                                                                1600-1800 9595
                                                                                  Every day
1600-1700 11925
                                1600-1700 6185
                                                 MoTuWeThFr
                                                                1600-1700 11835
                 Every day
                                                                                  Every day
1730-1800 6130
                                1600-1700 9725
                                                 MoTuWeThFr
                                                                1600-1800 11980
                 Every day
                                                                                  Every day
1730-1800 9625
                 Every day
                                1600-1700 11805
                                                 MoTuWeThFr
                                                                1700-1800 11815
                                                                                 Every day
1730-1800 15245 Every day
                                1600-1700 17825
                                                 MoTuWeThFr
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(RFE/RL website last modified 31 July 2004, via JKB)

GREECE: You might think the Olympics would provide a golden opportunity for **Voice** of **Greece** to expand its external service with more foreign languages or at least more time for the existing languages. Quite the contrary! This item says all foreign language services are being suspended for the month of August, and Epsilon Rho Alpha on shortwave will only be carrying the Sigma Pi Omicron Rho Tau network in Greek for the duration. (GH, DXLD #4-110, July 19, 2004)

INDIA: The officials of *AIR Super Power SW Transmitters* at *Bangalore* (6x500 kw) would like to get some feedback reports on their transmissions from listeners in Europe. Those interested may please contact Mr.R.Narasimha Swamy, Superintending Engineer at the following Email id for their exact schedules: <narasimhaswamy@yahoo.com>. Please find Jose Jacob's report about this station later in this DX MAGAZINE. (Jose Jacob <vu2jos@yahoo.co.in>, Hyderabad, India, August 24, 2004)

IRAN: A04 schedule *Voice of the Islamic Republic of Iran - VOIRI* Tehran. Postal address: Islamic Republic of Iran Broadcasting, Vali-e asr Ave, Jame Jam St., P.O. Box 19395-6767, Teheran. For German language service: IRIB Deutsches Programm (German Service), Bundespressehaus, Zimmer 1305, Schiffbauerdamm 40, D-10117 Berlin, Germany. eMail: <IRIBWORLD@IRIB.COM>, Internet: <http://www.irib.com>.

Updated summer AO4 schedule for VOIROI/IRIB: 15340 ALBANIAN 0630-0727 15235 1830 - 1927 9545 9570 9535 2030-2127 11775 11875 "Voice of Islamic Palestinian Revolution" ARABIC 0330-0427 9610 0330-1157 13790 registered till 1027 0530 - 1627 15150 1630 - 1927 9935 1930-2027 9935 "Voice of Islamic Palestinian Revolution" 2030-0527 9935 ARMENIAN 0300-0327 11860 0930-0957 9695 15260 9780 1630 - 1727 7230 AZFRT 0330-0527 13710 6200 1430 - 1657 BENGALI 0030-0127 9855 9890 0830-0927 11705 1430 - 1527 7305 9520 9810 12015 **BOSNIAN** 0530-0627 15235 15340 1730 - 1827 7295 9835 2130-2227 9810 11875

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CHINESE
                       17535
                               21460
                                       21490 21630
          1200 - 1257
                                       15450 till July 31
          2330-0027
                       13715
                               15230
          2330-0027
                       11735
                               12000
                                       13715 from August 1
DARI
          0300-0627
                       13740
          0830 - 1157
                       13720
          1200 - 1457
                        9910
ENGLISH
          1030-1127
                       15600
                               17660
          1530 - 1627
                        9635
                               11650
          1930-2027
                        9800
                               11750
FRENCH
          0630-0727
                       17560
                               17590
          1830 - 1927
                       13755
HAUSA
          0600-0657
                       17810
                               21810
          1830 - 1927
                       11860
                               11930
HEBREW
          0430-0457
                        9610
                               11875
                                       additional transmission
          1900 - 1927
                        3985
                                5970
HINDI
          0230-0257
                       15165
                               17635
          1430 - 1527
                       11695
                               12030
                                       13805
JAPANESE 1300-1327
                       15555
                               17810
KAZAKH
          0130-0227
                       11665
                               11935
          1300 - 1357
                       11665
                               13755
KURDISH
          0330-0427
                       11920 Sorrani
                                        dialect
          1330-1427
                        5990 Sorrani
                                        dialect
          1430 - 1627
                        5990 Kirmanji dialect
MALAY
          1230-1327
                       15200
                               17555
          2230-2327
                        9685
                                9830
PASHTO
          0230-0327
                        7130
                                9605
          0730-0827
                       15440
          1230 - 1327
                        6175
                                9790
                                       11730
          1430 - 1527
                        7270
          1630-1727
                        6015
                                7195
RUSSIAN
          0300-0327
                        9650
                               11925
          0500-0527
                       11870
                               15215
                                       17595
                                               17660
          1430 - 1527
                        7165
                                9580
                                        9900
                        6210
                                7175
          1700 - 1757
          1800 - 1857
                        6205
                                7260
          1930-2027
                        3985
                                7175
SPANISH
          0030-0127
                                9905
                        9655
                                       11610
                                9905
          0130-0227
                        9655
                                       11610
          0230-0327
                        9905
          0530-0627
                       15530
                               17785
          2030-2127
                        9650
                               11760
SWAHILI
          0330-0427
                       15265
                               15340
          0830-0927
                       17660
                               17690
          1730 - 1827
                        9655
                               11995
TAJIK
          0100-0227
                        9740
                        5955
          1600 - 1727
TURKISH
          0430-0557
                       15260
                               15365
          1600 - 1727
                        7165
                                9915
URDU
          0130-0227
                        7130
                               11880
                                       11965
          1330-1427
                        6175
                                9665
                                       11695
          1530-1727
                        7270
          1730 - 1757
                        7220
                                9530
UZBEK
          0230-0257
                        9740
          1500 - 1557
                        5955
                                (OBSERVER #320 via WB, July 13, 2004)
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IRELAND: The Democratic Voice of Burma (DVB) radio station that currently operates from Norway may move its broadcasting base to Ireland, a spokesman said today. "We at DVB feel that working from within an EU country with a strong commitment to human rights and education would be of even greater benefit to us," said Deputy Director Khin Maung Win. "The people of Ireland have always shown great solidarity for the plight of the people in Burma and we hope that an agreement can be arrived at," he added on a visit to Ireland. DVB broadcasts an hour of programmes twice daily into Burma, now named Myanmar, presenting the views of the opposition National Coalition Government of the Union

of Burma (NCGUB) and the Democratic Alliance of Burma (DAB). Khin Maung Win said the radio had been operating from Oslo for 12 years and they were grateful for the Norwegian government's support. (©RNMN August 05, 2004; via JKB)

ISRAEL: The Israel Broadcasting Authority's decision to move its English news from the Reshet Aleph network to Reshet Reka, the network for immigrants, has resulted in a lot of criticism. The critics say that Reshet Reka - which broadcasts for the most part in Russian and Amaharic - has poor reception in certain parts of the country, including Eilat, the Galilee, and certain parts of the Sharon. One source in the IBA said the decision would be a "death blow" that would "wipe out the bulk of listeners." These include foreign journalists and diplomats. The decision seems to have been a hasty one - made on Tuesday, communicated to IBA English news employees on Friday, and will be implemented on 1 August (earlier reports said 1 September). The change also goes against a letter from Communications Minister Ehud Olmert dated September 2003 in which he gave the English news staff a written promise that the broadcasts would not be changed. Neither the Minister nor the IBA have so far responded to enquiries on the matter. (Source: Haaretz via @RNMN July 26, 2004; via JKB)

LEBANON: The *Voice of the Charity*, is a catholic religious transmitter that daily transmits in Arabic from 0430 to 0500 UTC at 11715 KHz. (Marcelo A. Cornachioni in CONEXION #272 via WWDXC-HQ; July 17, 2004)

MALTA: It seems that the issue of the *Voice of the Mediterranean*, the Maltese-based international broadcaster that closed down some months ago, is not completely dead. Press reports from Malta say that the station was one of the items on the agenda of a two-day meeting held by the Maltese Minister of Foreign Affairs and Investment Promotion in Tripoli. Amongst others, the Minister met with the Libyan leader's son, Mohammed Gaddafi. (@RNMN June 28, 2004; via JKB)

MISCELLANEOUS: One of the greatest radio broadcasters in the UK died today after finally losing his battle against throat cancer. *Tony Allan* was not only admired, but was loved by countless people who heard his broadcasts. He started his career on the offshore station Radio Scotland, and later worked for Radio Northsea International, Radio Caroline and the Voice of Peace. (©RNMN July 09, 2004; via JKB)

Adventist World Radio today broadcasts the 500th edition of *Wavescan*, its programme for radio hobbyists. Wavescan has been on the air weekly since 1995, and today's edition features an interview with Dr. *Adrian Peterson*, the international shortwave expert who has written, produced and presented every edition. Today's programme will also look at how AWR first got onto the international airwaves. AWR promises to verify correct reception reports with a specially endorsed QSL card. (©RNMN August 01, 2004; via JKB)

Surf in' at the *Internet* you will see a lot of pages in a language other than English like Spanish, Italian, Russian, Japanese, Korean, French, Chinese or Portuguese. To translate this pages to English, there is a free service for translation of websites and short text: <http://babelfish.altavista.com>. Often you will be informed, when a web page is changed, so you can use the free service http://www.watchcat.de. After free registration (this is a German server, but the pages are in English) you type in the URL's to be watched, is there any change, you will receive an email. The URL's will be watched Another goodie to for Windows users is the program WYSIGOT <http://www.wysigot.com>, an off-line reader: you type in the URL's of the web pages to be downloaded to your local hard drive. Then you set the time intervals, WYSIGOT will look again at these web pages. If they are changed, WYSIGOT will download again the new changed page. Because you can hold the older version of the web page, you can highlight the changes oft text at the two pages. So you will be informed, which words or numbers (like frequencies or transmission hours) changed at the page. At WYSIGOT there is a light program version for free, you can download and use. Babelfish translation. Watchcat service and the program WYSIGOT are very useful, I use them often when compiling the DXM

Thales has been recently contracted for the *delivery of shortwave equipment* and services for two customers in the Asian area. Betar in Bangladesh has ordered a new 100 kW

shortwave transmitter and auxiliaries for its station in Savar near Dhaka. BECIL, India, has also ordered a 100 kW shortwave transmitter and site material for a NEW station. The Thales 100 kW shortwave transmitter type TSW 2100 is fully capable of digital DRM operation. With the PSM part built into the transmitter, this model is a very cost effective solution for near distance shortwave broadcasting. Both new stations are scheduled to go on air early 2005. Transmitters and site material will be delivered end of this year. (THALES Radio News, issue 16, summer 2004; http://www.thales-bm.com, via WB, 2004 July 26)

English shortwave broadcasts sorted by time. With Credits to PRIME TIME SHORTWAVE http://primetimeshortwave.com and Daniel Sampson dsampson@triwest.net, who last updated on July 12, 2004 to version A04v15. This shortwave schedule list is intended for personal use only. Any other use without giving credit to or getting permission from Daniel Sampson, dsampson@triwest.net, and giving credit to the Prime Time Shortwave website is strictly prohibited.

Relay site codes: ae-United Arab Emirates, an-Antigua, as-Ascension, bo-Bonaire Neth. Antilles, ca-Sackville Canada, ch-China, cu-Cuba, de-Delano USA, fg-French Guiana, fr-France, ga-Gabon, ge-Germany, gr-Greenville USA, it-Italy, ka-Kazakhstan, ma-Madagascar, mo-Moldova, ne-Netherlands, po-Sines Portugal, ru-Russia, rw-Rwanda, si-Singapore, sl-Sri Lanka, sp-Spain, sw-Sweden, ta-Taiwan, uk-United Kingdom, uz-Uzbekistan, wr-WRMI USA, wy-WYFR USA, za-South Africa:

<u>Days of week:</u> Su-Sunday, M-Monday, Tu-Tuesday, W-Wednesday, Th-Thursday, F-Friday, Sa-Saturday;

<u>Target areas:</u> Af-Africa, Am-America, As-Asia, Au-Australia, Eu-Europe, In-India, Ja-Japan, LA-Latin America, ME-Middle East, NA-North America, Oc-Oceania, SA-South America, UK-United Kingdom.

Other: drm-DRM, occ-occasional use

PART 1 (0000-1400 UTC) see DXM 7-2004 (last month)

PART 2 (1400-2400 UTC)

UTC	Target/Day	Country	Station	Frequencies
1400-1430	As, Oc	Thailand	R. Thailand	9830
1400-1500	NA	China	China R. Int'l	7405, 13680
1400-1500	NA,Af,As	Japan	R. Japan	7200, 11730, 11840sl
1400-1500	Af,ME,As	France	R. France Int'l	7175, 9580, 11610ch,
				17515, 17620
1400-1500	As, Oc	U. S. A.	V. of America	6160, 7125, 9760, 15160,
			5 11 11 1	15425
1400-1500	As, Oc	Netherlands	R. Netherlands	9890, 11835, 12075
1400 - 1500	Am	Mexico	R. Mexico Int'l	9705, 11770
1400-1500	Af	South Africa	Channel Africa	11825
1400-1500	NA	U. S. A.	KTBN	7505, 15590
1400-1500	ME	United Kingdom	BBC	15565, 15575, 17640
1400-1500	Af	United Kingdom	BBC	6190, 11940, 17830,
				17885, 21470, 21660
1400-1500	As	United Kingdom	BBC	6195, 7105, 9740, 15310,
				17790
1400-1500	As	Taiwan	Taiwan R. Int'l	15265
1400-1500	As, Eu	Russia	V. of Russia	7390, 9745, 12055, 15605,
				15780 drm, 17645
1400-1500	As	Oman	R. Oman	15140
1400-1500	Eu	Germany	Pan American B/C	15650
1400-1500	NA,LA,As	U. S. A.	WYFR	6155ta, 11830, 11970,
				17750
1400-1500	NA	U. S. A.	WEWN	7425, 7520, 9355, 9955,
				15745
1400-1500	As	China	China R. Int'l	11675, 11765
1400-1500	Af	Libya	V. of Africa	21675fr
1400-1500	As,Th-Su	United Kingdom	Bible Voice	7485uz
1400-1600	NA	U. S. A.	WBCQ	7415, 9330, 17495
1400-1600	As, Oc	Australia	R. Australia	5995, 6080, 7260, 9590,
	,,			9475, 9805, 11660, 11750
1400-1600	Am	U. S. A.	WRMI	7385, 15725
1400-1600	NA, Af, As		China R. Int'l	9610 drm
1400-1700	LA	United Kingdom	BBC	15190
1415-1430	As	Nepal	R. Nepal	3230, 5005, 6100, 7165
1430-1500	As,Sa-Su	United Kingdom	Bible Voice	5890ru
1 700 1000	7.0,0a 0a	onition Kingdom	DIDIC VOICE	00001 d

1500-1528 1500-1530 1500-1530	Eu, As Eu Af	Vietnam Mongolia United Kingdom	V. of Vietnam V. of Mongolia BBC	7285, 9840, 12020 9720 6190, 11860, 11940, 15400, 15420, 17830,
1500 - 1530 1500 - 1557 1500 - 1600 1500 - 1600 1500 - 1600 1500 - 1600 1500 - 1600	Eu As NA As, Oc NA, As NA Af As	Hungary Canada U. S. A. U. S. A. U. S. A. China South Africa United Kingdom	R. Budapest R. Canada Int'l WEWN V. of America WYFR China R. Int'l Channel Africa BBC	21470, 21490, 21660 6025, 9715 15455ch, 17720ch 9955, 11530, 15745 7125 6155ta, 11830, 17750 13740 17770 5975, 6195, 7105, 9740,
1500-1600 1500-1600	NA,As,Oc As, ME	Japan Russia	R. Japan V. of Russia	15310, 17790 6190, 7200, 9505, 11730 4940, 4965, 4975, 7325, 7390, 11500, 11985
1500-1600 1500-1600	ME Af	United Kingdom U.S.A.	BBC V. of America	15565 6160, 9590, 9760, 9845, 12040, 15550
1500-1600 1500-1600 1500-1600 1500-1600	Eu As As NA, Eu	Germany Seychelles Guam North Korea	Pan American B/C FEBA KTWR V. of Korea	15650 7365ru 12105 4405, 9335, 11710, 13760,
1500 - 1600 1500 - 1600 1500 - 1700 1500 - 1800 1500 - 2200 1500 - 2300	As As, Su Am NA, Af, As NA	China United Kingdom U. S. A. China U. S. A. U. S. A.	China R. Int'l Bible Voice WHRI China R. Int'l WWCR WHRA	15245 7160, 9785 17510ge 13760, 15105 13640 9475, 12160, 13845, 15825 17650
1500-2400 1500-2400 1505-1530 1510-1525 1515-1530 1515-1800	As NA NA, Sa-Su NA, M-F As, Oc ME, Su	U. S. A. U. S. A. Austria Austria Vatican City United Kingdom	KVOH KTBN R. Austria Int'l R. Austria Int'l Vatican R. Bible Voice	17775 15590 13775ca 13775ca 12065, 13765, 15235 15680ge
1530-1550 1530-1600 1530-1600 1530-1600	As,Oc,Sa As As As,M,W-Sa	Vatican City United Arab Em Georgia United Kingdom	Vatican R. AWR Georgia R. Bible Voice	12065, 13765, 15235 15225 6180 17510ge
1530-1630 1530-1630	As Af	Iran United Kingdom	VOIRI BBC	9635, 11650 6190, 11940, 15400, 17830, 21470, 21660
1535-1600 1540-1555 1545-1615 1545-1645 1545-1715 1545-1830 1600-1615	NA, Sa-Su NA, M-F ME,M,W,F ME, Th ME, Tu ME, Sa Af, ME	Austria Austria United Kingdom United Kingdom United Kingdom United Kingdom United Kingdom Pakistan	R. Austria Int'l R. Austria Int'l Bible Voice Bible Voice Bible Voice Bible Voice Rible Voice	13775ca 13775ca 15680ge 15680ge 15680ge 15680ge 11570, 11850, 15100,
1600 - 1627 1600 - 1628 1600 - 1630 1600 - 1635	Eu, Af As,Af,ME As Eu, Af	Czech Republic Vietnam Guam United Arab Em	R. Prague V. of Vietnam AWR Emirates R.	15725 5930, 17485 7220, 9550, 11630, 13740 15235 13630, 13675, 15395,
1600-1657 1600-1659 1600-1700 1600-1700 1600-1700	NA, Af, As As Eu, ME Af Af	China Germany U. S. A. U. S. A. France	China R. Int'l Deutsche Welle V. of America V. of America R. France Int'l	21605 9440, 13730 6170sl, 7225sl, 17595 9700, 15205, 15255 9850, 15225, 15410, 15580 6010ae, 6170ae, 9730za, 11615, 15160za, 15605
1600-1700 1600-1700	As, Oc NA,Eu,As	U. S. A. U. S. A.	V. of America WYFR	6160, 7125, 9760 6085, 6155ta, 11830, 11865, 15130, 17750,
1600-1700 1600-1700	Af NA, Af	U. S. A. U. S. A.	V. of America WEWN	18980, 21455, 21525 12080, 13600, 17895 11530, 13615, 15745

