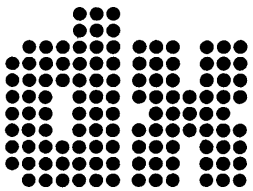


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magazine



WORLD WIDE DX CLUB



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Each of the editors mentioned above is self-responsible for the contents of his composed column. Furthermore, we cannot be responsible for the contents of advertisements published in DX MAGAZINE.

Please do not forget to write all contributions for the different sections on separate sheets of paper, so that we are able to distribute them to the competent section editors.



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DX MAGAZINE No. 6

· Vol. XXXVI ·

June 2001

Hello again,

Welcome to another issue of our DX MAGAZINE. Since we have no news from inside the club this month, let's just start with our usual news from outside the club, this time only with a few items in German:

In seiner Reihe **Presse-Taschenbücher** hat der Kroll-Verlag, Postfach 1153, D-82224 Seefeld, die komplett überarbeitete Neuauflage 2001 des "Presse-Taschenbuchs Informations- und Kommunikationstechnik" in Zusammenarbeit mit der Siemens AG, Information and Communications, herausgegeben. Auf 590 Seiten Dünndruckpapier informiert dieses handliche Taschenbuch im A6-Format mit flexiblem PVC-Einband über Namen und Anschriften der rund 1000 Fachjournalisten, 1000 Fachzeitschriften und der Pressestellen von mehr als 1600 Unternehmen der Branchen EDV und Telekommunikation, Elektronik, Multimedia und Internet. Weiterhin sind zu finden: alle deutschen Funk- und Fernsehsender, Stätten der Forschung und Lehre, Behörden und Spitzenorganisationen, Fachgruppen und Verbände, Pressedienste, sowie Tages-, Wochen- und Wirtschaftszeitungen. Insgesamt mehr als 14.000 Personenkontakte zur EDV-Szene. Preis: DM 48,00.

Unter dem Motto "Kommunikation 2001" findet das **28. INTERNATIONALE SWLCS-DX-CAMP** in der Zeit vom 3. bis einschließlich 5. August 2001 in Merchweiler in Herzen des Saarlandes statt. Während dieser drei Tage werden in einem Zeltlager auf dem Gelände in der Dorfstraße 13 alle Möglichkeiten des weltweiten Rundfunkempfanges vorgeführt. Auf dem Campgelände stehen dafür einfache Radios und modernste Weltempfänger zur Verfügung. Das 28. SWLCS-DX-CAMP bietet noch eine Menge mehr, so zum Beispiel: Radio- und TV-Satellitenempfang digital und analog, CB-Funk und Packet-Radio, Computer-Funkfern schreiben, QSL-Karten- und Wimpelschau, FAX auf Kurzwelle, Diplom-Ausstellung, Wettermeldungen per Funk und Computer, METEOSAT-Direktempfang, Tropenbandempfang, Free Radio-Information, etc. Die SWLCS-CB-Sonderstation "Radio Mike Null" (RM 0) ist ebenfalls während des Camps "on the air". Sämtliche Verbindungen werden mit einer attraktiven Sonder-QSL-Karte bestätigt. Einweisungen von CB-Funkmobilen erfolgen über RM 0 auf Kanal 30 (27.305 kHz in FM). Geplant ist auch eine Mitgliederversammlung des 1. Hörerklubs von Radio Slowakei International. Zeitpunkt sehr wahrscheinlich am Samstag, dem 4. August 2001 auf dem DX-Campgelände. Beginn gegen 20.00 Uhr Ortszeit. Sicherlich wird Radio HCJB, Die Stimme der Anden, einem Informationsstand durch die AG Radio HCJB vertreten sein.

Übernachtungsmöglichkeiten bestehen in nahegelegenen Hotels bzw. Pensionen. Auch stehen genügend kostenlose Stellplätze für Zelte zur Verfügung. Natürlich kann auch in den Info-Zelten übernachtet werden. Hier sollte man Schlafsack und Luftmatratze mitbringen. Für das leibliche Wohl ist ebenfalls auf dem Gelände gesorgt.

Unter dem Motto "Kommunikation 2001" soll das 28. INTERNATIONALE DX-CAMP ganz besonders die bereits bestehenden Kontakte unter den Kurzwellenhörern fördern und vertiefen, die Bevölkerung auf dieses schöne Hobby aufmerksam machen und nicht zuletzt die hervorragende Zusammenarbeit mit den Rundfunkstationen im In- und Ausland verdeutlichen. Jedermann ist herzlich eingeladen.

Vom 16. bis zum 19. August 2001 steigt die mittlerweile sechste Auflage des KWFR-Sommer-DX-Camps im "Kull-Haus am Großen Parsick" in der Nähe von Duisburg. Es ist bereits das 26. DX-Camp, das von den Kurzwellenfreunden Rhein/Ruhr veranstaltet wird, und es sind wieder alle Mitglieder und Freunde herzlich eingeladen! Das Naturfreundehaus "Kull-Haus" liegt im ländlichen Dreieck der Städte Kempen, Rheurdt und Neukirchen-Vluyn an einem toten Rheinarm, dem Baggersee "Großer Parsick", in der Nähe

von Duisburg und Krefeld. Bei dem Haus handelt sich um ein uriges Holzhaus direkt über dem See. Es können etwa 10-15 DX-Plätze aufgebaut werden, Begleitpersonen sind ebenfalls willkommen. Wer will, kann im eigenen Zelt direkt neben dem Haus campieren; im Haus selbst kommen die Teilnehmer in zwei großen Schlafsälen im Obergeschoß unter. Da es leider nicht möglich sein wird, uneingeschränkt Langdrahtantennen aufzubauen, werden als Ersatz mehrere Antennen über zentrale Antennenverteiler zur Verfügung gestellt werden, unter anderem ein Schrägdipol K60/K90 für die Tropenbänder und die HF-30 Aktivantenne. Diese Antennen werden hierzu an einem ca.10m hohen Mast installiert. Getränke gibt es im Haus zu kaufen, ansonsten ist Selbstverpflegung angesagt: Hierfür ist eine gut ausgerüstete Küche mit Kaffeemaschine und allem Drum und Dran vorhanden. Auch das Pizza-Taxi aus dem nahen Ort wartet wieder darauf, die Teilnehmer mit großen Portionen zu zivilen Preisen zu versorgen. Sanitäre Anlagen, Waschgelegenheiten und eine Dusche sind selbstverständlich ebenfalls vorhanden. Wer vom Radiohören entspannen und die Ohren abkühlen will, kann auf dem See, der direkt am Haus liegt, Boot fahren, oder gar darin schwimmen. Gelegenheiten zum Wandern und zum Besichtigen von Sehenswürdigkeiten in den umliegenden Ortschaften sind auch vorhanden. Auch der gemütliche Klönschnack bei einem Bierchen (oder so...) wird auf keinen Fall zu kurz kommen. Das Teilnahme-Entgelt beläuft sich je nach Teilnahmelänge auf höchstens 58 DM pro Person, bzw. entsprechend weniger bei nur teilweiser Teilnahme; es ist unabhängig vom Aufbau eines Hör-Platzes, und setzt sich aus den von den Hauseigentümern berechneten Kosten und einem geringen Obulus für Organisationsaufwand zusammen. Weitere Informationen und Anmeldeunterlagen können unter folgender Anschrift angefordert werden: KWFR e.V., Postfach 10 15 55, D-45815 Gelsenkirchen; E-Mail: <kwfr@kwfr.de>

OM Harald Süß, Albert-Severstr. 2-28/12, A-2231 Wien (Tel. +43-2287-5162), sucht für eine Sammlung von WORLD RADIO TV HANDBOOKs noch die Jahrgänge 1948 bis 1951. Bei Interesse nehmen Sie bitte direkt mit OM Harald Kontakt auf. Preis Verhandlungssache.

And with this best wishes and good DX until next month from



NEWS ABOUT BROADCASTING (+other) STATIONS

Dr. Juergen Kubiak · Goltzstr. 19 · D-10781 Berlin · GERMANY

AUSTRALIA: Added freqs of Christian Vision via 250 kW tx in Darwin:

9725 2130-2200 En 290 deg
 9865 2030-2100 En 290 deg
 11840 2030-2200 En 340 deg
 17850 2200-0100 En 340 deg
 21550 2100-0700 En 340 deg

(Andrew Flynn - Head of Engineering CVI via OBSERVER via BC-DX #522, 2001 May 29)

A01 schedule of **Radio Australia - RA** direct and relay transmissions, valid until October 2001. Postal address: Radio Australia, GPO Box 428G, Melbourne, VIC 3001, Australia.

Chinese:

1100-1230 S9475, S11880, D13605
 2200-2300 D15240

Indonesian:

0900-1000 S11880, S17750
 2130-2400 S11695, S15415, D15425, S21725

English:

0000-0100 B9660, B12080, S15240, S17580, S17750, S17795, S21740
 0100-0200 B9660, B12080, S15240, S15415, S17580, S17750, S17795, S21725
 0200-0300 B9660, B12080, S15240, S15415, S15515, S17580, S17750, S21725
 0300-0400 B9660, B12080, S15240, S15415, S15515, S17580, S17750, S21725

0400-0500 B9660, B12080, S15240, S15415, S15515, S17580, S17750, S21725
 0500-0600 B9660, B12080, S15240, S15515, S17580, S21725
 0600-0700 B9660, B12080, S15240, S15415, S15515, S17580, S17750, S21725
 0700-0800 B9660, S9710, B12080, S15240, S15415, S17580, S17750, S21725
 0800-0805 S21725
 0800-0900 B5995, S9710, B12080, S13605, S15240, S15415, S17750
 0805-0900 S9580
 0900-1000 S9580, S13605, S21820
 1000-1100 S9580, S11880, B12080
 1100-1200 B5995, S6020, S9580, B12080, S13605, S21820
 1200-1300 B5995, S6020, S9580, S11650, S21820
 1300-1400 B5995, S6020, S9580, S11650, S21820
 1400-1500 B5995, S6080, S9580, S11650
 1430-1500 S9475, S11660
 1500-1600 B5995, S6080, S9475, S9580, S11650, S11660
 1600-1700 S5995, S6080, S9430, S9475, S9580, S11650, S11660
 1700-1800 S5995, S6080, S9430, S9580, S9815, S11880
 1800-1900 S6080, S7240, S9430, S9580, S9815, S11880
 1900-2000 S6080, S7240, S9580, S9655, S9815, S11880
 2000-2100 S9580, S9655, S9815, S11880, B12080
 2100-2130 S9580, S9655
 2100-2200 S11880, B12080, S17715, S21740
 2200-2300 S17715, S17795, S21740
 2300-2400 B9660, B12080, S17715, S17795, S21740

Khmer:

0500-0600 S15415, S17750
 2300-2400 D15240

Tok Pisin:

0900-1100 B5995, S6020, S9710, B12080
 2000-2100 S6080, S7240
 2100-2200 S7240

Vietnamese:

0000-0100 S15415
 1230-1330 S9475, S11880

Transmitters:

(B) Brandon, (D) Darwin, (S) Shepparton.

On the other hand, the Radio of the Australian Forces of Defense, transmits in English via the transmitters of Australia Radio, from 1330 to 1430 UTC by S9475 and S11660 KHz. QTH: Australian Defence Forces Radio, Department of Defence, EMU (Electronic Media Unit) ANZAK Park West, APW 1-B-07, Reid, Canberra, ACT 2601, Australia. (CONEXION #106; May 13, 2001)

BANGLADESH: Bangladesh Betar A-01 External Schedule, 25.03-28.10.2001

UTC	Scn Progr	kHHz	Zone	Azimuth
1200-1300	G.O.S. (En)	7185 9550	S&SE	AS 60 125
1315-1345	Nepalese	7185 9550	Nepal	320
1400-1430	Urdu	7185 9550	PAK	290
1515-1545	Hindi	7185 9550	India	305
1600-1630	Arabic	7185 9550	ME	290 275
1630-1730	Bengali	7185 9550	ME	290 275
1745-1815	V.ofIslam (En)	7185 9550 15520	EUR	320
1815-1900	G.O.S. (En)	7185 9550 15520	EUR	320
1915-2000	Bengali	7185 9550 15520	EUR	320

Reports to: Senior Engineer (Research Wing) National Bcing authority Bangladesh Betar 121 Kazi Nazrul Islam Avenue Shahbag, Dhaka-1000, Bangladesh. E-mail: <rrc@aitlbd.net> (R.J. Eusufzai via DXLD via BC-DX #518, Apr 27)

CHINA (Peoples Rep.): A01 list of *Haixia zhi Sheng* station at Fuzhou, compiled by Nagoya DXers Circle.

kHHz	UTC	Day	Language	kW	Azi.
3900	2055-2300	1234567	Chin./Amoy/Hakka	15	140
4900	2055-2300	1234567	Chin./Amoy/Hakka	15	140

5050	2055-2300	1234567	Chin./Amoy/Hakka	15	140
6115	0755-1800	1234567	Chin./Amoy/Hakka	50	140
6115	2300-0100	1234567	Chin./Amoy/Hakka	50	140
7280	0755-1800	1234567	Chin./Amoy/Hakka	15	140
7280	2300-0100	1234567	Chin./Amoy/Hakka	15	140
9505	0755-1800	1234567	Chin./Amoy/Hakka	15	140
A01 list of Yunnan BS station at Kunming, compiled by Nagoya DXers Circle.					
6035	0120-0130	1234567	Chinese	50	147
6035	1000-1030	1234567	Chinese	50	147
6035	1030-1100	1234567	Vietnamese	50	147
6035	1100-1130	1234567	Chinese	50	147
6035	1130-1200	1234567	Vietnamese	50	147
6035	1200-1230	1234567	Chinese	50	147
6035	1230-1300	1234567	Vietnamese	50	147
6035	2230-2320	1234567	Vietnamese	50	147
6035	2320-2330	1234567	Chinese	50	147
6035	2330-0120	1234567	Vietnamese	50	147
A01 list of R.Xizang station at Lhasa and Shijiazhuang(*), compiled by Nagoya DXers Circle.					
4035	0000-0400	1234567	Tibetan	50	ND
4035	0500-0730	1234567	Tibetan	50	ND
4035	0950-1300	1234567	Tibetan	50	ND
4035	1400-1700	1234567	Tibetan	50	ND
4035	2250-2300	1234567	Tibetan	50	ND
4820	0000-0400	1234567	Tibetan	50	ND
4820	0500-0730	1234567	Tibetan	50	ND
4820	0950-1300	1234567	Tibetan	50	ND
4820	1400-1700	1234567	Tibetan	50	ND
4820	2250-2300	1234567	Tibetan	50	ND
5240	2000-1730	1234567	Chinese	50	ND
5935	2000-1730	1234567	Chinese	50	ND
5950	0000-0400	1234567	Tibetan	50	295
5950	0500-0730	1234567	Tibetan	50	295
5950	0950-1300	1234567	Tibetan	50	295
5950	1400-1700	1234567	Tibetan	50	295
5950	2250-2300	1234567	Tibetan	50	295
5995	0000-0400	1234567	Tibetan	50	ND
5995	0500-0730	1234567	Tibetan	50	ND
5995	0950-1300	1234567	Tibetan	50	ND
5995	1400-1700	1234567	Tibetan	50	ND
5995	2250-2300	1234567	Tibetan	50	ND
6050*	1300-1735	1234567	Chinese	50	217
6050*	2000-2300	1234567	Chinese	50	217
6110	0000-0400	1234567	Tibetan	50	ND
6110	0500-0730	1234567	Tibetan	50	ND
6110	0950-1300	1234567	Tibetan	50	ND
6110	1400-1700	1234567	Tibetan	50	ND
6110	2250-2300	1234567	Tibetan	50	ND
6130	0000-0400	1234567	Tibetan	50	ND
6130	0500-0730	1234567	Tibetan	50	ND
6130	0950-1300	1234567	Tibetan	50	ND
6130	1400-1700	1234567	Tibetan	50	ND
6130	2250-2300	1234567	Tibetan	50	ND
6200	0000-0400	1234567	Tibetan	50	295
6200	0500-0730	1234567	Tibetan	50	295
6200	0950-1300	1234567	Tibetan	50	295
6200	1400-1700	1234567	Tibetan	50	295
6200	2250-2300	1234567	Tibetan	50	295
7110*	1400-1700	1234567	Tibetan	50	217
9490*	2300-1300	1234567	Chinese	50	217
11685*	2250-2300	1234567	Tibetan	50	217
11685*	0000-0400	1234567	Tibetan	50	217
11685*	0500-0730	1234567	Tibetan	50	217