1600-1700	Eu	United Kingdom	BBC	9410, 12095, 15485
1600-1700	As	United Kingdom	BBC	3915, 5975, 6195, 7160,
	,			9410, 15310, 17790
1000 1700	A - A - ME	Dunada	V of Durada	
1600-1700	As,Af,ME	Russia	V. of Russia	5945, 9405, 11985, 12055
1600-1700	ME, Af	South Korea	R. Korea Int'l	5975, 9870
1600-1700	As, Oc	Australia	R. Australia	5995, 6080, 7220, 7260,
	•			9475, 11660
1600-1700	ME, Af	North Korea	V. of Korea	3560, 9975, 11735
1600 - 1700	NA,Eu,Sa	Greece	V. of Greece	7475, 9420, 15630, 17705
1600-1700	Af	Libya	V. of Africa	15660fr, 17695fr
1600-1700	NA, Af, As	China	China R. Int'l	7250
1600-1727	NA, Af, As	China	China R. Int'l	13730
1600-1800	Af	China	China R. Int'l	9570, 11900
1600-1800	As	Taiwan	Taiwan R. Int'l	11550
1600-1800	ME	United Kingdom	BBC	12095, 15565
1600-1800	NA	U. S. A.	KIMF	5835, 11885
1600-1800	NA, Af, As	China	China R. Int'l	11940
1600-1900	NA	U. S. A.	WBCQ	9330, 17495
1600-1900	NA, Af, As		China R. Int'l	11670
1600-1900	Af	South Africa	SW R. Africa	4880
1600-1957	NA, Af, As		China R. Int'l	17510 drm
1600-2000	NA	Costa Rica	Univ. Network	11870, 13750
1600-2200	Eu	U. S. A.	WMLK	9465, 15265
1600-2300	Am	U. S. A.	WRMI	9955
1600-2300	Am	U. S. A.	WRMI	15725
1600-2400	Af	Zambia	Christian Voice	4965
1615-1630	As, Oc	Vatican City	Vatican R.	15595
1630-1700	Eu	Slovakia	R. Slovakia Int'l	5920, 7345
1630-1700	Af	United Kingdom	BBC	6190, 11860 Sa-Su, 11940,
		3		15400, 15420, 17830,
1000 1700	۸ -	0	AMD	21470, 21490 Sa-Su, 21660
1630-1700	As	Guam	AWR	11975, 15235
1630-1830	Af	Egypt	R. Cairo	9855
1700-1715	NA	Israel	Israel B/C Auth.	15640, 17535
1700-1715	NA, Af, As	China	China R. Int'l	12080 drm
1700-1727			R. Prague	5930, 17485
	Eu, Af	Czech Republic	3	•
1700-1728	Eu	Vietnam _	V. of Vietnam	9725au
1700-1730	Af	France	R. France Int'l	15605, 17605
1700-1745	Af	United Kingdom	BBC	3255, 6005, 6190, 9630,
				15400, 15420, 17830,
				· · · · · · · · · · · · · · · · · · ·
				21470
1700 1750	Eu	Doland	P Polonia	21470
1700-1759	Eu	Poland	R. Polonia	7265, 7285
1700-1759 1700-1800	Eu As, Oc	Poland Australia	R. Polonia R. Australia	7265, 7285 5995, 6080, 7220, 7260,
				7265, 7285 5995, 6080, 7220, 7260, 9475, 11880
				7265, 7285 5995, 6080, 7220, 7260, 9475, 11880
1700-1800 1700-1800	As, Oc Af	Australia U. S. A.	R. Australia V. of America	7265, 7285 5995, 6080, 7220, 7260, 9475, 11880 9850, 15410, 15580
1700-1800 1700-1800 1700-1800	As, Oc Af Eu, Af	Australia U. S. A. U. S. A.	R. Australia V. of America WYFR	7265, 7285 5995, 6080, 7220, 7260, 9475, 11880 9850, 15410, 15580 17795, 18980, 21455
1700 - 1800 1700 - 1800 1700 - 1800 1700 - 1800	As, Oc Af Eu, Af Eu, ME	U. S. A. U. S. A. U. S. A. U. S. A.	R. Australia V. of America WYFR V. of America	7265, 7285 5995, 6080, 7220, 7260, 9475, 11880 9850, 15410, 15580 17795, 18980, 21455 6040, 9700, 9760, 15255
1700-1800 1700-1800 1700-1800 1700-1800 1700-1800	As, Oc Af Eu, Af Eu, ME NA,Af,Eu	U. S. A. U. S. A. U. S. A. U. S. A. Japan	R. Australia V. of America WYFR V. of America R. Japan	7265, 7285 5995, 6080, 7220, 7260, 9475, 11880 9850, 15410, 15580 17795, 18980, 21455 6040, 9700, 9760, 15255 9535, 11970, 15355ga
1700-1800 1700-1800 1700-1800 1700-1800 1700-1800 1700-1800	As, Oc Af Eu, Af Eu, ME NA,Af,Eu As, Oc	U. S. A. U. S. A. U. S. A. Japan U. S. A.	R. Australia V. of America WYFR V. of America R. Japan V. of America	7265, 7285 5995, 6080, 7220, 7260, 9475, 11880 9850, 15410, 15580 17795, 18980, 21455 6040, 9700, 9760, 15255 9535, 11970, 15355ga 6160, 7125, 9640
1700-1800 1700-1800 1700-1800 1700-1800 1700-1800 1700-1800 1700-1800	As, Oc Af Eu, Af Eu, ME NA,Af,Eu As, Oc Eu	U. S. A. U. S. A. U. S. A. Japan U. S. A. United Kingdom	R. Australia V. of America WYFR V. of America R. Japan V. of America BBC	7265, 7285 5995, 6080, 7220, 7260, 9475, 11880 9850, 15410, 15580 17795, 18980, 21455 6040, 9700, 9760, 15255 9535, 11970, 15355ga 6160, 7125, 9640 6195, 9410, 12095, 15485
1700-1800 1700-1800 1700-1800 1700-1800 1700-1800 1700-1800	As, Oc Af Eu, Af Eu, ME NA,Af,Eu As, Oc	U. S. A. U. S. A. U. S. A. Japan U. S. A.	R. Australia V. of America WYFR V. of America R. Japan V. of America	7265, 7285 5995, 6080, 7220, 7260, 9475, 11880 9850, 15410, 15580 17795, 18980, 21455 6040, 9700, 9760, 15255 9535, 11970, 15355ga 6160, 7125, 9640
1700-1800 1700-1800 1700-1800 1700-1800 1700-1800 1700-1800 1700-1800	As, Oc Af Eu, Af Eu, ME NA,Af,Eu As, Oc Eu	U. S. A. U. S. A. U. S. A. Japan U. S. A. United Kingdom	R. Australia V. of America WYFR V. of America R. Japan V. of America BBC	7265, 7285 5995, 6080, 7220, 7260, 9475, 11880 9850, 15410, 15580 17795, 18980, 21455 6040, 9700, 9760, 15255 9535, 11970, 15355ga 6160, 7125, 9640 6195, 9410, 12095, 15485 3915, 5975, 7160, 9510,
1700 - 1800 1700 - 1800 1700 - 1800 1700 - 1800 1700 - 1800 1700 - 1800 1700 - 1800	As, Oc Af Eu, Af Eu, ME NA,Af,Eu As, Oc Eu As	Australia U. S. A. U. S. A. U. S. A. Japan U. S. A. United Kingdom United Kingdom	R. Australia V. of America WYFR V. of America R. Japan V. of America BBC BBC	7265, 7285 5995, 6080, 7220, 7260, 9475, 11880 9850, 15410, 15580 17795, 18980, 21455 6040, 9700, 9760, 15255 9535, 11970, 15355ga 6160, 7125, 9640 6195, 9410, 12095, 15485 3915, 5975, 7160, 9510, 15310
1700-1800 1700-1800 1700-1800 1700-1800 1700-1800 1700-1800 1700-1800	As, Oc Af Eu, Af Eu, ME NA,Af,Eu As, Oc Eu	U. S. A. U. S. A. U. S. A. Japan U. S. A. United Kingdom	R. Australia V. of America WYFR V. of America R. Japan V. of America BBC	7265, 7285 5995, 6080, 7220, 7260, 9475, 11880 9850, 15410, 15580 17795, 18980, 21455 6040, 9700, 9760, 15255 9535, 11970, 15355ga 6160, 7125, 9640 6195, 9410, 12095, 15485 3915, 5975, 7160, 9510, 15310 9405, 9480, 9890, 11510,
1700-1800 1700-1800 1700-1800 1700-1800 1700-1800 1700-1800 1700-1800 1700-1800	As, Oc Af Eu, Af Eu, ME NA,Af,Eu As, Oc Eu As Eu,As,Af	Australia U. S. A. U. S. A. U. S. A. Japan U. S. A. United Kingdom United Kingdom	R. Australia V. of America WYFR V. of America R. Japan V. of America BBC BBC V. of Russia	7265, 7285 5995, 6080, 7220, 7260, 9475, 11880 9850, 15410, 15580 17795, 18980, 21455 6040, 9700, 9760, 15255 9535, 11970, 15355ga 6160, 7125, 9640 6195, 9410, 12095, 15485 3915, 5975, 7160, 9510, 15310 9405, 9480, 9890, 11510, 11675 Sa-Su, 11985
1700 - 1800 1700 - 1800 1700 - 1800 1700 - 1800 1700 - 1800 1700 - 1800 1700 - 1800	As, Oc Af Eu, Af Eu, ME NA,Af,Eu As, Oc Eu As	Australia U. S. A. U. S. A. U. S. A. Japan U. S. A. United Kingdom United Kingdom Russia South Africa	R. Australia V. of America WYFR V. of America R. Japan V. of America BBC BBC V. of Russia Channel Africa	7265, 7285 5995, 6080, 7220, 7260, 9475, 11880 9850, 15410, 15580 17795, 18980, 21455 6040, 9700, 9760, 15255 9535, 11970, 15355ga 6160, 7125, 9640 6195, 9410, 12095, 15485 3915, 5975, 7160, 9510, 15310 9405, 9480, 9890, 11510, 11675 Sa-Su, 11985 15245
1700-1800 1700-1800 1700-1800 1700-1800 1700-1800 1700-1800 1700-1800 1700-1800	As, Oc Af Eu, Af Eu, ME NA,Af,Eu As, Oc Eu As Eu,As,Af	Australia U. S. A. U. S. A. U. S. A. Japan U. S. A. United Kingdom United Kingdom	R. Australia V. of America WYFR V. of America R. Japan V. of America BBC BBC V. of Russia	7265, 7285 5995, 6080, 7220, 7260, 9475, 11880 9850, 15410, 15580 17795, 18980, 21455 6040, 9700, 9760, 15255 9535, 11970, 15355ga 6160, 7125, 9640 6195, 9410, 12095, 15485 3915, 5975, 7160, 9510, 15310 9405, 9480, 9890, 11510, 11675 Sa-Su, 11985 15245
1700-1800 1700-1800 1700-1800 1700-1800 1700-1800 1700-1800 1700-1800 1700-1800	As, Oc Af Eu, Af Eu, ME NA,Af,Eu As, Oc Eu As Eu,As,Af	Australia U. S. A. U. S. A. U. S. A. Japan U. S. A. United Kingdom United Kingdom Russia South Africa	R. Australia V. of America WYFR V. of America R. Japan V. of America BBC BBC V. of Russia Channel Africa	7265, 7285 5995, 6080, 7220, 7260, 9475, 11880 9850, 15410, 15580 17795, 18980, 21455 6040, 9700, 9760, 15255 9535, 11970, 15355ga 6160, 7125, 9640 6195, 9410, 12095, 15485 3915, 5975, 7160, 9510, 15310 9405, 9480, 9890, 11510, 11675 Sa-Su, 11985 15245 15660fr, 17635fr,
1700-1800 1700-1800 1700-1800 1700-1800 1700-1800 1700-1800 1700-1800 1700-1800 1700-1800 1700-1800	As, Oc Af Eu, Af Eu, ME NA,Af,Eu As, Oc Eu As Eu,As,Af	Australia U. S. A. U. S. A. U. S. A. Japan U. S. A. United Kingdom United Kingdom Russia South Africa Libya	R. Australia V. of America WYFR V. of America R. Japan V. of America BBC BBC V. of Russia Channel Africa V. of Africa	7265, 7285 5995, 6080, 7220, 7260, 9475, 11880 9850, 15410, 15580 17795, 18980, 21455 6040, 9700, 9760, 15255 9535, 11970, 15355ga 6160, 7125, 9640 6195, 9410, 12095, 15485 3915, 5975, 7160, 9510, 15310 9405, 9480, 9890, 11510, 11675 Sa-Su, 11985 15245 15660fr, 17635fr, 17695fr, 17880fr
1700-1800 1700-1800 1700-1800 1700-1800 1700-1800 1700-1800 1700-1800 1700-1800 1700-1800 1700-1800 1700-1800	As, Oc Af Eu, Af Eu, ME NA, Af, Eu As, Oc Eu As Eu, As, Af Af Af ME, W, F	Australia U. S. A. U. S. A. U. S. A. Japan U. S. A. United Kingdom United Kingdom Russia South Africa Libya United Kingdom	R. Australia V. of America WYFR V. of America R. Japan V. of America BBC BBC V. of Russia Channel Africa V. of Africa Bible Voice	7265, 7285 5995, 6080, 7220, 7260, 9475, 11880 9850, 15410, 15580 17795, 18980, 21455 6040, 9700, 9760, 15255 9535, 11970, 15355ga 6160, 7125, 9640 6195, 9410, 12095, 15485 3915, 5975, 7160, 9510, 15310 9405, 9480, 9890, 11510, 11675 Sa-Su, 11985 15245 15660fr, 17635fr, 17695fr, 17880fr 15680ge
1700-1800 1700-1800 1700-1800 1700-1800 1700-1800 1700-1800 1700-1800 1700-1800 1700-1800 1700-1800 1700-1800 1700-1800 1700-1800	As, Oc Af Eu, Af Eu, ME NA,Af,Eu As, Oc Eu As Eu,As,Af Af Af ME,W,F ME,Sa-Su	Australia U. S. A. U. S. A. U. S. A. Japan U. S. A. United Kingdom United Kingdom Russia South Africa Libya United Kingdom United Kingdom	R. Australia V. of America WYFR V. of America R. Japan V. of America BBC BBC V. of Russia Channel Africa V. of Africa Bible Voice	7265, 7285 5995, 6080, 7220, 7260, 9475, 11880 9850, 15410, 15580 17795, 18980, 21455 6040, 9700, 9760, 15255 9535, 11970, 15355ga 6160, 7125, 9640 6195, 9410, 12095, 15485 3915, 5975, 7160, 9510, 15310 9405, 9480, 9890, 11510, 11675 Sa-Su, 11985 15245 15660fr, 17635fr, 17695fr, 17880fr 15680ge 15235ge
1700-1800 1700-1800 1700-1800 1700-1800 1700-1800 1700-1800 1700-1800 1700-1800 1700-1800 1700-1800 1700-1800 1700-1800 1700-1800 1700-1857	As, Oc Af Eu, Af Eu, ME NA, Af, Eu As, Oc Eu As Eu, As, Af Af Af ME, W, F ME, Sa-Su NA, Af, As	Australia U. S. A. U. S. A. U. S. A. Japan U. S. A. United Kingdom China	R. Australia V. of America WYFR V. of America R. Japan V. of America BBC BBC V. of Russia Channel Africa V. of Africa Bible Voice China R. Int'l	7265, 7285 5995, 6080, 7220, 7260, 9475, 11880 9850, 15410, 15580 17795, 18980, 21455 6040, 9700, 9760, 15255 9535, 11970, 15355ga 6160, 7125, 9640 6195, 9410, 12095, 15485 3915, 5975, 7160, 9510, 15310 9405, 9480, 9890, 11510, 11675 Sa-Su, 11985 15245 15660fr, 17635fr, 17695fr, 17880fr 15680ge 15235ge 13830
1700-1800 1700-1800 1700-1800 1700-1800 1700-1800 1700-1800 1700-1800 1700-1800 1700-1800 1700-1800 1700-1800 1700-1800 1700-1800	As, Oc Af Eu, Af Eu, ME NA,Af,Eu As, Oc Eu As Eu,As,Af Af Af ME,W,F ME,Sa-Su	Australia U. S. A. U. S. A. U. S. A. Japan U. S. A. United Kingdom United Kingdom Russia South Africa Libya United Kingdom United Kingdom	R. Australia V. of America WYFR V. of America R. Japan V. of America BBC BBC V. of Russia Channel Africa V. of Africa Bible Voice	7265, 7285 5995, 6080, 7220, 7260, 9475, 11880 9850, 15410, 15580 17795, 18980, 21455 6040, 9700, 9760, 15255 9535, 11970, 15355ga 6160, 7125, 9640 6195, 9410, 12095, 15485 3915, 5975, 7160, 9510, 15310 9405, 9480, 9890, 11510, 11675 Sa-Su, 11985 15245 15660fr, 17635fr, 17695fr, 17880fr 15680ge 15235ge
1700-1800 1700-1800 1700-1800 1700-1800 1700-1800 1700-1800 1700-1800 1700-1800 1700-1800 1700-1800 1700-1800 1700-1800 1700-1800 1700-1857	As, Oc Af Eu, Af Eu, ME NA, Af, Eu As, Oc Eu As Eu, As, Af Af Af ME, W, F ME, Sa-Su NA, Af, As	Australia U. S. A. U. S. A. U. S. A. Japan U. S. A. United Kingdom China	R. Australia V. of America WYFR V. of America R. Japan V. of America BBC BBC V. of Russia Channel Africa V. of Africa Bible Voice China R. Int'l	7265, 7285 5995, 6080, 7220, 7260, 9475, 11880 9850, 15410, 15580 17795, 18980, 21455 6040, 9700, 9760, 15255 9535, 11970, 15355ga 6160, 7125, 9640 6195, 9410, 12095, 15485 3915, 5975, 7160, 9510, 15310 9405, 9480, 9890, 11510, 11675 Sa-Su, 11985 15245 15660fr, 17635fr, 17695fr, 17880fr 15680ge 15235ge 13830
1700-1800 1700-1800 1700-1800 1700-1800 1700-1800 1700-1800 1700-1800 1700-1800 1700-1800 1700-1800 1700-1800 1700-1800 1700-1800 1700-1857 1700-2000	As, Oc Af Eu, Af Eu, ME NA, Af, Eu As, Oc Eu As Eu, As, Af Af Af ME, W, F ME, Sa-Su NA, Af, As NA, Af	U. S. A. U. S. A. U. S. A. U. S. A. Japan U. S. A. United Kingdom China U. S. A.	R. Australia V. of America WYFR V. of America R. Japan V. of America BBC BBC V. of Russia Channel Africa V. of Africa Bible Voice China R. Int'l WEWN	7265, 7285 5995, 6080, 7220, 7260, 9475, 11880 9850, 15410, 15580 17795, 18980, 21455 6040, 9700, 9760, 15255 9535, 11970, 15355ga 6160, 7125, 9640 6195, 9410, 12095, 15485 3915, 5975, 7160, 9510, 15310 9405, 9480, 9890, 11510, 11675 Sa-Su, 11985 15245 15660fr, 17635fr, 17695fr, 17880fr 15680ge 15235ge 13830 11530, 13615, 15685, 15745
1700-1800 1700-1800 1700-1800 1700-1800 1700-1800 1700-1800 1700-1800 1700-1800 1700-1800 1700-1800 1700-1800 1700-1800 1700-1800 1700-1800 1700-1800 1700-1800 1700-1800	As, Oc Af Eu, Af Eu, ME NA, Af, Eu As, Oc Eu As Eu, As, Af Af Af ME, W, F ME, Sa-Su NA, Af, As NA, Af	Australia U. S. A. U. S. A. U. S. A. Japan U. S. A. United Kingdom	R. Australia V. of America WYFR V. of America R. Japan V. of America BBC BBC V. of Russia Channel Africa V. of Africa Bible Voice China R. Int'l WEWN WHRI	7265, 7285 5995, 6080, 7220, 7260, 9475, 11880 9850, 15410, 15580 17795, 18980, 21455 6040, 9700, 9760, 15255 9535, 11970, 15355ga 6160, 7125, 9640 6195, 9410, 12095, 15485 3915, 5975, 7160, 9510, 15310 9405, 9480, 9890, 11510, 11675 Sa-Su, 11985 15245 15660fr, 17635fr, 17695fr, 17880fr 15680ge 15235ge 13830 11530, 13615, 15685, 15745 13760, 15665
1700-1800 1700-1800 1700-1800 1700-1800 1700-1800 1700-1800 1700-1800 1700-1800 1700-1800 1700-1800 1700-1800 1700-1800 1700-1800 1700-1857 1700-2000	As, Oc Af Eu, Af Eu, ME NA, Af, Eu As, Oc Eu As Eu, As, Af Af Af ME, W, F ME, Sa-Su NA, Af, As NA, Af	U. S. A. U. S. A. U. S. A. U. S. A. Japan U. S. A. United Kingdom China U. S. A.	R. Australia V. of America WYFR V. of America R. Japan V. of America BBC BBC V. of Russia Channel Africa V. of Africa Bible Voice China R. Int'l WEWN	7265, 7285 5995, 6080, 7220, 7260, 9475, 11880 9850, 15410, 15580 17795, 18980, 21455 6040, 9700, 9760, 15255 9535, 11970, 15355ga 6160, 7125, 9640 6195, 9410, 12095, 15485 3915, 5975, 7160, 9510, 15310 9405, 9480, 9890, 11510, 11675 Sa-Su, 11985 15245 15660fr, 17635fr, 17695fr, 17880fr 15680ge 15235ge 13830 11530, 13615, 15685, 15745 13760, 15665 4005, 5890, 7250, 9645,
1700-1800 1700-1800 1700-1800 1700-1800 1700-1800 1700-1800 1700-1800 1700-1800 1700-1800 1700-1800 1700-1800 1700-1800 1700-1857 1700-2000	As, Oc Af Eu, Af Eu, ME NA, Af, Eu As, Oc Eu As Eu, As, Af Af ME, W, F ME, Sa - Su NA, Af, As NA, Af Am Eu, ME	U. S. A. U. S. A. U. S. A. U. S. A. Japan U. S. A. United Kingdom China U. S. A. Vatican City	R. Australia V. of America WYFR V. of America R. Japan V. of America BBC BBC V. of Russia Channel Africa V. of Africa Bible Voice Bible Voice China R. Int'l WEWN WHRI Vatican R.	7265, 7285 5995, 6080, 7220, 7260, 9475, 11880 9850, 15410, 15580 17795, 18980, 21455 6040, 9700, 9760, 15255 9535, 11970, 15355ga 6160, 7125, 9640 6195, 9410, 12095, 15485 3915, 5975, 7160, 9510, 15310 9405, 9480, 9890, 11510, 11675 Sa-Su, 11985 15245 15660fr, 17635fr, 17695fr, 17880fr 15680ge 15235ge 13830 11530, 13615, 15685, 15745 13760, 15665 4005, 5890, 7250, 9645, 15595
1700-1800 1700-1800 1700-1800 1700-1800 1700-1800 1700-1800 1700-1800 1700-1800 1700-1800 1700-1800 1700-1800 1700-1800 1700-1800 1700-1800 1700-1800 1700-1800 1700-1800	As, Oc Af Eu, Af Eu, ME NA, Af, Eu As, Oc Eu As Eu, As, Af Af ME, W, F ME, Sa - Su NA, Af, As NA, Af Am Eu, ME NA, Af, As	U. S. A. U. S. A. U. S. A. U. S. A. Japan U. S. A. United Kingdom China U. S. A. Vatican City	R. Australia V. of America WYFR V. of America R. Japan V. of America BBC BBC V. of Russia Channel Africa V. of Africa Bible Voice China R. Int'l WEWN WHRI	7265, 7285 5995, 6080, 7220, 7260, 9475, 11880 9850, 15410, 15580 17795, 18980, 21455 6040, 9700, 9760, 15255 9535, 11970, 15355ga 6160, 7125, 9640 6195, 9410, 12095, 15485 3915, 5975, 7160, 9510, 15310 9405, 9480, 9890, 11510, 11675 Sa-Su, 11985 15245 15660fr, 17635fr, 17695fr, 17880fr 15680ge 15235ge 13830 11530, 13615, 15685, 15745 13760, 15665 4005, 5890, 7250, 9645,
1700-1800 1700-1800 1700-1800 1700-1800 1700-1800 1700-1800 1700-1800 1700-1800 1700-1800 1700-1800 1700-1800 1700-1800 1700-1857 1700-2000	As, Oc Af Eu, Af Eu, ME NA, Af, Eu As, Oc Eu As Eu, As, Af Af ME, W, F ME, Sa - Su NA, Af, As NA, Af Am Eu, ME	U. S. A. U. S. A. U. S. A. U. S. A. Japan U. S. A. United Kingdom China U. S. A. Vatican City	R. Australia V. of America WYFR V. of America R. Japan V. of America BBC BBC V. of Russia Channel Africa V. of Africa Bible Voice Bible Voice China R. Int'l WEWN WHRI Vatican R.	7265, 7285 5995, 6080, 7220, 7260, 9475, 11880 9850, 15410, 15580 17795, 18980, 21455 6040, 9700, 9760, 15255 9535, 11970, 15355ga 6160, 7125, 9640 6195, 9410, 12095, 15485 3915, 5975, 7160, 9510, 15310 9405, 9480, 9890, 11510, 11675 Sa-Su, 11985 15245 15660fr, 17635fr, 17695fr, 17880fr 15680ge 15235ge 13830 11530, 13615, 15685, 15745 13760, 15665 4005, 5890, 7250, 9645, 15595
1700-1800 1700-1800 1700-1800 1700-1800 1700-1800 1700-1800 1700-1800 1700-1800 1700-1800 1700-1800 1700-1800 1700-1800 1700-1857 1700-2000 1715-1730 1730-1745	As, Oc Af Eu, Af Eu, ME NA, Af, Eu As, Oc Eu As Eu, As, Af Af Af ME, W, F ME, Sa - Su NA, Af, As NA, Af Am Eu, ME NA, Af, As Af, ME	U. S. A. U. S. A. U. S. A. U. S. A. Japan U. S. A. United Kingdom China U. S. A. Vatican City China United Nations	R. Australia V. of America WYFR V. of America R. Japan V. of America BBC BBC V. of Russia Channel Africa V. of Africa Bible Voice Bible Voice China R. Int'l WEWN WHRI Vatican R. China R. Int'l UN Radio	7265, 7285 5995, 6080, 7220, 7260, 9475, 11880 9850, 15410, 15580 17795, 18980, 21455 6040, 9700, 9760, 15255 9535, 11970, 15355ga 6160, 7125, 9640 6195, 9410, 12095, 15485 3915, 5975, 7160, 9510, 15310 9405, 9480, 9890, 11510, 11675 Sa-Su, 11985 15245 15660fr, 17635fr, 17695fr, 17880fr 15680ge 15235ge 13830 11530, 13615, 15685, 15745 13760, 15665 4005, 5890, 7250, 9645, 15595 12080 7170za, 15495uk, 17810as
1700-1800 1700-1800 1700-1800 1700-1800 1700-1800 1700-1800 1700-1800 1700-1800 1700-1800 1700-1800 1700-1800 1700-1857 1700-2000 1715-1730	As, Oc Af Eu, Af Eu, ME NA, Af, Eu As, Oc Eu As Eu, As, Af Af ME, W, F ME, Sa - Su NA, Af, As NA, Af Am Eu, ME NA, Af, As	U. S. A. U. S. A. U. S. A. U. S. A. Japan U. S. A. United Kingdom China U. S. A. Vatican City China United Nations	R. Australia V. of America WYFR V. of America R. Japan V. of America BBC BBC V. of Russia Channel Africa V. of Africa Bible Voice Bible Voice China R. Int'l WEWN WHRI Vatican R. China R. Int'l	7265, 7285 5995, 6080, 7220, 7260, 9475, 11880 9850, 15410, 15580 17795, 18980, 21455 6040, 9700, 9760, 15255 9535, 11970, 15355ga 6160, 7125, 9640 6195, 9410, 12095, 15485 3915, 5975, 7160, 9510, 15310 9405, 9480, 9890, 11510, 11675 Sa-Su, 11985 15245 15660fr, 17635fr, 17695fr, 17880fr 15680ge 15235ge 13830 11530, 13615, 15685, 15745 13760, 15665 4005, 5890, 7250, 9645, 15595 12080

1730-1800	Eu, ME	Belgium	R. Vlaanderen i	9925ru, 11640ge
1730 - 1800	Af	Vatican City	Vatican R.	13765, 15570, 17515
1730 - 1800		_		11910
	Eu	Georgia	Georgia R.	
1730-1800	As	Guam	AWR	9385
1730-1800	Af	U. S. A.	V. of America	11975, 17895
1730 - 1800	Eu	Bulgaria	R. Bulgaria	9500, 11500
1730 - 1930	As, Oc	Philippines	Philippines B. S.	11720, 15190, 17720
1745 - 1800	NA, Af, As		China R. Int'l	12080
1745 - 1815	Eu	Bangladesh	R. Bangladesh	7185, 9550
1745 - 1830	Af	United Kingdom	BBC	3255, 6190, 15400, 15420,
		g .		1783Ó, 2147O
1745 - 1945	Eu, Af	India	All India R.	
1745-1945	Lu, Ai	Illuta	AII IIIUIA N.	7410, 9445, 9950, 11620,
				11935, 13605, 15075,
				15155, 17670
1800-1815	NA, Af, As	China	China R. Int'l	12080 drm
1800-1828	Af, ME	Vietnam	V. of Vietnam	11630, 13740
1800-1830	As	United Kingdom	BBC	5975, 9510
1800 - 1830	Af	South Africa	AWR	3215, 3345, 12130
1800 - 1856	Eu	Romania	R. Romania Int'l	11940, 15380
1800 - 1859	Af	Canada	R. Canada Int'l	9530uk, 11770ae, 13730uk,
1000-1009	ΛI	Odifada	n. Janada int i	
				15255uk
1800 - 1900	Af	Netherlands	R. Netherlands	6020ma, 9895, 11655ma
1800 - 1900	Af	U. S. A.	V. of America	9850, 11975, 15410,
			·	15580, 17895
1000 1000	4	A	D A -1 1	
1800-1900	As, Oc	Australia	R. Australia	6080, 7220, 7240, 7260,
				9475, 11880
1800 - 1900	Eu	U. S. A.	WYFR	13700uk, 17795, 18980
1800 - 1900	Eu,M-F	Argentina	RAE	9690, 15345
		_		
1800-1900	Eu, Af	Russia	V. of Russia	9480, 9745, 9890, 11510,
				11630
1800-1900	Eu	Taiwan	Taiwan R. Int'l	3965fr
1800-1900	ME	United Kingdom	BBC	12095, 15310
1800 - 1900	NA,Eu,Su	Greece	V. of Greece	7475, 9420, 15630, 17705
1800-1900	Af	Libya	V. of Africa	15205fr, 15660fr,
				17635fr, 17695fr
1800 - 1900	ME, Sa	United Kingdom	Bible Voice	13710
1800 - 1900	As, Sa-Su	United Kingdom	Bible Voice	11965ge
			Bible Voice	S .
1800 - 1900	As,Eu,Sa	United Kingdom		5970ge
1800-1915	ME,F,Su	United Kingdom	Bible Voice	13710
1800-1930	As,Eu,Su	United Kingdom	Bible Voice	5970ge
1800-2000	Eu, ME	U. S. A.	V. of America	6040, 9760, 9770
1800-2000	NA	U. S. A.	KJES	15385
1800-2100	NA	Kuwait	R. Kuwait	11990
1800-2100	Oc, As	Australia	Voice Int'l	6115
1800-2100	NA, Af, As	China	China R. Int'l	13760
1800-2200	Eu	United Kingdom	BBC	6195, 9410
1800-2200	NA	U. S. A.	KIMF	11885
1800-2200	Af	Liberia	R. Liberia	5100
1815-1830	As,Eu,M-F	United Kingdom	Bible Voice	5970ge
1815-1830	NA, Af, As	China	China R. Int'l	12080
1815-1900	Eu ´	Bangladesh	R. Bangladesh	7185, 9550, 15520
				· · · · · · · · · · · · · · · · · · ·
1830-1845	NA, Af, As		China R. Int'l	12080 drm
1830-1855	Eu	Greece	V. of Greece	12105
1830-1900	Eu	Slovakia	R. Slovakia Int'l	5920, 6055
1830 - 1900	Af	United Kingdom	BBC	3255, 6005, 6190, 9630,
		-9		15400, 15420, 17830,
	_			21470
1830-1900	Eu	Serbia Monteneg	Int R Serb-Mont	6100
1830-1900	Eu	Georgia	Georgia R.	11760
1830-1900	Af	South Africa	AWR	12130
1830 - 1920	Eu	Turkey	V. of Turkey	9785
			-	
1845 - 1900	Eu	Albania	R. Tirana	7210, 9520
1845 - 1900	NA, Af, As	China	China R. Int'l	12080
1851 - 1950	0c	New Zealand	RNZI	9885
1900-1915	NA, Af, As		China R. Int'l	12080 drm
	IVA. AI A			
1900-1925	NA, Eu	Israel	Israel B/C Auth.	15615, 15640, 17535
1900-1925 1900-1928	NA, Eu Af, ME		Israel B/C Auth. V. of Vietnam	15615, 15640, 17535 11630, 13740
1900-1925	NA, Eu	Israel	Israel B/C Auth.	15615, 15640, 17535
1900-1925 1900-1928	NA, Eu Af, ME	Israel Vietnam	Israel B/C Auth. V. of Vietnam	15615, 15640, 17535 11630, 13740

1900-1959		Germany	Deutsche Welle	13590, 15545sl, 17770po
1900-2000	Af	U. S. A.	V. of America	4950, 9850, 11975, 13670,
				15410, 15445, 15580,
	_			17895
1900-2000	Eu	South Korea	R. Korea Int'l	5975, 7275
1900-2000	As, Oc	Australia	R. Australia	6080, 7220, 7240, 9500,
				11650, 11880
1900-2000	Sa	Sri Lanka	Sri Lanka B. C.	6010uk
1900-2000	Eu	Thailand	R. Thailand	7155
1900-2000	Af	China	China R. Int'l	7145, 9440, 9585
1900-2000	Eu, Af	U. S. A.	WYFR	6085, 15130, 17750,
	_			17795, 17845, 18980
1900-2000	Eu	Russia	V. of Russia	7440, 9890, 12070
1900-2000	ME	United Kingdom	BBC	15310
1900-2000	Eu	North Korea	V. of Korea	4405, 13760, 15245
1900-2000	As,Oc,M-F	U. S. A.	V. of America	5965, 9840, 11720, 11970,
1000 0000	۸.4	Libro	\\ a4 \4mica	13725, 15205, 15410
1900-2000	Af Co Cu	Libya	V. of Africa	15205fr, 15315fr
1900-2000 1900-2030	Af,Sa-Su	United Kingdom Italy	Bible Voice IRRS Relay Serv.	9425ge 5775
1900-2030	Eu Af	Netherlands	R. Netherlands	
1900-2100	AI	Netherlands	R. Netherlands	7120ma, 9895, 11655ma, 17810bo
1900-2100	NA	U. S. A.	WBCQ	7415, 9330, 17495
1900-2100	Af	United Kingdom	BBC	3255, 6005, 6190, 9630,
1900-2100	Al	Onited Kingdom	ВВО	12095, 15400, 17830
1900-2100	NA, Sa-Su	Netherlands	R. Netherlands	15315bo, 17660ca, 17735
1900-2100	NA, Af, As		China R. Int'l	12015
1900-2157	NA, Af, As		China R. Int'l	7295
1900-2159	Am	Canada	R. Canada Int'l	17765
1900-2200	Af	South Africa	Channel Africa	3345
1900-2230	As	Papua N Guinea	NBC Port Moresby	4890
1915-1930	NA, Af, As		China R. Int'l	12080
1915-1945	Af, F	United Kingdom	Bible Voice	9425ge
1930-1945	NA, Af, As		China R. Int'l	12080 drm
1930-2000	Eu, Af	Sweden	R. Sweden	6065
1930-2000	ME	U. S. A.	V. of America	7260, 9680, 13635
1930-2000	Eu	Belgium	R. Vlaanderen i	9925ru
1930-2000	Eu, M-W	Germany	AWR	15175
1930-2000	Eu,Tu,Th	Belarus	R. Minsk	7105, 7210
1930-2000 1930-2030	Eu,Tu,Th Eu, Af	Belarus Iran	R. Minsk VOIRI	7105, 7210 9800, 11750
1930-2030	Eu, Af Af Eu	Iran Nigeria Italy	VOIRI V. of Nigeria RAI	9800, 11750
1930-2030 1930-2300 1935-1955 1945-2000	Eu, Af Af Eu NA, Af, As	Iran Nigeria Italy China	VOIRI V. of Nigeria RAI China R. Int'l	9800, 11750 7255, 15120, 17800 5970, 9605 12080
1930 - 2030 1930 - 2300 1935 - 1955 1945 - 2000 1945 - 2015	Eu, Af Af Eu NA, Af, As Af, F	Iran Nigeria Italy China United Kingdom	VOIRI V. of Nigeria RAI China R. Int'l Bible Voice	9800, 11750 7255, 15120, 17800 5970, 9605 12080 12050
1930 - 2030 1930 - 2300 1935 - 1955 1945 - 2000 1945 - 2015 1951 - 2050	Eu, Af Af Eu NA, Af, As Af, F Oc	Iran Nigeria Italy China United Kingdom New Zealand	VOIRI V. of Nigeria RAI China R. Int'l Bible Voice RNZI	9800, 11750 7255, 15120, 17800 5970, 9605 12080 12050 11725
1930 - 2030 1930 - 2300 1935 - 1955 1945 - 2000 1945 - 2015 1951 - 2050 2000 - 2015	Eu, Af Af Eu NA, Af, As Af, F Oc NA, Af, As	Iran Nigeria Italy China United Kingdom New Zealand China	VOIRI V. of Nigeria RAI China R. Int'l Bible Voice RNZI China R. Int'l	9800, 11750 7255, 15120, 17800 5970, 9605 12080 12050 11725 12080 drm
1930 - 2030 1930 - 2300 1935 - 1955 1945 - 2000 1945 - 2015 1951 - 2050 2000 - 2015 2000 - 2027	Eu, Af Af Eu NA, Af, As Af, F Oc NA, Af, As Eu,As,Oc	Iran Nigeria Italy China United Kingdom New Zealand China Czech Republic	VOIRI V. of Nigeria RAI China R. Int'l Bible Voice RNZI China R. Int'l R. Prague	9800, 11750 7255, 15120, 17800 5970, 9605 12080 12050 11725 12080 drm 5930, 11600
1930 - 2030 1930 - 2300 1935 - 1955 1945 - 2000 1945 - 2015 1951 - 2050 2000 - 2015 2000 - 2027 2000 - 2028	Eu, Af Af Eu NA, Af, As Af, F Oc NA, Af, As Eu,As,Oc As	Iran Nigeria Italy China United Kingdom New Zealand China Czech Republic Vietnam	VOIRI V. of Nigeria RAI China R. Int'l Bible Voice RNZI China R. Int'l R. Prague V. of Vietnam	9800, 11750 7255, 15120, 17800 5970, 9605 12080 12050 11725 12080 drm 5930, 11600 7220, 9550
1930 - 2030 1930 - 2300 1935 - 1955 1945 - 2000 1945 - 2015 1951 - 2050 2000 - 2015 2000 - 2027	Eu, Af Af Eu NA, Af, As Af, F Oc NA, Af, As Eu,As,Oc	Iran Nigeria Italy China United Kingdom New Zealand China Czech Republic	VOIRI V. of Nigeria RAI China R. Int'l Bible Voice RNZI China R. Int'l R. Prague	9800, 11750 7255, 15120, 17800 5970, 9605 12080 12050 11725 12080 drm 5930, 11600 7220, 9550 4950, 9850, 11855, 11975,
1930 - 2030 1930 - 2300 1935 - 1955 1945 - 2000 1945 - 2015 1951 - 2050 2000 - 2015 2000 - 2027 2000 - 2028	Eu, Af Af Eu NA, Af, As Af, F Oc NA, Af, As Eu,As,Oc As	Iran Nigeria Italy China United Kingdom New Zealand China Czech Republic Vietnam	VOIRI V. of Nigeria RAI China R. Int'l Bible Voice RNZI China R. Int'l R. Prague V. of Vietnam	9800, 11750 7255, 15120, 17800 5970, 9605 12080 12050 11725 12080 drm 5930, 11600 7220, 9550 4950, 9850, 11855, 11975, 13670, 15410, 15445,
1930 - 2030 1930 - 2300 1935 - 1955 1945 - 2000 1945 - 2015 1951 - 2050 2000 - 2015 2000 - 2027 2000 - 2028 2000 - 2030	Eu, Af Af Eu NA, Af, As Af, F Oc NA, Af, As Eu, As, Oc As Af	Iran Nigeria Italy China United Kingdom New Zealand China Czech Republic Vietnam U. S. A.	VOIRI V. of Nigeria RAI China R. Int'l Bible Voice RNZI China R. Int'l R. Prague V. of Vietnam V. of America	9800, 11750 7255, 15120, 17800 5970, 9605 12080 12050 11725 12080 drm 5930, 11600 7220, 9550 4950, 9850, 11855, 11975, 13670, 15410, 15445, 17745
1930 - 2030 1930 - 2300 1935 - 1955 1945 - 2000 1945 - 2015 1951 - 2050 2000 - 2015 2000 - 2027 2000 - 2028 2000 - 2030	Eu, Af Af Eu NA, Af, As Af, F Oc NA, Af, As Eu, As, Oc As Af	Iran Nigeria Italy China United Kingdom New Zealand China Czech Republic Vietnam U. S. A.	VOIRI V. of Nigeria RAI China R. Int'l Bible Voice RNZI China R. Int'l R. Prague V. of Vietnam V. of America	9800, 11750 7255, 15120, 17800 5970, 9605 12080 12050 11725 12080 drm 5930, 11600 7220, 9550 4950, 9850, 11855, 11975, 13670, 15410, 15445, 17745 9720
1930 - 2030 1930 - 2300 1935 - 1955 1945 - 2000 1945 - 2015 1951 - 2050 2000 - 2015 2000 - 2027 2000 - 2028 2000 - 2030 2000 - 2030 2000 - 2030	Eu, Af Af Eu NA, Af, As Af, F Oc NA, Af, As Eu, As, Oc As Af	Iran Nigeria Italy China United Kingdom New Zealand China Czech Republic Vietnam U. S. A. Mongolia Vatican City	VOIRI V. of Nigeria RAI China R. Int'l Bible Voice RNZI China R. Int'l R. Prague V. of Vietnam V. of America V. of Mongolia Vatican R.	9800, 11750 7255, 15120, 17800 5970, 9605 12080 12050 11725 12080 drm 5930, 11600 7220, 9550 4950, 9850, 11855, 11975, 13670, 15410, 15445, 17745 9720 9660, 11625, 13765
1930 - 2030 1930 - 2300 1935 - 1955 1945 - 2000 1945 - 2015 1951 - 2050 2000 - 2015 2000 - 2027 2000 - 2028 2000 - 2030 2000 - 2030 2000 - 2030 2000 - 2030	Eu, Af Af Eu NA, Af, As Af, F Oc NA, Af, As Eu, As, Oc As Af	Iran Nigeria Italy China United Kingdom New Zealand China Czech Republic Vietnam U. S. A. Mongolia Vatican City Libya	VOIRI V. of Nigeria RAI China R. Int'l Bible Voice RNZI China R. Int'l R. Prague V. of Vietnam V. of America V. of Mongolia Vatican R. V. of Africa	9800, 11750 7255, 15120, 17800 5970, 9605 12080 12050 11725 12080 drm 5930, 11600 7220, 9550 4950, 9850, 11855, 11975, 13670, 15410, 15445, 17745 9720 9660, 11625, 13765 11635fr, 15315fr
1930 - 2030 1930 - 2300 1935 - 1955 1945 - 2000 1945 - 2015 1951 - 2050 2000 - 2015 2000 - 2027 2000 - 2030 2000 - 2030 2000 - 2030 2000 - 2030 2000 - 2030 2000 - 2059	Eu, Af Af Eu NA, Af, As Af, F Oc NA, Af, As Eu, As, Oc As Af Eu Af Af Eu, Af, M-F	Iran Nigeria Italy China United Kingdom New Zealand China Czech Republic Vietnam U. S. A. Mongolia Vatican City Libya Spain	VOIRI V. of Nigeria RAI China R. Int'l Bible Voice RNZI China R. Int'l R. Prague V. of Vietnam V. of America V. of Mongolia Vatican R. V. of Africa R. Ext. Espana	9800, 11750 7255, 15120, 17800 5970, 9605 12080 12050 11725 12080 drm 5930, 11600 7220, 9550 4950, 9850, 11855, 11975, 13670, 15410, 15445, 17745 9720 9660, 11625, 13765 11635fr, 15315fr 9570, 15290
1930 - 2030 1930 - 2300 1935 - 1955 1945 - 2000 1945 - 2015 1951 - 2050 2000 - 2015 2000 - 2027 2000 - 2028 2000 - 2030 2000 - 2030 2000 - 2030 2000 - 2030	Eu, Af Af Eu NA, Af, As Af, F Oc NA, Af, As Eu, As, Oc As Af	Iran Nigeria Italy China United Kingdom New Zealand China Czech Republic Vietnam U. S. A. Mongolia Vatican City Libya	VOIRI V. of Nigeria RAI China R. Int'l Bible Voice RNZI China R. Int'l R. Prague V. of Vietnam V. of America V. of Mongolia Vatican R. V. of Africa	9800, 11750 7255, 15120, 17800 5970, 9605 12080 12050 11725 12080 drm 5930, 11600 7220, 9550 4950, 9850, 11855, 11975, 13670, 15410, 15445, 17745 9720 9660, 11625, 13765 11635fr, 15315fr 9570, 15290 5850sw, 7235uk, 11690uk,
1930 - 2030 1930 - 2300 1935 - 1955 1945 - 2000 1945 - 2015 1951 - 2050 2000 - 2015 2000 - 2027 2000 - 2030 2000 - 2030 2000 - 2030 2000 - 2030 2000 - 2059 2000 - 2059	Eu, Af Af Eu NA, Af, As Af, F Oc NA, Af, As Eu, As, Oc As Af Eu Af Af Eu, Af, M-F Eu	Iran Nigeria Italy China United Kingdom New Zealand China Czech Republic Vietnam U. S. A. Mongolia Vatican City Libya Spain Canada	VOIRI V. of Nigeria RAI China R. Int'l Bible Voice RNZI China R. Int'l R. Prague V. of Vietnam V. of America V. of Mongolia Vatican R. V. of Africa R. Ext. Espana R. Canada Int'l	9800, 11750 7255, 15120, 17800 5970, 9605 12080 12050 11725 12080 drm 5930, 11600 7220, 9550 4950, 9850, 11855, 11975, 13670, 15410, 15445, 17745 9720 9660, 11625, 13765 11635fr, 15315fr 9570, 15290 5850sw, 7235uk, 11690uk, 13700
1930 - 2030 1930 - 2300 1935 - 1955 1945 - 2000 1945 - 2015 1951 - 2050 2000 - 2015 2000 - 2027 2000 - 2030 2000 - 2030 2000 - 2030 2000 - 2030 2000 - 2059 2000 - 2059	Eu, Af Af Eu NA, Af, As Af, F Oc NA, Af, As Eu, As, Oc As Af Eu Af Eu Af Af Eu, Af, M-F Eu Af	Iran Nigeria Italy China United Kingdom New Zealand China Czech Republic Vietnam U. S. A. Mongolia Vatican City Libya Spain Canada Germany	VOIRI V. of Nigeria RAI China R. Int'l Bible Voice RNZI China R. Int'l R. Prague V. of Vietnam V. of America V. of Mongolia Vatican R. V. of Africa R. Ext. Espana R. Canada Int'l Deutsche Welle	9800, 11750 7255, 15120, 17800 5970, 9605 12080 12050 11725 12080 drm 5930, 11600 7220, 9550 4950, 9850, 11855, 11975, 13670, 15410, 15445, 17745 9720 9660, 11625, 13765 11635fr, 15315fr 9570, 15290 5850sw, 7235uk, 11690uk, 13700 7130sl, 13820, 15205
1930 - 2030 1930 - 2300 1935 - 1955 1945 - 2000 1945 - 2015 1951 - 2050 2000 - 2015 2000 - 2027 2000 - 2030 2000 - 2030 2000 - 2030 2000 - 2030 2000 - 2059 2000 - 2059 2000 - 2059 2000 - 2100	Eu, Af Af Eu NA, Af, As Af, F Oc NA, Af, As Eu, As, Oc As Af Eu Af Eu Af Eu, Af, M-F Eu Af Eu, ME	Iran Nigeria Italy China United Kingdom New Zealand China Czech Republic Vietnam U. S. A. Mongolia Vatican City Libya Spain Canada Germany U. S. A.	VOIRI V. of Nigeria RAI China R. Int'l Bible Voice RNZI China R. Int'l R. Prague V. of Vietnam V. of America V. of Mongolia Vatican R. V. of Africa R. Ext. Espana R. Canada Int'l Deutsche Welle V. of America	9800, 11750 7255, 15120, 17800 5970, 9605 12080 12050 11725 12080 drm 5930, 11600 7220, 9550 4950, 9850, 11855, 11975, 13670, 15410, 15445, 17745 9720 9660, 11625, 13765 11635fr, 15315fr 9570, 15290 5850sw, 7235uk, 11690uk, 13700 7130sl, 13820, 15205 6040, 6095, 9760, 9770
1930 - 2030 1930 - 2300 1935 - 1955 1945 - 2000 1945 - 2015 1951 - 2050 2000 - 2015 2000 - 2027 2000 - 2030 2000 - 2030 2000 - 2030 2000 - 2030 2000 - 2059 2000 - 2059	Eu, Af Af Eu NA, Af, As Af, F Oc NA, Af, As Eu, As, Oc As Af Eu Af Eu Af Eu, Af, M-F Eu Af Eu, ME	Iran Nigeria Italy China United Kingdom New Zealand China Czech Republic Vietnam U. S. A. Mongolia Vatican City Libya Spain Canada Germany	VOIRI V. of Nigeria RAI China R. Int'l Bible Voice RNZI China R. Int'l R. Prague V. of Vietnam V. of America V. of Mongolia Vatican R. V. of Africa R. Ext. Espana R. Canada Int'l Deutsche Welle	9800, 11750 7255, 15120, 17800 5970, 9605 12080 12050 11725 12080 drm 5930, 11600 7220, 9550 4950, 9850, 11855, 11975, 13670, 15410, 15445, 17745 9720 9660, 11625, 13765 11635fr, 15315fr 9570, 15290 5850sw, 7235uk, 11690uk, 13700 7130sl, 13820, 15205 6040, 6095, 9760, 9770 6080, 7220, 9500, 11650,
1930 - 2030 1930 - 2300 1935 - 1955 1945 - 2000 1945 - 2015 1951 - 2050 2000 - 2015 2000 - 2027 2000 - 2030 2000 - 2030 2000 - 2030 2000 - 2030 2000 - 2059 2000 - 2059 2000 - 2059 2000 - 2100 2000 - 2100	Eu, Af Af Eu NA, Af, As Af, F Oc NA, Af, As Eu, As, Oc As Af Eu Af Eu Af Eu, Af, M-F Eu Af Eu, ME As, Oc	Iran Nigeria Italy China United Kingdom New Zealand China Czech Republic Vietnam U. S. A. Mongolia Vatican City Libya Spain Canada Germany U. S. A. Australia	VOIRI V. of Nigeria RAI China R. Int'l Bible Voice RNZI China R. Int'l R. Prague V. of Vietnam V. of America V. of Mongolia Vatican R. V. of Africa R. Ext. Espana R. Canada Int'l Deutsche Welle V. of America R. Australia	9800, 11750 7255, 15120, 17800 5970, 9605 12080 12050 11725 12080 drm 5930, 11600 7220, 9550 4950, 9850, 11855, 11975, 13670, 15410, 15445, 17745 9720 9660, 11625, 13765 11635fr, 15315fr 9570, 15290 5850sw, 7235uk, 11690uk, 13700 7130sl, 13820, 15205 6040, 6095, 9760, 9770 6080, 7220, 9500, 11650, 11880, 12080
1930 - 2030 1930 - 2300 1935 - 1955 1945 - 2000 1945 - 2015 1951 - 2050 2000 - 2015 2000 - 2027 2000 - 2030 2000 - 2030 2000 - 2030 2000 - 2030 2000 - 2059 2000 - 2059 2000 - 2059 2000 - 2100	Eu, Af Af Eu NA, Af, As Af, F Oc NA, Af, As Eu, As, Oc As Af Eu Af Eu Af Eu, Af, M-F Eu Af Eu, ME	Iran Nigeria Italy China United Kingdom New Zealand China Czech Republic Vietnam U. S. A. Mongolia Vatican City Libya Spain Canada Germany U. S. A.	VOIRI V. of Nigeria RAI China R. Int'l Bible Voice RNZI China R. Int'l R. Prague V. of Vietnam V. of America V. of Mongolia Vatican R. V. of Africa R. Ext. Espana R. Canada Int'l Deutsche Welle V. of America	9800, 11750 7255, 15120, 17800 5970, 9605 12080 12050 11725 12080 drm 5930, 11600 7220, 9550 4950, 9850, 11855, 11975, 13670, 15410, 15445, 17745 9720 9660, 11625, 13765 11635fr, 15315fr 9570, 15290 5850sw, 7235uk, 11690uk, 13700 7130sl, 13820, 15205 6040, 6095, 9760, 9770 6080, 7220, 9500, 11650, 11880, 12080 7350mo,17575, 17750,
1930 - 2030 1930 - 2300 1935 - 1955 1945 - 2000 1945 - 2015 1951 - 2050 2000 - 2015 2000 - 2027 2000 - 2030 2000 - 2030 2000 - 2030 2000 - 2030 2000 - 2059 2000 - 2059 2000 - 2059 2000 - 2100 2000 - 2100	Eu, Af Af Eu NA, Af, As Af, F Oc NA, Af, As Eu, As, Oc As Af Eu Af Eu Af Eu, Af, M-F Eu Af Eu, ME As, Oc	Iran Nigeria Italy China United Kingdom New Zealand China Czech Republic Vietnam U. S. A. Mongolia Vatican City Libya Spain Canada Germany U. S. A. Australia	VOIRI V. of Nigeria RAI China R. Int'l Bible Voice RNZI China R. Int'l R. Prague V. of Vietnam V. of America V. of Mongolia Vatican R. V. of Africa R. Ext. Espana R. Canada Int'l Deutsche Welle V. of America R. Australia	9800, 11750 7255, 15120, 17800 5970, 9605 12080 12050 11725 12080 drm 5930, 11600 7220, 9550 4950, 9850, 11855, 11975, 13670, 15410, 15445, 17745 9720 9660, 11625, 13765 11635fr, 15315fr 9570, 15290 5850sw, 7235uk, 11690uk, 13700 7130sl, 13820, 15205 6040, 6095, 9760, 9770 6080, 7220, 9500, 11650, 11880, 12080 7350mo,17575, 17750, 17795, 17845, 18980
1930 - 2030 1930 - 2300 1935 - 1955 1945 - 2000 1945 - 2015 1951 - 2050 2000 - 2015 2000 - 2027 2000 - 2030 2000 - 2030 2000 - 2030 2000 - 2030 2000 - 2059 2000 - 2059 2000 - 2059 2000 - 2100 2000 - 2100	Eu, Af Af Eu NA, Af, As Af, F Oc NA, Af, As Eu, As, Oc As Af Eu Af Eu Af Eu, Af, M-F Eu Af Eu, ME As, Oc LA, Eu, Af	Iran Nigeria Italy China United Kingdom New Zealand China Czech Republic Vietnam U. S. A. Mongolia Vatican City Libya Spain Canada Germany U. S. A. Australia U. S. A.	VOIRI V. of Nigeria RAI China R. Int'l Bible Voice RNZI China R. Int'l R. Prague V. of Vietnam V. of America V. of Mongolia Vatican R. V. of Africa R. Ext. Espana R. Canada Int'l Deutsche Welle V. of America R. Australia WYFR	9800, 11750 7255, 15120, 17800 5970, 9605 12080 12050 11725 12080 drm 5930, 11600 7220, 9550 4950, 9850, 11855, 11975, 13670, 15410, 15445, 17745 9720 9660, 11625, 13765 11635fr, 15315fr 9570, 15290 5850sw, 7235uk, 11690uk, 13700 7130sl, 13820, 15205 6040, 6095, 9760, 9770 6080, 7220, 9500, 11650, 11880, 12080 7350mo,17575, 17750,
1930 - 2030 1930 - 2300 1935 - 1955 1945 - 2000 1945 - 2015 1951 - 2050 2000 - 2015 2000 - 2027 2000 - 2030 2000 - 2030 2000 - 2030 2000 - 2030 2000 - 2059 2000 - 2059 2000 - 2059 2000 - 2100 2000 - 2100 2000 - 2100	Eu, Af Af Eu NA, Af, As Af, F Oc NA, Af, As Eu, As, Oc As Af Eu Af Eu Af Eu, Af, M-F Eu Af Eu, ME As, Oc LA, Eu, Af Af	Iran Nigeria Italy China United Kingdom New Zealand China Czech Republic Vietnam U. S. A. Mongolia Vatican City Libya Spain Canada Germany U. S. A. Australia U. S. A. China	VOIRI V. of Nigeria RAI China R. Int'l Bible Voice RNZI China R. Int'l R. Prague V. of Vietnam V. of America V. of Mongolia Vatican R. V. of Africa R. Ext. Espana R. Canada Int'l Deutsche Welle V. of America R. Australia WYFR China R. Int'l	9800, 11750 7255, 15120, 17800 5970, 9605 12080 12050 11725 12080 drm 5930, 11600 7220, 9550 4950, 9850, 11855, 11975, 13670, 15410, 15445, 17745 9720 9660, 11625, 13765 11635fr, 15315fr 9570, 15290 5850sw, 7235uk, 11690uk, 13700 7130sl, 13820, 15205 6040, 6095, 9760, 9770 6080, 7220, 9500, 11650, 11880, 12080 7350mo,17575, 17750, 17795, 17845, 18980 9440, 11640, 13630
1930 - 2030 1930 - 2300 1935 - 1955 1945 - 2000 1945 - 2015 1951 - 2050 2000 - 2015 2000 - 2027 2000 - 2030 2000 - 2030 2000 - 2030 2000 - 2030 2000 - 2059 2000 - 2059 2000 - 2100 2000 - 2100 2000 - 2100 2000 - 2100 2000 - 2100	Eu, Af Af Eu NA, Af, As Af, F Oc NA, Af, As Eu, As, Oc As Af Eu Af Eu Af Eu, Af, M-F Eu Af Eu, ME As, Oc LA, Eu, Af Af Af	Iran Nigeria Italy China United Kingdom New Zealand China Czech Republic Vietnam U. S. A. Mongolia Vatican City Libya Spain Canada Germany U. S. A. Australia U. S. A. China South Africa	VOIRI V. of Nigeria RAI China R. Int'l Bible Voice RNZI China R. Int'l R. Prague V. of Vietnam V. of America V. of Africa R. Ext. Espana R. Canada Int'l Deutsche Welle V. of America R. Australia WYFR China R. Int'l AWR	9800, 11750 7255, 15120, 17800 5970, 9605 12080 12050 11725 12080 drm 5930, 11600 7220, 9550 4950, 9850, 11855, 11975, 13670, 15410, 15445, 17745 9720 9660, 11625, 13765 11635fr, 15315fr 9570, 15290 5850sw, 7235uk, 11690uk, 13700 7130sl, 13820, 15205 6040, 6095, 9760, 9770 6080, 7220, 9500, 11650, 11880, 12080 7350mo,17575, 17750, 17795, 17845, 18980 9440, 11640, 13630 7170
1930 - 2030 1930 - 2300 1935 - 1955 1945 - 2000 1945 - 2015 1951 - 2050 2000 - 2015 2000 - 2027 2000 - 2030 2000 - 2030 2000 - 2030 2000 - 2030 2000 - 2059 2000 - 2059 2000 - 2100 2000 - 2100 2000 - 2100 2000 - 2100 2000 - 2100	Eu, Af Af Eu NA, Af, As Af, F Oc NA, Af, As Eu, As, Oc As Af Eu Af Eu Af Eu, Af, M-F Eu Af Eu, ME As, Oc LA, Eu, Af Af Af	Iran Nigeria Italy China United Kingdom New Zealand China Czech Republic Vietnam U. S. A. Mongolia Vatican City Libya Spain Canada Germany U. S. A. Australia U. S. A. China South Africa	VOIRI V. of Nigeria RAI China R. Int'l Bible Voice RNZI China R. Int'l R. Prague V. of Vietnam V. of America V. of Africa R. Ext. Espana R. Canada Int'l Deutsche Welle V. of America R. Australia WYFR China R. Int'l AWR	9800, 11750 7255, 15120, 17800 5970, 9605 12080 12050 11725 12080 drm 5930, 11600 7220, 9550 4950, 9850, 11855, 11975, 13670, 15410, 15445, 17745 9720 9660, 11625, 13765 11635fr, 15315fr 9570, 15290 5850sw, 7235uk, 11690uk, 13700 7130sl, 13820, 15205 6040, 6095, 9760, 9770 6080, 7220, 9500, 11650, 11880, 12080 7350mo,17575, 17750, 17795, 17845, 18980 9440, 11640, 13630 7170 9525, 11785 alt, 15150
1930 - 2030 1930 - 2300 1935 - 1955 1945 - 2000 1945 - 2015 1951 - 2050 2000 - 2015 2000 - 2027 2000 - 2030 2000 - 2030 2000 - 2030 2000 - 2030 2000 - 2059 2000 - 2059 2000 - 2100 2000 - 2100	Eu, Af Af Eu NA, Af, As Af, F Oc NA, Af, As Eu, As, Oc As Af Eu Af Eu Af Eu, MF Eu Af Eu, ME As, Oc LA, Eu, Af Eu Eu Eu	Iran Nigeria Italy China United Kingdom New Zealand China Czech Republic Vietnam U. S. A. Mongolia Vatican City Libya Spain Canada Germany U. S. A. Australia U. S. A. China South Africa Indonesia	VOIRI V. of Nigeria RAI China R. Int'l Bible Voice RNZI China R. Int'l R. Prague V. of Vietnam V. of America V. of Africa R. Ext. Espana R. Canada Int'l Deutsche Welle V. of America R. Australia WYFR China R. Int'l AWR V. of Indonesia	9800, 11750 7255, 15120, 17800 5970, 9605 12080 12050 11725 12080 drm 5930, 11600 7220, 9550 4950, 9850, 11855, 11975, 13670, 15410, 15445, 17745 9720 9660, 11625, 13765 11635fr, 15315fr 9570, 15290 5850sw, 7235uk, 11690uk, 13700 7130sl, 13820, 15205 6040, 6095, 9760, 9770 6080, 7220, 9500, 11650, 11880, 12080 7350mo,17575, 17750, 17795, 17845, 18980 9440, 11640, 13630 7170 9525, 11785 alt, 15150 alt

2000-2200	NA, Af	U. S. A.	WEWN	11530, 13615, 15745,
2000-2200	NA, AI	0. 3. A.	WEWIN	17595
2000-2400	NA	Costa Rica	Univ. Network	13750
2005-2205	Eu	Syria	R. Damascus	12085, 13610
2015-2030	NA, Af, As	China	China R. Int'l	12080
2025-2045	Af	Italy	RAI	6185, 9570, 11880
2030-2045	Eu	Thailand	R. Thailand	9680
2030-2045	NA, Af, As		China R. Int'l	12080 drm
2030-2058	Eu,Af,ME	Vietnam	V. of Vietnam	9725, 11630, 11775uk,
0000 0100	F., F	Walaa	Wales D. Ta+11	13740
2030-2100	Eu, F	Wales	Wales R. Int'l	7150au, 7325uk
2030-2100 2030-2100	Eu Af	Uzbekistan U. S. A.	R. Tashkent V. of America	5025, 9545, 11905 4950 Sa-Su, 9850, 11975,
2030-2100	AI	0. 3. A.	V. Of America	13670, 15410, 15445,
				17745
2030-2100	Eu,Tu,Th	Belarus	R. Minsk	7105, 7210
2030-2100	Af	Libya	V. of Africa	11635fr
2030-2120	As, Oc	Turkey	V. of Turkey	7170
2030-2130	NA, Eu	Cuba	R. Havana Cuba	9505, 11760
2030-2200	Af	Egypt	R. Cairo	15375
2040-2100	As,M-Sa	Armenia	V. of Armenia	4810, 9960
2040-2100	Eu, M	Vatican City	Vatican R.	6185
2045-2100	NA, Af, As		China R. Int'l	12080
2045-2230	Eu, Oc	India	All India R.	7410, 9445, 9910, 9950,
0070 0440	_			11620, 11715
2050-2110	Eu	Vatican City	Vatican R.	4005, 5890, 7250
2051-2400	0c	New Zealand	RNZI	15720
2100-2115 2100-2130	NA, Af, As As, Oc	China Australia	China R. Int'l R. Australia	12080 drm
2100-2130	A5, UC	Australia	n. Australia	7220, 9500, 9660, 11650, 11880, 12080, 17715,
				21740
2100-2130	Eu	South Korea	R. Korea Int'l	3955uk
2100-2130	Eu, Af	Hungary	R. Budapest	6025, 11830
2100-2130	Eu	Serbia Monteneg	Int R Serb-Mont	6100
2100-2130	Af	China	China R. Int'l	11640, 13630
2100-2157	NA, Af, As	China	China R. Int'l	9430
2100-2157	?	Netherlands	R. Netherlands	15150bo drm
2100-2159	Af	Germany	Deutsche Welle	9440, 11865rw, 15205rw
2100-2159	Eu,Af,Sa-Su	· · · · · · · · · · · · · · · · · · ·	R. Ext. Espana	9570, 9640
2100-2159	NA	Canada	R. Canada Int'l	9800 drm
2100-2200	Am	U. S. A.	WHRI	13770, 15665
2100-2200	Af	U. S. A.	V. of America	11975, 13670, 15410, 15445
2100-2200	NA,Af,Eu	Japan	R. Japan	6035si, 6055uk, 6180uk,
2100-2200	NA,AI,Lu	σαρατί	n. Japan	11855as, 17825, 21670
2100-2200	Eu	Bulgaria	R. Bulgaria	5800, 7500
2100-2200	Eu	Ukraine	R. Ukraine Int'l	7420
2100-2200	As	United Kingdom	BBC	5965, 6110, 6195
2100-2200	Af	Austria	AWR	15130
2100-2200	Af	United Kingdom	BBC	3255, 6005, 6190, 15400,
				17830
2100-2200	LA,Eu,Af	U. S. A.	WYFR	7350mo, 17575, 17795,
0400 0000	F	Nonth Vers	V af V	17845, 18930, 18980
2100-2200	Eu	North Korea	V. of Korea	4405, 13760, 15245
2100-2300	NA L A	U. S. A.	WBCQ BBC	5105, 7415, 9330, 17495
2100-2400 2115-2130	LA LA	United Kingdom United Kingdom	BBC	5975, 12095 11675, 15390
2115-2130	NA, Af, As		China R. Int'l	12080
2115-2245	Eu	Egypt	R. Cairo	9900
2130-2145	LA, Tu, F	United Kingdom	BBC	11680
2130-2145	NA, Af, As		China R. Int'l	12080 drm
2130-2156	Eu ′ ′	Romania	R. Romania Int'l	7285, 9725, 11750, 15285
2130-2200	Eu,As,Oc	Sweden	R. Sweden	6065, 9880
2130-2200	As, Oc	Australia	R. Australia	9660, 11650, 11880,
				12080, 17715, 17585,
0400 0000	F	Halianda et e e	D. Taablaat	21740
2130-2200	Eu	Uzbekistan	R. Tashkent	5025, 9545, 11905
2130-2200 2130-2200	Eu As	Albania Guam	R. Tirana AWR	7130, 9540 11850, 11980
Z 100-ZZ00	Λ3	Guaiii	/ WVI 1	11000, 11900

2145-2157	NA, Af, As	China	China R. Int'l	12080
2200-2200	Eu	U. S. A.	WMLK	15265
2200-2229	Am	Canada	R. Canada Int'l	5960, 13785, 15170
2200-2229	NA	Germany	Deutsche Welle	9800ca
2200-2230	NA	Belgium	R. Vlaanderen i	11635bo
2200-2230	Oc, Su-F	Serbia Monteneg	Int R Serb-Mont	7230
2200-2250	NA, Eu	Turkey	V. of Turkey	9830
		Netherlands	-	
2200-2257	?		R. Netherlands	15525bo drm
2200-2259	As	Germany	Deutsche Welle	7115sl, 9720
2200-2300	Eu	Taiwan	Taiwan R. Int'l	15600wy
2200-2300	NA,Eu,Af	U. S. A.	WYFR	11740, 15695, 15770
2200-2300	As, Oc	Australia	R. Australia	11880, 13620, 15320,
	,	7.0.0 1. 0.220	,	17715, 17585, 21740
0000 0000	Α	Marriage	D. Marrian Todal	
2200-2300	Am	Mexico	R. Mexico Int'l	9705, 11770
2200-2300	Eu	United Kingdom	BBC	6195
2200-2300	As	United Kingdom	BBC	5965, 6195, 7105, 9605,
		· ·		9740, 11955
2200-2300	NA	U. S. A.	KIMF	5835, 11885
		United Kingdom	BBC	
2200-2300	Af -	J		15400, 17830
2200-2300	Eu	China	China R. Int'l	9880
2200-2400	NA	U. S. A.	WWRB	5050, 5085, 6890
2200-2400	NA, Af	U. S. A.	WEWN	9355, 9975, 13615, 15745
2200-2400	As, Oc	U. S. A.	V. of America	7215, 15185, 15290,
2200-2400	A3, 00	0. 0. A.	V. Of America	
				15305, 17740, 17820
2200-2400	NA	U. S. A.	WHRA	7580
2200-2400	LA	Guyana	V. of Guyana	3290
2200-2400	NA	U.S.A.	WWCR	7465, 9475, 12160, 13845
2200-2400	As	Hawaii	KWHR	17510
2200-2400	Am	U. S. A.	WHRI	9495, 13770
2205-2215	SA	Croatia	Croatian R.	9925ge
2205-2230	As	Italy	RAI	11895
2229 - 2359	Am	Canada	R. Canada Int'l	5960, 13785
2230-2257	NA, Af	Czech Republic	R. Prague	7345, 9415
	•	Canada	R. Canada Int'l	
2230-2259	As			9525ch, 11810ch, 12035ch
2230-2400	As	Papua N Guinea	NBC Port Moresby	9675
2230-2400	ME	United Kingdom	Bible Voice	5925ge
2230-2400	As	Australia	HCJB	15525
2245-2400	As	India	All India R.	9705, 9950, 11620, 11645,
2210 2100	710	India	AII India III	
0000 0000	A -		V	13605
2300-2330	As	U. S. A.	V. of America	9725, 11965, 12055,
				13755, 15145
2300 - 2330	As	United Kingdom	BBC	3915, 5965, 6195, 9605,
		S		9740, 11945, 11955, 15280
2300-2330	Λο Οο	Australia	R. Australia	
2300-2330	As, Oc	Australia	n. Australia	9660, 12080, 13620,
				15320, 17585, 17715,
				17795, 21740
2300 - 2356	NA,Eu,Oc	Romania	R. Romania Int'l	7280, 9590, 9645, 11940
2300-2359	As	Germany	Deutsche Welle	7115śl, 9890rw, 15135ru
2300-2400	NA	Bulgaria	R. Bulgaria	9700, 11700
		_	=	The state of the s
2300-2400	NA	Egypt	R. Cairo	11725
2300-2400	NA	China	China R. Int'l	5990cu, 6145cu, 13680ca
2300-2400	NA, LA	U. S. A.	WYFR	5985, 11740, 11855,
	•			15255, 17750
2300-2400	Am	U. S. A.	WINB	9320
2300-2400	NA	U. S. A.	WBCQ	5105, 7415, 9330
2300-2400	NA	U. S. A.	KIMF	5835
2300-2400	Am	U. S. A.	WRMI	7385, 9955
2300-2400	NA, Sa-Su	U. S. A.	WWBS	11900
2300-2400	NA	Cuba	R. Havana Cuba	9550
2305-2315	SA	Croatia	Croatian R.	9925ge
2305-2330	LA, Sa-Su	Austria	R. Austria Int'l	9870
2315-2330	LA, M-F	Austria	R. Austria Int'l	9870
2330-2358	Eu, As	Vietnam	V. of Vietnam	9840, 12020
2330-2400	NA	Lithuania	R. Vilnius	9875
2330-2400	As	U. S. A.	V. of America	7225, 7260, 9725, 11805,
				11965, 12055, 13725,
				13755, 15145, 15205
2330-2400	As, Oc	Australia	R. Australia	9660, 12080, 13620.
2330-2400	As, Oc	Australia	R. Australia	9660, 12080, 13620, 15320, 17585, 17715,

17750, 17795, 21740 3915, 5965, 6035, 6195, 2330-2400 As United Kingdom **BBC** 9605, 9740, 11945, 11955, 2335-2400 LA, Sa-Su Austria R. Austria Int'l 9870 2340-2400 LA, M-F Austria R. Austria Int'l 9870 (PRIME TIME SHORTWAVE http://www.triwest.net/~dsampson/shortwave via JKB)

French, Portuguese shortwave broadcasts sorted by time. Credits to Eike Bierwirth, Leipzig (Germany), who compiled a comprehensive shortwave broadcasting-schedule list of stations on the air in various languages, last updated at August 11, 2004. Based on this data I filtered language-based transmissions.