11685*	0950-1300	1234567	Tibetan	50	217
A01 list of R.Xinjiang station at Urumqui, compiled by Nagoya DXers Circle.					
5060	0000-0330	1234567	Mongolian	15	ND
5060	0330-0430	1234567	Kyrgyz	15	ND
5060	0530-0800	1234567	Mongolian	15	ND
5060	0800-1030	12.4.67	Mongolian	15	ND
5060	1030-1100	12.4.67	Kyrgyz	15	ND
5060	1030-1230	1234567	Kyrgyz	15	ND
5060	1230-1600	1234567	Mongolian	15	ND
5060	1700-1800	1234567	Mongolian	15	ND
5440	0000-0500	1234567	Kazakh	15	ND
5440	0600-0800	1234567	Kazakh	15	ND
5440	0800-1100	12.4.67	Kazakh	15	ND
5440	1100-1400	1234567	Kazakh	15	ND
5440	1500-1800	1234567	Kazakh	15	ND
5800	0000-0300	1234567	Uighur	50	230
5800	0400-0800	1234567	Uighur	50	230
5800	1200-1500	1234567	Uighur	50	230
5800	1600-1800	1234567	Uighur	50	230
6100	2330-0800	1234567	Chinese	50	230
6100	1100-1800	1234567	Chinese	50	230
9560	0800-1100	12.4.67	Chinese	50	230
9595	0800-1100	12.4.67	Uighur	50	230
A01 list of R.Nei Menggu station at Hohhot, compiled by Nagoya DXers Circle.					
4000	0850-0905	12,4567	Chinese	15	52
4000	0905-1605	1234567	Chinese	15	52
4000	2150-0850	1234567	Chinese	15	52
4525	0805-0850	12,4567	Mongolian	50	52
4525	0850-1605	1234567	Mongolian	50	52
4525	2150-0100	1234567	Mongolian	50	52
4620	0850-0905	12,4567	Chinese	15	263
4620	0905-1605	1234567	Chinese	15	263
4620	2150-0105	1234567	Chinese	15	263
4785	0805-0850	12,4567	Mongolian	50	263
4785	0850-1605	1234567	Mongolian	50	263
4785	2150-0100	1234567	Mongolian	50	263
6045	0850-1605	..3....	Chinese	15	36
6045	0905-1605	12,4567	Chinese	15	36
6045	2150-0105	1234567	Chinese	15	36
6195	0805-0850	12,4567	Mongolian	50	36
6195	0850-1605	1234567	Mongolian	50	36
6195	2150-0100	1234567	Mongolian	50	36
7105	0105-0600	..3....	Chinese	50	52
7105	0105-0900	12,4567	Chinese	50	52
7165	0105-0600	..3....	Chinese	50	263
7165	0105-0900	12,4567	Chinese	50	263
7210	0105-0300	1234567	Mongolian	50	263
7210	0400-0600	1234567	Mongolian	50	263
7210	0600-0800	12,4567	Mongolian	50	263
7270	0105-0300	1234567	Mongolian	50	52
7270	0400-0600	1234567	Mongolian	50	52
7270	0600-0800	12,4567	Mongolian	50	52
9520	0105-0600	..3....	Chinese	50	36
9520	0105-0900	12,4567	Chinese	50	36
9750	0105-0300	1234567	Mongolian	50	36
9750	0400-0600	1234567	Mongolian	50	36
9750	0600-0800	12,4567	Mongolian	50	36
A01 list of R.Heilongjiang station at Harbin, compiled by Nagoya DXers Circle.					
4840	0855-1400	1234567	Chinese	50	ND
4840	1400-1500	1234567	Korean	50	ND
4840	2100-0600	1234567	Chinese	50	ND
5950	0000-0400	1.....	Korean	50	ND
5950	0300-0500	.234567	Korean	50	ND

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5950	0900-1100	1234567	Korean	50	ND
5950	2100-2300	1234567	Korean	50	ND
7350	0855-1130	1234567	Chinese	15	ND
7350	2100-0600	1234567	Chinese	15	ND

(NDXC website via JKB, 20 May 2001)

CHINA (TAIWAN): Radio Taipei Internat. A01 schedule.

English

0200-0300 5950W 9680W 11740W No&CeAM. 11825 15270 SoEaAS.

0300-0400 5950W 9680W NoAM. 11745 EaAS. 11825 SoEaAS.

0700-0800 5950W NoAM.

1100-1200 7445 SoEaAS. MW 585.

1200-1300 7130 EaAS. 9610 AUS.

1400-1500 15125 SoEaAS.

1600-1800 11550 SoAS.

1800-1900 3955S EUR.

2200-2300 11565W 15600W EUR.

German

1800-1900 9955.

1900-2000 6175S.

0600-0700 9355W.

2100-2200 11565W 15600W.

French

1800-1900 17750W.

1900-2000 3955S.

0700-0800 9355W.

2000-2100 9955 15600W.

Russian

0900-1000 11905.

1300-1400 11745 15665W.

1700-1800 9955.

Spanish

2100-2200 6280.

CBS

3955 1800-1900 Skelton 250 170 CBS ENGLISH. WeEUR

3955 1900-2000 Skelton 250 170 CBS FRENCH WeEUR

6175 1900-2000 Skelton 300 110 CBS GERMAN WeEUR

W=WYFR Florida. S=Skelton Merlin-UK. (Rumen Pankovvia BC-DX #515, 2001 Apr 5)

The following will be the shortwave schedule for **Family Radio Stations**, Inc. aired from Taiwan, 25 March to 28 October 2001.

English 0100-0200 15060 S. Asia

1302-1502 11550 S. Asia

1500-1700 6280 S. Asia

Hindi 0000-0100 15060 S. Asia

1502-1602 11550 S. Asia

Mandar. 1102-1602 6300 E. Asia

1102-1602 9280 E. Asia

2100-0000 6300 E. Asia

2100-0000 9280 E. Asia

Russian 1502-1702 9955 EUR/Siberia.

(E. Marcy - WYFR, via DXLD via BC-DX #519, 2001 May 8)

CROATIA: A01 schedule of **HRT - Croatian Radio** on SW via Deanovac txs. Contact: Zelimir Klasan, Hrvatska Radio Televizija (HRT), Prisavlje 3, Zagreb. Fax: +385 1 6163347 and E-mail Zelimir.Klasan@hrt.hr

Via German Telecom, Juelich:

2300-0100 9925 S America

0100-0300 9925 N America (E)

0300-0500 9925 N America (O)

0500-0700 9470 New Zealand

0700-0900 13820 Australia

To Europe and Mediterranean Area Hrvatski Radio (1st Nacional Program) from Croatia:

UTC	kHz	Tx	kW
0000-2400	1125	Deanovec	100
0400-0900	7365	Deanovec	10
0400-1800	9830	Deanovec	100
0400-2300	6165	Deanovec	100
0900-2300	13830	Deanovec	10
1300-0600	1134	Zadar	600

(Milan Prezelj - HRT in CONEXION #106; May 13, 2001)

IRAN: Summer A-01 schedule *Voice of the Islamic Republic of Iran* - **VOIRI** Tehran.

ALBANIAN	0630-0727	15235 17680	1830-1927	7295 9545 9570 9610
	2030-2127	9535 11660		
ARABIC	0230-0427	7155 11935	0230-0627	9790
	0230-1627	15150	0330-0527	17610
	0430-1627	15125	0930-1227	21520 21545 21655
	1030-1527	13675	1330-1927	9860
	1630-1927	6025 11740 11840		
	1730-1927	6200	1830-1927	9705
	2030-2127	6025 9860 11740 11840		
	2030-0127	6200 9705	2130-0127	11710
	0130-0227	9705		
ARABIC (VOICE OF ISLAMIC PALESTINIAN REVOLUTION)	0330-0427	9610 11870		
	1930-2027	6025 6200 9705 9860 11740 11840		
ARABIC (VOICE OF ISLAMIC REVOLUTION OF IRAQ)	0330-0527	7120 7245 9535 9685		
ARMENIAN	0300-0327	11860	0930-0957	9630 11700 15260
	1630-1727	6175 6200 7230		
AZERI	0330-0527	13710	1630-1827	6160
BENGALI	0030-0127	6005 9570 9890 11680 11965		
	1430-1527	7115 9525 9740 11995		
BOSNIAN	0530-0627	15235 15510 17680		
	1730-1827	7295 9545 9610 11660		
	2130-2227	9022 9660 9810 11660		
CHINESE/MANDARIN	1330-1427	11670 15370 15460 15570 17805		
	2330-0027	11750 15490 15570 17600		
DARI	0300-0427	9580	1330-1457	7180
ENGLISH (RADIO SHALOM)	1900-1927	7175 9745		
ENGLISH	0030-0127	9022 9835 11970		
	1100-1227	15385 15430 15585 21470 21730		
	1530-1627	7115 9635 11775		
	1930-2027	9022 9570 11670 13730		
	2130-2227	9570 13745		
GERMAN	0730-0827	15084 17590	1730-1827	9022 11765 11855 13685
FRENCH	0630-0727	17570 17590 21645 21775		
	1830-1927	9022 11765 11860 11880 13685 13700		
	2330-0027	9022 9560 11970		
HAUSA	0530-0627	17600 21645 21810		
	1930-2027	11875 15315	2230-2327	9022
HINDI	0230-0257	15165 17635	1500-1527	9720 11775 11890 13750
ITALIAN	0630-0727	9022 15084 17560 17605		
	1200-1257	15084 15235 17605		
	1930-1957	7295 11765 13650		
JAPANESE	1300-1327	15235 15555	2100-2127	11705 13635
KAZAKH	0130-0227	11900 13770	1300-1357	11750 13755 15340
MALAY	1230-1327	15200 15585 17555 17875		
PASHTO	0230-0327	7130 9605 11765	1230-1327	9630 9790 11870 13785
	1430-1527	7270	1630-1727	6015 6150 7195 7255 9625
PERSIAN	0000-0627	15084	0130-0327	7275
	0730-1157	15215	0830-1157	15084

0930-1027 17785 0930-1057 13695 15115
 1300-2357 15084 1630-1727 9765
 1930-2027 7105 9775
 RUSSIAN 1400-1457 11930 11960 15190 15290
 1530-1627 9740 9755 11675 11705 11820 11925 13635
 1730-1827 6035 7115 7205 7305
 1930-2027 6045 7125 7230 9900
 SPANISH 0030-0127 9515 9560 9655 13755
 0130-0227 9655 9810 13755
 0230-0327 13730 0530-0627 17590 17785
 2030-2127 9022 11765
 SWAHILI 0330-0427 15260 15595 17570 17800
 1000-1057 17570 17780 1730-1827 9655 11995
 TAJIK 0100-0227 7180 1600-1727 5955
 TURKISH 0430-0557 15260 15365 1600-1727 9022 7165 9550
 URDU 0130-0227 9525 11880 13640
 1330-1427 7270 9565 9665 11950 13605 13785 15420
 1430-1457 9565 9665 11950 13605 13785 15420
 1530-1727 7270
 UZBEK 0230-0257 7180 1500-1557 5955
 (OBSERVER via BC-DX #524, 12 June 2001)

NETHERLANDS: Shortwave and Mediumwave frequency schedule of *Radio Netherlands* - *RN*, A01 Summer 2001, 26 March - 28 October 2001 (Version 22.3.2001), published by RN Programme Distribution Dept. Hilversum.

Time (UTC)	Target Area	St./kHz	Days				
Dutch				2127-2225	S.Am.North, Car.Area	FLE/9895	Daily
0127-0225	North America east	SAC/6010	Daily	2127-2225	South America east	FLE/13700	Daily
0127-0225	C.America/Caribbean	FLE/11730	Daily	2127-2225	North America east	BON/15155	Daily
0127-0225	South America south	BON/15315	Daily	2127-2225	South America west	BON/15315	Daily
0327-0425	North America centr.	BON/6165	Daily	2327-0025	Southeast Asia	MDC/7280	Daily
0327-0425	North America west	BON/9590	Daily	2327-0025	s.east Asia/W.Austr.	SNG/9590	Daily
0327-0425	East Africa	MDC/9845	Daily	2327-0025	Far East/s.east Asia	KHB/17590	Daily
0327-0425	M.East/NE Africa	MDC/15560	Daily	English			
0457-0557	Central & W. Europe	WM./1512	Daily	0427-0530	North America west	BON/6165	Daily
0457-0557	Centr.& SE Europe	FLE/7125	Daily	0427-0530	North America west	BON/9590	Daily
0457-0757	Southeast Europe	FLE/9895	Daily	0927-1130	N.Zealand/Australia	BON/9790	Daily
0457-1700	West Europe	FLE/5955	Daily	0927-1130	Far East/e.Asia/wAUS	P.K/12065	Daily
0457-1700	Southwest Europe	FLE/9895	Daily	0927-1130	East Asia/Australia	IRK/13710	Daily
0559-0757	South Europe	FLE/11935	Daily	1027-1225	West Europe	JUL/6045	Daily
0657-0800	N.Zealand/Australia	BON/9820	Daily	1027-1225	West Europe	WER/9860	Daily
0657-0800	N.Zealand/Australia	BON/11655	Daily	1427-1625	South Asia	MDC/9890	Daily
0759-1700	Southeast Europe	FLE/13700	Daily	1427-1625	South & East Asia	MDC/11835	Daily
0759-1700	South Europe	FLE/13700	Daily	1427-1625	South Asia	TAC/12075	Daily
0927-1015	Surinam	BON/6020	Mon-Sat	1727-2025	South Africa	MDC/6020	Daily
1027-1125	N.Zealand/Australia	BON/9720	Daily	1727-2025	East Africa	MDC/7120	Daily
1027-1125	East Asia	KHB/13820	Daily	1727-2025	West Africa	FLE/11655	Daily
1027-1125	West Australia	MDC/17575	Daily	1827-2025	West Africa	FLE/9895	Daily
1027-1125	Southeast Asia	MDC/21480	Daily	1827-2025	West Africa	FLE/13700	Daily
1327-1425	Far East & East Asia	P.K/9890	Daily	1827-2025	Centr.& West Africa	BON/17605	Daily
1327-1425	s.east Asia/W.Austr.	TAC/12065	Daily	1827-2025	Centr.& West Africa	BON/21590	Daily
1327-1425	East& southeast Asia	KHB/13695	Daily	2027-2230	Central & W. Europe	WM/1512	Daily
1327-1425	South Asia	MDC/17580	Daily	2327-0125	North America centr.	BON/6165	Daily
1327-1425	South Asia	MDC/21480	Daily	2327-0125	North America east	BON/9845	Daily
1627-1725	South Africa	MDC/6020	Daily	Indonesian			
1627-1725	East Africa	MDC/11655	Daily	1127-1325	Indonesia	SNG/11690	Daily
1727-1825	SE Europe/Mid.East	FLE/9895	Daily	1127-1325	Indonesia	MDC/17580	Daily
1727-1825	SE Europe/Mid.East	FLE/13700	Daily	1127-1325	Indonesia	MDC/21480	Daily
1727-1825	South & East Africa	FLE/15560	Daily	2127-2325	Indonesia	SNG/6120	Daily
1727-1825	West Africa	BON/21590	Daily	2127-2325	Indonesia	MDC/7285	Daily
2027-2125	Central & W. Europe	KLG/5835	Daily	2127-2325	Indonesia	MDC/9590	Daily
2027-2125	South Africa	MDC/6015	Daily	Spanish			
2027-2125	Spain/northwest Afr.	FLE/6020	Daily	0127-0325	Central America	BON/6165	Daily
2027-2125	Central Africa	MDC/7120	Daily	0127-0325	Mexico/Caribbean	BON/9845	Daily
2027-2125	Southeast Europe	FLE/9895	Daily	1057-1125	South America	BON/15450	Daily
2027-2125	SW Europe/NW Africa	FLE/9895	Daily	1127-1155	South America (nw)	BON/6020	Daily
2027-2125	West Africa	FLE/11655	Daily	1127-1155	South America (nw)	BON/9715	Daily
2027-2125	West Africa	BON/15315	Daily	1157-1225	C.America/Caribbean	BON/6020	Daily
2027-2125	West Africa	BON/17605	Daily	1157-1225	Central America	BON/9715	Daily
2027-2125	Centr.& West Africa	BON/21590	Daily	2227-0125	S.Am.North, Car.Area	FLE/9895	Daily
2127-2225	Surinam	BON/6020	Daily	2227-0125	South America south	BON/15315	Daily
				2227-2325	South America north	BON/11715	Daily

2325-0025 South America east FLE/11715 Daily
 Stations:
 FLE = Flevo BON = Bonaire MDC = Madagascar
 WM.= Wolvertem KHB = Khabarovsk IRK = Irkutsk

JUL = Juelich KLG = Kaliningrad P.K=Petropav.K.
 SAC = Sackville SNG = Singapore TAC = Tashkent
 WER = Wertachtal

(Webpage Radio Netherlands Programme Distribution Dept. via JKB, 15 June 2000)

RUSSIA: The broadcasting mast, of 205 meters height, has fallen down in the town of Angarsk. At night from 5th to 6th of June the 205-metres broadcasting mast fell down on the territory of radio station N3, in Angarsk. As a result of this fall the aerial feeding system was damaged; the broadcasting of radio station "Mayak" was broken off. The fallen mast relayed the signal of "Mayak" for the most of Eastern Siberia. (Information from radio station "Mayak" 06.06.2001, via RUS-DX #95C via WWDXC-HQ)

Regional broadcasters using SW txs 03/25/2001 – 10/27/2001

kHz	kW	Call	UTC	Tx	GTRK
4520	2	RV-667	1700-1300	Palana	"Palana"
4795	50	RV-44	2100-1700	Ulan-Ude	Buryatskaya GTRK
4820	50	RV-703	2300-1900	Khanty-Mansiysk	"Yugoriya"
4825	50	RV-726	1900-1500	Yakutsk	"Sakha"
4895	50	RV-700	2300-1900	Tyumen	"Region-Tyumen"
5290	50	RV-98	2100-1700	Krasnoyarsk	"Tcentr Rossii"
5930	50	RV-790	0100-2100	Monchegorsk	"Murman"
5940*	100	RV-1001	1700-1300	Arman	"Magadan"
6060	5		2000-1500	Blagoveschensk	"Amur"
6095	3	RV-1472	2300-1400	Khanty-Mansiysk	"Yugoriya"
6125	5	RV-1327	0200-1600	Ioshkar-Ola	"Mariy-El"
6150**	5	RV-1095	2300-2500	Perm	"T7"
6160	40	RV-297	0100-2100	Arkhangelsk	"Pomorye"
7140	50	RV-727	1900-1500	Yakutsk	"Sakha"
7200	100	RV-729	1900-1500	Yakutsk	"Sakha"
7200	5	RV-1326	0100-1600	Ioshkar-Ola	"Mariy-El"
7210	100	RV-914	1900-1500	Khabarovsk	"Dalnevostochnoye"
7320	100	RV-647	1700-1300	Arman	"Magadan"
7345	50	RV-725	1900-1500	Yakutsk	"Shakha"
9530	100	RV-646	1700-1300	Arman	"Magadan"
11650	5	RV-1095	1500-1900	Perm	"T-7"
11840	15	RV-677	1700-1300	Yuzhno-Sakhalinsk	"Sakhalin"
15165	5	RV-1326	1600-1700	Ioshkar-Ola	"Mariy-El"
15235	3	RV-1472	1400-1900	Khanty-Mansiysk	"Yugoriya"
15395	5	RV1327	1600-2100	Ioshkar-Ola	"Mariy-El"

All transmitters relay Radio Rossii.

* alternative frequency 5935 kHz

** alternative frequency 5290kHz

GTRK "Yugoriya" (Khanty-Mansiysk) also relays GTRK "Region- Tyumen".

(N. Rudnev in RUS-DX # 95A via WWDXC-HQ, 2 Jun 2001)

SAUDI ARABIA: Broadcasting Service of the Kingdom of Saudi Arabia - BSKSA

complete schedule for Summer A01. Address of Technical/Frequency management: PO Box 61718, Riyadh. Fax: +966-1-404-1692.

MAIN PX in Arabic

0600 - 0900 17560*, 17760, 21505, 21705
 0900 - 1200 21505, 21705
 1200 - 1500 17560*, 21505, 21705
 1700 - 1800 11785*, 15315, 15435
 1800 - 2300 9555, 9870

SECOND PX in Arabic

0300 - 0600 95789*
 0600 - 1700 118551*
 1700 - 2200 95789*

CALL OF ISLAM in Arabic

1800-1900 No: 17850
 Ce: 9765 21700 Sat+Sun
 So: 11815 17715 21700 Sat+Sun
 1900-2000 No: 15110 17850
 Ce: 9765 21700 Sat+Sun
 So: 11815 21700 Sat+Sun
 2000-2100 No: 15110 17850 Sat+Sun
 Ce: 9765 Sat+Sun 21700 Sat
 So: 11815 Sat+Sun 21700 Sat
 2100-2200 No: 15110 17850 Sat+Sun
 Ce: 9765 Sat+Sun

So: 11815 Sat+Sun
 2200-2300 No: 15110 17850 Sat+Sun
 Ce: 9765 Sat+Sun
 So: 11815 Sat+Sun
 2300-2400 No: 9540
 Ce: 9540 15160
 So: 9620 11680 15160

AS
 Sp 0700-0900 17770 21610 to OCE
 1000-1200 9660 to JPN
 1200-1400 11910 to PHL

(REE website via WB in BC-DX #515, 2001 Apr 8)

UNITED KINGDOM: BBC World Service, operational schedule A01 part 2. Part 1 of schedule was published at DXM last month.

11670	0600	0615	smtwtfs	Rampisham	500	62	RUSSIAN	RUSS	11865	0300	0329	smtwtfs	Cyprus	300	173	SWAHILI	E AF
11675	0530	0545	.mtwtf.	Cyprus	250	325	HUNGARIAN	C EUR	11865	0430	0445	.mtwtf.	Skelton	300	110	HUNGARIAN	C EUR
11675	0530	0545	s.....s	Cyprus	250	335	BBC ENGLISH	SE EUR	11865	1200	1215	smtwtfs	Cyprus	250	7	RUSSIAN	RUSS
11675	0545	0600	smtwtfs	Cyprus	250	325	BBC ENGLISH	C EUR	11865	1215	1230	.mtwtf.	Cyprus	250	7	RUSSIAN	RUSS
11675	2115	2130	.mtwtf.	Antigua	125	235	ENGLISH	CARIB	11865	1300	1600	smtwtfs	Okeechobee	100	315	ENGLISH	N AM
11675	2115	2130	.mtwtf.	Antigua	125	300	ENGLISH	CARIB	11865	1700	1715	.mtwtf.	Skelton	300	110	CROATIAN	SE EUR
11680	0800	0815	smtwtfs	Rampisham	500	62	RUSSIAN	RUSS	11895	1100	1115	.mtwtf.	Rampisham	500	110	CROATIAN	SE EUR
11680	1030	1045	smtwtfs	Biblis	100	126	SERBIAN	SE EUR	11895	1130	1200	smtwtfs	Rampisham	500	110	BBC ENGLISH	EUR
11680	1100	1130	smtwtfs	Biblis	100	105	ROMANIAN	SE EUR	11895	1215	1300	s.....	Skelton	300	110	HUNGARIAN	C EUR
11680	1130	1200	smtwtfs	Biblis	100	105	BBC ENGLISH	SE EUR	11920	1100	1130	smtwtfs	Singapore	250	90	INDONESIAN	SE AS
11680	1200	1220	smtwtfs	Biblis	100	105	BULGARIAN	SE EUR	11920	1400	1445	smtwtfs	Masirah	100	45	HINDI	S AS
11680	1220	1230	s.....s	Biblis	100	105	BULGARIAN	SE EUR	11920	1445	1500	smtwtfs	Masirah	100	45	BBC ENGLISH	S AS
11680	1230	1315	s.....	Biblis	100	126	ALBANIAN	SE EUR	11920	1500	1545	smtwtfs	Masirah	100	45	URDU	SW AF
11680	1315	1330	smtwtfs	Biblis	100	126	ALBANIAN	SE EUR	11940	0500	1400	smtwtfs	Meyerton	100	15	ENGLISH	S AF
11680	1600	1630	smtwtfs	Biblis	100	105	SERBIAN	SE EUR	11940	1400	1500	smtwtfs	Meyerton	100	15	ENGLISH	S AF
11680	1630	2115	smtwtfs	Rampisham	500	168	ARABIC	N AF	11940	1500	1600	s.....	Meyerton	100	15	ENGLISH	S AF
11680	2130	2145	.t..f.	Rampisham	500	209	ENGLISH	S AT	11940	1500	1700	.mtwtf.	Meyerton	100	15	ENGLISH	S AF
11685	0200	0230	smtwtfs	Masirah	100	45	PASHTO	W AS	11940	1500	1600	s.....	Meyerton	100	15	ENGLISH	S AF
11685	0230	0300	smtwtfs	Masirah	100	106	HINDI	S AS	11940	1600	1700	s.....	Meyerton	100	15	ENGLISH	S AF
11685	0800	0810	smtwtfs	Nakhon Sawan	250	305	BENGALI	S AS	11945	0000	0030	smtwtfs	Yamata	300	290	ENGLISH	FE
11685	1500	1530	smtwtfs	Singapore	250	320	NEPALI	S AS	11945	0900	0930	smtwtfs	Singapore	100	25	ENGLISH	SE AS
11685	1530	1545	smtwtfs	Singapore	250	320	BBC ENGLISH	S AS	11945	0930	1000	smtwtfs	Singapore	100	25	BBC ENGLISH	SE AS
11705	1600	1630	smtwtfs	Lampertheim	100	75	UKRAINIAN	UKR	11945	1000	1300	smtwtfs	Singapore	100	25	MANDARIN	FE
11705	1630	1700	smtwtfs	Lampertheim	100	75	BBC ENGLISH	UKR	11945	2100	2200	smtwtfs	Yamata	300	290	ENGLISH	FE
11730	0300	0400	smtwtfs	Seychelles	250	280	ENGLISH	E AF	11945	2200	2300	smtwtfs	Yamata	300	290	MANDARIN	CHN
11730	0400	0430	smtwtfs	Seychelles	250	280	SWAHILI	E AF	11945	2300	2400	smtwtfs	Yamata	300	290	ENGLISH	FE
11730	1900	1915	smtwtfs	Rampisham	500	105	BULGARIAN	SE EUR	11955	0000	0100	smtwtfs	Masirah	100	92	ENGLISH	S AS
11730	1915	2000	s.....s	Rampisham	500	105	BULGARIAN	SE EUR	11955	0100	0200	s.....	Masirah	100	92	ENGLISH	S AS
11730	1930	2000	.mtwtf.	Rampisham	500	105	TURKISH	SE EUR	11955	0100	0200	.mtwtfs	Masirah	100	92	ENGLISH	S AS
11740	0100	0130	smtwtfs	Masirah	100	78	HINDI	S AS	11955	0200	0300	smtwtfs	Masirah	100	45	ENGLISH	S AS
11740	0130	0200	smtwtfs	Masirah	100	78	URDU	SW AS	11955	0200	0300	smtwtfs	Masirah	100	92	ENGLISH	S AS
11740	0300	0600	smtwtfs	Cyprus	300	150	ARABIC	ME	11955	0500	0900	smtwtfs	Rampisham	500	260	ENGLISH	OC
11740	1300	1345	smtwtfs	Singapore	250	90	INDONESIAN	SE AS	11955	1100	1300	smtwtfs	Nakhon Sawan	250	25	ENGLISH	FE
11740	1345	1430	smtwtfs	Singapore	250	340	BURMESE	SE AS	11955	1700	1730	smtwtfs	Woofferton	250	114	ALBANIAN	SE EUR
11740	1430	1500	smtwtfs	Singapore	250	13	VIETNAMESE	SE AS	11955	1730	1745	.m.w...	Woofferton	250	114	BBC ENGLISH	SE EUR
11750	0230	0330	smtwtfs	Masirah	100	345	PERSIAN	ME	11955	2200	2400	smtwtfs	Singapore	125	38	ENGLISH	SE AS
11760	0500	0600	s.....	Masirah	100	305	ENGLISH	ME	11955	2200	2400	smtwtfs	Singapore	125	35	ENGLISH	OC
11760	0500	0600	.mtwtfs	Masirah	100	305	ENGLISH	ME	11960	1600	1630	smtwtfs	Skelton	300	110	BULGARIAN	SE EUR
11760	0600	0800	smtwtfs	Masirah	100	305	ENGLISH	ME	11970	1000	1015	smtwtfs	Cyprus	250	328	BULGARIAN	SE EUR
11760	0900	1200	smtwtfs	Masirah	100	305	ENGLISH	ME	11970	1015	1030	.mtwtf.	Cyprus	250	328	BBC ENGLISH	SE EUR
11760	1200	1300	smtwtfs	Masirah	100	305	ENGLISH	ME	11970	1830	1900	smtwtfs	Nakhon Sawan	250	305	PERSIAN	ME
11760	1300	1400	smtwtfs	Masirah	100	305	ENGLISH	ME	11980	1400	1415	.mtwtf.	Rampisham	500	105	CROATIAN	SE EUR
11765	0000	0115	smtwtfs	Ascension	250	265	SPANISH	S AM	11990	1000	1100	smtwtfs	Vladivostok	500	228	MANDARIN	FE
11765	0115	0130	.twtfs	Ascension	250	265	SPANISH	S AM	12005	1400	1500	.mtwtf.	Cyprus	250	37	RUSSIAN	RUSS
11765	0500	0700	smtwtfs	Meyerton	250	328	ENGLISH	W AF	12005	1700	1800	smtwtfs	Biblis	100	85	AZERI	CAU
11765	0700	0800	smtwtfs	Ascension	250	27	ENGLISH	W AF	12010	2000	2015	.mtwtf.	Rampisham	500	115	ALBANIAN	SE EUR
11765	2230	2300	smtwtfs	Antigua	250	160	BRAZILIAN	S AM	12020	1400	1430	smtwtfs	Lampertheim	100	75	UKRAINIAN	UKR
11770	0400	0500	.mtwtf.	Cyprus	300	359	UKRAINIAN	UKR	12025	1300	1530	smtwtfs	Vladivostok	500	228	MANDARIN	FE
11770	1700	1730	smtwtfs	Woofferton	300	105	HUNGARIAN	C EUR	12030	0745	0945	.....f.	Masirah	100	45	PASHTO	W AS
11780	1400	1430	.mtwtf.	Nakhon Sawan	250	325	KAZAKH	C AS	12035	0300	0400	smtwtfs	Cyprus	250	173	ENGLISH	E AF
11780	1500	1600	smtwtfs	Lampertheim	100	104	TURKISH	SE EUR	12035	0400	0500	s.....s	Cyprus	250	328	ENGLISH	EUR
11820	1200	1630	smtwtfs	Cyprus	250	102	ARABIC	ME	12035	0400	0500	.mtwtf.	Cyprus	250	328	ENGLISH	EUR
11820	1630	1800	smtwtfs	Cyprus	250	147	ARABIC	ME	12045	1700	1730	smtwtfs	Moscow	250	117	UZBEK	C AS
11835	1130	1200	smtwtfs	Singapore	100	13	VIETNAMESE	SE AS	12045	1730	1800	s.....	Moscow	250	117	ENGLISH (C	C AS
11835	1200	1215	smtwtfs	Singapore	100	13	BBC ENGLISH	CHN	12045	1730	1800	s.....s	Moscow	250	117	RUSS CASIA	C AS
11835	1330	1400	smtwtfs	Singapore	250	330	BENGALI	S AS	12045	1730	1800	.mtwtf.	Moscow	250	117	RUSSIAN	RUSS
11835	2000	2300	smtwtfs	Skelton	300	180	ENGLISH	W AF	12080	2200	2300	smtwtfs	Brandon	10	80	ENGLISH	OC
11845	0200	0200	smtwtfs	Cyprus	250	37	RUSS CASIA	C AS	12095	0200	0300	smtwtfs	Cyprus	250	101	ENGLISH	ME
11845	0230	0330	.mtwtfs	Rampisham	500	62	RUSSIAN	RUSS	12095	0200	0300	smtwtfs	Ascension	250	245	ENGLISH	S AM
11845	0445	0500	smtwtfs	Cyprus	250	315	SERBIAN	SE EUR	12095	0300	0400	.m.....	Cyprus	250	101	ENGLISH	ME
11845	0500	0515	.mtwtf.	Cyprus	250	315	CROATIAN	SE EUR	12095	0300	0400	s.twtfs	Cyprus	250	101	ENGLISH	ME
11845	0530	0600	smtwtfs	Cyprus	300	295	ALBANIAN	SE EUR	12095	0400	0500	s.....	Cyprus	250	101	ENGLISH	ME
11845	0930	1000	s.....	Cyprus	250	7	RUSSIAN	RUSS	12095	0400	0500	.mtwtfs	Cyprus	250	101	ENGLISH	ME
11845	1000	1015	smtwtfs	Cyprus	250	7	RUSSIAN	RUSS	12095	0500	0600	smtwtfs	Cyprus	250	328	ENGLISH	EUR
11845	1015	1030	smtwtfs	Cyprus	250	7	BBC ENGLISH	RUSS	12095	0600	0700	.....s	Woofferton	250	140	ENGLISH	EUR
11845	1400	1415	.mtwtf.	Rampisham	500	105	SERBIAN	SE EUR	12095	0600	0700	smtwtf.	Woofferton	250	140	ENGLISH	EUR
11845	1500	1900	smtwtfs	Cyprus	250	7	RUSSIAN	RUSS	12095	0700	1000	smtwtfs	Woofferton	250	140	ENGLISH	EUR
11845	1900	2000	.mtwtfs	Rampisham	500	62	RUSSIAN	RUSS	12095	1000	1130	s.....	Woofferton	250	140	ENGLISH	EUR
11845	2000	2030	.mtwtf.	Rampisham	500	62	RUSSIAN	RUSS	12095	1000	1130	.mtwtfs	Woofferton	250	140	ENGLISH	EUR
11850	0000	0030	smtwtfs	Singapore	250	340	BURMESE	SE AS	12095	1130	1200	s.....s	Woofferton	250	140	ENGLISH	EUR
11850	0030	0100	smtwtfs	Singapore	250	340	BENGALI	S AS	12095	1130	1200	.mtwtf.	Woofferton	250	140	ENGLISH	EUR
11855	1930	2000	smtwtfs	Ascension	250	55	HAUSA	W AF	12095	1200	1300	smtwtfs	Woofferton	250	140	ENGLISH	EUR
11855	2030	2100	smtwtfs	Ascension	250	27	PORTUGUESE	W AF	12095	1300	1500	.mtwtf.	Woofferton	250	140	ENGLISH	EUR
11860	1400	1415	.mtw...	Seychelles	250	300	BBC ENGLISH	E AF	12095	1300	1500	s.....s	Woofferton	250	140	ENGLISH	EUR
11860	1400	1415	....tf.	Seychelles	250	300	SOMALI	E AF	12095	1500	1700	smtwtfs	Woofferton	250	140	ENGLISH	EUR
11860	1415	1500	smtwtfs	Seychelles	250	300	SOMALI	E AF	12095	1700	2100	smtwtfs	Woofferton	250	78	ENGLISH	RUSS
11860	1500	1530	s.....	Seychelles	250	270	ENGLISH	E AF	12095	2100	0200	smtwtfs	Ascension	250	245	ENGLISH	S AM</