French (= F and A,F or F,A = mixed with Arabic): STARTSTOP DAY ITU STATION LANG **TARGET FREQUENCY** 0000 0100 CUB Radio Habana Cuba F CAm 9550 0000 0100 Radio France Int. F CHN 15535/RUS-n F SEA 15415/TWN 15535/RUS-n F 17710#/J F 0000 0100 USA WYFR Family Radio SAm 15255 0000 2400 ZAI Radio Okapi F ZAI 6030 9550 11690 CBG Nat.Radio of Cambodia 0015 0030 F SEA 11940 0100 0130 F Radio France Int. F SAs 17710/CHN-B F 0100 0200 BUL Radio Bulgaria NAm9700 11700 KRE Voice of Korea F 0100 0200 SEA 4405 11845 15230 F 0115 0130 Ι RAI International NAm11800 F 0130 0200 CUB Radio Habana Cuba CAm 9550 Radio France Int. F 0130 0200 SAs 17710/CHN-B 9800/GUF 11665/GUF F CAm 0200 0230 SVK Radio Slovakia Int. F NAm 5930 F SAm 9440 0200 0256 ROU Radio Romania Int. F NAm9715 11940 F 0228 0258 Su USA Trans World Radio WEu 216/F F CVA Radio Vaticana F LAm 0230 0250 7305 9605 CVA Radio Vaticana F 0230 0300 Αf 9660 0241 0256 Mo-Sa USA Trans World Radio F WEu 216/F 0300 0330 F Radio France Int. F CAf 5925/AFS 7135 9790 F EAf 5925/AFS 11700 F ME 9425 0300 0400 Tu-Sa ARG R.Argentina al ExteriorF Am11710 KRE Voice of Korea 0300 0400 F CAm 11735 13760 15180 0300 1830 ZAI Radio Kahuzi, Bukavu F CAf 6210 F 0330 0400 Radio France Int. CAf 5925/AFS 7135 9790 F EAf 5925/AFS 9790 F ME 9425 F Fu 6045 9745 F 0400 0430 Radio France Int. NAf 5925 F CAf 4890/GAB 7135 7150/ASC F 9790 15210/UAE EAf F 13780/UAE F ME 11685 13780/UAE F Fu 6045 0400 0500 AFS Channel Africa F 7265 CAf CHN China Radio Int. 0400 0600 F 17650ka 0400 0600 ZAI RTNC Bunia F CAf 6828.4 0415 0430 ISR Kol Israel F Eu 11590 11605 15640 F NAm 11590 11605 15640 F 0430 0500 CVA Radio Vaticana EAf 9660 11625 F Radio France Int. 0430 0500 NAf 5925 F CAf 4890/GAB 7135 7150/ASC F 9790 13610 F EAf 13780/UAE F ME 11685 13780/UAE F Eu 6045# F 15210/UAE F Αf 6035/ASC 7105/ASC 17885/SEY 0430 0500 BBC 0430 0600 COG Radio Congo CAf 5985 0430 0600 TCD Rd.Nationale TchadienneF CAf 6165

0440 0500	CVA Radio Vaticana	F	Eu	1530 4005 5890 7250
0500 0100	MRC Medi 1	F,A	Af	171 9575
0500 0515	D Deutsche Welle	F	CAf	7225/RRW 13780w 15595/RRW
0500 0530	F Radio France Int.	F	CAf	6175/GAB 9790 11700 15300
		F	EAf	13640/UAE
		F	ME	13640/UAE 15605
0500 0530	I NUK Dadia Japan			
0500 0530	J NHK Radio Japan	F	NAf	17820/CLN
0500 0600	USA WYFR Family Radio	F	CAf	11530
0500 0700	GAB Afrique No.1	F	Af	9580
0500 0700	NIG Voice of Nigeria	F	Af	7255
0500 0712 Mo-Fr	BEL RTBF Bruxelles	F	CAf	17580/D-j
0500 1000 SaSu	BEL RTBF Bruxelles	F	CAf	17580/D-j
0500 2000	BEL RTBF Bruxelles	F	Eu	9970
0500 2400	GUI RTV Guinee	F	WAf	6155 7125
	F Radio France Int.	F		
0530 0600	r hauto France Inc.		NAf	5925 7135
		F -	CAf	6175/GAB 9790 11700 15300
		F	EAf	15155 13640/UAE
		F	ME	13640/UAE 15605
0530 0600 Mo-Fr	USA Voice of America	F	Af	1530/STP 4960/STP 6045/STP
		F		6095/STP 9885/BOT 13695/BOT
0600 0626	ROU Radio Romania Int.	F	Eu	9655 9690 11840 11875
0600 0627	CZE Radio Prague	F	WEu	5930 7345
0600 0630	BUL Radio Bulgaria	F	WEu	11600 13600
	9			
0600 0630	CVA Radio Vaticana	F	Af	11625 13765 15570
0600 0630	F Radio France Int.	F	NAf	9790 11700
		F	WAf	11700 15315
		F	CAf	15300 17770/RRW 17850
0600 0630	G BBC	F	Af	7105/ASC 9610/ASC
		F		13740r 15405/CYP
0600 0630	SUI Swiss Radio Int.	F	Af	13650/D-j 15445/D-j 21770
	USA Voice of America	F	Af	4960/STP 6045/STP 6095/STP
0000 0030 MO-FI	USA VOICE OF AMERICA		AI	
		F		9885/BOT 13695/BOT
0600 0700	COG Radio Congo	F	CAf	5985 6115
0600 0700	USA WYFR Family Radio	F	Eu	9355
		F	WAf	9930
0615 0630 Mo-Sa	CVA Radio Vaticana	F	Af	15595
		F	As	5890 15595
		F	Eu	585 1530 4005 5890 7250
		F		9645 11740 15595
0630 0700	F Radio France Int.	F	NAf	9790 11700
0000 0700	i madio irance inc.		WAf	
		F		11700 11665/ASC 15315
		F	CAf	15300 17770/RRW 17850
		F	EAf	21620
0630 0700	J NHK Radio Japan	F	Eu	11970/GAB
0630 0730	IRN IRIB Teheran	F		17560 17590
0630 0830 Sa-Th	MTN ORTV Mauritanie	A,F	WAf	4845
0700 0730	G BBC	F	Af	15105/ASC 17695/AFS
0700 0800	F Radio France Int.	F	NAf	11700 15300 15315
		F	WAf	11700 15300 15315 17620
		F	CAf	15170/AFS 17850 21580
0700 0800	TWN Radio Taiwan Int.	F	Eu	7520/USA-o
0700 0830	COG Radio Congo	F	CAf	6115 9610
0700 1600	GAB Afrique No.1	F	Af	9580 17630
0730 0750 Su	ARM Voice of Armenia	F	Eu	4810 15270
0730 0757	CZE Radio Prague	F	WEu	9880 11600
0800 0830	GEO Radio Georgia	F	CEu	11910
0800 0845	USA WYFR Family Radio	F	CAf	11530
0800 0900	F Radio France Int.	F	NAf	11845 15300 15315
		F	WAf	15300 15315 17620
		F	CAf	21580
0800 0900	KOR Radio Korea Int.	F	Eu	15210
0800 1000	ARS BSKSA	F	Af	17785
0800 1000	CHN China Radio Int.	F	Eu	17650ka
0830 1700	COG Radio Congo	F	CAf	9610
0900 1000	F Radio France Int.	F	NAf	11845 15300
		F	WAf	15300 17620
		F	CAf	21580
0900 1630	MTN ORTV Mauritanie	A,F	WAf	7245
0900 2100	RRW Radio Rwanda	F	CAf	6055

4000							
1000	1010		TSR	Kol Israel	F	Eu	15640 17535
					F	NAm	15640 17535
1000	1030		SUI	Swiss Radio Int.	F	Af	21770
1000	1045		USA	WYFR Family Radio	F	SAm	9625 11970
1000			F	Radio France Int.	F	NAf	11845 15300
1000	1100		•	nadio irance int.			
					F	WAf	15300 17620
					F	CAf	17850 21580
					F	CHN	9830\$/J
					F	SEA	15215\$/J
1000	1130		BEL	RTBF Bruxelles	F	CAf	21565/D-j
	1200			Radio Canada Int.	F	NAm	11945
1045	1100		USA	WYFR Family Radio	F	SAm	11970
1045	1300	SaSu	HWA	KWHR Naalehu HI	F	FE	11565
		100-5a		Radio Vaticana	F	Eu	585 1611 5890
1100	1130		BUL	Radio Bulgaria	F	WEu	11700 15700
1100	1145		USA	WYFR Family Radio	F	ENA	9505
				Radio Romania Int.			
1100	1156		HUU	Radio Romania int.	F	Eu	11830 15250
					F	NAf	15380 17740
1100	1200		F	Radio France Int.	F	NAf	11845 15300
1100	1200		•	naaro iranoc inci			
					F	WAf	15300 17620
					F	CAf	17850/AFS 21580
					F	NAO	6175
					F	CHN	9830/J
					F	SEA	11600/CHN-B 15215/J
					F	NAm	17570
					F	CAm	13640/GUF 15515/GUF 21645\$
1100	1200		KRE	Voice of Korea	F	CAm	11710 15180
					F	SEA	3560 11735 13650
			_				
1200	1230		F	Radio France Int.	F	NAf	11845 15300
					F	WAf	15300 17620 21685
					F	CAf	
			_				17850/AFS 21580
1200	1230		G	BBC	F	Af	15105w 17780/ASC 21640/ASC
1200	1230		VTN	Voice of Vietnam	F	SEA	1242 7285
		0.00					
		SaSu	CAN	Radio Canada Int.	F	NAm	11945
1200	1300		D	Deutsche Welle	F	WAf	15520w 17650/POR 21665/RRW
					F	SAf	11795/RRW 15410/RRW 17770w
						SAI	
					F		21665/RRW
1200	1400		CHN	China Radio Int.	F	Eu	17650ka
	1230			Nat.Radio of Cambodia			
1210	1/30		CBG		F	SEA	11940
				Radio France Int.	F	NAf	11845 15300
1230			F	Hadio II alloc III .	1	INCL	11045 15500
1230				naaro manoc inci			
1230				madio France inci	F	WAf	15300 17620 21685 21760/AFS
1230				nadio France Inc.	F F	WAf CAf	15300 17620 21685 21760/AFS 17850/AFS 21580
1230				nadio Franco Inci	F	WAf	15300 17620 21685 21760/AFS
1230				nadio Franco Inci	F F F	WAf CAf EAf	15300 17620 21685 21760/AFS 17850/AFS 21580 21620
	1300		F		F F F	WAf CAf EAf CAm	15300 17620 21685 21760/AFS 17850/AFS 21580 21620 15515/GUF 17860/GUF
				NHK Radio Japan	F F F	WAf CAf EAf	15300 17620 21685 21760/AFS 17850/AFS 21580 21620 15515/GUF 17860/GUF 15400/ASC
	1300		F		F F F	WAf CAf EAf CAm	15300 17620 21685 21760/AFS 17850/AFS 21580 21620 15515/GUF 17860/GUF
1230	1300		F J	NHK Radio Japan	F F F F	WAf CAf EAf CAm WAf CAf	15300 17620 21685 21760/AFS 17850/AFS 21580 21620 15515/GUF 17860/GUF 15400/ASC 17870/ASC
1230 1300	1300 1300 1330		F J LAO	NHK Radio Japan Lao National Radio	F F F F F	WAf CAf EAf CAm WAf CAf SEA	15300 17620 21685 21760/AFS 17850/AFS 21580 21620 15515/GUF 17860/GUF 15400/ASC 17870/ASC 7145
1230 1300 1300	1300 1300 1330 1330		J LAO VTN	NHK Radio Japan Lao National Radio Voice of Vietnam	F F F F F F	WAF CAF EAF CAM WAF CAF SEA SEA	15300 17620 21685 21760/AFS 17850/AFS 21580 21620 15515/GUF 17860/GUF 15400/ASC 17870/ASC 7145 1242 7285
1230 1300 1300	1300 1300 1330		F J LAO	NHK Radio Japan Lao National Radio	F F F F F	WAf CAf EAf CAm WAf CAf SEA	15300 17620 21685 21760/AFS 17850/AFS 21580 21620 15515/GUF 17860/GUF 15400/ASC 17870/ASC 7145
1230 1300 1300	1300 1300 1330 1330		J LAO VTN	NHK Radio Japan Lao National Radio Voice of Vietnam	F F F F F F	WAF CAF EAF CAM WAF CAF SEA SEA NAF	15300 17620 21685 21760/AFS 17850/AFS 21580 21620 15515/GUF 17860/GUF 15400/ASC 17870/ASC 7145 1242 7285 11845 15300
1230 1300 1300	1300 1300 1330 1330		J LAO VTN	NHK Radio Japan Lao National Radio Voice of Vietnam	F F F F F F	WAF CAF EAF CAM WAF CAF SEA SEA NAF	15300 17620 21685 21760/AFS 17850/AFS 21580 21620 15515/GUF 17860/GUF 15400/ASC 17870/ASC 7145 1242 7285 11845 15300 15300 17620 21685
1230 1300 1300	1300 1300 1330 1330		J LAO VTN	NHK Radio Japan Lao National Radio Voice of Vietnam	F F F F F F F	WAF CAF EAF CAM WAF CAF SEA SEA NAF WAF CAF	15300 17620 21685 21760/AFS 17850/AFS 21580 21620 15515/GUF 17860/GUF 15400/ASC 17870/ASC 7145 1242 7285 11845 15300 15300 17620 21685 17850/AFS 21580
1230 1300 1300	1300 1300 1330 1330		J LAO VTN	NHK Radio Japan Lao National Radio Voice of Vietnam	F F F F F F	WAF CAF EAF CAM WAF CAF SEA SEA NAF	15300 17620 21685 21760/AFS 17850/AFS 21580 21620 15515/GUF 17860/GUF 15400/ASC 17870/ASC 7145 1242 7285 11845 15300 15300 17620 21685
1230 1300 1300	1300 1300 1330 1330		J LAO VTN	NHK Radio Japan Lao National Radio Voice of Vietnam	F F F F F F F	WAF CAF EAF CAM WAF CAF SEA NAF WAF CAF SEA	15300 17620 21685 21760/AFS 17850/AFS 21580 21620 15515/GUF 17860/GUF 15400/ASC 17870/ASC 7145 1242 7285 11845 15300 15300 17620 21685 17850/AFS 21580 684/CHN
1230 1300 1300 1300	1300 1300 1330 1400		J LAO VTN F	NHK Radio Japan Lao National Radio Voice of Vietnam Radio France Int.	F F F F F F F F F	WAF CAF EAF CAM WAF CAF SEA NAF WAF CAF SEA CAM	15300 17620 21685 21760/AFS 17850/AFS 21580 21620 15515/GUF 17860/GUF 15400/ASC 17870/ASC 7145 1242 7285 11845 15300 15300 17620 21685 17850/AFS 21580 684/CHN 15515/GUF 17860/GUF
1230 1300 1300 1300	1300 1300 1330 1400		J LAO VTN F	NHK Radio Japan Lao National Radio Voice of Vietnam Radio France Int. Voice of Azerbaijan	F F F F F F F F F F F F F F F F F F F	WAF CAF EAF CAM WAF CAF SEA NAF WAF CAF SEA CAM	15300 17620 21685 21760/AFS 17850/AFS 21580 21620 15515/GUF 17860/GUF 15400/ASC 17870/ASC 7145 1242 7285 11845 15300 15300 17620 21685 17850/AFS 21580 684/CHN 15515/GUF 17860/GUF 1295 6111
1230 1300 1300 1300	1300 1300 1330 1400		J LAO VTN F	NHK Radio Japan Lao National Radio Voice of Vietnam Radio France Int.	F F F F F F F F F	WAF CAF EAF CAM WAF CAF SEA NAF WAF CAF SEA CAM	15300 17620 21685 21760/AFS 17850/AFS 21580 21620 15515/GUF 17860/GUF 15400/ASC 17870/ASC 7145 1242 7285 11845 15300 15300 17620 21685 17850/AFS 21580 684/CHN 15515/GUF 17860/GUF
1230 1300 1300 1300	1300 1300 1330 1400		J LAO VTN F	NHK Radio Japan Lao National Radio Voice of Vietnam Radio France Int. Voice of Azerbaijan	F F F F F F F F F F F F F F F F F F F	WAF CAF EAF CAM WAF CAF SEA NAF WAF CAF SEA CAM ME NAF	15300 17620 21685 21760/AFS 17850/AFS 21580 21620 15515/GUF 17860/GUF 15400/ASC 17870/ASC 7145 1242 7285 11845 15300 15300 17620 21685 17850/AFS 21580 684/CHN 15515/GUF 17860/GUF 1295 6111 11845 15300
1230 1300 1300 1300	1300 1300 1330 1400		J LAO VTN F	NHK Radio Japan Lao National Radio Voice of Vietnam Radio France Int. Voice of Azerbaijan	F F F F F F F F F F F F F F F F F F F	WAF CAF EAF CAM WAF CAF SEA NAF WAF CAF SEA CAM ME NAF WAF	15300 17620 21685 21760/AFS 17850/AFS 21580 21620 15515/GUF 17860/GUF 15400/ASC 17870/ASC 7145 1242 7285 11845 15300 15300 17620 21685 17850/AFS 21580 684/CHN 15515/GUF 17860/GUF 1295 6111 11845 15300 15300 17620 21685
1230 1300 1300 1300	1300 1330 1330 1400 1400		J LAO VTN F	NHK Radio Japan Lao National Radio Voice of Vietnam Radio France Int. Voice of Azerbaijan Radio France Int.	F	WAF CAF EAF CAM WAF CAF SEA NAF WAF CAF SEA CAM ME NAF WAF CAF	15300 17620 21685 21760/AFS 17850/AFS 21580 21620 15515/GUF 17860/GUF 15400/ASC 17870/ASC 7145 1242 7285 11845 15300 15300 17620 21685 17850/AFS 21580 684/CHN 15515/GUF 17860/GUF 1295 6111 11845 15300 15300 17620 21685 21580
1230 1300 1300 1300	1300 1300 1330 1400		J LAO VTN F	NHK Radio Japan Lao National Radio Voice of Vietnam Radio France Int. Voice of Azerbaijan	F F F F F F F F F F F F F F F F F F F	WAF CAF EAF CAM WAF CAF SEA NAF WAF CAF SEA CAM ME NAF WAF	15300 17620 21685 21760/AFS 17850/AFS 21580 21620 15515/GUF 17860/GUF 15400/ASC 17870/ASC 7145 1242 7285 11845 15300 15300 17620 21685 17850/AFS 21580 684/CHN 15515/GUF 17860/GUF 1295 6111 11845 15300 15300 17620 21685
1230 1300 1300 1300	1300 1330 1330 1400 1400		J LAO VTN F	NHK Radio Japan Lao National Radio Voice of Vietnam Radio France Int. Voice of Azerbaijan Radio France Int.	F	WAF CAF EAF CAM WAF CAF SEA NAF WAF CAF SEA CAM ME NAF WAF CAF EU	15300 17620 21685 21760/AFS 17850/AFS 21580 21620 15515/GUF 17860/GUF 15400/ASC 17870/ASC 7145 1242 7285 11845 15300 15300 17620 21685 17850/AFS 21580 684/CHN 15515/GUF 17860/GUF 1295 6111 11845 15300 15300 17620 21685 21580 4405 13760 15245
1230 1300 1300 1300 1300	1300 1330 1330 1400 1400 1500		J LAO VTN F AZE F	NHK Radio Japan Lao National Radio Voice of Vietnam Radio France Int. Voice of Azerbaijan Radio France Int. Voice of Korea	F	WAF CAF EAF CAM WAF CAF SEA NAF WAF CAF SEA CAM ME NAF WAF CAF EU NAM	15300 17620 21685 21760/AFS 17850/AFS 21580 21620 15515/GUF 17860/GUF 15400/ASC 17870/ASC 7145 1242 7285 11845 15300 15300 17620 21685 17850/AFS 21580 684/CHN 15515/GUF 17860/GUF 1295 6111 11845 15300 15300 17620 21685 21580 4405 13760 15245 9335 11710
1230 1300 1300 1300 1300 1400	1300 1330 1330 1400 1500 1500		J LAO VTN F AZE F KRE ARS	NHK Radio Japan Lao National Radio Voice of Vietnam Radio France Int. Voice of Azerbaijan Radio France Int. Voice of Korea BSKSA	F	WAF CAF EAF CAM WAF CAF SEA NAF WAF CAF SEA CAM ME NAF WAF CAF EU NAM AF	15300 17620 21685 21760/AFS 17850/AFS 21580 21620 15515/GUF 17860/GUF 15400/ASC 17870/ASC 7145 1242 7285 11845 15300 15300 17620 21685 17850/AFS 21580 684/CHN 15515/GUF 17860/GUF 1295 6111 11845 15300 15300 17620 21685 21580 4405 13760 15245 9335 11710 21600
1230 1300 1300 1300 1300 1400	1300 1330 1330 1400 1500 1500	Mo-Fr	J LAO VTN F AZE F KRE ARS	NHK Radio Japan Lao National Radio Voice of Vietnam Radio France Int. Voice of Azerbaijan Radio France Int. Voice of Korea	F	WAF CAF EAF CAM WAF CAF SEA NAF WAF CAF SEA CAM ME NAF WAF CAF EU NAM	15300 17620 21685 21760/AFS 17850/AFS 21580 21620 15515/GUF 17860/GUF 15400/ASC 17870/ASC 7145 1242 7285 11845 15300 15300 17620 21685 17850/AFS 21580 684/CHN 15515/GUF 17860/GUF 1295 6111 11845 15300 15300 17620 21685 21580 4405 13760 15245 9335 11710
1230 1300 1300 1300 1300 1400 1400 1400 14	1300 1330 1330 1400 1500 1500 1600 1802		J LAO VTN F AZE F KRE ARS BEL	NHK Radio Japan Lao National Radio Voice of Vietnam Radio France Int. Voice of Azerbaijan Radio France Int. Voice of Korea BSKSA RTBF Bruxelles	F	WAF CAF EAF CAM WAF CAF SEA NAF WAF CAF SEA NAF CAF NAF WAF CAF EU NAM AF CAF	15300 17620 21685 21760/AFS 17850/AFS 21580 21620 15515/GUF 17860/GUF 15400/ASC 17870/ASC 7145 1242 7285 11845 15300 15300 17620 21685 17850/AFS 21580 684/CHN 15515/GUF 17860/GUF 1295 6111 11845 15300 15300 17620 21685 21580 4405 13760 15245 9335 11710 21600 17570/D-j
1230 1300 1300 1300 1300 1400 1400 1430 1500	1300 1330 1330 1400 1500 1500 1600 1802 1530	Mo-Fr	J LAO VTN F AZE F KRE ARS BEL CAN	NHK Radio Japan Lao National Radio Voice of Vietnam Radio France Int. Voice of Azerbaijan Radio France Int. Voice of Korea BSKSA RTBF Bruxelles R. Canada Nord-Quebec	F	WAF CAF EAF CAM WAF CAF SEA NAF WAF CAF EU NAM AF CAF CAN	15300 17620 21685 21760/AFS 17850/AFS 21580 21620 15515/GUF 17860/GUF 15400/ASC 17870/ASC 7145 1242 7285 11845 15300 15300 17620 21685 17850/AFS 21580 684/CHN 15515/GUF 17860/GUF 1295 6111 11845 15300 15300 17620 21685 21580 4405 13760 15245 9335 11710 21600 17570/D-j 9625
1230 1300 1300 1300 1300 1400 1400 1430 1500 1500	1300 1330 1330 1400 1500 1500 1600 1600 1600	Mo-Fr	J LAO VTN F AZE F KRE ARS BEL CAN CAN	NHK Radio Japan Lao National Radio Voice of Vietnam Radio France Int. Voice of Azerbaijan Radio France Int. Voice of Korea BSKSA RTBF Bruxelles R. Canada Nord-Quebec Radio Canada Int.	F F F F F F F F F F F F F F F F F F F	WAF CAF EAF CAM WAF CAF SEA NAF WAF CAF EU NAM AF CAF CAN NAM	15300 17620 21685 21760/AFS 17850/AFS 21580 21620 15515/GUF 17860/GUF 15400/ASC 17870/ASC 7145 1242 7285 11845 15300 15300 17620 21685 17850/AFS 21580 684/CHN 15515/GUF 17860/GUF 1295 6111 11845 15300 15300 17620 21685 21580 4405 13760 15245 9335 11710 21600 17570/D-j 9625 17765
1230 1300 1300 1300 1300 1400 1400 1430 1500 1500	1300 1330 1330 1400 1500 1500 1600 1802 1530	Mo-Fr	J LAO VTN F AZE F KRE ARS BEL CAN	NHK Radio Japan Lao National Radio Voice of Vietnam Radio France Int. Voice of Azerbaijan Radio France Int. Voice of Korea BSKSA RTBF Bruxelles R. Canada Nord-Quebec	F	WAF CAF EAF CAM WAF CAF SEA NAF WAF CAF EU NAM AF CAF CAN	15300 17620 21685 21760/AFS 17850/AFS 21580 21620 15515/GUF 17860/GUF 15400/ASC 17870/ASC 7145 1242 7285 11845 15300 15300 17620 21685 17850/AFS 21580 684/CHN 15515/GUF 17860/GUF 1295 6111 11845 15300 15300 17620 21685 21580 4405 13760 15245 9335 11710 21600 17570/D-j 9625
1230 1300 1300 1300 1300 1400 1400 1430 1500 1500	1300 1330 1330 1400 1500 1500 1600 1600 1600	Mo-Fr	J LAO VTN F AZE F KRE ARS BEL CAN CAN	NHK Radio Japan Lao National Radio Voice of Vietnam Radio France Int. Voice of Azerbaijan Radio France Int. Voice of Korea BSKSA RTBF Bruxelles R. Canada Nord-Quebec Radio Canada Int.	F F F F F F F F F F F F F F F F F F F	WAF CAF EAF CAM WAF CAF SEA NAF CAF CAM ME NAF CAF EU NAM AF CAF CAN NAM WAF	15300 17620 21685 21760/AFS 17850/AFS 21580 21620 15515/GUF 17860/GUF 15400/ASC 17870/ASC 7145 1242 7285 11845 15300 15300 17620 21685 17850/AFS 21580 684/CHN 15515/GUF 17860/GUF 1295 6111 11845 15300 15300 17620 21685 21580 4405 13760 15245 9335 11710 21600 17570/D-j 9625 17765 17715n
1230 1300 1300 1300 1300 1400 1400 1400 1500 1500	1300 1330 1330 1400 1500 1500 1600 1600 1600	Mo-Fr	J LAO VTN F AZE F KRE ARS BEL CAN CAN D	NHK Radio Japan Lao National Radio Voice of Vietnam Radio France Int. Voice of Azerbaijan Radio France Int. Voice of Korea BSKSA RTBF Bruxelles R. Canada Nord-Quebec Radio Canada Int. Deutsche Welle	F F F F F F F F F F F F F F F F F F F	WAF CAF EAF CAM WAF CAF SEA NAF CAF SEA ME NAF CAF CAN NAM CAF CAN NAM WAF CAF	15300 17620 21685 21760/AFS 17850/AFS 21580 21620 15515/GUF 17860/GUF 15400/ASC 17870/ASC 7145 1242 7285 11845 15300 15300 17620 21685 17850/AFS 21580 684/CHN 15515/GUF 17860/GUF 1295 6111 11845 15300 15300 17620 21685 21580 4405 13760 15245 9335 11710 21600 17570/D-j 9625 17765 17715n 21820/RRW
1230 1300 1300 1300 1300 1400 1400 1430 1500 1500	1300 1330 1330 1400 1500 1500 1600 1600 1600	Mo-Fr	J LAO VTN F AZE F KRE ARS BEL CAN CAN	NHK Radio Japan Lao National Radio Voice of Vietnam Radio France Int. Voice of Azerbaijan Radio France Int. Voice of Korea BSKSA RTBF Bruxelles R. Canada Nord-Quebec Radio Canada Int.	F F F F F F F F F F F F F F F F F F F	WAF CAF EAF CAM WAF CAF SEA NAF CAF WAF CAM NAF CAN NAM WAF CAF NAF	15300 17620 21685 21760/AFS 17850/AFS 21580 21620 15515/GUF 17860/GUF 15400/ASC 17870/ASC 7145 1242 7285 11845 15300 15300 17620 21685 17850/AFS 21580 684/CHN 15515/GUF 17860/GUF 1295 6111 11845 15300 15300 17620 21685 21580 4405 13760 15245 9335 11710 21600 17570/D-j 9625 17765 17715n 21820/RRW 11845 15300
1230 1300 1300 1300 1300 1400 1400 1400 1500 1500	1300 1330 1330 1400 1500 1500 1600 1600 1600	Mo-Fr	J LAO VTN F AZE F KRE ARS BEL CAN CAN D	NHK Radio Japan Lao National Radio Voice of Vietnam Radio France Int. Voice of Azerbaijan Radio France Int. Voice of Korea BSKSA RTBF Bruxelles R. Canada Nord-Quebec Radio Canada Int. Deutsche Welle	F F F F F F F F F F F F F F F F F F F	WAF CAF EAF CAM WAF CAF SEA NAF CAF SEA ME NAF CAF CAN NAM CAF CAN NAM WAF CAF	15300 17620 21685 21760/AFS 17850/AFS 21580 21620 15515/GUF 17860/GUF 15400/ASC 17870/ASC 7145 1242 7285 11845 15300 15300 17620 21685 17850/AFS 21580 684/CHN 15515/GUF 17860/GUF 1295 6111 11845 15300 15300 17620 21685 21580 4405 13760 15245 9335 11710 21600 17570/D-j 9625 17765 17715n 21820/RRW 11845 15300
1230 1300 1300 1300 1300 1400 1400 1400 1500 1500	1300 1330 1330 1400 1500 1500 1600 1600 1600	Mo-Fr	J LAO VTN F AZE F KRE ARS BEL CAN CAN D	NHK Radio Japan Lao National Radio Voice of Vietnam Radio France Int. Voice of Azerbaijan Radio France Int. Voice of Korea BSKSA RTBF Bruxelles R. Canada Nord-Quebec Radio Canada Int. Deutsche Welle	F F F F F F F F F F F F F F F F F F F	WAF CAF EAF CAM WAF CAF SEA NAF CAF SEA ME NAF CAF NAF CAN NAM WAF CAN WAF WAF	15300 17620 21685 21760/AFS 17850/AFS 21580 21620 15515/GUF 17860/GUF 15400/ASC 17870/ASC 7145 1242 7285 11845 15300 15300 17620 21685 17850/AFS 21580 684/CHN 15515/GUF 17860/GUF 1295 6111 11845 15300 15300 17620 21685 21580 4405 13760 15245 9335 11710 21600 17570/D-j 9625 17765 17715n 21820/RRW 11845 15300 15300 17620
1230 1300 1300 1300 1300 1400 1400 1430 1500 1500 1500	1300 1330 1330 1400 1500 1500 1600 1600 1600	Mo-Fr Mo-Fr	J LAO VTN F AZE F KRE ARS BEL CAN CAN D	NHK Radio Japan Lao National Radio Voice of Vietnam Radio France Int. Voice of Azerbaijan Radio France Int. Voice of Korea BSKSA RTBF Bruxelles R. Canada Nord-Quebec Radio Canada Int. Deutsche Welle Radio France Int.	F F F F F F F F F F F F F F F F F F F	WAF CAF EAF CAM WAF CAF SEA NAF CAF WAF CAF NAF CAN MAF CAN WAF CAF WAF CAF	15300 17620 21685 21760/AFS 17850/AFS 21580 21620 15515/GUF 17860/GUF 15400/ASC 17870/ASC 7145 1242 7285 11845 15300 15300 17620 21685 17850/AFS 21580 684/CHN 15515/GUF 17860/GUF 1295 6111 11845 15300 15300 17620 21685 21580 4405 13760 15245 9335 11710 21600 17570/D-j 9625 17765 17715n 21820/RRW 11845 15300 15300 17620 17850 21580
1230 1300 1300 1300 1300 1400 1400 1430 1500 1500 1500	1300 1330 1330 1400 1500 1500 1600 1600 1600	Mo-Fr Mo-Fr	J LAO VTN F AZE F KRE ARS BEL CAN CAN D	NHK Radio Japan Lao National Radio Voice of Vietnam Radio France Int. Voice of Azerbaijan Radio France Int. Voice of Korea BSKSA RTBF Bruxelles R. Canada Nord-Quebec Radio Canada Int. Deutsche Welle	F F F F F F F F F F F F F F F F F F F	WAF CAF EAF CAM WAF CAF SEA NAF CAF SEA ME NAF CAF NAF CAN NAM WAF CAN WAF WAF	15300 17620 21685 21760/AFS 17850/AFS 21580 21620 15515/GUF 17860/GUF 15400/ASC 17870/ASC 7145 1242 7285 11845 15300 15300 17620 21685 17850/AFS 21580 684/CHN 15515/GUF 17860/GUF 1295 6111 11845 15300 15300 17620 21685 21580 4405 13760 15245 9335 11710 21600 17570/D-j 9625 17765 17715n 21820/RRW 11845 15300 15300 17620