13650	1030	1045	smtwtfs	Cyprus	250	329	SERBIAN	SE EUR	15360	0000	0330	smtwtfs	Singapore	100	13	ENGLISH	SE AS
13660	0300	0445	smtwtfs	Skelton	300	110	ARABIC	ME	15360	0500	1030	smtwtfs	Singapore	125	38	ENGLISH	SE AS
13660	0445	0715	smtwtfs	Cyprus	300	107	ARABIC	ME	15360	0500	1030	smtwtfs	Singapore	125	135	ENGLISH	OC
13660	1200	2115	smtwtfs	Skelton	300	180	ARABIC	N AF	15365	1400	1500	.mtwtf.	Cyprus	250	50	RUSSIAN	RUSS
13670	1200	1215	smtwtfs	Rampisham	500	62	RUSSIAN	RUSS	15380	0100	0130	smtwtfs	Nakhon Sawan	250	305	HINDI	S AS
13670	1215	1230	.mtwtf.	Rampisham	500	62	RUSSIAN	RUSS	15380	0130	0200	smtwtfs	Nakhon Sawan	250	305	URDU	S AS
13680	0445	0500	smtwtfs	Rampisham	500	105	SERBIAN	SE EUR	15390	2115	2130	.mtwtf.	Greenville	250	174	ENGLISH	CARIB
13680	0530	0600	smtwtfs	Rampisham	500	115	ALBANIAN	SE EUR	15390	2230	2300	smtwtfs	Ascension	250	245	BRAZILIAN	S AM
13685	1400	1430	smtwtfs	Skelton	300	95	UKRAINIAN	UKR	15400	0529	0559	.....s	Meyerton	250	7	GREAT LAKES	E AF
13700	2030	2100	smtwtfs	Rampisham	500	189	PORTUGUESE	W AF	15400	0700	1000	smtwtfs	Ascension	250	27	ENGLISH	W AF
13720	1700	1730	smtwtfs	Skelton	300	110	HUNGARIAN	C EUR	15400	1000	1100	s.....s	Ascension	250	27	ENGLISH	W AF
13740	0600	0629	smtwtfs	Skelton	300	150	FRENCH	N AF	15400	1100	1130	smtwtfs	Ascension	250	27	ENGLISH	W AF
13745	0100	0130	smtwtfs	Tashkent	200	131	HINDI	S AS	15400	1500	1700	smtwtf.	Ascension	250	27	ENGLISH	W AF
13745	0230	0330	.mtwtf.	Cyprus	250	359	RUSSIAN	RUSS	15400	1500	1700	.....s	Ascension	250	27	ENGLISH	W AF
13745	0800	0815	smtwtfs	Rampisham	500	76	RUSSIAN	RUSS	15400	1700	1800	smtwtfs	Ascension	250	27	ENGLISH	W AF
13745	0930	1000	s.....s	Rampisham	500	76	RUSSIAN	RUSS	15400	1800	1900	smtwtfs	Ascension	250	27	ENGLISH	W AF
13745	1000	1015	smtwtfs	Rampisham	500	76	RUSSIAN	RUSS	15400	1900	2100	smtwtfs	Ascension	250	27	ENGLISH	W AF
13745	1015	1030	smtwtfs	Rampisham	500	76	BBC ENGLISH	RUSS	15400	1900	2000	smtwtfs	Meyerton	500	352	ENGLISH	W AF
13745	1400	1500	.mtwtf.	Rampisham	500	62	RUSSIAN	RUSS	15400	2000	2100	smtwtfs	Ascension	250	102	ENGLISH	S AF
13745	1500	1900	smtwtfs	Rampisham	500	62	RUSSIAN	RUSS	15400	2100	2300	smtwtfs	Ascension	250	27	ENGLISH	W AF
13745	1900	2000	.mtwtf.	Rampisham	500	62	RUSSIAN	RUSS	15405	0230	0300	smtwtfs	Nakhon Sawan	250	305	HINDI	S AS
13745	2000	2030	.mtwtf.	Rampisham	500	62	RUSSIAN	RUSS	15405	0600	0629	smtwtfs	Cyprus	300	280	FRENCH	N AF
13750	0600	0615	smtwtfs	Rampisham	500	76	RUSSIAN	RUSS	15405	0800	0810	smtwtfs	Nakhon Sawan	250	300	BENGALI	S AS
13755	1230	1315	s.....s	Cyprus	250	295	ALBANIAN	SE EUR	15405	0810	0820	smtwtfs	Nakhon Sawan	250	300	HINDI	S AS
13755	1315	1330	smtwtfs	Cyprus	250	295	ALBANIAN	SE EUR	15405	0820	0830	smtwtfs	Nakhon Sawan	250	300	URDU	S AS
13780	0200	0230	smtwtfs	Cyprus	250	77	PASHTO	W AS	15420	0329	0600	smtwtfs	Seychelles	250	280	ENGLISH	E AF
15105	0700	0729	smtwtfs	Ascension	250	65	FRENCH	W AF	15420	1300	1400	smtwtfs	Seychelles	250	280	ENGLISH	E AF
15105	1200	1230	smtwtfs	Rampisham	500	168	FRENCH	N AF	15420	1400	1415	.mtw...	Seychelles	250	295	BBC ENGLISH	E AF
15105	1230	1245	smtwtfs	Rampisham	500	168	BBC ENGLISH	N AF	15420	1400	1415	....tf.	Seychelles	250	295	SOMALI	E AF
15105	1330	1345	smtwtfs	Ascension	250	55	BBC ENGLISH	W AF	15420	1415	1500	smtwtfs	Seychelles	250	295	SOMALI	E AF
15105	1345	1415	smtwtfs	Ascension	250	55	HAUSA	W AF	15420	1500	1530	s.....s	Seychelles	250	280	ENGLISH	E AF
15105	1800	1830	smtwtfs	Ascension	250	65	FRENCH	W AF	15420	1500	1530	.mtwtf.	Seychelles	250	280	ENGLISH	E AF
15105	1915	1930	smtwtfs	Ascension	250	65	BBC ENGLISH	W C AF	15420	1500	1530	.....s	Seychelles	250	280	ENGLISH	E AF
15105	1930	2000	smtwtfs	Ascension	250	65	HAUSA	W AF	15420	1530	1615	smtwtfs	Seychelles	250	280	SWAHILI	E AF
15105	2030	2100	smtwtfs	Woofferton	250	170	PORTUGUESE	W AF	15420	1615	1700	.mtwtf.	Seychelles	250	280	ENGLISH	E AF
15130	1400	1430	smtwtfs	Rampisham	500	85	UKRAINIAN	UKR	15420	1615	1700	s.....s	Seychelles	250	280	ENGLISH	E AF
15175	0945	1130	....tf.	Masirah	100	330	PERSIAN	ME	15420	1700	1800	smtwtfs	Meyerton	250	19	ENGLISH	S AF
15175	1130	1230	....t..	Masirah	100	20	PASHTO	W AS	15420	1800	1900	smtwtfs	Meyerton	250	19	ENGLISH	S AF
15175	1130	1230	....f.	Masirah	100	330	PERSIAN	ME	15450	1800	1830	smtwtfs	Woofferton	250	128	SOMALI	E AF
15180	1200	1800	smtwtfs	Rampisham	500	168	ARABIC	N AF	15470	0200	0230	smtwtfs	Cyprus	250	77	PASHTO	W AS
15180	1800	1830	smtwtfs	Rampisham	500	168	FRENCH	N AF	15470	0230	0330	smtwtfs	Cyprus	250	77	PERSIAN	ME
15185	0330	0600	smtwtfs	Masirah	100	280	ARABIC	ME	15470	1430	1530	smtwtfs	Cyprus	250	77	PERSIAN	ME
15185	0600	0715	smtwtfs	Cyprus	300	150	ARABIC	ME	15470	1530	1615	smtwtfs	Nakhon Sawan	250	305	PASHTO	SW AS
15190	0800	0815	smtwtfs	Rampisham	500	95	ROMANIAN	SE EUR	15470	1615	1700	smtwtfs	Nakhon Sawan	250	305	PERSIAN	ME
15190	0900	1000	smtwtfs	Ascension	250	235	ENGLISH	S AM	15485	0600	0700	.....s	Skelton	300	180	ENGLISH	W EUR
15190	1000	1130	s.....s	Ascension	250	235	ENGLISH	S AM	15485	0600	0700	smtwtf.	Skelton	300	180	ENGLISH	W EUR
15190	1100	1130	.mtwtf.	Ascension	250	235	SPANISH	S AM	15485	0700	1000	smtwtfs	Skelton	300	180	ENGLISH	W EUR
15220	1100	1130	.mtwtf.	Antigua	125	205	ENGLISH	CARIB	15485	1000	1130	s.....s	Skelton	300	180	ENGLISH	W EUR
15220	1100	1200	s.....s	Antigua	125	205	ENGLISH	S AM	15485	1000	1130	.mtwtf.	Skelton	300	180	ENGLISH	W EUR
15220	1100	1130	.mtwtf.	Antigua	125	300	ENGLISH	CARIB	15485	1130	1200	s.....s	Skelton	300	180	ENGLISH	W EUR
15220	1100	1200	s.....s	Antigua	125	300	ENGLISH	C N AM	15485	1130	1200	.mtwtf.	Skelton	300	180	ENGLISH	W EUR
15220	1130	1200	.mtwtf.	Antigua	125	205	ENGLISH	S AM	15485	1200	1300	smtwtfs	Skelton	300	180	ENGLISH	W EUR
15220	1130	1200	.mtwtf.	Antigua	125	300	ENGLISH	C N AM	15485	1300	1500	.mtwtf.	Skelton	300	180	ENGLISH	W EUR
15220	1200	1400	s.....s	Antigua	125	205	ENGLISH	S AM	15485	1300	1500	s.....s	Skelton	300	180	ENGLISH	W EUR
15220	1200	1220	.mtwtf.	Antigua	125	205	ENGLISH	CARIB	15485	1500	1800	smtwtfs	Skelton	300	180	ENGLISH	W EUR
15220	1200	1400	s.....s	Antigua	125	300	ENGLISH	C N AM	15495	1700	1800	smtwtfs	Woofferton	300	74	AZERI	C AS
15220	1200	1220	.mtwtf.	Antigua	125	300	ENGLISH	CARIB	15520	1400	1445	smtwtfs	Cyprus	300	107	HINDI	S AS
15220	1220	1400	.mtwtf.	Antigua	125	205	ENGLISH	S AM	15520	1500	1545	smtwtfs	Cyprus	250	107	URDU	SW AS
15220	1220	1400	.mtwtf.	Antigua	125	300	ENGLISH	C N AM	15540	1500	1530	smtwtfs	Singapore	100	315	NEPALI	S AS
15220	1400	1600	smtwtfs	Sackville	250	285	ENGLISH	N AM	15540	1530	1545	smtwtfs	Singapore	100	315	BBC ENGLISH	S AS
15225	1230	1315	s.....s	Rampisham	500	115	ALBANIAN	SE EUR	15555	1200	1630	smtwtfs	Cyprus	300	150	ARABIC	ME
15225	1315	1330	smtwtfs	Rampisham	500	115	ALBANIAN	SE EUR	15565	0600	1120	smtwtfs	Rampisham	500	62	ENGLISH	RUSS
15225	1400	1500	.mtwtf.	Woofferton	300	70	RUSSIAN	RUSS	15565	1200	1300	smtwtfs	Rampisham	500	62	ENGLISH	RUSS
15225	1500	1900	smtwtfs	Woofferton	300	70	RUSSIAN	RUSS	15565	1300	1400	smtwtfs	Rampisham	500	62	ENGLISH	RUSS
15225	1900	2000	.mtwtf.	Woofferton	300	70	RUSSIAN	RUSS	15565	1400	1500	smtwtfs	Rampisham	500	62	ENGLISH	RUSS
15225	2000	2030	.mtwtf.	Woofferton	300	70	RUSSIAN	RUSS	15565	1500	1600	s.....s	Rampisham	500	62	ENGLISH	RUSS
15245	1400	1430	s.....s	Rampisham	500	62	ENGLISH (C	C AS	15565	1500	1600	.mtwtf.	Rampisham	500	62	ENGLISH	RUSS
15245	1400	1430	.mtwtf.	Rampisham	500	62	KAZAKH	C AS	15565	1500	1700	.....s	Rampisham	500	62	ENGLISH	RUSS
15280	0000	0530	smtwtfs	Nakhon Sawan	250	50	ENGLISH	FE	15565	1600	1700	smtwtf.	Rampisham	500	62	ENGLISH	RUSS
15280	1000	1100	smtwtfs	Nakhon Sawan	250	25	MANDARIN	CHN	15575	0300	0400	.m....	Masirah	100	330	ENGLISH	ME
15280	1100	1300	smtwtfs	Nakhon Sawan	250	25	ENGLISH	FE	15575	0300	0400	s.twtfs	Masirah	100	330	ENGLISH	ME
15280	2200	2300	smtwtfs	Nakhon Sawan	250	25	MANDARIN	CHN	15575	0400	0500	s.....s	Masirah	100	330	ENGLISH	ME
15280	2300	2400	smtwtfs	Nakhon Sawan	250	50	ENGLISH	FE	15575	0400	0500	.mtwtf.	Masirah	100	330	ENGLISH	ME
15285	1300	1530	smtwtfs	Singapore	100	13	MANDARIN	FE	15575	0500	0600	s.....s	Cyprus	250	92	ENGLISH	W AS
15310	0000	0100	smtwtfs	Nakhon Sawan	250	290	ENGLISH	S AS	15575	0500	0600	.mtwtf.	Cyprus	250	92	ENGLISH	W AS
15310	0100	0200	s.....s	Nakhon Sawan	250	290	ENGLISH	S AS	15575	0600	0730	smtwtfs	Cyprus	250	92	ENGLISH	W AS
15310	0100	0200	.mtwtf.	Nakhon Sawan	250	290	ENGLISH	S AS	15575	0730	0900	s.....s	Cyprus	250	92	ENGLISH	W AS
15310	0200	0300	smtwtfs	Nakhon Sawan	250	290	ENGLISH	S AS	15575	0900	1200	smtwtfs	Cyprus	250	77	ENGLISH	W AS
15310	0300	0600	smtwtfs	Masirah	100	92	ENGLISH	S AS	15575	0900	1200	smtwtfs	Cyprus	250	117	ENGLISH	ME
15310	0500	0600	smtwtfs	Masirah	100	45	ENGLISH	S AS	15575	1200	1300	smtwtfs	Cyprus	250	92	ENGLISH	W AS
15310	0600	1400	smtwtfs	Nakhon Sawan	250	290	ENGLISH	S AS	15575	1300	1400	smtwtfs	Cyprus	250	117	ENGLISH	ME
15310	1400	1700	smtwtfs	Masirah	100	70	ENGLISH	S AS	15575	1400	1500</						

17655	0230	0300	smtwtfs	Irkutsk	250	224	HINDI	S AS	21660	1500	1600	s.....	Cyprus	250	175	ENGLISH	E AF
17655	0810	0820	smtwtfs	Irkutsk	250	224	HINDI	S AS	21660	1500	1700	.mtwtf.	Cyprus	250	175	ENGLISH	E AF
17655	0900	0930	smtwtfs	Nakhon Sawan	250	25	ENGLISH	FE	21660	1500	1600	.....s	Cyprus	250	175	ENGLISH	E AF
17655	0930	1000	smtwtfs	Nakhon Sawan	250	25	BBC ENGLISH	FE	21660	1600	1700	s.....s	Cyprus	250	175	ENGLISH	E AF
17655	1000	1100	smtwtfs	Nakhon Sawan	250	25	MANDARIN	CHN	21780	0800	0810	smtwtfs	Tashkent	200	131	BENGLALI	S AS
17695	0700	0729	smtwtfs	Meyerton	500	350	FRENCH	C AF	21780	0810	0820	smtwtfs	Tashkent	200	131	HINDI	S AS
17695	0800	0815	smtwtfs	Lampertheim	100	77	RUSSIAN	RUSS	21780	0820	0830	smtwtfs	Tashkent	200	131	URDU	S AS
17695	0930	1000	s.....	Lampertheim	100	77	RUSSIAN	RUSS	21830	0300	0500	smtwtfs	Cyprus	250	77	ENGLISH	SW AS
17695	1000	1015	smtwtfs	Lampertheim	100	77	RUSSIAN	RUSS	21830	0800	0900	smtwtfs	Rampisham	500	92	ENGLISH	SW AS
17695	1015	1030	smtwtfs	Lampertheim	100	77	BBC ENGLISH	RUSS	OTHER BROADCASTERS								
17700	1100	1400	smtwtfs	Masirah	100	45	ENGLISH	S AS	3955	2000	2100	smtwtfs	Skelton	250	106	KBS GERMAN	EUR
17700	1100	1400	smtwtfs	Masirah	100	92	ENGLISH	S AS	3975	2100	2130	smtwtfs	Skelton	250	106	KBS ENGLISH	EUR
17700	1400	1700	smtwtfs	Masirah	100	92	ENGLISH	S AS	5975	0500	0600	smtwtfs	Skelton	250	150	NHK ENGLISH	W EUR
17720	0400	0430	smtwtfs	Cyprus	250	37	RUSS CASIA	C AS	6035	2000	2200	smtwtfs	Singapore	250	140	NHK ENGLISH	OC
17720	0600	0615	smtwtfs	Cyprus	250	7	RUSSIAN	RUSS	6055	2100	2200	smtwtfs	Skelton	300	110	NHK ENGLISH	W EUR
17720	0745	0945	.....f.	Cyprus	300	77	PASHTO	W AS	6110	0130	0230	smtwtfs	Ascension	250	235	RAI ITALIAN	S AM
17760	0300	0500	smtwtfs	Nakhon Sawan	250	40	ENGLISH	FE	6115	2200	2300	smtwtfs	Skelton	300	110	NHK JAPANESE	W EUR
17760	0500	1030	smtwtfs	Singapore	100	13	ENGLISH	SE AS	6135	0330	0400	smtwtfs	Ascension	250	85	NHK SWAHILI	AF
17780	1200	1230	smtwtfs	Ascension	250	27	FRENCH	W AF	6145	1900	2000	smtwtfs	Skelton	250	175	KBS FRENCH	EUR
17780	1230	1245	smtwtfs	Ascension	250	27	BBC ENGLISH	W AF	6155	0130	0200	smtwtfs	Rampisham	500	275	RTE	C AM
17790	0000	0100	smtwtfs	Singapore	100	315	ENGLISH	S AS	6175	1700	1900	smtwtfs	Skelton	250	150	NHK ENGLISH	W EUR
17790	0100	0200	s.....	Singapore	100	315	ENGLISH	S AS	6180	2100	2200	smtwtfs	Woofferton	300	58	NHK ENGLISH	EUR
17790	0100	0200	.mtwtf.	Singapore	100	315	ENGLISH	S AS	7230	0500	0700	smtwtfs	Woofferton	300	70	NHK ENGLISH	EUR
17790	0200	0300	smtwtfs	Singapore	100	315	ENGLISH	S AS	9525	0100	0300	smtwtfs	Sackville	250	212	VOV	C AM
17790	0300	0600	smtwtfs	Nakhon Sawan	250	290	ENGLISH	S AS	9535	0700	0800	smtwtfs	Skelton	300	110	KBS KOREAN	EUR
17790	0600	0805	smtwtfs	Masirah	100	45	ENGLISH	S AS	9640	2200	2300	smtwtfs	Singapore	100	140	KBS	SE AS
17790	0600	0805	smtwtfs	Masirah	100	92	ENGLISH	S AS	9660	1100	1130	smtwtfs	Woofferton	300	140	NHK JAPANESE	EUR
17790	0810	0820	smtwtfs	Nakhon Sawan	250	305	HINDI	S AS	9730	2300	2330	smtwtfs	Singapore	100	13	ABC KHMER	SE AS
17790	0820	0830	smtwtfs	Nakhon Sawan	250	305	URDU	S AS	9750	1700	1800	smtwtfs	Rampisham	500	62	NHK ENGLISH	EUR
17790	0900	1100	smtwtfs	Masirah	100	45	ENGLISH	S AS	9795	0300	0400	smtwtfs	Sackville	250	212	VOV	C AM
17790	0900	1100	smtwtfs	Masirah	100	92	ENGLISH	S AS	9795	0400	0500	smtwtfs	Sackville	250	277	VOV	N AM
17790	1100	1130	smtwtfs	Ascension	250	245	ENGLISH	S AM	9875	1200	1300	smtwtfs	Vladivostok	500	228	SHB ENGLISH	CHN
17810	1345	1415	smtwtfs	Ascension	250	55	HAUSA	W AF	9940	1300	1400	smtwtfs	Irkutsk	250	224	SHB ENGLISH	S AS
17830	0700	0800	smtwtfs	Rampisham	500	169	ENGLISH	W AF	11550	0900	0930	smtwtfs	Taipei	250	205	ABC	SE AS
17830	0800	1000	smtwtfs	Ascension	250	65	ENGLISH	W C AF	11550	2130	2330	smtwtfs	Taipei	250	205	ABC	SE AS
17830	1000	1100	s.....s	Ascension	250	65	ENGLISH	W C AF	11685	1000	1030	smtwtfs	Singapore	250	135	RTE	AUS
17830	1100	1400	smtwtfs	Ascension	250	65	ENGLISH	W C AF	11710	0800	1000	smtwtfs	Woofferton	300	70	NHK JAPANESE	EUR
17830	1400	1500	.mtwtf.	Ascension	250	65	ENGLISH	W C AF	11710	1100	1200	smtwtfs	Woofferton	250	70	NHK JAPANESE	EUR
17830	1400	1500	s.....s	Ascension	250	65	ENGLISH	W C AF	11740	0600	0700	smtwtfs	Singapore	250	1	NHK ENGLISH	SE AS
17830	1500	1700	smtwtfs	Ascension	250	65	ENGLISH	W C AF	11740	0700	0800	smtwtfs	Singapore	250	1	NHK JAPANESE	SE AS
17830	1500	1700	.....s	Ascension	250	65	ENGLISH	W C AF	11740	0800	1000	smtwtfs	Singapore	250	1	NHK	SE AS
17830	1700	1800	smtwtfs	Ascension	250	65	ENGLISH	W C AF	11740	1030	1100	smtwtfs	Singapore	250	1	NHK JAPANESE	SE AS
17830	1800	1900	smtwtfs	Ascension	250	65	ENGLISH	W C AF	11740	1130	1200	smtwtfs	Singapore	250	1	NHK THAI	SE AS
17830	1900	2100	smtwtfs	Ascension	250	65	ENGLISH	W C AF	11740	1200	1230	smtwtfs	Singapore	250	1	NHK	SE AS
17840	1400	1500	.mtwtf.	Antigua	125	205	ENGLISH	S AM	11740	1230	1300	smtwtfs	Singapore	250	1	NHK CHINESE	SE AS
17840	1400	1500	s.....s	Antigua	125	205	ENGLISH	S AM	11760	1600	1730	smtwtfs	Rampisham	500	62	HCJB RUSSIAN	RUSS
17840	1400	1500	.mtwtf.	Antigua	125	300	ENGLISH	C N AM	11765	0130	0230	smtwtfs	Ascension	250	295	RAI ITALIAN	C AM
17840	1400	1500	s.....s	Antigua	125	300	ENGLISH	C N AM	11855	2100	2200	smtwtfs	Ascension	250	85	NHK ENGLISH	AF
17840	1500	1700	smtwtfs	Antigua	125	205	ENGLISH	S AM	11860	0100	0300	smtwtfs	Singapore	250	340	NHK JAPANESE	SE AS
17840	1500	1700	smtwtfs	Antigua	125	300	ENGLISH	C N AM	11870	1000	1100	smtwtfs	Taipei	100	352	SHB ENGLISH	CHN
17840	1700	1900	smtwtfs	Sackville	250	285	ENGLISH	N AM	11920	0700	0800	smtwtfs	Singapore	250	140	NHK JAPANESE	OC
17840	1900	2000	.....s	Sackville	250	285	ENGLISH	N AM	11920	0800	1000	smtwtfs	Singapore	250	140	NHK	SE AS
17860	1430	1530	smtwtfs	Rampisham	500	95	PERSIAN	ME	11920	1000	1100	smtwtfs	Singapore	250	140	RAI ITALIAN	OC
17870	0945	1130	....t.f.	Cyprus	300	77	PERSIAN	ME	12025	2100	2230	smtwtfs	Skelton	250	165	HCJB ARABIC	N AF
17870	1130	1230	....t.f.	Cyprus	300	77	PASHTO	W AS	13640	1830	1900	smtwtfs	Sackville	250	277	RTE	N AM
17870	1130	1230	.....f.	Cyprus	300	77	PERSIAN	ME	13720	1800	1900	smtwtfs	Skelton	300	140	WYFR	N AF
17870	1530	1615	smtwtfs	Rampisham	500	95	PASHTO	W AS	15110	2330	0030	smtwtfs	Taipei	250	225	ABC	SE AS
17870	1615	1700	smtwtfs	Nakhon Sawan	250	300	PERSIAN	ME	15220	0700	0730	smtwtfs	Ascension	250	27	NHK ARABIC	N AF
17885	0430	0500	smtwtfs	Seychelles	250	240	FRENCH	E AF	15220	2200	2300	smtwtfs	Ascension	250	235	NHK JAPANESE	S AM
17885	0500	0529	smtwtfs	Seychelles	250	270	ENGLISH	E AF	15315	1800	1830	smtwtfs	Rampisham	500	105	RTE	ME
17885	0529	0559	smtwtf.	Seychelles	250	270	ENGLISH	E AF	15320	1700	1800	smtwtfs	Ascension	250	102	RAI ITALIAN	AF
17885	0529	0559	.....s	Seychelles	250	270	GREAT LAKES	E AF	15360	1800	1900	smtwtfs	Rampisham	500	61	KBS RUSSIAN	RUSS
17885	0559	0600	smtwtfs	Seychelles	250	270	ENGLISH	E AF	15400	1230	1300	smtwtfs	Ascension	250	27	NHK FRENCH	AF
17885	0600	0800	s.....s	Seychelles	250	270	ENGLISH	E AF	15435	1400	1530	smtwtfs	Singapore	100	13	ABC CHINESE	CHN
17885	0800	1400	smtwtfs	Seychelles	250	270	ENGLISH	E AF	17635	1200	1300	smtwtfs	Komsomolsk	250	213	SHB ENGLISH	SE AS
17885	1800	1830	smtwtfs	Ascension	250	27	FRENCH	W AF	17650	0800	1000	smtwtfs	Ascension	250	27	NHK JAPANESE	AF
17885	1915	1930	smtwtfs	Ascension	250	27	BBC ENGLISH	W AF	17790	1230	1300	smtwtfs	Ascension	250	85	NHK FRENCH	AF
17885	1930	2000	smtwtfs	Ascension	250	55	HAUSA	W AF	17790	1300	1330	smtwtfs	Ascension	250	85	NHK JAPANESE	AF
21470	0800	1300	smtwtfs	Seychelles	250	240	ENGLISH	S AF	17865	0500	0530	smtwtfs	Singapore	250	13	ABC KHMER	SE AS
21470	1300	1400	smtwtfs	Ascension	250	114	ENGLISH	S AF	21615	0000	0030	smtwtfs	Tinian	250	255	ABC	SE AS
21470	1400	1500	smtwtfs	Ascension	250	114	ENGLISH	S AF	21630	1600	1700	smtwtfs	Ascension	250	85	NHK JAPANESE	AF
21470	1500	1600	s.....	Ascension	250	114	ENGLISH	S AF	21630	1700	1800	smtwtfs	Ascension	250	85	NHK ENGLISH	AF
21470	1500	1700	.mtwtf.	Ascension	250	114	ENGLISH	S AF	21630	1830	1900	smtwtfs	Ascension	250	85	RTE	AF
21470	1500	1600	.....s	Ascension	250	114	ENGLISH	S AF	21780	0400	0430	smtwtfs	Tinian	250	255	ABC	SE AS
21470	1600	1700	s.....s	Ascension	250	114	ENGLISH	S AF	1386	2000	2400	smtwtfs	Kaliningrad	***	275	LBH RADIO	EUR
21470	1700	1800	smtwtfs	Ascension	250	114	ENGLISH	S AF	3230	1801	2200	smtwtfs	Meyerton	100	0	AFFILIATED	S AF
21470	1800	1900	smtwtfs	Ascension	250	114	ENGLISH	S AF	3955	1800	1900	smtwtfs	Skelton	250	170	CBS ENGLISH	W EUR
21490	1400	1415	.mtw...	Cyprus	300	160	BBC ENGLISH	E AF	3955	1900	2000	smtwtfs	Skelton	250	170	CBS FRENCH	W EUR
21490	1400	1415	....t.f.	Cyprus	300	160	SOMALI	E AF	6145	1530	1600	.mtwtf.	Meyerton	100	275	AFFILIATED	S AF
21490	1415	1500	smtwtfs	Cyprus	300	160	SOMALI	E AF	6145	1600	1800	smtwtfs	Meyerton	100	275	AFFILIATED	S AF
21490	1500	1530	s.....	Meyerton	500	7	ENGLISH	E AF	6175	1500	1700	.....s	Skelton	250	105	NEW	EUR
21490	1500	1530	.mtwtf.	Meyerton	500	7	ENGLISH	S AF	6175	1900	2000	smtwtfs	Skelton	300	110	CBS GERMAN	W EUR
21490	1500	1530	.....s	Meyerton	500</												

16

1130-1359 11650 Russian
1400-1459 9465 Russian
1500-1529 9465 Russian (Su/Th/Sa), Ukrainian (Fr)
1530-1544 9465 Udmurt (Su/Tu), Tatar (Mo), Mari (We), Uzbek (Th),
Kirghiz (Fr), Chuvash (Sa)
1545-1559 9465 Udmurt (Su), Tatar (Mo/Tu), Germ (We), Ossetic (Th),
Kazakh (Fr/Sa)
1600-1629 9465 Russian (Su-Fr), Ukrainian (Sa)
1630-1829 9465 Russian
1830-1845 9465 Russian (Su/Tu/Th/Sa), Ukrainian (Mo/We/Fr)
1845-1900 9465 Russian (Su/Th/Sa), Ukrainian (Mo/Tu/We), German (Fr)
0955-1600 11580 Mandarin (Chinese)
1600-1615 11580 Uighur (Minority Chinese)
1615-1630 9410 Uzbek (Su/Sa), Ossetic (Mo), Kazakh (Tu/We),
Kirghiz (Th/Fr)
1630-1645 9410 Udmurt (Su/Th/Fr), Mari (Mo), Ukrainian (Tu),
Chuvash (We), Tartar (Sa)
1645-1700 9410 Udmurt (Su/Fr), Tartar (Mo/Sa), German (Tu/We/Th)
0800-0829 15380 Banjarese
0830-0859 15380 Gorontalo
0900-0929 15380 Makassarese
0925-0959 15380 Bugisnese
1000-1029 15380 Sundanese
1030-1059 15380 Javanese
1100-1229 15380 Indonesian
1230-1259 15380 Baku
1300-1359 12120 Vietnamese
1400-1429 12120 Vietnamese (Mo/Tu/Fr/Sa), Koho (Su), Hmong (We),
Mien(Th)
(Bob Springer - KFBS via BP EDXP-NET, 8 Apr 2001)