1530	1545		ISR	Kol Israel	F	Eu	15640 17535
					F	NAm	15640 17535
1530	1555		Ι	RAI International	F	Eu	11885
1600				Radio Vaticana	F	As	15595
1000	1010		01/1	naaro vacroana	F	Eu	585 1530 4005 5890
					r F	Lu	7250 9645 15595
1000	1000	0	_	Dadia Canta		NAF	
	1630	Su	D	Radio Santec	F	NAf	15265j
1600				Radio Budapest	F	Eu	3975 6025
	1630			Int.R.Serbia-Montenegro	F	WEu	9620
1600	1700		AFS	Channel Africa	F	WAf	15245
1600	1700		CHN	China Radio Int.	F	Eu	17650ka
1600	1700		D	Deutsche Welle	F	WAf	17715w 21820w
					F	CAf	17640/RRW
1600	1700		F	Radio France Int.	F	NAf	15300
			•		F	WAf	17620
					F	CAf	21580
					r F	SEA	
1000	1700		KOD	Dadia Kanas Int			1296/CHN-k 6090/CHN-k
1600				Radio Korea Int.	F	Af	7150/G-s
1600	1700		KRE	Voice of Korea	F	Eu	4405 13760 15245
					F	NAm	9335 11710
1600	1700		RUS	Voice of Russia	F	Af	9745c 11510/ARM 12000m
					F	Eu	12000m 12010s 12040m 12070m
1600	1700		RUS	Voice of Russia DIGITAL	.F	Eu	15780m
	1800		7AT	RTNC Bunia	F	CAf	6828
	1900				F	NAm	17765
	1900	Q11			F	CAN	9625
1600		ou			F	CAf	
				RTV Nat.Congolaise			7435 \times tent.\
	2100			Afrique No.1	F	Af	9580 15475
	2230			Rd.Nationale Tchadienne		CAf	6165
	2300			ORTV du Benin	F	WAf	7210.2
1600	2300		BEN	ORTB Radio Parakou	F	WAf	5025 7190
1600	2300		GAB	RTV Gabonaise	F	CAf	4777 7270
1610	1620	Tu,Th	MDA	Radio DMR	F	Eu	5960
1630		,		NHK Radio Japan	F	NAf	11785
	1655		Ι	RAI International	F	Eu	9670 11815
	1657		_	Radio Prague	F	WEu	5930
1000	1007		OZL	naaro i i ague	F	CAf	17485
1630	1700		VTN	Voice of Vietnam	r F	ME	
1030	1700		VIIN	voice of vietham			7220 9550
4-00				5 1: 1/2 1 5 .	F -	Af	7220 9550
1700					F	Eu	1512 9925/RUS-m
1700	1715	Mo-Fr	UN	United Nations Radio	F	SAf	7150/AFS
					F	NAf	17720/G-s
					F	CAf	21535/AFS
1700	1726		ROU	Radio Romania Int.	F	Eu	11865 15170
1700	1730		BUL	Radio Bulgaria	F	WEu	9500 11500
	1730			Radio Vaticana	F	Af	15570 17515
1700			F	Radio France Int.	F	NAf	11700 15300
.,,	1700		•	naaro manoo inci	F	WAf	15300 17620
					F	CAf	15300
1700	1720		CVIV	Dadio Slovakia Int			
	1730			Radio Slovakia Int.	F	WEu	5920 7345
	1800			China Radio Int.	F		15150d
1700	1800		D	Deutsche Welle	F	WAf	15215w 17595/RRW 17745w
					F	CAf	9690/RRW 17745w
1700	1800		ETH	Radio Ethiopia	F	EAf	7165 9560
1700	1800		KOR	Radio Korea Int.	F	Af	9870
1700	1800		RUS	Voice of Russia	F	Af	9745c
					F	Eu	12010s 12040m 12070m 15465e
1700	1800		USA	WYFR Family Radio	F	WAf	17525
	2000	irr		Radio Garoua	F	CAf	5010
1700		±. 1		Radio Congo	F	CAf	5985 6115
				<u>-</u>			
1700		Ма		La Voix du Sahel	F	WAf	7155 9705
	1740	IVIO			F	0c	6095
1730	1800		F	Radio France Int.	F	NAf	11700 15300
					F	WAf	15300 17620
					F	CAf	15300
					F	EAf	17605
1730	1800		GRC	Voice of Greece	F	Eu	12105
		Mo-Sa		Voice of Armenia	F	Eu	4810 9960
	1825			Trans World Radio	F	Af	9695/AFS
			•	· — · · · · · · · · · ·			,

1800	0100		MTN	ORTV I	Mauritanie	A,F	WAf	4845
1800	1810		RRW	Radio	Rwanda	F	CAf	6055
	1815				Radio Int.	F	ME	13750/D-j 15515/D-j 17870
	1820					F	Eu	11970
1000	1020		J	INUL IN	adio Japan			
						F	Af	9685 11785
1800	1825		CAF	Radio	Centrafrique	F	CAf	6100
1800	1830		G	BBC	•	F	Af	7230/AFS 15105/ASC 15180/CYP
1000	1000		ч	ББО			Л	
						F		17885/ASC 21630/ASC
1800	1900	Mo-Sa	Ε	Radio	Exterior España	F	Eu	9655
1800	1900		F	Radio	France Int.	F	NAf	11615 11705 15300
			•			F	WAf	9790/GAB 15300 15605
								•
						F	CAf	11705 15300
1800	1900		KOR	Radio	Korea Int.	F	Af	15575
1800	1900		KRF	Voice	of Korea	F	SAf	9640 11710
						F	NAf	3560 9975 11735
4000	4000		D. 10					
1800	1900		RUS	Voice	of Russia	F	Af	7310sp 12000m
						F	Eu	12000m 12010s 12040m
						F		12070m 15465e
1000	1000		ПСА	WVED I	Comily Dodio		г	
1800	1900		USA	WYFK	Family Radio	F	Eu	17750
						F	CAf	21525
1800	2000		NIG	Voice	of Nigeria	F	Af	11770
	2400				u Mali	F,A	WAf	4783 4835 5995
						-		
1830	1857		UZE	каото	Prague	F	WEu	5930 13580
						F	WAf	13580
1830	1900		G	FEBA I	Radio	F	WAf	15130/ASC
	1900	Th			eil Paroles de Vi	^ E	CAf	15675/D-j
		1111						
1830	1900		VIN	voice	of Vietnam	F	Eu	9725/AUT 9730 13740
						F	CAs	9730 13740
1830	1930		TRN	TRTR T	Teheran	F		13755
							Af	
1830	2000		USA	лотсе	of America	F	AI	1530/STP 9815/BOT 9830/STP
						F		12080/BOT 15730/STP
						F		17785/MRC
1830	2030		CHN	China	Radio Int.	F	Af	9645k 11760u
		Ma Ca						
					Tirana	F	Eu	7210s 9520
1900	1945	Sa-Th	USA	Trans	World Radio	F	WAf	9720/AFS
1900	1945		USA	WYFR I	Family Radio	F	CAf	21525
					,	F	Eu	21455
4000	0000		0.4.4.1	Dadi-	Operate Test			
1900	2000		CAN	каото	Canada Int.	F	Eu	5850/S 5995/G-s 7235/G-s
						F		13700 15325
1900	2000	Mo-Fr	F	Radio	Exterior España	F	Af	9570
			_		_x	F	ME	7150
		_	_		~	-		
1900	2000	Sa	Е	Radio	Exterior España	F	Af	9570
						F	ME	17560
1900	2000	Su	Ε	Radio	Exterior España	F	ME	17560
	2000	o u	F		France Int.	F	NAf	
1900	2000		Г	naulu	France Inc.			9790 11705
						F	WAf	11615 11955/GAB 15605
						F	CAf	7160/AFS 11705 15300
						F	EAf	11995
1000	2000		TNO	Voice	of Indonosia			15150
	2000				of Indonesia	F	Eu	
	2000				Korea Int.	F	Eu	6145/G-s
1900	2000		RUS	Voice	of Russia	F	Af	7310sp 12000m 12030m
						F	Eu	1323/D 12000m 12010s
						F	_4	12030m 15455a 15465e
400-	0000			D	-		_	
	2000		TWN	Radio	Taiwan Int.	F	Eu	6045/G-s
1905	2005		SYR	Radio	Damascus	F	Eu	12085 13610
	1930		RFI	Radio	Vlaanderen Int.	F	Eu	1512 9925/RUS-m
	1945			Kol Is		F	Eu	11605 17535
1930	1945		194	KOT IS	sraeı			
						F	NAm	11605 17535
						F	CAm	15615
1930	1950		CVΔ	Radio	Vaticana	F	Eu	585 1530 4005
. 500	.555		J 7/1					
						F		5890 7250 9645
1930	2000		SVK	Radio	Slovakia Int.	F	WEu	5920 6055
1930	2000		VTN	Voice	of Vietnam	F	Eu	9730 13740
					•	F	CAs	9730 13740
1000	0005		TUD	Va	of Turkey			
1930	2025		ıUK	voice	of Turkey	F	Eu	11850
						F	WAf	9535c
1935	1950	Mo-Fr	SWZ	Trans	World Radio	F	CAf	9525
	2005				World Radio	F	CAf	9525
1935	2020	Su	SWZ	ırans	World Radio	F	CAf	9525

1945 2030	IND All India Radio	F	NAf	9905a 13605b 13620b
2000 2030	CUB Radio Habana Cuba	F	NAm	11760
2000 2030	HNG Radio Budapest	F	Eu	6025 9585
	•	-		
2000 2030	USA Adventist World Radio	F	NAf	15175/D-j
		F	CAf	9610/AFS
		F	WAf	7225/AFS
2000 2030	USA Voice of America	F	Af	9815/BOT 9830/STP 11720/MRC
		F		12080/BOT 15730/STP
2000 2100 Mo-En	ARG R.Argentina al Exterio	r. r.F	Eu	9690 15345
2000 2100	BUL Radio Bulgaria	F	WEu	5800 7500
2000 2100	CAN Radio Canada Int.	F	NAf	5995/G-s 11965/D-w 15325
2000 2100 Sa	CAN R. Canada Nord-Quebec	F	CAN	9625
2000 2100 Su	E Radio Exterior España	F	Af	9570
	·	F	Eu	15290
2000 2100	F Radio France Int.	F	NAf	7315 9790
2000 2100	i madio iranoc inc.	F	WAf	
		=		9790 11955/GAB
		F	CAf	7160/AFS 11705 15300
		F	EAf	11995
2000 2100	KRE Voice of Korea	F	Eu	4405 13760 15245
2000 2100	RUS Voice of Russia	F	ME	5985/D-j 7260/D-j 9825/D-j
2000 2100	TWN Radio Taiwan Int.	F	Eu	9635t 15310/USA-o 18930/USA-o
2000 2115	EGY Radio Cairo	F	Eu	9990
2015 2030	THA Radio Thailand	F	Eu	9680
2030 2100	CVA Radio Vaticana	F	Af	9660 11625 13765
2030 2100	SCG Int.R.Serbia-Montenegr	oF	WEu	6100
2030 2100	USA Adventist World Radio	F	WAf	15130/AUT
2030 2100 SaSu	USA Voice of America	F	Af	9815/BOT 9830/STP 11720/MRC
2000 2100 0000	36/1 10100 01 /moi 100	F	,	12080/BOT 15730/STP
0000 0100	OUN Obine Dedie Int		۸.4	
2030 2130	CHN China Radio Int.	F	Af	7200u 7320/RUS-s 11660x
2030 2230	EGY Radio Cairo	F	WAf	15335
2030 2300	COG Radio Congo	F	CAf	5985
2030 2300	VTN Voice of Vietnam	F	NAf	11775/G-s
2040 2050 Su	NZL Radio New Zealand Int.	F	0c	11725
2100 2126	ROU Radio Romania Int.	F	Eu	7230 9585
	RUS Voice of Russia			
2100 2130		F -	Af	9450/CVA
2100 2130	SUI Swiss Radio Int.	F	Af	11815/D-j 13645/D-j
		F		13795 15220/GUF
2100 2130 Mo-Fr	USA Voice of America	F	Af	9815/BOT 9830/STP 11720/MRC
		F		12035/STP 12080/B0T
		F		17750/ASC
2100 2130	VTN Voice of Vietnam	F	Eu	9730 13740
2100 2130	VIN VOICE OF VIETHAM	-		
0.1.0.0.0.0.0	101 5 11 11 1 1 1 1	F	ME	7220 9550
2100 2200	AGL Radio Nacional Angola	F	AGL	944 7217
2100 2200 Su	CAN R. Canada Nord-Quebec	F	CAN	9625
2100 2200	F Radio France Int.	F	NAf	6175 7315 9790
		F	WAf	7315 9790 11955/GAB
		F	CAf	7160/AFS 9790 11705
2100 2200	TWN Radio Taiwan Int.		WAf	
2100 2200		F		9365/F
2100 2300	GAB Afrique No.1	F	Af	9580
2130 2200	CUB Radio Habana Cuba	F	NAm	11760
2130 2230	CHN China Radio Int.	F	Af	7200u 11660x
		F		11975/MLI 13630/MLI
2200 2227	CZE Radio Prague	F	NAm	7345 9415
2200 2230	CUB Radio Habana Cuba	F	CAm	9505
2200 2230	SUI Swiss Radio Int.	F	SAm	9885 11905/GUF
2200 2300	CAN Radio Canada Int.	F	NAm	15300
2200 2300	CAN Radio Canada Int.	F	Af	9390/S 11755/ASC
2200 2300 Sa	CAN R. Canada Nord-Quebec	F	CAN	9625
2300 2400	E Radio Exterior España	F	Am	15385
	•	F	Eu	6055
2300 2400	F Radio France Int.	F	CHN	15535/RUS
2000 2700	. Hadio France Int.	F		
			SEA	15415/TWN 15535/RUS
		F		15595/RUS 17710/J
2300 2400	USA WYFR Family Radio	F	ENA	6065
<u>Portuguese (= l</u>	P):			
STARTSTOP DAY	ITU STATION	LANG	TARGET	FREQUENCY
0000 0045	USA WYFR Family Radio	P	SAm	17725 17750 17805
		-		,,,,,,,
0000 0100	CHN China Radio Int	P	IΔm	11650x 11850/GUE 15420h
0000 0100	CHN China Radio Int.	Р	LAm	11650x 11850/GUF 15420b

0000 0000 0000 0000	0200 0600 2400 2400 2400 2400	Tu-Sa		R Argentina al Exterior R Nacional, Canal A Radio Aparecida Radio Bandeirantes, SP Radio Brasil Central Radio Gazeta, Sao Paolo	P P P P	Am Af SAm SAm SAm SAm	11710 1088 1367 4950 11955 820 5035 6135 9630 11855 6090 9645 11925 1270 4985 11815 5955 9685 15325
0000 0000 0000	2400 2400 2400 2400 2400 2400		B B B B	Radio Guaiba Radio Guaruja Radio Marumby Radio Nacional Amazonia Radio Pioneira,Teresina Radio Tupi, Curitiba		SAM SAM SAM SAM SAM	relays Radio Cancao Nova 6000 11785 5980 9665 6180 9665 11780 or Marumby 5015 6060 9565 11765
0045 0100 0100 0115 0145	0100 0100 0145 0800 0130 0200		USA USA CHL I USA	Radio Vaticana WYFR Family Radio WYFR Family Radio Voz Cristiana RAI International WYFR Family Radio	P P P P P	LAM SAM SAM SAM SAM	1260 7305 9605 17725 17750 7520 15130 17725 11745 9840 7520
0230 0300 0400 0430	0300 0300 0900 0500 0500 0500		J B USA G	WYFR Family Radio NHK Radio Japan Radio Nova Visao WYFR Family Radio BBC Voice of America	P P P P P	SAm SAm SAm Af Af Af	17750 15565/GUF 5965 9530 11735 11530 3390/AFS 6135/AFS 7205/AFS 1530/STP 6095/STP 6145/ASC
0500 0500 0515 0530		Tu-Sa	B B D CVA	RdP Radio Portugal Radio Nacional do Brasi Radio Nacional do Brasi Deutsche Welle Radio Vaticana R Nacional, Canal A		Eu P P Af Af AGL	7340/BOT 9885/BOT 13725/STP 7240 9840 Af 9665 Af 9665 9565/RRW 15520w 11625 13765 15570 1088 4950 9720 11955
0645 0700 0700	0700 0745	Mo-Fr	POR USA POR	RdP Radio Portugal WYFR Family Radio RdP Radio Portugal RdP Radio Portugal	P P P P P	Eu Eu Eu Eu Af WAf	7240 9840 11850 9985 9815 9840 11850 12020 13640 21830
0800 0800 0800	0930 1000 1030 1100 0200	Mo-Fr	POR B	HCJB Voice of the Andes RdP Radio Portugal Radio Itatiaia Voz Cristiana Radio Novas da Paz	Р	SAM SAM EU B SAM SAM	17710 9745 21455 12020 5970 6110 6080 9515 11725
0800 0800 0800 0800 0800	0215 0300 0300 0300 0400 0900		B B B B USA	Radio Record Radio Cultura AM Radio Cultura FM Radio Globo, Sao Paulo Radio Gaucha, P.Alegre WYFR Family Radio		SAM SAM SAM SAM SAM	6150 9505 1200 9615 17815 6170 6120 9585 6020 6060 9565 11915 9605 11770
0830	1000 0430 1300	SaSu		RdP Radio Portugal Radio Filadelfia Radio Senado	P P P P P	Eu Af WAf SAm B	11995 12020 13640 21830 17710 17710 6105 5993
0900 0900 0900 0900 0900 0930	1000 1500 1500 0100 0400 0300 1430		_	WYFR Family Radio Radio Nova Visao Radio Transmundial Radio Rio Mar Radio Anhanguera R.Educadora 6 de Agosto Radio Integracao	P P P P	SAM SAM SAM SAM SAM B	6175 9605 9625 11770 9530 5965 11735 3385 6160 9695 4915 6080 11830 3255 4765
1000 1000	1045		USA POR	WYFR Family Radio RdP Radio Portugal RdP Radio Portugal	P P P P P	SAM Eu Af WAf SAM Eu	6175 9605 11770 12020 21830 21655 21725 21655 21725 12020 13640
				3			

					_		
					P	Af	21830
					Р	WAf	21655
					Р	SAm	21655
	1100		J	NHK Radio Japan	Р	SAm	15590/GUF
		Mo-Sa		Radio Vaticana	Р	LAm	1260 21850
	2000			Voz Cristiana	Р	SAm	21500
	1300			RNA N'Gola Yetu	Р	AGL	944 7217
1200	1345	SaSu	POR	RdP Radio Portugal	P	Eu	12020 13640
					Р	Af	21830
					Р	WAf	17710
					Р	NAm	17575
					Р	SAm	17615 17710
1200	1700	осс	POR	RdP Radio Portugal	Р	NAm	17575
				RdP Radio Portugal	P	As	21810
	1330			Radio Vaticana	P	Eu	1260 9645 11740
	1400	SaSu		RdP Radio Portugal	Р	Af	21830
1040	1700	oaou	1 011	ndi nadio i di tagai	Р	WAf	21655
					P	NAm	17575
						SAm	
4 400	1700	0 - 0	DOD	DdD Dadia Dastusal	P		17615 21655
1400	1700	Sasu	PUR	RdP Radio Portugal	P	Eu	13770 15555
					P	Af	21830
					Р	WAf	21655
					Р	NAm	17575
					P	SAm	17615 21655
1400	2000		В	Radio Nova Visao	Р	SAm	11735
1400	2000		В	Radio Transmundial	P	SAm	5965 9530
1425	1440	Sa	SWZ	Trans World Radio	Р	MOZ	7315
1425	1455	Su-Fr	SWZ	Trans World Radio	Р	MOZ	7315
	1800			HCJB Voice of the Andes	Р	SAm	15295
1600	1645	Sa		Trans World Radio	Р	MOZ	4760
				RdP Radio Portugal	P	Eu	13770 15525
1000	1000		1 011	nar naaro ron tagar	Р	Af	17680
					Р	WAf	21655 21800
					P	SAm	21655 21800
1620	1645	Ma Th	CWZ	Inone Wenld Dedie			
		wo, in		Trans World Radio	P	MOZ	4760
1700	1730		USA	Voice of America	P	AGL	1530/STP 7290
			_		P		11775 15545
1700	1800		F	Radio France Int.	Р	WAf	15530
					Р	EAf	12015/GAB
1700	1800			Voice of America	Р	Af	1530/STP 9830/STP 12080/B0T
1700	1800		USA	WYFR Family Radio	P	Af	21525
1700	2000	SaSu	POR	RdP Radio Portugal	Р	Eu	13770 15555
					Р	Af	17680
					Р	WAf	21655
					Р	NAm	17575
					Р	SAm	17615 21655
1700	2300	occ	POR	RdP Radio Portugal	Р	NAm	17575
				ğ.	Р	VEN	21540
1730	1800		USA	Voice of America	P	Af	9805/BOT 9815/BOT
				7.0.200	Р		15730/STP 17785/MRC
1800	1830	Mo-Fr	ΠSΔ	Voice of America	Р	Af	1530/STP 9815/BOT
1000	1000	INIO I I	00/1	VOIDE OF AMELICA	Р	711	9830/STP 12080/B0T
					P		15730/STP 17785/MRC
1000	1840		CVA	Radio Vaticana	P	Af	13765 15570 17515
	1845	-		WYFR Family Radio	P	WAf	17525
		Tu-Fr		Radio Exterior España	P	Am	21700
	2200	Sasu	В	Radio Nacional do Brasi		P	Af 9665
	2000			Radio Ecclesia	P	AGL	7205/AFS
1900	2000		CHN	China Radio Int.	P	Eu	7335j 11825x
					Р	Af	7180x 9535x 9620x
					Р		11640\$/MLI 13630\$/MLI
	2000		USA	WYFR Family Radio	Р	Eu	18930
1900	2030		G	BBC	Р	SAm	15285/ATG 17605/CHL
					Р		17630/ATG
1900	2030		Ι	IRRS Milano	Р	Eu	5775
1900	2100	Mo-Fr	В	Radio Nacional do Brasi	1	Р	Af 9665
	2300			RdP Radio Portugal	Р	Eu	13720 15445 15555
				9	P	Af	11945
					P	WAf	21800

					Р	SAm	21540 21655 21800
					Р	NAm	17575
1900	2400		AGL	R Nacional, Canal A	Р	Af	1088 1367 4950 9720 11955
1905	1920	124		Trans World Radio	Р	AGL	6130
1920	1950		SWZ	Trans World Radio	Р	AGL	6130
	2030			Radio Habana Cuba	P	Eu	15120
	2030			Voice of Russia	P	SEu	7440m 11630m
2000			D	Deutsche Welle	Р	CAf	15275w
2000	2000		U	Deditache Welle	P	SAf	9875/RRW 11870/CLN 15275w
2000	2100		СПІ	Voz Cristiana	P	SAm	21500
2000	2100		UNL	VOZ CITSCIANA	P	SAf	15365
2000	0100		_	Dadia Enance Int			
2000			F	Radio France Int.	P	CAf	15530
2000			В	Radio Integracao	Р	В	4765
2000			В	Radio Itatiaia	P	В	5970
2000			В	Radio Cancao Nova	Р	SAm	1020 4825 6105 9675
2000			В	Radio Inconfidencia	Р	В	6010
2000			В	Radio Baré OndaTropical	LP	В	4895
2000	1130		В	Radio Globo, Rio	Р	SAm	6030
2030	2045		CVA	Radio Vaticana	Р	Eu	1530 4005 5890 7250 9645
2030	2100		G	BBC	Р	Af	3390/AFS 6135/AFS 7205/AFS
					Р		11855/ASC 13745r 15105s
2050	2110		I	RAI International	Р	Af	6130 7295 11880 15240
2100	2130	Fr	CAN	Radio Canada Int.	Р	SAm	15165 17740
2100				WYFR Family Radio	P	Af	15770
2100				Voz Cristiana	Р	SAm	15475 21500
2100	2000		OIIL	VOZ OI IOCIANA	Р	SAf	15365
2100	0300		В	Radio Nova Visao	P	SAm	5965 11735
2100			В	Radio Transmundial	P	SAm	9530
2100			В	Radio Clube Paranaense		В	6040 9725
2130			G	BBC	P	SAm	9870/ASC 11965/ATG 15390/ASC
2200				Radio Habana Cuba	P	SAm	17705
2200				China Radio Int.	Р		11650x 15100b
2200			USA	WYFR Family Radio	Р	SAm	17725 15130
2200	0303		В	Radio Senado	Р	В	5993
2215	2330		EGY	Radio Cairo	Р	SAm	11790
2230	2300		G	BBC	Р	SAm	9870/ASC 11965/ATG 15390/ASC
2300	2330		CUB	Radio Habana Cuba	Р	SAm	15230 17705
2300	2400		CHN	China Radio Int.	Р	SAm	13650/CUB
2300	2400		RUS	Voice of Russia	Р	Eu	603
					Р	SAm	7330m 11510/TJK 12010m
2300	2400		USA	WYFR Family Radio	Р	SAm	17725
	0100			Voz Cristiana	P	SAm	11745 15475
				RdP Radio Portugal	Р	NAm	9715 15480
2000	0200	WO II	1 011	ndi nadio i di tagai	Р	VEN	13700
					P	В	13660 15295
2200	0000		E0^	HCIP Voice of the Andre	•		
2300				HCJB Voice of the Andes		SAm	11920 12020
				Radio Canada Int.	P	LAm	11825 15455
	2400			Radio Habana Cuba	Ρ.	SAm	15230
(E1K	e Rie			shortwave broadcasting			- Last update: August 11, 200
# : 1 + .		4 - 4 - 4				h. IVD\	

(Eike Bierwirth's shortwave broadcasting-schedule list - Last update: August 11, 2004, filtered for the language-based transmissions by JKB)

NETHERLANDS: Due to cutbacks at client broadcaster Christian Media Network, Miamibased shortwave broadcaster *WRMI* is, for the time being, carrying relays of World Radio Network at 1200-1600 UTC seven days a week on 15725 kHz. This includes an hour of English from *Radio Netherlands* at 1200-1300 UTC. As this is not an official shortwave relay, the frequency is not announced by Radio Netherlands. But we welcome reception reports on this transmission to letters@rnw.nl. (@RNMN July 20, 2004; via JKB)

Radio Netherlands will carry special programming in Dutch for coverage of the Olympic Games between 14 and 29 August. As well as relays of the NOS service Radiolympia, there will be a daily Olympic news programme produced by Radio Netherlands. Programming will be carried worldwide on the Internet (RNW1) and in Europe on shortwaves as follows: Mon-Fri 0800-1000 and 1200-1500 UTC

Sat 0800-1100 and 1200-1500 UTC

Sun 0600-1100 and 1200-1500 UTC

To Central Europe on 5955 kHz, South West Europe on 9895 kHz, South and South East Europe on 13700 kHz. Sun 0600-0800 on 11935 instead of 13700 kHz. (©RNMN July 19, 2004; via JKB)

NEW ZEALAND: Changes of Radio New Zealand International - RNZI schedule valid 5 Sep 2004 - 31 Oct 2004. Address: P.O.Box 123, Wellington, New Zealand. Fax: 00 64 4 474 1433 and e-mail address is <info@rnzi.com>. Reception reports by e-mail or post are welcome and at the web http://www.rnzi.com/pages/contact.htm RNZI has provided forms of reception reports for e-mail (Netscape users only) and postal mail. Please do not send cassettes. All DX reception reports must contain detailed programme information for verification purposes and be accompanied by two International Reply Coupons (IRC) or \$US 2 if a QSL is sought. E-mail reports will be verified by e-mail only.