The IBB transmitters at Playa de Pals, Spain, ended their last programming at 0800 GMT May 25. (Dan Ferguson via EDXP-NET via WWDXC-HQ; May 26, 2001)

WYFR Frequency & Language schedule for period A01. Protestant radio station **Family Radio** - **WYFR** operated by Family Radio Network, located in California. Transmitters are at Okeechobee, Florida. Some broadcasts are relayed from facilities in Taiwan. Postal address: Family Radio, 290 Hegenberger Road, Oakland, CA 94621, USA. E-Mail: <shortwave@familyradio.com> Web: <<http://www.familyradio.com>>

German:

0300-0400	9355	Europe, Africa
0400-0500	9985, 11580	Europe, Africa
0500-0600	7355, 9985	Europe, Africa
0600-0700	11580	Europe, Africa
1700-1800	21510	Europe, Africa
1900-2000	15715, 21455	Europe, Africa

Arabic:

0500-0600	13695, 15170	ME
1600-1700	21510	ME
1700-1800	21525	ME
1800-1900	13720	ME

Spanish:

0000-0500	9715, 11855	Mexico, CAm
0100-0200	15215, 17750	S.America, Carribbean
0100-0300	5985, 15255	Carribbean
0300-0500	5985	Carribbean
0500-0600	9705, 11855	Mexico, CAm
0800-1000	9550, 11855	S.America, Carribbean
1000-1100	6085	Carribbean
1000-1100	6175, 9550, 11855	S.America, Carribbean
1100-1200	9370	S.America, Carribbean
1100-1200	9605, 11725	Mexico, CAm
1100-1300	6085, 11970	Carribbean

1200-1400	11725, 15130, 15145	Mexico, CAm
1300-1400	6085	Carribbean
1400-1500	15130	Mexico, CAm
2200-2300	15695, 15715	Europe
2200-2400	11855	Mexico, CAm
2200-0100	5985	Carribbean
2300-0100	15215, 17750, 17845	S.America, Carribbean
French:		
0600-0700	7520, 13695, 15170	Europe, Africa
0600-0700	9985	Europe, Africa (N)
0700-0800	7520, 11580	Europe, Africa (N)
0700-0800	9985	Europe, Africa
1100-1200	9625, 11970	Antillas
1100-1200	9505	Canada
1200-1300	13695	Canada
1800-1900	15715	Europe, Africa (N)
1800-1900	18930, 21455, 21525	Europe, Africa
2000-2100	15695, 17750, 21525	Europe, Africa
2100-2200	15715, 15695	Europe, Africa (N)
2300-2400	6085	Canada
2300-0100	15255	Antillas
Hindi:		
0000-0100	15060	India
1502-1602	11550	India
1600-1700	6280	India
English:		
0000-0100	6085, 9505	N.America
0100-0200	15060	India
0100-0500	6065, 9505	N.America
0400-0500	9355	Europe
0500-0600	7255, 11580	Europe
0500-0700	5985	N.America
0600-0800	7355	Europe
0700-0800	13695, 15170	Africa
1000-1100	5950	N.America
1100-1200	5850, 5950	N.America
1200-1300	5850, 5950, 17750	N.America
1300-1500	11830, 11970, 17750	N.America
1302-1502	11550	India
1500-1600	6280	India
1500-1600	11830, 17750	N.America
1600-1700	11830, 17750	N.America
1600-1700	21525	Africa
1600-2000	18980, 21455	Europe
2000-2100	17845	Africa
2000-2200	18980	Europe
2100-2300	15120, 17845	Africa
2200-2400	11740	N.America
Italian:		
0600-0700	9985	Europe, Africa (N)
0700-0800	7520, 11580	Europe, Africa (N)
1800-1900	15715	Europe, Africa (N)
2100-2200	15695, 15715	Europe, Africa (N)
Mandarin:		
1002-1602	6300, 9280	China
1100-1245	6015	China
1300-1400	13695	China
1400-1500	13695	China
2100-2400	6300, 9280	China
Portuguese:		
0000-0100	15130, 17725, 17805	Brasil
0100-0200	17725	Brasil
0400-0500	15170	Africa (0)

0800-0900	9605, 11770	Brasil
0900-1000	6175, 9605, 9625, 11770	Brasil
1900-2000	21525	Africa (0)
2200-2300	15130	Brasil
2300-2400	17725	Brasil

Russian:

0300-0400	7355, 9905	Rusia
0400-0500	7355	Rusia
1505-1700	9955	Rusia
1700-1800	17760, 21725	Rusia

(Marcelo Cornachioni in CONEXION #109; June 03, 2001)

Radio Free Asia - RFA schedule in A-01, valid until Oct 28, 2001. RF currently broadcasts from 1100-0700. There are no transmissions between 0700 and 1100. Daily programming including Mandarin for 12 hrs, Cantonese for two hrs, and Tibetan for eight hrs.

0000-0100	LAO	12015I 13830 15545T
0030-0130	BURMESE	13680T 15660 17525 17645S
0100-0300	TIBETAN	9365 11695* 11975H 15225T 15695 17730
0100-0130	UIGHUR	9350 11520 11895* 11945* 15405T
0300-0600	MANDARIN	13670T 13760T 15150T 15665T 17495 17525 17615S 17880S 21690T
0600-0700	MANDARIN	13670T 13760T 15150T 15665T 17495 17525 17615S 17880S
0600-0700	TIBETAN	17510 17535 17720 21500T 21690*
1100-1300	TIBETAN	7470 11590 13625T 15545* 15695 17855-(fr 1200)
1100-1200	LAO	9355S 9545T 15560I 15660
1230-1330	CAMBODIAN	13765I 15525T 15660
1300-1400	BURMESE	9385 11765T 13745T 15680
1300-1400	TIBETAN	7470 11590 13625T 15545* 15695 17855H
1400-1500	CANTONESE	9445S 11950S 13625T
1400-1500	VIETNAMESE	9455S 9635T 9930W 11510 11520 11605* 11765T 13775P 15660
1400-1500	KOREAN	7380 11790T 13720T 15690
1500-1600	TIBETAN	7470 11510 11780* 13835
1500-1600	MANDARIN	9905P 11765T 11945S 13625T 13690T 15510T 15585* 15680 17640T 17675*
1600-1630	UIGHUR	7460 9370 9555* 9675* 13625T
1600-1700	MANDARIN	9455S-(fr 1630) 9905P 11750T 11795T 11945S 13690T 15510T 15520* 15680 17640T 17675*
1700-1800	MANDARIN	9455S 9905P 11750T 11795T 11945S 13690T 15510T 15520* 15680 17640T 17675*
1800-1900	MANDARIN	9455S 11520 11740T 11815* 11945S 11955T 13680T 15510T 15680 17640T 17675*
1900-2000	MANDARIN	9455S 9905P 11520 11740T 11785T 11815 11945S 11955T 13680T 15510T 15680 17665
2000-2100	MANDARIN	9455S 9905P 11520 11700T 11740T 11785T 11815* 11935S 13625T 13670T 15355* 15515T 15670
2100-2200	CANTONESE	9355S 11785T 13675T
2100-2200	MANDARIN	9455S 9910P 11700T 11740T 11815* 11935S 13625T 15355* 15515T 15680
2200-2300	CANTONESE	9355S 9955P 11785T 13675T
2200-2300	KOREAN	7460 9455S 11670S
2230-2330	CAMBODIAN	9930P 11570 15175 15485T
2300-2359	MANDARIN	9910P 11770* 11785T 13755* 13800S 15430T 15550T 15680
2300-2359	TIBETAN	7470 9365 9805* 9875H 15695
2330-0029	VIETNAMESE	11540 11560 11580 11605* 11670T 13720S 15560P

RFA uses IBB txs in HOL=Holzkirchen Germany, IRA=Iranawila Sri Lanka, SAI=Saipan & TIN=Tinian NoMariana Isls. *Test transmissions.
(various sources via WB, updated on Jun 13, 2001)

New service from the **World Beacon**, known as "Russia Beacon" started on Jun 01. It's

using 17795 from Woofferton, UK, 1400-1800 Mo-Fr. Target is Russia and Eastern Europe. (BP - EDXP HQ via WDXC-HQ, 5 Jun 2001)

Sources & Contributors:

ADDX Assoziation deutschsprachiger DXer - Duesseldorf, Germany.
 BC-DX News Bulletin by Wolfgang W. Bueschel - Germany.
 BP Bob Padula - Australia.
 CONEXION CONEXION Digital - Buenos Aires, Argentina.
 DXLD Glenn Hauser's DX LISTENING DIGEST - USA.
 EDXP-NET ELECTRONIC DX PRESS Messaging Network - Australia.
 JKB Dr. Juergen Kubiak, Berlin - Germany.
 NDXC Nagoya DXers Circle
 OBSERVER Fortnightly edition of Radio Bulgaria's Frequency Management.
 RUS-DX Information bulletin of Russian DX League - Russia.
 WB Wolfgang W. Bueschel, Stuttgart - Germany.
 WDXC-HQ WDXC Headquarter, Michael Bethge

Abbreviations:

<i>Target:</i>	<i>Target Prefix:</i>
ITU country code or	N North
Af Africa	E East
Am America	S South
As Asia	W West
Eu Europe	C Central
ME Middle East	
FSU Former Soviet Union	

<i>Languages:</i>	<i>Other common abbreviations:</i>
Ar Arabic	bc broadcast
Ch Chinese	lsb Lower Side Band Mode
Du Dutch	nd non-directional
E English	px program
F French	sce(d),
G German	sked schedule
Gr Greek	ssb Single Sideband Mode
I Italian	tx(er) transmitter
J Japanese	usb Upper Side Band Mode
K Korean	mm/dd/yy Date (month/day/year)
P Portuguese	ddmmyy (daymonthyear)
R Russian	
Sp Spanish	
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, B-26, Jal Vayu Vihar, Sector - III, Salt Lake, Kolkata - 700 098, India
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TROPICAL BANDS

Frequ.	UTC	SINPO	ITU	Radio Station	Language	Programme Details	Date	Rep.
2410.0	1130	25332	PNG	Radio Enga	English	Interview Program	2005	GI
3310.8	2215	34433	BOL	Radio Mosoj Chaski, Chochabamba	Ayamara	Variety local music program	0505	ALS
3315.0	1435	34433	IND	All India Radio, Bhopal	Hindi	Language lessons and Pop Mx.	2005	GI
3326.0	2301	14331	NIG	Radio Lagos. Channel 1 , Lagos	English	News Bulletin	0505	ALS
3329.5	2306	23332	PRU	Ondas del Huallaga, Huanuco	Spanish	Songs and Ann.	0505	ALS
3976.1	1127	44443	INS	Radio Republik Indonesia, Pontianak	Indonesian	News and Music	2905	JY
4003.2	2307	23432	INS	Radio Republik Indonesia, Padang	Indonesian	Anns. ID and Music Program	0505	ALS
4461.2	0015	24332	PRU	Radio Norandina, Celendin	Spanish	LA Music and Commentary	0505	ALS
4485.7	0026	23332	PRU	Radio Frecuencia, Celendin	Spanish	Jazz Music and ID	1306	DC
4950.6	2305	34443	AGL	Radio Nacional de Angola,Luanda	Portugese	News and ID	1906	DC
4649.1	0021	14441	BOL	Radio Santa Ana de Yacuma, Beni	Spanish	Latino Music and ID	1306	DC
4681.6	2231	14331	BOL	Radio Paititi, Guayaramirim	Spanish	Romantic Songs and Sports Px	0505	ALS
4732.2	2235	33322	BOL	Radio La Palabra,SantaAnadeYacuma	Spanish	Music Program, Tropical Songs	0505	ALS
4746.8	1010	24332	PRU	Radio Huanta 2000, Huanta	Quechua	Local News nad ID	0505	ALS
4753.3	1127	14331	INS	RRI, Makassar	Indonesian	Local Music and ID	0505	ALS
4765.0	2158	45554	COG	Radio Congo	French	ID, Anns and Hilife music	0706	DC
4785.0	0959	24432	B	Radio Cairi, Porto Velho	Portugese	ID,Jingle & Music Program	0505	ALS
4782.2	0026	32432	EQA	Radio Oriental,Tena	Spanish	Local Advts. And ID	0505	ALS
4795.0	1150	33332	RUS	Radio Rossii, Ulan Ude	Russian	Program	1106	HO
4826.4	1014	24432	PRU	Radio Sicuani, Sicuani, Cusco	Spanish	Regional News	0505	ALS
4832.2	0130	23332	HON	Radio Litoral de Caiba	Spanish	Music Program with IDs	0206	DC
4835.0	2314	32332	MLI	ORTM, Bamako	French	Tribal vocals, Talks and ID	0706	RAD
4835.0	0922	24432	AUS	ABC,Alice Springs	English	Variety Program and News	0505	ALS
4841.5	2245	14431	PRU	Radio Andahuaylas, Andahuaylas	Spanish	Folk Music Program	0505	ALS
4850.0	1159	33433	MNG	Radio Ulaan bator	Mongolian	News	1106	HO
4855.7	2220	34443	PRU	Rdio La Hora, Cusco	Spanish	Cumbia Andina	0505	ALS
4866.2	0912	24332	B	Radio Missoes de Amazonia,Obidos	Portugese	Religious Programs	0505	ALS
4905.1	2151	24442	B	Radio Relogio Federal, Rio de Janerio	Portugese	ID and Program	1006	DC
4925.0	1516	43443	INS	RRI, Jambi	Indonesian	News followed by sign off.	2605	JY
4930.0	1700	24332	TKM	Turkmen Radio	Turkmen	Local Music	3005	HO
4930.0	1108	34333	RUS	Radio Mix Master, Yakutsk	Russian	Pops, Talks by woman and ID	2705	IN
4955.0	1002	24432	PRU	Radio Cultural, Amauta, Huanta	Quechua	Sign On, ID and Folk Music	0505	ALS
4976.0	2029	34333	UGA	Radio Uganda, Kampala	English	Sermon and music	2705	IN
4992.7	2323	24332	PRU	Radio Ancash, Huaraz	Spanish	Religious Program	0505	ALS
5003.7	2028	34333	EQG	Radio Nacional, Bata	Spanish	African Pops and Anns. And ID	1906	IN
5034.9	1157	44444	VTN	Voice of Vietnam, Hanoi	Hmong	Opening Music and ID	2005	GI
5055.1	0945	24432	B	Radio Difusora, Caceres	Portugese	Religious Programs	0505	ALS