UTC	kHz	Primary Target	Az.	Days
0459-0705	11820	All Pacific, also USA, Eu	0	Daily
0706 - 1059	9885	All Pacific	0	Daily
1100-1259	9885	NW Pacific, NE Australia, PNG, Asia	325	Daily
1300 - 1750	6095	All Pacific	0	Daily
1751 - 1850	9845	Fiji, Samoa, Cook Islands	35	Daily
1851 - 2050	11725	All Pacific	0	Daily
2051 - 2245	15720	All Pacific	0	Daily
2246-0458	17675	All Pacific	0	Daily

Bougainville/Timor Transmission 1105-1305 program is directed to the North Western Pacific and Asia for NZ Forces serving overseas. Sunday to Friday RNZI joins Radio Australia's Breakfast programme beamed to Asia and the Pacific on short-wave and satellite. Central and South Pacific frequencies - 15515, 13630, 12080, 11660, 11650. West Pacific 11650, 9660 kHz.

RNZI joins the VT Merlin DRM Service for listeners in Europe for people lucky enough to have a DRM capable receiver! (RNZI schedule at the web, 18 Aug 2004, via JKB)

NIGERIA: Transmission schedule of the *Voice of Nigeria (VON)*. Postal address: Voice of Nigeria, Broadcasting House, Ikoyi, P.M.B. 40003, Falomo Post Office, Lagos, Nigeria. E-Mail: <info@voiceofnigeria.org>, WWW: <http://www.voiceofnigeria.org>.

0500-1000 7255, 15120

1000-1900 7255

1900-2300 7255 (to SAm), 15120

(Jose Hernandez in CONEXION #271 via WWDXC-HQ; July 10, 2004)

RUSSIA: On 30 July, Russia's *Mayak* service signed on for the first time and became the Soviet Union's first national 24-hour radio station. The station featured music, with news summaries every half hour. The interval signal, part of the song "Moscow Nights," has been used for the whole of the station's existence. To celebrate the anniversary, the radio's Web site is currently displaying rare archive pictures showing some of its correspondents.

<http://www.radiomayak.ru/birthday/photos/index2.html>. (@RNMN August 02, 2004; via
JKB)

At the Digital Radio Mondiale (DRM) consortium's first-ever board meetings in Russia, the Voice of Russia announced the successful implementation and planned expansion of its DRM broadcasts on short-wave and medium-wave. Russian Prime Minister Mikhail Fradkov recently signed an order allowing for the Voice of Russia's DRM progress. The consortium held its quarterly meetings at the headquarters of the Russian Television and Radio Network (RTRN) and the Voice of Russia in Moscow from June 16 to 18. The Voice of Russia has been a DRM member since 1998. Voice of Russia currently transmits DRM broadcasts in Russian, English, German and French toward Europe, using a short-wave transmitter in Taldom, Russia, operated by RTRN's Moscow Regional Centre, and a medium-wave transmitter 603 kHz in Zehlendorf, Germany, operated by DRM member T-Systems International Media and Broadcast. The medium-wave transmitter, made by DRM member Telefunken, has been modified to operate in single-channel simulcast mode, which means that the Voice of Russia's broadcasts can be sent in analog and DRM formats. The Taldom broadcasts can be heard within parts of Russia. The Voice of Russia will expand its reach within and beyond Europe in the near future, using additional transmitters that have been adapted for DRM. This network includes a second short-wave transmitter operated by the Moscow Regional Centre,

a short-wave transmitter in Irkutsk, a short-wave transmitter in Khabarovsk, and a T-Systems International medium-wave transmitter, built by Telefunken, in Wachenbrunn, Germany. (From the 6/28 issue of Radio Currents via Joe Buch, Swprograms mailing list via DXLD #4-102, July 7, 2004)

<u>SLOVAKIA:</u> Radio Slovakia International announced on this week's Listeners' Tribune programme that its broadcasts will continue until at least the end of the year. The station is still trying to secure funding for a longer period, and says that support from listeners has been a significant factor in the decision not to close down on 1 July as had been threatened. (©RNMN July 26, 2004; via JKB)

SOUTH AFRICA: Changes in relay transmissions over **SENTECH** facilities A04. Schedule effective from 28 March 2004 to 30 October 2004. For unchanged transmissions see prior issue of DXM.

BBC. Cause of a lot of changes, hard to compare each item, given the complete BBC relay schedule:

Schedule.				
Time UTC	Freq kHz	Tx kW	Target Area	Language
0300-0330	6050	500	East & Central Africa	Swahili
0300-0400	7120	500	West Africa	English
0300-0600	3255	100	Southern Africa	English
0300-0600	6190	100	Southern Africa	English
0400-0430	9840	250	East Africa	Swahili
0400-0500	7120	250	West Africa	English
0430-0500	3390	100	S. Mozambique	Portuguese
0430-0500	6135	250	N. Mozambique	Portuguese
0430-0500	7205	500	Angola	Portuguese
0500-0700	11765	250	West Africa	English
0530-0600	15400	250	East & Central Africa	Kirundi **
0600 - 1600	6190	100	Southern Africa	English
0600 - 1600	11940	100	Southern Africa	English
0700-0730	17695	500	Central Africa	French
1500-1530	21490	500	East & Central Africa	English
1530-1615	21490	500	East & Central Africa	Swahili **
1530-1700	21490	500	East & Central Africa	Swahili/Kirundi*
1600-2200	3255	100	Southern Africa	English
1600-2200	6190	100	Southern Africa	English
1615-1700	21490	500	East & Central Africa	English **
1700 - 1900	15420	250	East & Central Africa	English
1730-1745	3390	100	Southern Africa	English teaching
1730-1745	7230	500	East & Central Africa	English teaching
1730-1745	9525	500	Angola & West Africa	English teaching
1745 - 1800	7230	500	East & Central Africa	Swahili
1800-1830	7230	250	Indian Ocean Isles	French
2030-2100	3390	100	S. Mozambique	Portuguese
2030-2100	6135	250	N. Mozambique	Portuguese
2030-2100	7205	500	Angola	Portuguese
TWR addition	nal transm	ission.	Other TWR transmissions unchar	nged (see prior issues of DXM):
1925 - 1940	9720	250	Mali, Burkina Faso	Moore *
*Monday to	Friday **	Saturda	ay and Sunday	

SWEDEN: *IBRA Radio* is a Christian radio ministry supported by local Pentecostal churches in Scandinavia. On the 29th of July, 1955, IBRA Radio (International Broadcasting Association) aired its first broadcasts from Tangier in North Africa. IBRA Radio is part of the Dagen Group which, besides radio ministry, also publishes a Christian daily newspaper (Nya Dagen) and operates a television ministry (TV-Inter). Other divisions in the Dagen Group include Samspar (insurance) and Mösseberg (rehabilitation). Mailing address: IBRA Radio, SE-141 99 STOCKHOLM, SWEDEN. E-mail: <ibra@ibra.se>, Web Site: <http://www.ibra.org>.

IBRA Radio, schedule created at 12 May 2004 as found on their website:

Area Station/Place Day UTC Language Frequency

AFRICA

(SENTECH website via JKB, 18 Aug 2004)

SWITZERLAND: Swiss Radio International is to cease all radio broadcasts at the end of October, and will thereafter concentrate exclusively on its Internet platform, http://www.swissinfo.org. Starting August 1, a special series of radio programmes will look back at key events that have shaped SRI and Switzerland over the past seven decades. SRI ended its news and current affairs programmes in April, but broadcasts are continuing on shortwave and satellite until the end of October. During its last 12 weeks on air, SRI will be broadcasting a special half-hour programme each week to recall highlights since SRI first hit the airwaves in 1935. In the week starting August 1, listeners can hear how SRI evolved from the Swiss Shortwave Service - which went on air for the first time on August 1, 1935 - into swissinfo, which went online in 1999. Other programmes in the "Assignment Switzerland" series will profile personalities who shaped the country, the four Swiss cultures and the Swiss living abroad. SRI will also be looking back at key events in politics, science and technology, and the arts, and finding out what

outsiders think of Switzerland. The final programme in the series will look at how Swiss views of their own country have changed over the past half-century. Programmes will be available on shortwave and on demand via the Website. The first programme is already online as a "sneak preview". (©RNMN July 21, 2004; via JKB)

<u>TURKEY:</u> Frequency change for *TRT Voice of Turkey* in Spanish effective from July 27: 1630-1657 NF 13720, ex 13640 to avoid China Radio Int. now in French (ex English). (OBSERVER #322, Ivo Ivanov and Angel Datzinov, via WB, 2004 July 27)

UNITED KINGDOM: Radio Six International starts daily shortwave service On August 1st, Radio Six International is to launch the world's first-ever regular daily service from Scotland on shortwave for listeners in the United States, Canada and Western Europe, broadcasting from the facilities of WBCQ ("The Planet") in Maine, on 5105 kHz between ast 2300-2400 UTC. The station's unique programming is centered on unsigned and unpublished performers from around the world - rock bands from the USA, a classical guitarist from Japan, multi-instrumentalists from Russia, jazz outfits from England, singers from Denmark, percussion bands from Africa, even a symphony orchestra from Iraq, all with music that's never been heard on the radio before. The nightly programmes will include pop, jazz, country, pipers, lounge music, live sessions, world and Scottish news, new CDs and documentaries. And that's just the start, for Radio Six International aims to expand as soon as possible from just sixty minutes a day. There will be programmes for listeners of Scottish descent; and for those who simply want to hear new music. Broadcast live from modern studios in Scotland's biggest city, the Glasgow-based station intends to be a positive voice in the crowded shortwave bands. At the Web: <http://www.radiosix.com>. (©RNMN July 24, 2004; via JKB)

<u>USA:</u> The Washington, D.C.-based *National Association of Shortwave Broadcasters (NASB)*, a DRM member since 1999, will send DRM transmissions into North America starting on Saturday, July 24. The NASB programming will be sent from the Sackville, New Brunswick, transmitter site of DRM member Radio Canada International/CBC, and will reach the Eastern US and Canada. The NASB's members are 19 privately owned, US licensed, short-wave radio stations. Its associate members include non-US licensed broadcasters, manufacturers and others. DRM broadcasts of the following DRM members are also available in North America: BBC World Service; Deutsche Welle; RCI; Radio Netherlands; Swedish Radio International; and Radio Vaticana. DRM transmissions of China Radio International, Radio Kuwait and TDP Radio (a commercial, dance mix station from Belgium) also reach North America. For the latest DRM Live Broadcasts Schedule, visit http://www.drm.org. NASB will transmit the program Voice of the NASB via shortwave to North America on Saturdays, starting at 1700 UTC, at 11900 kHz. Voice of the NASB is a half-hour variety series jointly produced by various NASB members and associate members. It comprises documentaries, travel reports, mailbag programs, religious dramas, music, and station profiles. NASB has been sending DRM transmissions to Europe since 2003 via the Rampisham, England, transmitter site of DRM member and NASB associate member VT Communications. These transmissions will end on July 18th. "The success of our DRM broadcasts to Europe via VT Communications has proven to us beyond any doubt the tremendous capabilities of DRM to transmit programs with FM mono quality and with no fading, static or interference," said Jeff White, outgoing NASB President and Producer of Voice of the NASB. "We now look toward our home turf of North America, and we are delighted to bring DRM programs to listeners in the US and Canada in the coming months with the help of CBC." "The NASB broadcasts are a great addition to the growing range of DRM content available in North America," says DRM Chairman Peter Senger. "We applaud NASB's participation, and we invite broadcasters from around the world to join in providing radio listeners with DRM's superb clarity and excellent reception." Please note that although the broadcasts begin officially on July 24, there will be a test transmission on Saturday, July 17 at 1700-1730 UTC on 11900 kHz, via Radio Canada (©RNMN July 16, 2004; via JKB) International/CBC.

Schedule changes of the *Voice of America - VOA*:
1900-2000 1593 7465 11815 unchanged, but now 12020 (ex 12030) Persian (VOA Website via JKB, 18 July 2004)

Sources & Contributors:

BBCM BBC Monitoring Service, Copyright (c)

News Bulletin by Wolfgang W. Bueschel - Germany. BC-DX

CONEXION CONEXION Digital - Buenos Aires, Argentina. Glenn Hauser's DX LISTENING DIGEST - USA. DXLD

GH Glenn Hauser - USA.

HJB Dr. Hansjoerg Biener, Amberg - Germany. Dr. Juergen Kubiak, Berlin - Germany. JKB

Fortnightly edition of Radio Bulgaria's Frequency Management. OBSERVER

RNMN R. Netherlands Media Network ©.

Wolfgang W. Bueschel, Stuttgart - Germany. WB WWDXC-HQ WWDXC Headquarter, Michael Bethge - Germany.

Abbreviations:

Target: Target Prefix:

ITU country code or N North Af Africa E East Am America South As Asia W West Eu Europe C Central

ME Middle East

FSU Former Soviet Union

Languages: Other common abbreviations:

Ar Arabic bc broadcast

Ch Chinese 1sb Lower Side Band Mode Du Dutch nd non-directional

E, En English program рх

French sce(d),

G, Ge German sked schedule

Gr Greek ssb Single Sideband Mode

Ι Italian transmitter tx(er)

usb Upper Side Band Mode J Japanese K Korean mm/dd/yy Date (month/day/year) Ρ Portuguese dd.mm.yy (day.month.year)

R Russian Spanish Sp Turk Turkish

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http://home.snafu.de/j.kubiak/

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DX LOGBOOK Logs around the clock

by Ashok Kumar Bose, Apt. #634, 3420 Morning Star Drive, Mississauga, ON, L4T 1X9, Canada E-Mail: logbook@wwdxc.de

MEDIUMWAVE BAND

Frequ.	UTC	SIO	ITU	Radio Station	Language	Programme Details	Date	Rep.
900.0	0335	322	Ε	SER,Vigo	Spanish	Tour de France	1907	MF
1152.0	0255	222	Е	COPE, Albacete	Spanish	Tour de France	1907	MF
1161.0	0240	321	G	BBC Radio South three counties	English	ID, Music	1207	MF
1170.0	0250	333	G	Amber FM	English	Jingles, Music	1907	MF
1179.0	0315	323	Ε	SER,Rioja	Spanish	News	1407	MF
1269.0	0245	332	Ε	COPE, Badajoz	Spanish	ID,Iraq	1207	MF
1269.0	0220	321	G	COPE, Badajoz	Spanish	News	1907	MF
1287.0	0250	333	Е	SER, Burgos	Spanish	Tourism	1207	MF
1296.0	0225	232	G	COPE, Valencia	Spanish	Football	1907	MF
1413.0	0230	222	Ε	RNE5,Gerona	Spanish	Antisemitism	1907	MF

TROPICAL BANDS

Frequ.	UTC	SIO	ITU	Radio Station	Language	Programme Details	Date	Rep.
3235.0	0310	211	В	Radio Guaruja Paulista	Portugese	Vocals and talks	2306	RAD
3291.2	0225	322	GUY	Voice of Guyana	English	Phone calls,ID and music	2807	RAD
3306.0	0325	211	ZWE	Radio Zimbabwe	Vernacular	Talks followed by ID	2707	RAD
4750.0	0237	322	SDN	Radio Peace	English	ID, musical interlude, religious program	2706	RAD
4780.0	0240	322	GTM	Radio Cultural,Coatan	Spanish	ID, Music and talks	2306	RAD
4810.0	0205	322	MEX	XERTA	Spanish	Religious songs,Anns	0908	RAD
4815.0	0202	222	В	Radio Difusora de Londrina	Portugese	Religious talks,music,ID	2707	RAD
4840.0	0020	211	IND	All India Radio,Mumbai	Hindi	Music and talk	1407	RAD
4875.0	0325	433	В	Radio Difusora Roraima	Portugese	Continouspop vocals and ID	2407	RAD
4905.0	0214	322	В	Radio Anhanguera	Portugese	Romantic Portugese Tyric vocals	0608	RAD
4910.0	0246	322	ZMB	ZNBC	English	IS,ID,vocals and instrumental music	0608	RAD
4960.0	0058	322	EQA	Radio Federacion Shuar	Spanish	Vocals,ID,Sign off	1008	RAD
4976.0	0344	322	UGA	Radio Uganda	English	Pop music,News	2307	RAD
5010.0	0016	322	IND	AIR,Thiruvanthapuram	Hindi	Talks,ID,Flute music	1406	RAD

SHORTWAVE BANDS

F	UTO	010	1771	Dadia Chakian		Dr	D-4	D
Frequ.	UTC	SIO	ITU	Radio Station	Language	Programme Details	Date	Rep.
5930.0	1500	544	CZE	Radio Prague	German	ID,News	0408	SGF
5955.0	1215	544	HOL	Radio Nederland	Dutch	Report on babies,ID	0908	SGF
6005.0	2357	222	D	Deutscheland Radio	German	Music,ID,News	1207	RAD
6015.0	0303	211	TZA	Voice of Tanzania-Zanzibar	Arabic	Vocals	1007	RAD
6025.0	0220	322	VEN	Radio Intercontinental	Spanish	Jingles	1307	MF
6025.0	0220	222	BOL	Radio Illimani	Spanish	Talks, Argentina Uruguay football match	1407	RAD
6030.0	0400	333	D	Sudwestrundfunk	German	ID & World News	1907	RAD
6030.0	0347	211	CAN	CFVP	English	Talks	1907	RAD
6040.0	0300	211	SWZ	TWR	English	God has agood way	1307	MF
6040.0	0020	222	В	Radio Clube Paranaense	Portugese	Football match report,ID	0907	RAD
6075.0	1230	544	D	Duetsche Welle,Wertachtal	German	ID,Program	0908	SGF
6085.0	0845	544	D	BR-5,Ismaning	German	Music,ID,News	0908	SGF
6130.0	1500	544	AUT	AWR,Moosbrun	German	IS,ID,Religious program	0808	SGF
6185.0	1900	544	G	RTI via Skelton	German	IS,ID,News	3007	SGF
6230.0	1330	444	MCO	ERF	German	ID,Program	0408	SGF
6974.5	0040	322	ISR	Galei Zahel	Hebrew	Talks & Israeli pop vocals	1706	RAD
7105.0	1800	333	ΩAT	Radio Doha	Arabic	Aduta & Nova	2107	MF
7170.0	1800	333 444	CHN	CRI	German	Advts, & News IS,ID,Program	0208	SGF
7170.0	1745	444	BGD				0408	SGF
	1845	444		Voice of Islam	English English	IS,ID,Ann,Koran	0408	
7185.0			BGD	Bangladesh Betar	English	ID,News		SGF SGF
7185.0 7210.0	1900 0218	344 322	RRW BLR	Duetsche Welle,Kigale Radio Minsk	German	ID,News	0408 2307	RAD
	1529	522 544	POL	Radio Polonia	English Cormon	Feature on crime,ID and music IS,ID,News		SGF
7270.0 7305.0	0306	554	CVA	Vatican Radio	German	Life in a Roman town	0508 0908	SGF RL
7330.0	1510	544	RUS	Stimme Russlands	English German	Program on Putin	2607	SGF
7345.0	1200	544	CZE	Radio Prague	German	IS,ID,News	0908	SGF
7345.0	0800	544	SVK	Radio Slovakia Intl.,	German	IS,IDDX-Program	0908	SGF
7345.0	0105	454	CZE	Radio Prague	English	Mailbox	0908	RL
7345.0	0258	211	USA	WRMI	English	Wavescan 500th edition	0208	RAD
7415.0	0000	544	USA	Radio Six Intl., via WBCQ	English	Spl broadcast with music	0107	RAD
7413.0	2234	322	GRC	Radiofonikos Stathmos Makedonias	Greek	Vocals and talks	2906	RAD
7505.0	0154	322 444		KTBN	English	Religious program,ID	2206	RAD
7 303.0	0104	444	USA	KIDN	Liigiisii	rieligious program, io	2200	HAD
9500.0	0500	444	BUL	Radio Bulgaria	German	IS,ID,News	0308	SGF
9525.0	1816	454	INS	Voice of Indonesia	German	News & Commentary	1108	RAD
9525.0	1129	544	POL	Radio Polonia	German	IS,ID,News	0308	SGF
9545.0	1340	544	D	DW,Nauen	German	EU Program	0408	SGF
9565.0	1800	433	TWN	RTI	German	IS,IS,Program	3007	SGF
9565.0	0045	111	В	Radio Tupi	Portugese	Preaching, choir vocals	2406	RAD
9570.0	1730	333	CHN	CRI	English	IS,ID,Ann,News	0408	SGF
9570.0	1829	433	IRN	IRIB,Teheran	Albanian	IS,ID,Koran,News	0408	SGF
9580.0	2103	433	GAB	Africa No.1	French	News,ID	0708	RAD
9580.0	0450	534	YUG	Intl., Radio of Sebia & Monte Negro	English	Sports Round Up	1008	RL
9590.0	1522	554	AUS	Radio Australia	English	Asia Pacific program	1108	RL
9615.0	1600	434	ALS	KNLS,Alaska		Religious program	8080	RL
9630.0	1345	544	FIN	YLE,Radio Finland	Swedish	Report on Export Industry	3007	SGF
9660.0	1110	544	G	Radio Japan	German	ID,Focus program	0308	SGF
9660.0	0730	433	AUS	Radio Australia,Brandon	English	Id,News headlines and sports News	1307	RAD

9660.0	1905	211	RRW	FEBA	Arabic	Allah is not our way	1905	MF
9675.0	2350	322	ARG	Radio Libertad	Spanish	Missions program	1807	MF
9690.0	1415	544	1	RAI	German	IS,ID,News,Music	2607	SGF
9770.0	0037	322	CLN	SLBC	English	Continious pop instrumental music	1506	RAD
9780.0	0500	333	EQA	HCJB	German	IS,ID,HBF	0908	SGF
9795.0	1515	544	RUS	Stimme Russlands	German	Russian Market for Germany	2607	SGF
9795.0	0202	534	G	Wales Radio Intl.,	English	Celtic Notes	0708	RL
9870.0	0305	534	CZE	Radio Prague	English	Mailbox	0908	RL
9880.0	1000	444	CZE	Radio Prague	German	ID,News	2707	SGF
9885.0	2320	444	SUI	SRI via Sottens	English	Anns. & Music	0907	RAD
9960.0	0319	322	ARM	Voice of Armenia	Armenian	Local vocals and ID	3107	RAD
9935.0	0314	322	IRN	VOIRI	Arabic	Talks,music & ID	1008	RAD
9980.0	0238	322	ISL	AFN via Grindavik	English	Sports Byline USA	2406	RAD
9990.0	2223	554	EGY	Radio Cairo	English	Islam voice hope	0708	RL
11635.0	0408	554	NLA	RVI	English	Radio World	0908	RL
11690.0	1300	444	JOR	Radio Jordan	English	ID,Afternoon Show	0408	SGF
11700.0	0244	454	BUL	Radio Bulgaria	English	Radio Bulgaria Calling	0708	RL
11710.0	1100	544	G	NHK-World Radio Japan	German	ID,Ann,News	0308	SGF
11715.0	0153	322	IND	All India Radio,Delhi	Nepales	Hindu vocals and talks	0908	RAD
11740.0	0638	322	CVA	Vatican Radio	English	News,ID	2207	RAD
11755.0	1030	544	FIN	YLE,Radio Finland	Finnish	ID,Ann.,Report,Pop music	0208	SGF
11785.0	0124	222	В	Radio Guaiba	Portugese	Talk,ID,Instrumental music	1107	RAD
11795.0	0247	333	UAE	Salaam Watandar	Pushto	Talks,ID	0907	RAD
11815.0	0237	322	В	Radio Brasil Central	Portugese	Football Sports and ID's	2107	RAD
11860.0	0256	333	IRN	VOIRI	Armenian	Opening Anns. & News	2207	RAD
11865.0	2120	322	RRW	Duetsche Welle	English	German by Radio	1707	MF
11925.0	2328	222	KWT	VOA	English	News Now Program,ID	0208	RAD
11975.0	0320	221	UAE	AWR via Abu Dhabi	Amharic	Music and Talks	2107	RAD
11975.0	2140	333	MLI	CRI	French	Entertainment	1007	MF
12020.0	1020	544	POR	RDP Internacional			0308	SGF
12020.0	1020	544	G		Portugese Facilish	ID, Ann, Sports Magazine	0208	SGF
12090.0	1000	J 44	u	BBC,Woofferton	English	ID,News,Report on Australia	0200	Sur
13760.0	1130	544	TUR	Stimme der Turkei	German	IS,ID,News,Press	0808	SGF
13775.0	1528	434	CAN	Radio Austria Intl.,	English	Weekly Review & Postbox	0708	RL
			• • • • • • • • • • • • • • • • • • • •	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,				
15130.0	1845	222	ASC	FEBA	French	Jesus is our life	2107	MF
15160.0	1620	322	AFS	RFI	English	News Magazine	1107	MF
15245.0	0510	344	CHN	CRI	German	News,ID	0408	SGF
15250.0	1140	544	ROU	RRI	French	ID,Hitparade	2707	SGF
15270.0	1158	544	ROU	RRI	German	IS,ID,News	1207	SGF
15395.0	2003	433	UAE	UAE Radio	Arabic	Non stop middle easter vocals	1007	RAD
15455.0	0900	444	RUS	Stimme Russlands	German	IS,ID,News,Reports	2707	SGF
15475.0	1730	222	GAB	Africa No. 1	French	Tour de France	1107	MF
15495.0	2000	333	KWT	Radio Kuwait	Arabic	Mohammad & Kuwait	1807	MF
15505.0	2000	333	KWT	Radio Kuwait	Arabic	Mohammad & Kuwait	1807	MF
15580.0	1950	322	STP	VOA	English	African Themes	1807	MF
15585.0	1025	522 544	E	REE, Noblejas	Spanish	ID,Immigrant project	0208	SGF
15650.0	1330	044 444	GRC	ERT, Athens	German		1907	SGF
				Radio Bulgaria		ID,Ann.,News,EU-Iraq		
15700.0 15775.0	1030 1230	544 333	BUL ISL	Radio Bilgaria Radio Rikisutvarpid	German	IS,ID,News,	2707 2807	SGF SGF
10//0.0	ıZJU	ააა	ISL	παιίο πικιδαίναι μια	Icelandic	ID,Political Report	Z0U <i>1</i>	υαг

17490.0	1435	444	CHN	CRI,Kashgar	English	ID,Report World Heritage	2607	SGF
17560.0	1445	333	USA	WHRA	English	Report Court documents,ID	2607	SGF
17590.0	0922	111	RUS	Radio Ezra	English	Talks & ID	1107	RAD
17630.0	1430	444	GAB	Africa No.1	French	ID,Report creation musique	2707	SGF
17700.0	1332	211	???	Salaam Watandar	Pushto	Talks & music	1007	RAD
17720.0	0530	344	CHN	CRI	German	ID,Program	2807	SGF
17775.0	1653	433	USA	La Voz de Restauracion	English	Religious music,ID	2606	RAD

Thanks a lot to our club members for your contributions:

MF : Michael Frese, Osnabrueck, Germany. SONY ICF SW 7600G with Telescopic antenna & Frame antenna for Medium Wave logs.

RAD: Richard A. D'Angelo, Wyomissing, USA. Ten-Tac RX-340, Drake R-8B, Lowe HF-150 with Alpha Delta DX Sloper, Datong FL3, JPS ANC-4

RL : Richard Lemke, St. Albert, Alberta, Canada. JRC NRD-535 HF with random long wires

SGF: Siegbert Gerhard, Frankfurt, Germany. OTANY KK-959 Digital with build up whip antenna 50cm.

Dear Friends,

Welcome to the August edition. Thanks to the members who keep listening and sending their loggings.

Till next issue it's 73's from your Editor,

Ashok Kumar Bose

QSL CORNER

Editor: Richard Lemke, 60 Butterfield Crescent, St. Albert, Alberta, T8N 2W7, CANADA

Country	Station	QSL	Time	ORG	Remarks	OM
Albania	R. Tirana	f/d cd	25 ds	1458 khz		HJK
Antigua	DW Relay	f/d cd	23 ds	9690 Khz		HJK
Antigua	DW Relay	f/d cd	19 ds	6.100		HJK
Argentina	RAE	f/d cd	382 ds	15345		HJK
Armenia	Voice of Armenia	f/d, L	77-132 ds	9.960		HJK
Ascension Is.	Voice of America	f/d cd	129 ds	7160	v/s, John Vodenik at Delano	RAD
Austria	AWR, Moosbrunn	f/d cd	56 ds	6130	via Darmstadt, Germany	HJK
Belarus	Radio Minsk	f/d cd	14-21 ds	1170 khz		HJK
Bulgaria	Radio Bulgaria	f/d, L	21 ds	11.700		HJK

Ch	nina	China Tibet Peo. Brdcsting C.	Letter	208 ds	7385		RAD
China		CRI	f/d cd	41 ds	15245		HJK
Cland.	Uganda	Radio Rhino International	Letter	220 ds	17555	via Juelich lists 17880 Khz v/s, Godfrey Ayoo, Director.	RAD
Су	prus	Cyprus Brdcsting Corp.	f/d cd	26 ds	6180	7205/9760 khz	RAD
Czec	h Rep	Radio Prague	f/d cd	14 ds	1287 khz		HJK
Ecu	ıador	HCJB	f/d, L	56 ds	9780		HJK
Eg	gypt	Radio Cairo	f/d cd	59-131 ds	9.990		HJK
Eng	gland	Sudan Radio Service	n/d, L	11 ds	11665	via Kenya address.	RAD
Eng	gland	Radio Napa via Merlin	e-mail	1983 ds	9915	v/s, Nathan Morley	RAD
Fra	ance	ERF	f/d cd	3 ds	1467 khz		HJK
Ga	bon	NHK, Moyabi	f/d cd	34 ds	11915		HJK
Gerr	many	WSHB, Juelich	f/d cd	55 ds	5.985		HJK
Gerr	many	NDR	f/d cd	11 ds	972 Khz		HJK
Gerr	many	DW, Nauen	f/d cd	8 ds	15275	Pennant	HJK
Gerr	many	HCJB, Juelich	f/d cd	34 ds	6015		HJK
Gerr	many	Voice of Russia	f/d cd	56 ds	1323 khz		HJK
Gerr	many	DW, Wertachtal	f/d cd	8 ds	13780		HJK
Germany		SWR	f/d cd	38 ds	1017 Khz		HJK
Germany		ERF	f/d cd	15 ds	1539 khz		HJK
Gerr	many	Bible Voice Broadcasting	e-mail	12 ds	6010	6010 (Wertachal) 9690 (Juelich)	RAD
Gerr	many	SRI, Juelich	f/d cd	14 ds	13650		HJK
Great	Britain	RKI, Skelton	f/d cd	22-66 ds	3.955		HJK
Great	Britain	Radio Taiwan Int	f/d cd	33 ds	6170		HJK
Great	Britain	NHK, Skelton	f/d cd	65 ds	11.710		HJK
Great	Britain	WYFR (Family Radio)	f/d cd	35 ds	3.955		HJK
Gre	eece	Voice of Greece	f/d cd	21-43 ds	15650		HJK
Hun	ngary	Radio Budapest	f/d cd	17 ds	6025	Pennant	HJK
Hun	ngary	Hungarian Catholic Radio	Letter	20 ds	1341 khz	Magyar Katolikus Radio	GS
India		All India Radio-Bangalore	Letter	39 ds	15075/13 695	v/s, R. Narasimha Swamy	RAD
In	dia	All India Radio Imphal	f/d cd	108 ds	4775	v/s, A.K Bhatnagar	RAD
Ir	an	Voice of Iran	f/d, L	79-132 ds	17590	Diploma for 100 RR's	HJK
Ita	aly	RAI	n/d cd	27-39 ds	657 Khz		HJK
Kalin	ingrad	Voice of Russia	f/d cd	60 ds	1386 Khz		HJK
Korea South		Radio Korea Int-KBS	f/d cd	39 ds	15210		HJK
Korea	a North	Voice of Korea	f/d, L	33 ds	6675	Pennant	HJK

Monaco	ERF	f/d cd	11-54 ds	7160		HJK
Neth Antilles	DW, Bonaire	f/d cd	15 ds	11970		HJK
Norway	R. Denmark, Svelo	f/d cd	14 ds	9.590		HJK
Norway	R. Denmark, kvitsoy	f/d cd	14 ds	7490		HJK
Pirate Europe	R. DR. Tim	f/d cd	10-46 ds	6280.7	Pennant	HJK
Pirate Europe	R. Toyota	f/d cd	10 ds	6305.4		HJK
Pirate (N am)	Ironman Radio	f/d cd	1 month	6925	(#43 cd) from Scruffy Swab	RAD
Pirate Europe	Zender Grenspiraat	f/d cd	10 ds	6295.6		HJK
Pirate (N am)	WBMR Radio	e-mail	6 hours	6925	v/s, Mike O Farad	RAD
Pirate (N am)	Vo.of Captain Ron Shortwave	f/d cd	6 months	6950	v/s, Captain Ron.	RAD
Poland	Radio Polonia	f/d, L	22-38 ds	9525		HJK
Russia	Voice of Russia	f/d cd	60-68 ds	12010		HJK
Russia	R. Prague, krasnodar	f/d cd	14 ds	5.990		HJK
Russia	Radio Rossii	f/d cd	131 ds	17600		KPH
Russia	RVI, Krasnodar	f/d cd	17 ds	9925		HJK
Slovakia	RSI	f/d cd	37 ds	6055		HJK
St. Helena	Radio St. Helena	f/d cd	944 ds	11092.5	Oct. 1999 v/s, Tony Leo	RAD
St. Helena	Radio St. Helena	f/d cd	1,666 ds	11.092.5	from Ralph H. Peters, Station Manager.	RAD
Sweden	R. Sweden	f/d cd	7 ds	1179 Khz		HJK
Taiwan	CBS R. Taiwan Int. (RTI)	f/d cd	33 ds	9955		HJK
Turkey	TRT, Ankara	f/d cd	26 ds	13760		HJK
USA	Radio Free Asia	f/d cd	9 ds	9365	site (Armenia)	RAD
USA	WSHB	f/d cd	55 ds	7335 Khz		HJK
USA	WYFR (Family Radio)	f/d, L	22-80 ds	9355	Book	HJK
USA	Radio Free Asia	f/d cd	9 ds	11975	15695 site, (Tajikistan)	RAD
USA	Radio Free Asia	f/d cd	9 ds	11695	site (UAE)	RAD
USA	Radio Taiwan Int	f/d cd	29-33 ds	7520		HJK
Uzbekistan	Radio Tashkent	f/d, L	59-97 ds	5025		HJK

Thanks to our Reporters:

- GS = Giovanni Sergi, Italy.
- HJK = Hans-Joachim Koch, Dornstetten, Germany. AOR 7030 with 400mtrs. Beverage, 100/200mtrs. Long Wire & 30mtrs. Dipole.
- KPH = Klaus-Peter Hilger, Germany.
- RAD = Richard A. D' Angelo, Wyomissing, PA, USA. Drake R-8B, Lowe HF-150, Alpha Delta DX Sloper, RF Systems Mini-Windom, Datong FL3, JPS ANC-4.

Radio in India - Akashvani: The Voice From The Sky by Yashwant Parashar

The term All India Radio has easily entrenched itself in the collective consciousness of Indians. In spite of its tumultuous path, radio continues to be a part of our lives. This is the story of AIR.

From the moment it was established that the human voice could be transmitted by electromagnetic waves over long distances without the help of wires, radio has exercised a strange fascination on people's minds. This is as true of India as anywhere else in the world.

The first regular broadcasting station in the world is believed to have been opened in Pittsburgh (USA) in 1920. In England, the first radio programmers were broadcast successfully on February 23, 1920, by the Marconi Company from Chelmsford, although it was not till November 1922 that the British Broadcasting Company, with John Reith as its Managing Director, went on air with regular programmes.

PRE - INDEPENDENCE INDIA

It is interesting to note that as early as August 1921, in India, newspaper giant 'The Times of India' collaborated with the Posts and Telegraphs Department to broadcast a special programmed of music from its Bombay (Mumbai) office at the request of Sir George Lloyd, the Governor of the Province, who heard it in Poona (Pune), 175 kms away. After that, the evolution of broadcasting in India proceeded in a climate of much uncertainty. As elsewhere in the world, the government was slow to recognize its importance, and the enthusiasm for it came mostly from radios homes that took it up as a hobby.

Today, after more than 75 years, listeners are taking the services of 214 broadcasting centers for granted. So, it is not easy for most people to imagine what it was like in the beginning, what work had to be done, and what decisions taken for the journey of radio to begin. Alongside those who saw broadcasting as ideally suited to the needs of a country where illiteracy was high with most people lacking the means for education and entertainment, there were many prophets of doom, too.

The Radio Club of Bengal, Calcutta (Kolkata), started transmitting programmes on a small Marconi transmitter in Novembur 1923. The Bombay Radio Club inaugurated a similar service in June 1924, also on a Marconi transmitter. The Madras Presidency Radio Club was formed on May 16, the same year, by a group of dedicated amateurs with Viscount Gohan, Governor of Madras, as its patron.

It was the Indian Broadcasting Compay that took upon itself the pioneering task of starting regular broadcasting in India. Its authorized capital was Rs 15 lakh and subscribed capital was Rs 6 lakh. The main shareholders were Raja Saheb Dhanrajgirji Narsinghji and the Indian Radio Telegraph Company. The rest was contributed by numerous shareholders. For all practical purposes, the Indian Telegraph Company, of which the Marconi Company held two-third of the capital, exercised control.

Technically, the Bombay and Calcutta stations were the same as the London 2LO station. Each cost about two lakh rupees to erect, and the estimated cost of running and maintening each was Rs 1.8 lakh per annum, of which approximately Rs 50,000 was earmarked for programmes giving an average expenditure, on this score, of Rs 137 per day. Both these medium-wave transmitters operated on a power of 12 kW, and the assured reception range of each was 48 to 80km, although in actual practice, the signal was received at a fairly good strength and at greater distances.

Mr Eric E Dunstan of the BBC was taken on as the first General manger of the first General manager of the Indian Broadcasting Company. Lional Fielden, who later became the first Controller of Broadcasting in India, wrote about Dntan in his autobiography, 'The Natural Bent':" Where in 1927, a member of the BBC, Eric Dunstan, the 'Golden Voiced Announcer' of the day was just leaving England to take charge of India Broadcasting, I envied him, in spite of the low value we attached to broadcasting in those days. I envied him in India; I envied him what I conceived to be the business of transmitting barbaric music of jeweled instruments to a population of India Princes in the intervals of holding profound converse with sages of charm and infinite wisdom. "With such romantic notions, it is no wonder the Fielden too left India a disappointed and frustrated man in 1940.

Organised broadcasting in India began when the British Viceroy of India, Lord Irwin, inaugurated the first station of the Indian Broadcasting Company (IBC) in Bombay on July 23, 1927. Five weeks later, on August 26 1927, the Governor of Bengal, Sir Stanley Jackson, inaugurated the Calcutta station. The stations were operating on medium wave on 1.5 kW power, and broadcasting by the end of the year to 3,594 licence holders. The broadcasting studio in Radio House at Apollo Bunder was connected by a P&T line to a transmitter located at Worli. The acoustic treatment of the studios, such as the hanging of coloured drapes, attracted considerable attention in the press. Around this time, a small transmitter was established by the Radio Club of Young Men's Christian Association in Karachi (now in Pakistan).

The revenue of the IBC consisted of 80% of the licence fee charged by the government at the rate of Rs. 10 per annum, and a tribute of the invoice value of the wireless receiving apparatus, which had to be collected by the company from the dealers. After the company had put in the initial cost of installation of the stations, it had little resource to fall back on. The number of licences was too small to meet the company's expenses. The number of sets at the end of 1928 was over 6000, but the annual increase was not even 1000. The company approached the government for assistance. In spite of a loan being advanced by the Indian Post and Telegraph Company, IBC went into premature liquidation from March 1, 1930.

The government decided to take over the stations in Bombay and Calcutta at the depreciated value of its assets and staff at the existing term of the company. So, from April 1930 broadcasting in India came under the direct control of the government. It was placed in the Department of Industries and Labour under the designation of "Indian Broadcasting Service." Faced with recession, the government announced in a press communiqué of October 10, 1931, that it had finally decided to close down the broadcasting service.

The decision, naturally, caused wide spread resentment and a certain amount of agitations, especially in Bengal. The decision was then reversed on November 23, the next month. The government decided to continue the service by increasing duty on the receiving sets and valves separately from the existing 25% to 50%. By May 5, 1932, the government had decided to continue Indian Broadcasting Service under state management. By the end of the year, when BBC started its Empire service, the number of receivers was 8,557. This increased to 10,872 by the end of 1933, and jumped to 16,000 by the end of 1934, when the government embarked on a policy of development of broadcasting by sanctioning Rs 2.5 lakh for the establishment of a radio station in Delhi.

In spite of the formation of the Indian Broadcasting Service, parallel efforts to expand broadcasting continued. The Marconi Company had started rural broadcasting in the North West Frontier Province by loaning both, the transmitters and receiving sets, to the provincial government. The Agricultural Institute at Naini, Allahabad, too, started transmitting rural programmes for the benefit of the neighborhood.

In September 1935, broadcasting began in the princely state of Mysore with the name Akashvani (the voice from the sky. Dr. Gopalaswami, Professor of Psychology at the Mysore University, had set up a 30-watt transmitter at his house. A 250-watt transmitter was later imported. It continued with support from the public and the Mysore Municipality till it was taken over by the Mysore State in 1941,

The Delhi station of the Indian State Broadcasting service went on air on January 1, 1936, from temporary studios at 18 Alipur Road. The 20kW MW transmitter was located at Mall Road. By now, Controller of Broadcasting Lionel Fielden was able to persuade Viceroy Lord Linlithgow to adopt the name 'All India Radio' despite opposition from the secretariat. The new name was adopted from June 8, 1936. Later in December, Lahore (now in Pakistan), the fifth station (5kW MW) was commissioned.

Apart from launching the name 'All India Radio', and getting together a group of dedicated young people, Fielden and his chief engineer, Goyder, should be remembered for the short wave coverage of the entire country, which they achieved quickly by 1938. In fact, Goyder differed with Mr Kirke's plan for medium wave coverage of the country, as he felt it would take long, and large parts of the country would remain uncovered. The first 10kW short wave transmitter was commissioned in Bombay on February 4, 1938.

Another decision for which Fielden was responsible was the banning of the harmonium on March 1, 1940. Even through the matter was raised in the Station Director's Conference in 1939, the decision came mainly as a result of Fielden's initiative following an article by a western music expert, Mr. John Foulds, who pointed out that the tempered scales of the harmonium into 12 mechanical divisions were not suited to produce the microtones (shruties) which form the basis of Indian music.

POST INDEPENDENCE INDIA

Fielden was succeeded by Ahmed Shah Bokhari, who remained the Director-General for all the years of the Second World War, and thereafter till the partition of the country. When the Ministry of Information was set up on October 24, 1941, All India Radio became a part of it. AIR moved to its new Broadcasting House on Parliament Street on February 1943.

On June 3, 1947, Viceroy Lord Louis Mountbatten, Jawaharlal Nehru and Mohammed Ali Jinnah made their historic broadcasts on the partition of India. The transfer of power on the midnight of 14-15 August, 1947, was broadcast live, and Jawaharlal Nehru's famous 'Tryst with destiny' speech was heard all over the country. It has been preserved in the archives of All India Radio for all posterity. When the princely states were integrated with India, low power radio stations at these palaces were taken over by All Indian Radio and became part of the network by 1950. The Staff Training School was started on July 19, 1948, with Dr. Narayana Menon as its first Director.

When over as Deputy Director (and later Director) on September 15, 1948, the External Services was separated from what was then known as the Central news Organisation (now News Services Division). By 1950, AIR was broadcasting in 11 languages. When the Constitution of India was enforced on January 26, 1950, broadcasting, along with post, telegraphs, telephones and wireless, was placed in the union list of the seventh schedule.

On July 20, 1952, the first National Programme of Music went on air. In October the same year, the National orchestra of AIR was set up in Delhi under the conductorship of the eminent musician Pandit Ravi Shankar. Renowned Carnatic violin player, T K Jairama lyer, later joined the orchestra

as the second conductor. National Programme of talks (English) went on air in April 1953, and in October 1955, the first Radio Sangeet Sammelan was broadcast.

However, the biggest impact of Indian music on the radio was felt only in the years when Dr. BV Keskar was Minister for Information & Broadcasting (1952-61). He was highly knowledgeable about Hindustani Classical Music and took several steps with the intention of improving its range and quality, and encouraging musicians in this category. The cheap, hybrid quality of film songs had caused concern to AIR even in pre-Keskar days, and some effort was made to see if the service could prepare some good, light music itself. Keskar had no patience with film songs, and soon after he took over, he decided that film songs were to be phased out totally in 18 months.

The drastic restrictions placed on the use of film songs created a situation that could not have been anticipated by the ministry. Listeners turned increasingly to Radio Ceylon (now Sri Lanka), which stepped up the broadcast of such songs. Its commercial service began to attract advertisers of consumer goods in India in large numbers. In a couple of years, it became clear that listeners had defected to Radio Ceylon in large numbers. To control the situation, some of the steps taken had to be retracted, and in February 1955, it was decided to relax the restrictions placed on the use of film songs at AIR stations to a considerable extent. The All India Variety Programme, popularly known as Vividh Bharti, was introduced on October 3, 1957. It consisted mainly of film songs, bringing back with a vengeance what need not have been banned in the first place. The creation of this new channel has had serious implications to the general pattern of listening to AIR stations, and these have not received sufficient thought. At present, there are 36 Vividh Bharti and Commercial Broadcasting Stations operating in the country on MW, SW and FM.

The Radio Sangeet Sammelan was started in 1955. The concerts, before invited audiences, are held all over the country. More than 50 prominent artistes take part in concerts held at major stations before a live audience. These recordings are then broadcast as a season of around a month in October and November and, at times, till December. Following a request from Acharya Binoba Bhave to Dr. Keskar, Akashwani made recordings of chanting of selections from the 'Sama Veda' and 'Rig Veda' in 1955. The idea was to preserve this ancient oral art before Vedic scholars disappeared completely, as was perceived to be happening. A cultural renaissance of sorts took place on air in the '50s. Litterateurs, musicologists, musicians, writers, poets and playwrights were invited to produce programmes of deep meaning and profundity.'

The first, high definition, public TV service was started by the BBC in 1936, and resumed in 1946 after over six years of interruption caused by World War II (1939-45). In India, we did not begin this till September 15, 1959, and then too with a small studio rigged up on the fifth floor of Akashvani Bhavan. Dr. Rajendra Prasad, the then President of India, inaugurated the service named 'Doordarshan' in Hindi. Even though poorly equipped and short staffed, the young pioneers showed much initiative, and the Republic Day Parade and the Flag Hoisting ceremony on Independence Day were telecast live in 1960, as also some state visits by foreign dignitaries.

On December 4, 1964, the Government of India, under the chairmanship of Ashok K Chanda, set up a committee on broadcasting and information media, which made a report on April 18, 1966. This was the first ever, independent review of broadcasting in India, ordered at the initiative of Indira Gandhi, the then Minister of Information and Broadcasting. The committee recommended, among other things, the setting up of two autonomous corporations for radio and television. While this recommendation was found unacceptable, its recommendation for introduction of Commercial Broadcasting was accepted. In the year 1967, commercial advertisements in the Bombay-Pune-Nagpur chain of Vividh Bharti stations commenced. Yuv Vani was inaugurated as a separate channel for the youth in 1969. The Prasar Bharti bill achieved autonomy to some extent only recently.

In January 1976, commercial advertisements were also introduced in television centers, and on April 1 of the same year, television was formally separated from All India Radio. The first FM service was started from Madras (Chennai) on July 23, 1977. FM transmitters were also commissioned in Calcutta and Bombay during 1979-80. These FM broadcasts had many more advantages in audio quality, although not much was utilized because of lack of hi-fi production facilities.

During the cold war period, not only AIR, but many stations from abroad were broadcasting for their audience in India. Voice of America and Radio Moscow were busy making their arguments and trying to put their point of view forward. BBC also developed from strength to strength, and even now has a large population tuned to it in rural and semi-urban areas. Radio Australia gained prominence and was heard clearly in India, and Radio Deutcshe Welle started broadcasting in Hindi from Germany. Apart from these, for around two decades or more, Radio Cylone held a captive audience in India: the Binaca Geetmala, hosted by the iconic Ameen Sayani, was enough evidence of it.

August 15, 1993, saw the introduction of time slots on FM channel to private parties in Delhi-Mumbai. In 1993 and 1994, time slots were given to private parties in Chennai and Kolkata, respectively. The first multitask recording studio was commissioned in Mumbai on Sept. 10, 1994, and it followed in other placed in time to come.

The introduction of time slots to private parties had some teething problems for a few years, but has begun making the FM popular in the cities. By this time, television has become firmly entrenched as the information and entertainment medium, and replaced the radio sets in the living rooms. The advent of cable TV and dish antenna has had a major impact on the listenership. The erstwhile listeners are mostly booked to their TVs, and the radio remains popular mostly with the rural folks. However, a new chapter has begun with the granting of licences and frequencies on the FM to private parties. The composition of programmes on these FM channels has become more listener-oriented, departing from the objectives of the AIR.

The Internet brought in a new kind of service, and AIR launched on-line information services on the internet, offering audio on demand. In 1997, Digital Audio Broadcasting was introduced in Delhi on experimental basis. In recent times, many advanced and different formats of broadcasting have started. Worldspace started a digital satellite service with its selection of channels offering music and information. Its satellite, Asianstar, covers the whole of India. 2003 saw the launch of Direct-to-Home (DTH) services, mainly for the TV telecast with hi-fidelity sound quality.

The All India Radio has an archive full of tapes of great importance. These include performances by the great masters of yesteryears, momentous speeches of leaders, talks, etc. some of these have been released in that past on LPs and tapes, commercially. Recently, in 2003, AIR released music by maestros like Pt Omkar Nath Thakur and D V Paluskar, among others, on tapes, and is selling it directly from its stations.

Today, the radio is emerging as a new medium. Most automobiles rolling out of shops are fitted with some kind of radio. At one time, in the not so distant past, people were ready to sound the death knell of the radio. But with new innovations and advancements, radio continues to be a part of our lives in some form or the other.

(Published in AV MAX, via Mukesh Kumar, Muzaffarpur, India - E-mail: <thecosmosclub@yahoo.co.in>)

A visit to All India Radio - Bangalore SW Transmitter site

by Jose Jacob, VU2JOS

Bangalore is the capital of Karnataka state in South India. It is known as the Garden City of India.



Recently when I returned from my native place in Kerala to my work place in Hyderabad, I took detour via Bangalore so that I could visit the AIR Superpower SW station there by prior appointment.

I reported at their City office at Yelahanka New Town which itself is 17 kms away from the city. Their staff quarters and guest rooms are also located there. I accompanied the Suptg. Engineer and Station Engineer to the actual transmitter site which is near Aralu Mallige Village, Doddaballapur about 45 kms away in a remote area. On the way we can see several vineyards and the transmitting towers are visible from a long distance.

The Super Power Transmitter (SPT) site is in a 632 acre (255 hectare) site and it houses 6 numbers of 500 kw transmitters made by British Brown Boweri in Switzerland. It is the most powerful SW transmitter site in South Asia.

All the transmitters are in a large hall with 4 transmitters on one side and 2 on the opposite side. Each transmitter is named after a major Indian river as follows:

BL1 Ganga BL2 Cavery BL3 Yamuna BL4 Krishna BL5 Narmada BL6 Godavari

In the first phase, 2 transmitters of BBC SK 55 C3 2 type were installed. Test transmissions were conducted from November 1989 to February 1990 and it was inaugurated on 9th March 1990. In the second phase, 4 more transmitters of BBC SK 55 C3 2-P were inaugurated on 28 Sept 1994 which uses Pulse Step Modulation (PSM) technology. They operate on latest power saving Dynamic Carrier Control (DCC) technique. It has facility to operate even in SSB mode. These transmitters can operate between 5.9 to 26.1 MHz but now a days they use frequencies between 9 to 17 MHz. The transmitters have automatic tuning facility and can change frequencies in about 30 seconds. Currently BL2 & BL 4 are off air due to shortage of the final valve problems. Each valve costs about 1 crore Rupees. A siren is sounded just before any transmitter is switched on. There are no transmissions from here between 0530 to 0900 UTC (11.00 am to 2.30 pm local time) and they do the maintenance work etc. at that time. Occasionally 2 transmitters use the same frequency with the same programs of course.

AIR is having a 66 KV, 20 MVA electrical substation exclusively for this station. For the cooling purposes, there are 9 numbers of 30 ton chilled water type air conditioning plants.

There are 36 multi band curtain aerials hung between 21 towers of heights varying between 60 to 115 Meters. They have slewing facilities with remote operation of Antenna Change Over and Slew switches. The antennas are in 3 zones with 8+8+5 towers. It can beam in 8 directions and is broadcasting to all areas of the world except the Americas. Any aerial can be selected on any transmitter. The antenna feeder line is 19 kms long. The strength of the staff is about 100. The transmitter building is in the shape of a hammer and is well shielded.

The transmitters were initially used exclusively for External Services of All India Radio. However now a days it also used for the national programs viz Vividh Bharath on 10330 kHz and the National Channel on 9425 kHz. Currently External Services in the following languages are

broadcast from here viz. Arabic, Chinese, English, French, Gujarathi, Hindi, Kannada, Russian, Tamil and Telegu.

The programs are received by satellite from New Delhi studioes (except for the Kannada programs which is received from the AIR Bangalore studioes via the STL UHF link on 1440 MHz).

There are 2 standby studioes here and I could see tapes in various languages of AIR External Services to be used during any failure of program links but it has been hardly used At the entrance there is a large world map showing the beam headings. The station has won several awards for its excellence which are displayed. The compound wall is 9 kms long. We have to pass through two security gates to enter the building. Photography / Video recording is strictly forbidden.

I was told that Reception Reports received here are replied directly in the same mode (by email or post). However most publications list their old address and letters reach here only after a lot of wandering. The exact address of the concerned office is:

Mr. R. Narasimha Swamy, Superintending Engineer, Super Power Transmitters, All India Radio, Yelahanka New Town, Bangalore 560064, Karnataka, India - Email: sptairynk@vsnl.com

Most of the QSLs for this station are issued from the AIR HQ in Delhi.

(Jose Jacob, National Institute of Amateur Radio, Raj Bhavan Road, Hyderabad 500082, India)

The history of RAE - Radiodifusión Argentina al Exterior

RAE, The International Service of the Argentine Radio celebrated its 45th Anniversary on February 12 of 2003.

However, interest in Short Wave transmissions abroad came alive before that date, on April 11, 1949, when the then President of Argentina, Juan Domingo Perón, created the International Service of the Argentine Republic, its Spanish initials being SIRA, which broadcast in seven languages almost around the clock.

As a consequence of the military coup which overthrew Perón's constitutional government in September 1955, the service was cut short but rekindled again as Radiodifusión Argentina al Exterior, RAE, three years later , in 1958, and has from that moment on continued its service uninterruptedly fulfilling its principle aim of informing the world about Argentina.

RAE occupied the antiquated studios of Radio del Estado (The State Radio), today Radio Nacional, until 1980, when it was housed at the Central Post Office Building. It was later transferred to its own site on 1556 Ayacucho Street in this capital city and was known as Radio Nacional proper.

And finally, in 1990, the National Radio pulled up stakes, and moved to a beautiful building especially constructed to house El Mundo Radio on 555 Maipú Street, a historical building with everything necessary for a fully-fledged radio broadcaster, the only one of its kind in the country, which included an ample auditorium, generally open to the public for cultural events and musical recitals.

The building where RAE has its offices is 3 stories high, and is the headquarters of LRA1 Radio Nacional Buenos Aires and its 3 Stereo FM Stations: 96.7 for its Classical Music Programmes; 98.7 La Floklórica (which airs folkloric music) and 87.9 Faro (Lighthouse), dedicated to airing programmes for the younger generation.

RAE in particular concentrates on divulging all types of activities which have to do with our everyday reality, the being and wellbeing of Argentines.

Transmissions focus on everything there is to know about the country, its economy, politics, industry, social and cultural life, its history, geography, traditions and customs.

In developing its information, RAE takes very much into account its known worldwide legion of listeners, knowledgeable of the fact that it represents the only permanent source of State Government news on what is daily going on in the country, which it naturally seeks to reveal and project on an international level, with a keen eye on transmitting exact and clear-cut information.

Music, of course, occupies an important space within RAE's programming. All that deep-rooted, native, regional and folkloric music, as well as our very appreciated city music, the Tango, are always present, including new styles, always keen on giving our listeners the best of our composers and interpreters.

RAE is well known abroad, but seldom heard of locally, despite being on the air for almost 14 hours daily, from Mondays to Fridays, with programmes in Spanish, English, German, French, Italian, Japanese and Portuguese.

And our audience is truly important judging by the large amount of correspondence we receive and answer in the original aired languages, so much so in fact, that we have been able to establish some truly wonderful everlasting ties, despite the distance.

Our frequencies are also used to air diverse programs hooked directly to Radio Nacional Buenos Aires, thus giving Argentines living abroad the chance to directly listen to breaking news of the National News Panorama from Mondays to Fridays, from 09 to 12 noon UTC and on weekends, besides excellent cultural programmes such as "Las Dos Carátulas", the most important First Division Soccer League matches live.

It is not then overemphasizing when it is said that RAE is an ambassador of friendship without frontiers, the outstretched hand of a country in pursuit of peace and fraternity.