SHORTWAVE

Frequ.	UTC	SINPO	ITU	Radio Station	Language	Programme Details	Date	Rep.
5300.0	2258	14431	PRU	Radio Acobamba, Acobamba	Spanish	Tropical & Peruvian Folk Songs	0505	ALS
5700.0	2351	14431	PRU	Radio Frecuencia, San Ignacio	Spanish	Local Music	0505	ALS
5940.0	1229	44444	RUS	Voice of Russia	Mongolian	IS, ID and News	1106	HO
5945.0	0333	54444	USA	BBC World Service via Delano relay	Spanish	Interviews	0906	SHM
5950.0	0316	43333	USA	Radio Taipei Intl., via WYFR relay	English	Cultural Program	0906	SHM
5960.0	0320	43333	CAN	Radio Japan NHK, Tokyo via Sackville	Japanese	Comments and Music	0906	SHM
5975.0	0325	43433	ATG	BBC World Service via Antigua relay	English	Classical Music	0906	SHM
5985.0	2020	33333	TZA	Radio Tanzania, dar es Salaam	Swahili	African Pops and News	0706	IN
5985.0	2024	33332	COG	Radio TV Congoliase	Vernaculars	Male Talks and African pops	2905	IN
5985.8	1205	44432	BRM	Radio Myanmar, Yangon	Burmese	Banana Boat and Talks	2005	GI
5990.0	0950	44444	B	Radio Senado dela Nacion	Portugese	Brazilian songs and ID	0606	ALS
5990.0	1534	34333	ETH	Radio Ethopia	Amharic	Music and Talk	1905	KH
6011.0	2315	23333	B	Radio Inconfidencia, Belo Horizonte	Portugese	Futball Sports Program, ID	0906	DC
6040.0	2320	24333	B	RadioClube Paranaense, Cuitiba	Portugese	Music sartaneja and ID	0906	DC
6055.0	0335	33333	E	Radio Exterioe de Espana	Spanish	Jazz Music and Interview	0906	SHM
6060.0	1225	22332	RUS	Radio Rossii, Blagoveshensk	Russian	Talks	1106	HO
6070.8	1025	44444	INS	Radio Republik Indonesia, Jayapura	Indonesian	Music, Talk and ID	0206	GI
6100.0	1759	33443	YUG	Radio Yugoslavia	Russian	IS, ID and News	1505	HY
6140.0	1445	55555	D	Deutsche Welle via Juleich	English	Frontier Control System	0106	WB
6154.2	2326	33333	BOL	Radio Fides, La Paz	Spanish	Political News and Ann.	1906	DC
6165.0	1301	44444	VTN	Voice of Vietnam	Hmong	Songs by man and woman	2705	GI
6180.0	0855	34333	B	Radio Nacional de Amazonia	Portugese	Pop Music, Talk and ID	0406	KH
6265.0	1557	35333	ZMB	Zambia National Broadcasting Corp.	English	Local Pop Music and talk & ID	1905	KH
6311.0	0846	43433	PRU	Radio Union, Lima	Spanish	Local Songs and ID	0505	ALS
6350.0	0650	32222	HWA	AFN, Pearl Harbour	English	ID and AP Network News	2405	RAD
6439.0	1200	34343	VTN	Radio Cao Bang	Vietnamese	ID and Songs	1706	GI
6520.4	1026	24432	PRU	Radio Paucartambo, Paucartambo	Spanish	ID with nice Huaynos	0505	ALS
6536.1	2336	24442	PRU	Radio difusora Huancabamba	Spanish	Music Program	0505	ALS
6673.4	2348	24342	PRU	Radio Andina, Huancabamba	Spanish	Local Music and Advts.	0505	ALS
6782.7	2356	24422	PRU	Radio Ondas del Pacifico, Ayabaca	Spanish	Peruvian Folk Songs	0505	ALS
6797.5	1106	24332	PRU	Radio Ondas del Rio Mayo	Spanish	Talk and Peruvian Folk song	1705	IN
6956.6	2346	24432	PRU	La Voz del Campesino, Huarmaca	Spanish	Music Program, ID and Anns.	0505	ALS
7100.0	1454	34433	ERI	Voice of the Broad Masses of Eritrea	Vernaculars	IS, ID and Talks	2005	KH
7115.0	1810	34333	IRN	VOIRI, Teheran	Russian	News and Local Music	0106	HO
7140.0	1930	22332	RUS	Radio Rossii, Yakutsk	Russian	Talks	0406	HO
7235.0	2102	33332	AUT	Everest Radio via ORF relay	Nepali	Music and ID	2805	RAD
7240.0	1758	24332	ALB	Radio Tirana		Interval Signal	1705	HY
7245.0	1645	34333	TJK	Radio Tajikistan, Dushanbe	English	Nationa & Intl. News and Px.	3105	IN
7255.0	2057	34433	NIG	Voice of Nigeria	English	ID and African Drums	1705	IN
7270.0	2020	33332	GAB	Radio TV Gabonaise	French	African Pops and Male Talk	3005	IN
7320.0	1230	22332	RUS	Radio Rossi, Magadan (Arman)	Russian	Talks	1106	HO
7385.0	0330	35343	USA	WRMI, Maimi	English	This Lousy Half hour Show	0605	RL
7415.0	0200	55333	USA	WBCQ Maine	English	Johnny Lightning Show	3004	RL
7445.0	0502	35343	USA	WRMI	English	AWR Wavescan. S. Pacific DX	2005	RL
7460.0	2200	33333	ALG	RASD, Tindouf	Arabic	Western Sahara Program	3105	WB
7470.8	2110	44444	MRC	Radio TV Marocaine, Sebaa Aioun	Arabic	Talks	3105	WB
8098.0	0915	25332	ARG	Radio Diez	Spanish	Music and Talk and ID	0306	KH
9400.0	0240	45433	BUL	Radio Bulgaria, Sofia	English	Answering listeners letters	3004	RL
9435.0	0058	33333	D	Radio Santec via DTK, Julich	English	Universal Life Program	2005	RAD
9440.0	1915	22332	CHN	Radio China Intl.,	English	International News	1405	HVG
9575.0	1454	43433	SUI	Swiss Radio Intl., Berne	English	News Net	0505	RL
9580.0	1622	54444	AUS	Radio Australia, visa Shepperton relay	English	Classical Piano Music	1905	SHM
9595.0	1626	44444	JAP	Radio Tampa	Japanese	Pop Music	1905	SHM
9605.0	1634	33333	SNG	BBC, via Singapore	English	Newscast	1905	SHM
9605.0	0304	45433	CVA	Vatican Radio	English	Ask the Abott, Pope to retire	2205	RL
9630.0	1635	22222	TWN	China Broadcastine Service	Chinese	Program jammmed by Beijing	1905	SHM
9645.0	1637	43333	CLN	VOA via Sri Lanka relay	English	Newscast and Interview	1905	SHM
9660.0	1430	54444	PHL	Radio Blagovest via R. Veritas Asia	Russian	Talk and ID	1705	KH
9730.0	0930	22432	SNG	Radio Australia via Merlin Singapore	Khmer	Commentary by lady	0505	ALS

9736.4	2245	34433	PRG	Radio Nacional del Paraguay	Spanish	ID and Sports Program	1706	ALS
9740.0	1640	33333	SNG	BBC, World Service via Singapore	English	Sports Newscast	1905	SHM
9779.6	2143	34333	YEM	Temen Radio and TV, Sa'ana	Arabic	Songs and News	1606	IN
9780.4	1618	34333	YEM	Yemen Radio & TV, Sanaa	Arabic	Talk and ID	1905	KH
9845.0	0056	55433	NLA	Radio Netherlands	English	Rural Tapestry & Tennessee W.	2105	RL
9865.0	1126	44444	RUS	Radio Vlaanderen Internationaal	English	IS and Folk Music	2605	HY
9870.0	0152	43433	AUT	Radio Austria Intl., Vienna	English	Postbox Program	2005	RL
9870.0	0314	43433	CZE	Radio Prague via WRMI relay	English	Mailbox	2105	RL
9885.0	0143	55433	SUI	Swiss Radio Intl., Berne	English	Swiss Scene. Sounds good	2005	RL
9885.0	0754	55433	NZL	Radio New Zealand Intl.,	English	Mailbox	2105	RL
9905.0	1648	43333	PLW	Radio Free Asia	Chinese	Talks and Comments	1905	SHM
9944.9	1530	34443	ALB	TWR via Cerrik relay	Armenian	Jerusalem	0106	WB
9960.0	1940	44444	ARM	Voice of Armenia, Yerevan	English	News on Conference of Russia	1506	DG
9960.0	1459	34443	ARM	Radio Forward Gavar via Yerevan	Arabic	Program for Kurdistan	0106	WB
9965.0	2105	33333	CHN	China Radio Intl.,	Italian	News on new Nepalese king	0406	DG
9980.0	1600	25332	BUL	Radio Eurosonor	German	ID and Music program	1706	IN
10330.0	1626	34443	IND	All India Radio, Vividh Bharati Service	Hindi	Instrumental and Folk Music	2805	ET
11518.9	1154	34433	BNG	Radio Bangladesh, Dhaka	Bengali	News Bulletin and ID	0505	ALS
11570.0	1600	23222	PAK	Radio Pakistan, Islamabad	English	News on relation with USA	1206	DG
11610.0	1400	44443	CHN	Radio France International via Xian	English	International News	2005	AKB
11610.0	1350	44443	CHN	Radio Exterior de Espana, via Xian	Spanish	Talks and Program	2005	AKB
11700.0	0218	33433	BUL	Radio Bulgaria, Sofia	English	Folk Studio. Rain Songs	2105	RL
11715.0	2238	44444	NLA	Radio Nederlands	Spanish	Comments	3005	SHM
11734.1	1529	44433	TZA	Voice of Tanzania, Zanzibar	Swahili	Music and ID	0906	KH
11800.0	1450	55555	BIH	Radio Yugoslavia via Bijeljina	Arabic	Comment on Kosova and Sofia	0106	WB
11800.0	2234	33333	POR	RDP,Lisboa	Portugese	Talk Program	3005	SHM
11810.0	2030	22222	CHN	China Radio Intl.,	Italian	News Shanghai cooperation	1506	DG
11870.0	1515	44444	BIH	Radio Yugoslavia via Bijeljina	Russian	ID,Music and Orchestra	0106	WB
11895.0	2219	44444	GUF	Radio Japan,NHK via Montsinery	English	Interview Program	2905	SHM
11895.0	0330	55533	CAN	Radio Sweden via Sackville relay	English	Nordic Report	0405	RL
11900.0	2100	34333	BUL	Radio Sofia	English	ID and News	0406	IN
11915.1	0237	33332	B	Radio Gaucha	Portugese	ID,Ann. And pop music tones	1805	RAD
11970.0	1734	33233	J	Radio Japan, NHK	English	Music and ID	1406	HVG
11995.0	0930	45444	POR	RDP via Sines relay	Portugese	Gagarin Report	0206	WB
12079.9	1535	33343	ALB	TWR via Cerrik relay	Armenian	Music	0106	WB
12095.0	2215	43333	ASC	BBC World Service	English	Snow melting in the Artic	3005	SHM
12110.0	1659	34433	RUS	Radio Netsanet	Amharic	IS,ID,Music and Talk	3005	KH
12120.0	1455	35333	PHL	FEBC, Manila	Burmese	Music and Sermon	0106	WB
12130.0	1510	35333	GUM	KTWR,Agana	Mandarin	Talks	0106	WB
13635.0	2205	43333	IRN	VOIRI,Teheran	Farsi	Talk and Music	3005	SHM
13670.0	2205	54444	CAN	Radio Canada International	English	Financial Market News	2905	SHM
13700.0	2156	33333	NLA	Radio Nederlands via Bonaire relay	French	Talks	3005	SHM
13740.0	1905	43334	VTN	Radio Vietnam	English	International News	1705	HVG
13810.0	1845	23222	D	Radio Ecclesia via DTK, Julich	Portugese	ID and Ann & Program	0106	WB
13820.0	1735	32222	D	Radio Africa Intl., via DTK, Julich	English	News abt people in N.Orleans	1306	DG
13820.0	2148	22222	USA	Radio Marti, via Delano relay	Spanish	Interview	3005	SHM
13840.0	1737	22232	GUM	KHBN,Saipan	English	Religious Program	1406	HVG
14941.5	2118	33222	MRC	Radio TV Marocaine,Sebaa Aioun	Arabic	Prayers	3105	WB
15048.0	0754	45543	CTR	RFPI, Costa Rica	English	Every living thing	2105	RL
15125.0	1159	32222	INS	Radio Republik Indonesia, Jakarta	Indonesian	Talk Music and ID	0406	RAD
15150.0	2005	34433	INS	Radio Republik Indonesia, Jakarta	English	International News	1206	HVG
15160.0	2008	23332	NZL	Radio New Zealand, Wellington	English	International News	1306	HVG
15170.0	0722	23332	USA	WYFR,Okeechobee	English	Religious Program	2805	HVG
15190.0	1910	33333	PHL	Radyo Filipinas	English	International News	1705	HVG
15265.0	1457	22222	TWN	Radio Taipei Intl., Taipei	Mandarin	Program	0106	WB
15295.0	1330	33443	UZB	Radio Tashkent	English	IS,ID and Program	0306	GI
15305.0	2205	54444	CAN	Radio Canada International	English	Financial Market News	2905	SHM
15330.0	0825	22222	GUM	KTWR,Agana	English	Religious Program	2805	HVG
15345.0	2120	21221	MRC	Radio TV Marocaine, Nador	Arabic	Music	3105	WB
15375.0	0820	34443	CHL	Radio Voz Cristiana	Spanish	Talk about World Cup and ID	0206	GI
15385.0	0051	45533	E	Radio Exterior de Espana, Madrid	English	Radio Waves.	2005	RL
15450.0	1541	33433	TUN	Radio TV Tunisienne, Tunis	Arabic	Talk and ID	0906	KH

15470.0	0940	35333	RUS	Deutsche Welle via Irkutsk relay	English	Labour Politics Program	0206	WB
15475.6	1929	25332	ATA	Radio Nacional Arcangel, San Gabriel	Spanish	Talk, Music and ID	2405	KH
15560.0	0350	23332	MDG	Radio Nederland via Madagascar relay	Dutch	Talk about Kankenhof	1305	HVG
15565.0	2240	35543	NLA	Radio Vlaanderen Internationaal	English	Radio World & Brussels 1043	0605	RL
15770.0	1415	33333	RUS	Radio Mesopotamia via Samara relay	Arabic	Program	0106	WB
17428.6	1435	32222	ROU	Radio Romania Intl., Galbeni	English	Letterbox Program	0106	WB
17695.0	2205	54444	CAN	Radio Canada International	English	Financial Market News	2905	SHM
17735.0	1541	43443	TUN	Radio TV Tunisienne, Tunis	Arabic	Talk and ID	0906	KH
17795.0	2200	44444	AUS	Radio Australia	English	IS, ID & News of the Pacific.	2905	SHM
17820.0	2225	43333	PHL	VOA via Tinang relay	English	West Wing TV Show & ID	2905	SHM
17825.0	2122	43433	JAP	Radio Japan, NHK, Tokyo	English	Weekend Square	0605	RL
17860.0	2219	54444	RRW	Deutsche Welle via Kigali relay	German	News item	2905	SHM
17880.0	2205	54444	CAN	Radio Canada International	English	Financial Market News	2905	SHM
18041.4	1430	32222	ROU	Radio Romania Intl., Galbeni	English	Letterbox Program	0106	WB
21530.0	0625	43343	GRC	Voice of Grece ,Athens	Greek	Talks and Greek song	2005	AKB
21590.0	1226	45333	D	Tamil Oli Radio via DTK, Juleich	Tamil	ID and Program	1206	KH
21670.0	2155	33333	JAP	Radio Japan, NHK, Tokyo	English	Let's Learn Japanese	2905	SHM
21740.0	2147	44444	AUS	Radio Australia via Shepperton	English	Interview – My personalities	2905	SHM
21780.0	1330	44443	AUT	Radio Austria Intl., Vienna	English	Report from Austria Italian PM	2005	AKB
21795.0	0555	44444	THA	Radio Thailand, Bangkok	English	Sports Program British Clud Ad	2005	AKB
21800.0	1010	45444	FIN	Radio Finland, Helsinki	Finnish	Report Music & Talk	2705	GI

Thanks a lot for your contributions:

AKB : Ashok Kumar Bose, Kolkata, India. SONY ICF – SW 7600G with 10 metres long wire
 ALS : Arnaldo L. Slaen, Argentina, SONY ICF 2010, Realistic DX-160 & GE Superradio with 15 metres long wire
 DC : Daniele Canonica, Switzerland. JRC 535 with 30 metres long wire + MLB + ALA 1530.
 DG : Dario Gabrielli, Cadoneghe, Padova, Italy. SONY ICF SW 7600 with swivel Telescopic antenna
 GI : Gaku Iwata, Chiba, Japan. FRG 7700 / NRD 535D, AD30, 20 metres long wire
 HO : Hironao Oguma, Tokyo, Japan. SONY ICF-SW1000T
 HVG : H.V. Gelder, Arnhem, Netherlands. NRD 525 / ICF 2010 with AN1 Active antenna
 IN : Iwao Nagatani, Kobe, Japan. NRD 525, AD-370 with 20 metres long wire
 JY : Juichi Yamada, Japan. NRD-525, AR 7030 with SONY AN-1
 KH : Kouji Hashimoto, Yamanashi, Japan. NRD 525, FRG 7 & RD 9830 with 35 metres long wire
 RAD : Richard A D'Angelo, Wyomissing, USA Drake R-8B, Lowe HF-150 with RF. Window Long wire antenna.
 RL : Richard Lemke, Alberta, Canada . NRD-535HF with random long wires
 SHM : Stewart H. Mackenzie, Huntinton Beach, California, USA . Kenwood R5000/Grundig Satellit 650 with 35 metres long wire.
 WB : Wolfgang Bueschel, Stuttgart, Germany AOR AR 7030, SONY ICF 2010, Kenwood R-1000, Drake SPR-4 with 12 metres long wire.