SHORTWAVE IN A MULTIMEDIA WORLD by Kim Elliott, IBB - Audience Research (This is a summary of a presentation given at the 2003 NASB Annual Meeting)

International broadcasting initially mostly used shortwave because, for the most part, that was the only way to deliver programming to long distances and across international borders. These days, three other major options exist for international broadcasting: release on domestic Medium Wave or FM stations in the target country (FM is usually most listened to, when available), transmissions via satellite, and the Internet.

The domestic radio option serves the urban areas, and receivers for those modes are widely available, making this a very desirable approach. Reliability of program transmission by the relaying

station, and government authorization for such relayed transmissions are some of the major issues of concern. This media approach is very susceptible to being non-available during times of international crisis.

Direct-to-home satellite delivery of international programming faces the difficulty factor that, in many target countries, there are relatively few satellite receivers in the homes of individuals. Commercial and political pressure on transponder owners is also problematic.

Delivery via the Internet, though potentially worldwide in scope, faces the issue of website access blocking by restrictive governments. And in many target countries, computer ownership is limited, and telephone service for Internet access is marginal or nonexistent.

International broadcasters now take a multi-media approach, using each available option where appropriate. However, shortwave remains the mode least likely to be successfully blocked or stymied. So for broadcasts to many countries, shortwave is still the media of choice.

Kim conducted a survey recently on a 24-hour-a-day world-wide program called "VoA News Now" - a mix of news, feature programs, and music. They put announcements on the half hour requesting response, running a total of 76 announcements. Response came in from 109 countries. The breakdown by major categories of medium usage by listeners to this program was as follows: 58.5% shortwave, 16% domestic MW/FM releases, 15% VoA high-power medium wave relays, Internet audio 9.4%, satellite 0.4%. Even those with e-mail access tended to listen mostly by shortwave because of per-minute Internet access charges, and because of bandwidth issues. The U.S. was the only country showing significant use of the Internet to listen to this particular VoA broadcast.



The History of IBRA Radio

IBRA Radio - the Swedish Pentecostal movements radio ministry became a reality in 1955. The ministry has grown over the years and today IBRA broadcasts to 110 countries in 50 languages. In 1949, at the

annual Swedish Pentecostal conference, Pastor Lewi Pethrus presented his vision for a Christian radio ministry. At that time, the Swedish government held a monopoly over radio broadcasting in the country and there were no opportunities for the Pentecostals to air their own programs.



On the 29th of July, 1955, IBRA Radio (International Broadcasting Association) aired its first broadcasts from Tangier in North Africa.

Today, more than half the world's population can now listen to the IBRA programs.

Eskil Johansson gives us a glimpse into the past:

WHEN A DOOR CLOSES

In 1948 something happened which resulted in the Pentecostals being shut out from any broadcasting over Swedish Radio. The reason was that during the radio broad cast of a service from Filadelfia Church in Stockholm, it was mentioned that God had healed a person who had been very ill.

In an earlier program, the person in question had been prayed for and nobody within our Government radio monopoly had reacted in a negative way.

Apparently it was permitted to pray for a sick person, but to then come back and claim that God had answered that prayer was going too far, or so was the opinion of the powers that be.

This incident unleashed a religious debate resulting in the Pentecostals being forbidden to participate anymore on Swedish Radio. And this was in spite of the fact that the next broadcast of the service from Filadelfia Church had already been printed in the radio schedule.

So the entire Pentecostal movement was shut out from any participation in radio broadcasting, in spite of having faithfully paid all taxes and radio license fees. Something had to be done and it was then that the idea of an independent Christian radio station was born.

During his visits to America, Pastor Lewi Pethrus had seen the possibilities of using radio in Christian outreach. So he began to work together with other interested parties on his own radio project.

TEST BROADCASTS

In 1949 Pastor Pethrus went public with his idea that the Swedish Pentecostals should acquire their own radio station. When the Swedish experts found out about the plan, they declared with a smile that the project was impossible and would end in a fiasco. There were times when the obstacles indeed seemed insurmountable, but the confidence that God was in control gave the needed courage to press on.

Pentecostal radio - or IBRA Radio as it came to be known later - began its test broadcasts in 1949 over Radio Luxembourg. Reception, however, was poor in Sweden, and this attempt was soon abandoned. Other ideas had to be tested.

FLOATING TRANSMITTERS



One way to solve the problem was to place broadcasting equipment on a ship anchored in international waters. Thirty kilometers from the shore, there were no restrictions or radio monopolies. The project was technically feasible and work proceeded toward making it a reality.

It was soon discovered, however, that broadcasting from a ship would not provide the desired coverage, because it was impossible to install directional antennas on a boat. It would have also been impossible to build

a station out at sea to international standards. IBRA Radio was a missions organization and needed the possibility of expansion so as to reach many countries with its message.

Advantages and disadvantages were weighed against each other and, together with the ship project, other possibilities to broadcast from land were investigated. It was decided that if a land based station could be established, it would take first priority. Events later proved that this was the correct decision. When commercial organizations subsequently installed floating transmitters in international waters, they had to deal with enormous difficulties. They were considered pirate radio stations and on top of the many technical problems they had to solve, they also found themselves at odds with the authorities.

The Scandinavian governments enacted a law which forbade what they referred to as pirate radio broadcasting. The companies who sponsored the broadcasts, as well as those who participated in

the programs, thereby became law breakers. They were all threatened with arrest if they did not immediately shut down their radio broadcasts.

AN OFFER FROM ANDORRA

While IBRA was doing preliminary work on its ship project, an offer came from a radio station in the tiny country of Andorra. The station's owner was willing to work together with IBRA Radio. The offer was so attractive that it was decided to set a date for test broadcasts.

The programs were produced and sent to the station, but they never reached their destination. New tapes were mailed from Stockholm, but they did not arrive at the station either, and nobody knew where they had ended up. Soon it was discovered that certain religious authorities in Andorra had decided to prevent these Protestant broadcasts from being aired. The simplest and most effective way to torpedo this new ministry was to simply use their connections with the post office to make the tapes silently disappear.

The station's owner, Director Jacques Tremoulet, realizing after a while that his battle against this silent power was in vain, informed IBRA Radio as to what had happened. He then said that he also owned a radio station in Tangier, North Africa, where there was full religious freedom. He added that the station in Tangier could be easily expanded so that IBRA Radio would have all the equipment it desired at its disposal.

Was this perhaps the solution to IBRA's problem? Tangier had an optimal geographical location for international missions broadcasting. Eight different nations were responsible for political security in that international free zone. So the location was ideal and the possibilities for this type of missions outreach met all the requirements. The offer was accepted unanimously by IBRA Radio's board of directors.

IBRA RADIO TANGIER

Tangier immediately became a major focus of the news media in all of Scandinavia. The news that

the Swedish Pentecostal movement had fled the country with its radio ministry and intended to set it up in North Africa spread like wildfire. Many Swedes looked at their atlases to find out where Tangier was. Yes, this remarkable city was located right there in the northwestern corner of the African continent, where the salty swells of the Atlantic meet the Mediterranean Sea in the Bay of Gibraltar. The population of 150,000 was made up mostly of foreigners who, nevertheless, blended into the colorful surroundings. People from every corner of the world came together in this international atmosphere. Americans, Frenchmen, Spaniards and Germans - to name just a few Westerners - worked side by side with Arabs, Jews and Indians. Besides the three official languages - Arabic, Spanish and French -



many other languages and dialects could be heard. It was not unusual to hear the shoe shiners and street vendors offering thir services in six to eight different languages, including Swedish.

Three post offices - one French, one British and one Spanish - competed for the international mail and about 50 banks serviced a highly cosmopolitan clientele, doing business with people from all parts of the world.

THE DREAM COMES TRUE

Up until 1948 almost anyone could build a radio station in Tangier, and about ten commercial radio stations quickly sprang up in this radio mecca. When IBRA Radio, however, came to Tangier

in 1955 it was almost impossible to get the needed permission to build a station, but by investing in an existing station - Radio Africa Tangier - IBRA Radio would have 3 short wave transmitters at its full disposal as well as the part time use of a powerful medium wave transmitter. To get to the area where this new station was being built, you had to follow the coast south of Tangier, until you came to the border of the international zone.

There, on the big sand flats, with the ocean waves crashing in with great force, work was begun on the extensive antenna system. The transmitter building was built on the hill right next to Pirate Hill, so named because long ago pirates would light a fire there in order to lure boats closer to the coast where they were then attacked.

Now Pirate Hill was being changed into a Gospel beacon and it was happening quickly. The whole process was quite amazing for the local Arabs who had not yet learned what stress was. Most of the 50 men who were hired to build the station were shepherds, they were accustomed to spending the whole day in peace and quiet out in the fields with their animals as their only companions. Now they had found out that they could earn money as laborers at the new station. It seemed exciting.

There were some very comical moments when these shepherd sons of the desert suddenly exchanged their shepherd's staff for a shovel, a pick and other tools. These forgotten men were to now help the foreign engineers build a radio station by which one would be able to speak to the entire world. The Arabs could not understand how this could happen. They all agreed that Europeans often acted strangely, but to bury a bunch of copper (ground wires) in the sand was the strangest thing they had ever seen.

Our night watchman, Mohammed, thought it was a shame to waste such fine copper. So when darkness fell and everyone had gone home, he spent the night digging up as much of the copper cable as he could and took it home so he could sell it later to the junk dealers in Tangier, who were glad to buy the metal for a good price. After a while we discovered that the grounding system, which was made up of two kilometers of copper cable, was not working. It was no wonder, since the cable that was being buried during the day was being dug up at night. The only thing we could do was to have a watchman watch over the watchman who replaced Mohammed. So we had to start all over again and lay out new ground wires. But despite this and other unexpected events, the station was built in record time and the dedication could be held on schedule.

A DAY OF CELEBRATION

Many of IBRA Radio's friends had gathered on Pirate's Hill for the celebration of that historic dedication. Among the noted guests who had come from afar were Pastor Lewi Pethrus, Director Karl G. Ottosson and Director Jacques Tremoulet, the three enthusiasts who had made this project a reality. Pastor Lewi Pethrus gave an inspiring dedication speech and declared IBRA Radio Tangier was now in operation.

Seven years of intensive preparation had been met with success. The dream of IBRA Radio - the Swedish Pentecostal movement's own independent Christian radio station - had become a reality.

Today the ministry has grown and IBRA Radio broadcasts to 100 countries in 60 languages.

(IBRA Radio, 141 99 Stockholm, Sweden - Internet: http://www.ibra.org - E-mail: <ibra@ibra.se>)

QSL CAMPAIGN OF ADXB-OE IN COOPERATION WITH RADIO BUDAPEST

The ADXB-OE (the only Austrian DX Club) has arranged together with the German Department of Radio Budapest, that between August and the end of October 2004 listeners can ask for this special QSL-card. The following main conditions are valid:

- reports must be sent to the ADXB-OE, P.O. Box 1000, A-1081 Wien, Austria
- reports of transmissions between August and October 2004 are valid
- every frequency will be verified by maximal one card
- every language section can be used, exept the Hungarian one
- for every report must be sent an IRC or US-\$ or equivalent currency (1 EUR for example)
- formal check is made by ADXB-OE
- technical and programme check is made by Radio Budapest
- answer comes directly from Budapest

Even if you don't speak German, you will recognize the languages and frequencies, thus we think it will be easy for you.

This QSL campaign is made for the very good country-relations between Hungary and Austria, and also on the event of the Jubilee 30 Years of AGDX, the German speaking Association for DX-clubs. Further on, there is an EU-project (European Union) of the international QSL-Collection, a QSL-card collection and documentary archive with residence in Austria (head of this organization is Wolf Harranth).

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Schedule of MR-Radio Budapest in German until the end of October (times in UTC):
   873 Saturdays, 0900-1000
  3975 Sundays, 1700-1800, Mo-Sa 1730-1800 und Mo-Sa 1930-2000
  6025 Sundays, 1200-1300 und 1400-1500 und 1700-1800, Mo-Sa 1730-1800 und Mo-Sa 1930-2000
  7160 Sundays, 1400-1500
  7220 Sundays, 1200-1300
Schedule of MR-Radio Budapest in English until the end of October (times in UTC):
  3975 daily, 1900-1930
  6025 Sundays, 1500-1530, daily 1900-1930 und 2100-2130
  9590 daily, 0100-0130 (N-AM)
  9715 Sundays, 1500-1530
  9790 daily, 0230-0300 (N-AM)
 11720 daily, 1900-1930
 11830 daily, 2100-2130
Schedule of MR-Radio Budapest in Italian until the end of October (times in UTC):
  3975 daily, 2030-2100
  6025 daily, 1630-1700 und 2030-2100
  9525 daily, 1630-1700
Schedule of MR-Radio Budapest in Spanish until the end of October (times in UTC):
  3975 daily, 0330-0400
  6025 daily, 0330-0400 und 2130-2130
 11830 daily, 2130-2200 (S-AM)
Schedule of MR-Radio Budapest in French until the end of October (times in UTC):
  3975 daily, 1600-1630
  6025 daily, 1600-1630 und 2000-2030
  9585 daily, 2000-2030
Schedule of MR-Radio Budapest in Russian until the end of October (times in UTC):
  3975 daily, 0300-0330, Sundays 1930-2000
  6025 daily, 0300-0330, Sundays 1930-2000 und 1530-1600, Mo-Sa 1700-1730
  9650 Mo-Sa, 1700-1730
  9740 Sundays, 1530-1600
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You will be able to get a maximum of 14 cards (for the 14 different frequencies). If you have any further questions, please write to: ADXB-OE, P.O. Box 1000, A-1081 Wien, Austria (E-Mail: <adxbsuess@aon.at>). You may write in German, English, French, Italian or Spanish.

Noch ein Hinweis für unsere deutschsprachigen Mitglieder: Bitte beachten Sie, daß die Sendezeiten von Radio Budapest in DX MAGAZINE 7/2004, Seite 32, vollständig verkehrt waren. Wir haben diese leider ungeprüft von der ADXB-OE übernommen, die ihrerseits aufgrund eines Umrechnungsfehlers diese falschen Sendepläne zusammengestellt hatte. Wir bitten Sie, diesen Fehler zu entschuldigen.

von Dr. Adrian Peterson (AWR), ergänzt und bearbeitet von Siegbert Gerhard, Frankfurt am Main

PART A: Five QSL cards in your collection that depict a specific theme.

Search your QSL collection and choose your five best cards that depict a specific theme. You may choose any theme, and it might be, for example, world maps, or flowers, or animals, or birds, or people, or radio equipment, or sunsets, etc. You may send a copy of these five cards in colour, or black & white, or you may describe them. Each card should be from a different station. Your QSL cards may verify a broadcast from a station on shortwave, mediumwave, longwave, FM or utility communication, but not amateur, CB nor TV.

PART B: Another five QSL cards in your collection that depict another specific theme.

Choose five more QSL cards that depict any other theme. Each card should be from a different station, though these cards may be from any of the same stations as in Part A, if desired. You may send a copy of these five cards in colour, or black & white, or you may describe them.

PART C: Write a script for broadcast in our DX program "Wavescan".

You may choose any topic that you consider could be suitable for broadcast in "Wavescan". Your script should be no longer than 800 words, it should be written in English, and it may be handwritten or typed.

PART D: Submit 3 reception reports on any AWR transmissions.

These reports can be on the reception of any AWR broadcasts on any station anywhere in the world. If possible, one of these reports should contain the program details of a broadcast from the AWR transmitter on Guam, KSDA5.

PART E: Where possible, submit 3 radio cards.

These cards may be new or old QSL cards, new or old tourist postcards that show radio in some way. Not valid for this contest are amateur nor CB QSL cards.

Contest awards: The world winner will receive the 2004 engraved Bronze Medallion and an autographed copy of Jerry Berg's highly regarded radio volume, "On the Short Waves". Additional continental winners will receive a copy of their choice of either "Passport to World Band Radio 2005" or "World Radio TV Handbook 2005". Several hundred other awards are available from AWR, including souvenirs, cards and small tourist items. All reception reports will be verified with our AWR QSL cards specifically endorsed for the 2004 DX contest and with the 2004 QSL stamp. As a gesture of good will to the international radio community, Adventist World Radio will make a series of broadcasts specifically from transmitter KSDA5 on the island of Guam. During the past couple of years, all four of the older transmitters at this station were removed and replaced with five newer units obtained from a large shortwave radio station in South Africa. In addition, a new matrix switching unit has also been installed so that the output from any of the five transmitters can now be fed into any of the four curtain antennas. The fifth transmitter is in use as an auxilliary unit to replace any of the others that happen to malfunction. So that international radio monitors, shortwave listeners and DXers can specifically log and QSL unit 5, a special schedule will be implemented for the occasion. Transmitter KSDA5 will be activated with regular programming during the month of September 2004 and the complete schedule will be announced in advance.

QSL cards verifying the reception of these specially arranged broadcasts will be endorsed for transmitter KSDA5.

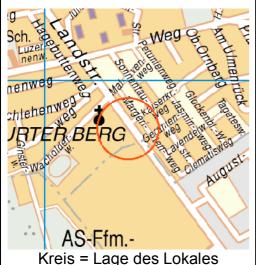
Things to remember: All entries must be postmarked during the month of September 2004 and received in Indianapolis before the end of October 2004, though in special cases early entries will be accepted. Late entries will not be entered into the contest though the reception reports will be verified. Where possible, please provide a strong, self-addressed business size envelope and please provide return postage, preferably in an acceptable form of international currency, though mint postage stamps or IRCs will also be appreciated. Any person may enter any or all parts of the contest and all entries will be answered. However, because of the large volume of entries, it may take many, many weeks to finally process them all. The major winners in this year's contest will also be announced here in Wavescan in program WS 516 on Sunday, November 21, 2004. **The only address for contest entries is:**

ADVENTIST WORLD RADIO

September DX Contest, Box 29235, Indianapolis, Indiana 46229, USA











Hörertreffen Radio China International China-Informationstag

in Frankfurt am Main

am Samstag, 25. September 2004,

offizieller Beginn gegen 14:00 Uhr MESZ

im China-Restaurant "LOTUS",

Homburger Landstr. 381, D-60433 Frankfurt am Main, Telefon: 069-9541-6765 Fax: 069-9541-6766

Teilnehmende Gäste von Radio China International:

Herr CHEN, Minyi Vizeintendant

Herr SUN, Jingli Leiter der Deutschen Redaktion

Herr GUO, Shizhi Leiter der Abteilung für Hörerbetreuung Herr XIN, Liancai Leiter der Abt. für auswärtige Angelegenheiten

Frau DOU, Xiaowen CRI-Chefkorrespondentin in Berlin

Frau CHENG, Xiufen Hörerbetreuung in der Deutschen Redaktion

Die Veranstaltung bietet die besondere Gelegenheit, sich umfassend zugleich über China Radio International (CRI) und die Volksrepublik China aus erster Hand zu informieren.

CRI hofft auf zahlreiche Teilnehmer und freut sich auf den Meinungsaustausch insbesondere mit seinen Hörern. Gäste, die nicht unbedingt Hörer von CRI sind, sich aber für die Volksrepublik China interessieren, sind herzlich willkommen.

Das Lokal "Lotus" liegt im nördlichen Frankfurt im Stadtteil Frankfurter Berg und bietet Platz für 80 bis etwa 100 Teilnehmer und ist für das CRI-Hörertreffen geöffnet ab 11:30 MESZ bis gegen Mitternacht.

Verkehrsanbindung mit ÖPNV:

Vom Frankfurter Flughafen mit S 8 oder S 9 zum Hauptbahnhof. Von Frankfurt-Hauptbahnhof mit U 5 bis Endhaltestelle Preungesheim, von dort mit Bus 27 (Richtung Niedereschbach) oder Bus 63 (Richtung Weißer Stein) bis zur Haltestelle Kaiserkronenweg.

Oder mit der S 6 von Frankfurt-Hauptbahnhof in Richtung Friedberg bis zum Ausstieg Frankfurter Berg, weiter mit dem Bus 27 in Richtung Preungesheim bis zur Haltestelle Kaiserkronenweg.

Anfahrt mit dem PKW:

Mit dem Auto von A 3, A5 oder A 66 kommend über die A 661 bis zur Ausfahrt Berkersheim/Preungesheim, links einordnen, bis zur Ampel auf der Homburger Landstraße vorfahren, an der Ampel links einordnen, dann noch ca. 500 Meter.

Anmeldungen bis spätestens zum 01. September 2004 erbeten an

Siegbert Gerhard, Ebereschenweg 88, 60433 Frankfurt Telefon: 069-95455-182 (8-16 Uhr) 069-540 01 88 (privat) Email: siegbert.gerhard@brh.bund.de



Neuerscheinungen der letzten Monate im VTH-Verlag

Im Mai erschien die 2., vollständig neu bearbeitete Auflage des handlichen Taschenbuchs "Mit dem Radio unterwegs - Radiohören im Urlaub und auf Reisen" von Harald Kuhl, der Ratgeber und Begleiter für alle, die auch auf Reisen, im Urlaub oder während eines Auslandsaufenthaltes nicht auf Informationen und Unterhaltung per Radio verzichten wollen. Mit dem Radio unterwegs zeigt Ihnen, wie Sie in Europa oder sonst wo in der Welt Nachrichten aus der Heimat hören können, Fußballreportagen oder unterhaltende Magazinsendungen. Es zeigt Ihnen auch, welche speziellen Touristensendungen in den Urlaubsregionen zu hören sind. Dank detaillierter Sendertabellen müssen Sie nicht mehr lange suchen. Zudem werden die empfehlenswertesten Reiseradios vorgestellt und beurteilt. Besonders wichtig sind die nützlichen Tipps, wie man zum Beispiel den Empfang auch unterwegs oder im Urlaub und auf Reis Hotel mit einfachen Mitteln verbessern kann.



Das Buch zeigt Ihnen aber auch, wie Sie mit kleinen, kompakten Satelliten-Empfangsanlagen europaweit bequem deutschsprachige TV- und Radioprogramme empfangen können. Ebenso informiert das Buch über die Möglichkeiten, überall auf der Welt per Internet Radioprogramme zu hören.

(128 Seiten, Format 11 x 16 cm, VTH-Best.-Nr. 413 0012, ISBN: 3-88180-612-1, kartoniert, Preis € 6,90)



Neu im Juni erschien der Titel "Blitz- und Überspannungsschutz für Antennen, Geräte und Anlagen" von Frank Sichla. Dieses Buch beschreibt dem Praktiker die Ausführung von Blitzund Überspannungsschutz Schritt für Schritt und nach neusten Vorschriften. Es führt leicht verständlich in die Thematik "Blitz- und Überspannungsschutz" ein und schildert dann ausführlich die Praxis des allgemeinen Gebäudeblitzschutzes, des Blitzschutzes von Antennen sowie des Überspannungsschutzes von Anlagen und Geräten. Ein aktuelleres und kompakteres Buch gibt es derzeit nicht.

Aus dem Inhalt: Mehr von Blitz und Donner ● Direkt-, Nah- und Ferneinschlag ● Überspannungen - die heimliche Gefahr ● Die Normen ● Gebäudeblitzschutz nach VDE 0185 ● Empfangsantennenschutz nach VDE 0855 Teil 1 ● Schutz von Sende- und

Sende-/Empfangsantennen nach VDE 0855 Teil 300 ● Überspannungsschutz - das sollte man wissen ● Ableiter- und Anforderungsklassen ● Praktische Schutzmaßnahmen für jedermann ● Schutz von Telekommunikationsanlagen ● Schutz kleiner Computeranlagen

Schutz von Funkanlagen.

(84 Seiten, Format 16,5 x 23 cm, 62 Abbildungen, Best.-Nr. 411 0105, ISBN: 3-88180-805-1, Broschur, Preis € 9,80)

Neu im Juni erschien der Titel "HF-Messungen für den Funkamateur" von Hans Nussbaum. HF-Messungen sind für den Funkamateur unentbehrlich. Das Buch beschreibt die wichtigsten als genaue und besonders preisgünstige Verfahren! Funkamateure und andere an der Hochfrequenz Interessierte erhalten erprobte und preiswerte Vorschläge für den Eigenbau von HF-Generator, Messbrücke und einfachem Messzubehör. Darüber werden Messungen und Untersuchungen an Antennen, Antennentunern und Koaxkabeln, Zweidrahtleitungen, Schwingkreisen und Filtern, aber auch Baluns, Empfängern und einigen Bauteilen beschrieben. Alle Messungen werden Schritt für Schritt erklärt. Der Autor ist seit 20 Jahren Funkamateur und war jahrelang als Entwicklungsingenieur für HF-Geräte in der Industrie tätig.



Aus dem Inhalt: Eigenbau eines HF-Rechteckgenerators ● Einfache Anpassungsmessung ● Bauanleitung für eine HF-Impedanzmessbrücke ● Adapter und Messzubehör ● Untersuchung von

Leitungen ● Messung einer Induktivität ● Abgleich von Rundfunkempfängern ● HF-Übertrager und Symmetrierglieder ● Stummabstimmung eines Antennentuners ● Messungen mit einem Oszilloskop ● Messungen an Kabeln ● Messungen in Antennenanlagen ● SWR Messbrücke ● Wellenwiderstand einer Leitung ● Antennenmessungen ● Bau eines 1:4-Baluns ● Fehlstellenmessung ● Untersuchung von Filtern und Schwingkreisen ● Messung der Spulengüte ● Resonanzfrequenz, Güte und Selektion ● Berechnung der Kabeldämpfung ● Sinusgenerator für 3,3 bis 30 MHz ● KW-Transceiver als Messsender.

(76 Seiten, Format 16,5 x 23 cm, 140 Abbildungen, Best.-Nr. 411 0104, ISBN: 3-88180-804-3, Broschur, kartoniert, Preis € 9,80)

Alle diese Neuerscheinungen sind erhältlich vom vth-Bestellservice, Verlag für Technik und Handwerk GmbH, Postfach 2274, D-76492 Baden-Baden, Tel. 07221-5087-22, Fax 07221-5087-33, eMail <service@vth.de> oder im Buchhandel.

WORLDWIDE DX CLUB

WORLDWIDE DX CLUB, founded in 1966, does not claim to be the biggest or best DX club in the world. Nevertheless, it offers its members and subscribers a rather good monthly bulletin (mainly in English) entitled "DX MAGAZINE" with up-to-date information on most aspects of DX'ing at the reasonable price of € 15.60, £12.00, US\$18.70 or 16 International Reply Coupons (IRC's) per year (air mail: Europe: € 17.40, £13.00, US\$20.90 or 18 IRC's; Overseas: € 20.40, £15.50, US\$24.50 or 21 IRC's).

Since WORLDWIDE DX CLUB is the "International Department" of ARBEITSGEMEINSCHAFT DX (AGDX), the head organization of the German language DX clubs, it is able to offer its members and subscribers another DX publication in German entitled "Radio-Kurier - weltweit hören". This is jointly issued by the German DX organizations ADDX and AGDX and is available for € 40.00, £28.50, US\$48.00 or 40 IRC's per year (including air mail to countries outside Europe) or, if ordered together with "DX MAGAZINE", for € 51.00, £36.00, US\$61.20 or 51 IRC's per year (air mail: Europe: € 52.80, £37.00, US\$63.40 or 53 IRC's; Overseas: € 55.80, £39.00, US\$66.60 or 56 IRC's per year).

Both publications, "DX MAGAZINE" as well as "Radio Kurier - weltweit hören", are also available as PDF files. If you decide to receive this version, a worldwide subscription rate of € 9.00, £7.00, US\$10.80 or 9 IRC's is applicable for "DX MAGAZINE". "Radio Kurier - weltweit hören" is available for € 20.00, £15.50, US\$24.00 or 20 IRC's, both publications together for € 26.00, £20.00, US\$31.20 or 26 IRC's.

WORLDWIDE DX CLUB has currently the following special publications available:

- 1. "REPORTING GUIDE", published by the EUROPEAN DX COUNCIL (€ 1.00 or 1 IRC; please enclose 1 additional IRC for air mail).
- 2. "EDXC RADIO COUNTRIES LIST 1998", published by the EUROPEAN DX COUNCIL (€ 3.00 or 3 IRC's; please enclose 1 additional IRC for air mail).
- 3. "WORLD RADIO TV HANDBOOK 2004", to be published by WRTH Publications Limited in December 2003 (€ 28.00 or US\$33.60; extra for air mail: € 10.20 or US\$12.20).
- 4. "DAS OHR ZUR WELT" (Eine Einführung in den Rundfunk-Fernempfang, herausgegeben von der ARBEITSGEMEINSCHAFT DX e. V.) (€ 1.00 or 1 IRC; please enclose 1 additional IRC for air mail).
- 5. "EMPFÄNGER-FIBEL 1995/96" (Ratgeber für den Empfänger-Kauf, herausgegeben von der AR-BEITSGEMEINSCHAFT DX e. V.) (€ 2.00 or 2 IRC's; please enclose 1 additional IRC for air mail).

These prices include postage and packing. Delivery against advance payment by International Money Order, cheque in € drawn on a German bank (otherwise please add € 5.00 for bank charges), cheque in US\$ drawn on a US bank, cash in any convertible currency, Postal Money Order or transfer to our postal giro accounts Postbank Frankfurt/Germany No. 289010605 (IBAN: DE49 5001 0060 0289 0106 05 - BIC/SWIFT-Code: PBNKDEFF) or Postbank Leeuwarden/Netherlands No. 3822840. *IRC's can only be accepted from countries, in which payments can not be made by any other means* (1 IRC = € 1.00) - not for orders of World Radio TV Handbook.

Der obige Preis enthält Porto und Verpackung. Lieferung gegen Vorauszahlung durch Überweisung, Scheck in € (gezogen auf eine deutsche Bank, sonst € 5,00 zusätzlich für Bankgebühren), Postanweisung oder Bargeld. Postbankkonten: Frankfurt am Main/BRD Nr. 289010605 [Bankleitzahl 500 100 60] und Leeuwarden/Niederlande Nr. 3822840. *IRCs werden nur aus solchen Ländern akzeptiert, in denen eine Zahlung auf einem anderen Weg nicht möglich ist - nicht für WRTH-Bestellungen.*

For further information on WORLDWIDE DX CLUB please write to: WORLDWIDE DX CLUB, Postfach 12 14, D-61282 Bad Homburg, GERMANY (e-mail: <info@wwdxc.de>), or visit us in the Internet at http://www.wwdxc.de>.