Dear Friends,

Welcome to the sixth issue of this year.

I have yet again a smaller issue of Logbook with no Medium Wave loggings this month.

Hope next month it will be improved.

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

Ashok Kumar Bose

Trends in Tropical Shortwave Broadcasting

by Anker Petersen - Editor of the DSWCI Domestic Broadcasting Survey (DBS)

I wish to share with you my observations concerning the still downgoing trend of the number of active frequencies of Domestic Broadcasting Stations in the Shortwave Bands between 2200 and 5800 kHz. For comparison are the equivalent numbers from our Tropical Bands Surveys covering 1972/73, 1984/85, 1996/97 and a year ago.

REGION	72/ 73	84/ 85	96/ 97	99/ 00	00/ 01
CIS(USSR)	61	59	47	26	22
C. Africa	102	76	40	36	25
S. Africa	57	39	33	17	12
Middle East	10	18	16	0	0
Indian sub-continent	62	45	45	35	30
SEA	40	29	21	11	7
Indonesia	171	105	65	40	22
China,Taiwan,Mongolia	119	110	75	40	40
Far East	38	28	28	18	16
Pacific	27	24	33	27	28
N. America	1	0	7	5	7
C. America, Mexico	21	23	24	22	17
Caribbean	29	3	3	5	4
Brazil	107	87	67	56	53
NW S. America	98	41	19	113	7
High Andes Countries	188	163	160	119	99
SS. America	5	2	1	2	0
Total	1136	852	684	472	389

During the 24 years period 1973-1997 452 stations disappeared or on average 19 per year. In the 3 years of 1997-2000 the disappearance drastically did increase to 212 stations or 71 per year on average! As you can see, during the past year no less than further 83 stations have left the tropical bands!

The situation is more or less unchanged in countries like China, Papua New Guinea, Australia and the USA, whereas there is a decrease in all other regions of the world. Particularly it is noted that a large number of stations have disappeared during the past 12 months in all parts of Spanish speaking Latin America, all parts of Africa, in Sri Lanka, Malaysia, Vietnam and particularly Indonesia.

Some of these stations are:

3200 R. 9 de Abril, Pukacayo, Bolivia
 3306 ZBC, Gweru, Zimbabwe (+4828)
 3222 Rdif. Togolaise, Kara, Togo
 3356 R. Botswana, Sebele, Botswana
 3225 RRI Tanjung Pinang, Indonesia
 3370 R. Tezulutlßn, Cobßn, Guatemala (+4835)
 3250 RRI Banjarmasin, Indonesia
 3970 CRTV, Buea, Cameroon
 3265 RRI Bengkulu, Indonesia
 4545 Kazakh R, Almaty, Kazakhstan
 3283 Estación Wuari, Ayacucho, Peru
 4855 RRI Palembang, Indonesia

The main reason for this is that FM-networks are growing in most parts of the developing world and replacing the need for shortwave transmitters. Today, the majority of Domestic shortwave transmitters can be found in countries with vast areas where it still is too expensive to establish a network of FM-stations that can cover the whole country.

It is very probable that this trend will continue in the coming years, and everyone can calculate that this means that most Domestic Broadcasting Stations may have left the Tropical Bands 5 years from now !

But you can still hunt for 389 Domestic Broadcasting Stations on the Tropical Bands, before it is too late. Fortunately the interfering broadcast and utility stations are also disappearing. So do not give up your Tropical Bands DX-ing!

☆☆

Shortwave Radio - Relevant in the New Millennium?

Many detractors of shortwave radio, as well as proponents of the internet as the great uniter of the world have said that shortwave is a thing of the past and should be relegated to history. The truth is quite different. A report published in January 2001 by Groupe France Telecom, the telecommunications arm of the French government states, "An estimated 2.5 billion people tune into programs broadcast on shortwave radio and about a billion receivers pick up shortwave transmissions. At any given moment, over 200 million receivers are tuned in to shortwave broadcasts. Shortwave remains the only means of reaching a broad audience anywhere in the world."

These billion shortwave receivers cannot be turned off by governments, as the internet can be. In times of crisis, power outages, natural disasters, war or revolutionary situations all technologically sophisticated telecommunications systems (television, internet, telephone, satellite) can be blocked, cut or shutdown. Shortwave radio is the only mass communication medium which remains operational.

In May 1999 the Group of 77 (a coalition of 133 developing countries) requested the United Nations to maintain radio, and other traditional media outlets, as a means of disseminating information rather than relying only on the internet. Ambassador Samuel Insanally of Guyana, chairman of the Group of 77, said that "radio remains for most of our countries, the major medium for the dissemination of information." The introduction of modern information technology increasingly has favored rich nations and is detrimental to the peoples of the developing world "who are clearly disadvantaged by their lack of access to such advanced technologies." As a result, Secretary-General Kofi Annan assured the Group of 77 that the UN's Department of Public Information will continue to maintain and expand the use of traditional means of information - including radio and printed material - because of the constraints faced by developing countries in an age of computers and the global information superhighway.

The equipment needed for shortwave reception is already widely available to people in developing and developed countries alike giving the medium a commonality across educational and economic boundaries. As a cost-effective means of disseminating information, shortwave radio provides a unique delivery system capable of bridging the digital divide, lessening the North - South polarization and thus bringing balance to the matter of access.

According to Kim Andrew Elliott, VOA Audience Researcher, writing in World Radio and TV Handbook, the future of shortwave radio broadcasting will be with stations such as Radio For Peace International-non-governmental, efficiently run stations. We at Radio For Peace International are ready to take the challenge to meet the growing demands set out by the world citizens.

(Gil Carmichael, Radio For Peace International, P.O. Box 88, Santa Ana, Costa Rica <info@rfpi.org>)

☆☆

Radio Broadcasting and the Internet: Converging for development and democracy (1) by Bruce Girard (2)

While the benefits offered by the Internet are many, its dependence on a telecom infrastructure means that they are only available to a few. Radio is much more pervasive, accessible and affordable. Blending the two could be an ideal way of ensuring that the benefits accruing from the Internet have wider reach.

More than eighty years after the world's first station was founded, radio is still the most pervasive, accessible,

affordable, and flexible mass medium available, especially in the developing world.

Low production and distribution costs have made it possible for radio to focus on local issues, to interpret the world from local perspectives, and to speak in local languages.(3) In Latin America, for example, while most radio is produced locally or nationally, only 30% of television programming comes from the region; with 62% produced in the United States.(4) Quechua, a language spoken by some 10 million people in Bolivia, Ecuador and Peru, is all but absent from the region's television screens, but in Peru alone an estimated 180 radio stations regularly offer programmes in the language.

Radio also has a developed infrastructure that must be the envy of any developing country telecom operator. In Sri Lanka, one person in 500 has access to the Internet, but virtually everyone has access to a radio. Bolivia had fewer than five telephone lines per hundred people in 1996, but more than 57 radio receivers per hundred. With per capita GNPs of \$800 and \$970 respectively, we should not expect that the North American model of individual access to telecommunications will enable a substantial percentage of Bolivians or Sri Lankans to gain access to the global knowledge infrastructure in the near future.

Radio has a special importance for rural and marginalised urban communities. In addition to being the only accessible mass medium, it also fulfils a role as a "community telephone" with several hours a day reserved for broadcasting personal messages, birth and death announcements, invitations to parties, ordering food and supplies from the store in the next village, calling for emergency medical assistance and even for receiving personal medical advice from the local doctor. In many rural areas radio is the only source of information about market prices for crops, and thus the only defence against speculators. It is used in agricultural extension programmes, is a vehicle for both formal and informal education, and plays an important role in the preservation of local language and culture.

While in some parts of the world we take radio for granted, seeing it as little more than an accessory for an automobile, in others it fulfils a variety of roles: it is the only mass medium that most people have access to; it is a "personal" communication medium fulfilling the function of a community telephone; and it is a school, the community's first point of contact with the global knowledge infrastructure.

The medium offers tremendous potential to promote development and democracy and while many stations have squandered this potential, the contribution that has been made is significant. Relevant, interesting and interactive radio enables neglected communities to be heard and to participate in the democratic process. And having a say in decisions that shape their lives ultimately improves their living standards.

TELECOMMUNICATION AND PARTICIPATION

Probably the three most important characteristics contributing to radio's strength as a medium for development are its pervasiveness, its local nature and its ability to involve communities in an interactive communication process.

The Internet is also characterised by its interactivity, and, technically, its potential in this area is far greater than radio's. However, if, as many believe, better access to information, education, and knowledge would be the best stimulant for development, the Internet's primary development potential is as a point of access to the global knowledge infrastructure. The danger, now widely recognised, is that access to this infrastructure continues to require a telecom infrastructure that is inaccessible to the poor with the result that the development is increasingly a slower process in the places where it is most needed.

The excluded far outnumber the connected and even while the Internet is bringing about profound changes to the world, the vast majority of the world's population has no direct access to it (much less any influence over the nature of the changes it brings with it). Of an estimated 179 million people with access to the Internet (barely 3% of the world's population), more than 80% are in North America or Europe, home to 10% of the world's population. (5) In most developing countries less than 1% of the population has direct access to the technology that is changing the world. With the growth of the global knowledge economy there is a very real danger that the ever-widening gap between the info-rich and the info-poor may obliterate any chance of a more equitable world order.

DIVERSITY AND CONCENTRATION

Switching our focus back to the media we can see that this sector is also experiencing a series of disturbing changes, many of them brought on by the same set of factors that are behind the rise of telecom -

liberalisation, privatisation and technological change. However, the nature of the changes is significantly different. While liberalisation and privatisation have created new opportunities for new players in the telecom sector, for radio the increased competition often simply means a larger number of stations chasing after the same number of potential listeners, and the same slice of the national advertising expenditure pie. There may be new players, but there are no new markets.

Thus, while for telecom operators the solution has been to expand into new markets and offer new services, for broadcasters the only obvious option is to reduce expenses by producing cheaper programming or by sharing production costs over a network, at the expense of local content and alternative perspectives.

In many broadcast markets the drive to reduce or rationalise expenses has led to increased concentration of ownership and control. Seeking to spread production costs over an ever greater number of stations, larger networks buy up independent stations and smaller networks and then use relatively inexpensive digital satellite technologies to link them all together. In the United States, for example, this tendency has been so marked that even the Federal Communications Commission has expressed concern.(6)

In South America, hundreds of radio stations that began broadcasting when the sector was liberalised in the early years of this decade have since become part of national and even international networks. In Peru, for example, three satellite networks, broadcasting from the capital via repeater stations throughout the country, have more audience share in the provinces than the forty largest provincial stations put together.(7) In Argentina and Brazil the national multimedia empires of El Clarin and O Globo have built satellite radio networks that have transformed hundreds of independent local radio stations into repeater stations offering programmes produced in the national capital. The economies of scale enjoyed by these networks mean that the programming is of high technical quality, but the cost is the loss of choice, of local information and of alternative perspectives.

It is ironic that the convergence, liberalisation and privatisation that were expected to open the broadcast spectrum to competition and a greater diversity of voices, are in fact bringing about a broadcast environment increasingly characterised by concentration of ownership and control in fewer hands and the exclusion of local and alternative voices.

At the same time, the benefits offered by the Internet are only available to a few. As valuable as they are, no telecentre or call centre will ever be able to reach so many so easily as radio can. If radio continues its decline, and the Internet continues to rise, the gap between those who have knowledge and information and those who do not will grow.

By way of example, local radio stations in rural communities often broadcast the prices paid in various national markets for agricultural products produced in the community. This enables farmers to grow the crops that will provide them with the best return, to sell them crops in markets that pay well, and to avoid being defrauded by wholesale buyers and speculators. If the local radio station's programming is replaced by network programming from the capital, the need for price information for local crops may be ignored. At the same time, there are a number of well-intentioned donor-supported projects to put this information on the Internet. Since speculators from the city are far more likely to have access to the technology, the end result might be better informed speculators, and more vulnerable farmers.

However, if the local radio station has access to the Internet, and thus to a cheap way of gathering information about prices in national markets, then it will be able to make sure the information gets to the farmers. In this case, radio is the best way of covering the last mile of the telecom infrastructure.

BLENDING RADIO WITH INTERNET

None of this is to take away from the value of the internet and the necessity of expanding it in whatever way possible - direct connection from home or office, telecentres and commercial call centres offering email access are essential.

Over the past few years a number of experiments have begun to develop ways of blending independent local radio and the Internet. These were presented and discussed at a conference *_Converging Responsibility: Broadcasting and the Internet in Developing Countries_*(8), held in Kuala Lumpur in September, 1999.

Some of these projects have sought to introduce more diversity and a democratic environment into radio programming by using the Internet as a distribution network among independent broadcasters for news and

programmes. Examples of this type of experiment include: two projects in Indonesia, Kantor Berita Radio 68H - www.isai.or.id, and Local Radio Meeting Point - www.un.or.id/unesco/localrad/frontpage.htm; the Panos Institute's Banque de Programmes On Line, located in Mali with correspondents in twenty francophone African countries - www.oneworld.org/panos_audio/; and Latin America's Agencia Informativa Púlsar - www.pulsar.org.ec.

Others, such as Sri Lanka's Kotmale Community Radio - www.kirana.lk, seek to address the problem of the growing gap between the info-rich and info-poor by providing collective access to the knowledge resources available on the Internet -- using the radio as a sort of people's gateway making the Internet's resources available to rural and marginalised communities.

The articles in this section (9) look at how radio and the Internet can be used together to enhance the social use of independent, local and community radio. They are reproduced here with permission of the Friedrich Ebert Stiftung. Links to various sites and articles concerned with broadcasting and the Internet in developing countries can be found at <http://www.comunica.org/kl/docsnlinks.htm>.

Endnotes

(1) Originally published in the journal *Voices*, Vol. 3, No. 3, December 1999, Bangalore, India. This article is part of a *Voices* feature based on the results of the conference *Converging Responsibility: Broadcasting and the Internet in Developing Countries*, Kuala Lumpur, September 1999. Links to information about many of the projects spoken of here can be found at <http://www.comunica.org/kl/docsnlinks.htm>

(2) Bruce Girard was founding director of the Agencia Informativa Púlsar, an Internet-based radio news agency in Latin America. He was organiser and co-chair (with Sucharita Eashwar) of the conference *Converging Responsibility: Broadcasting and the Internet in Developing Countries*.

(3) While there is a trend toward centralisation of production in national and regional centres, most radio programming remains local with very little from outside Latin America itself.

(4) UNDP Human Development Report 1999, p. 34.

(5) Source - NUA Internet Surveys, June 1999 http://www.nua.ie/surveys/how_many_online/index.html . Estimates of the number of people with access to the Internet vary widely. A recent UNESCO report puts the figure at 76 million at the end of 1998 (Tawfik, Mohsen, *Is The World Wide Web Really Worldwide?*, 1999 http://www.unesco.org/webworld/points_of_views/tawfik_1.html). NUA's figures, based on a compilation of dozens of individual surveys, attempt to measure the number of people who accessed the Internet at least once in the previous three months.

(6) In 1999 the FCC introduced a new class of low power FM radio stations (100 watts) and requested comment on the possibility of establishing a "microradio" class (1-10 watts). In its request for comments on the proposal, the FCC wrote, "The Commission's goals are to provide new opportunities for community-oriented radio broadcasting, foster opportunities for new radio broadcast ownership and promote additional diversity in radio voices and program services." The National Association of Broadcasters responded with what FCC Chairman William Kennard called "a systematic campaign of misinformation and scare tactics" that, as of March 2000, looked as if it would result in a Congressional challenge to the FCC decision.

(7) From a survey by the Organizaci'on Peruana de Radio (OPERA). It remains to be seen what will happen in the newly liberalised broadcast sectors of some Asian and African countries, but in at least some cases the tendency appears to be similar to Latin America, with an initial boom followed by consolidation.

(8) See the conference website at <http://www.comunica.org/kl/>

(9) This was the lead article in a *Voices* special feature section on broadcasting and the Internet. The other articles in the section were: *New Forms of Governance: Roles of the state* by Rohan Samarajiva, *Democratisation or Liberalisation: The politics of ICT use* by Nitya Jacob, *Radio Network: Ensuring people's right to information* by Santoso, *Linking Rural Sri Lanka to the Internet* by Chulie Kirtisinghe De Silva and *Combining Radio with Cable and the Internet* by Arun Mehta.

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