

# UNIVERSAL SHORTWAVE



The Universal M-900 was designed for the hobbyist or maritime user who wants an affordable compact unit that copies all the <u>hasic</u> HF transmission modes. The M-900 receives Morse code to listen to maritime coastal stations or amateur radio operators. It also decodes "regular" RTTY (Baudot) still used by many international press agencies, weather stations and aeronautical concerns. Both Sitor modes are included so you can read the vast amount of maritime and international diplomatic traffic sent in these modes. Facsimile is the transmission of pictures, charts, maps, press photos, marine information and other documents. The M-900 yields high resolution facsimile images to the printer port (not video). It operates in line mode for weather map reception and gray mode for press photos in 16 shaded levels. The M-900 can print right to left or left to right as well as positive or negative.

LED indicators include: mark [MK], space [SP], error, data, squelch [SQ] and limiter [LIM]. In the RTTY mode the six push buttons control: normal-reverse [N/R], squeich [SQ], case change [CASE], shift up [UP], shift down [DN] and unshift on space [UOS]. The status line shows the operating parameters and features a tune for max. indication. In FAX mode the six push buttons control positivenegative polarity [POL], framing [FR], start [RUN], line-gray mode [MODE], IOC [IOC] and direction. Standard print features include multiple scroll inhibit (MSI), over print inhibit (OPI), Automatic C/R & L/F and 8K print buffer. A six position DIP switch allows you to set a 40 or 80 character video line, a 16 or 22 line video page, a 50 or 60 Hz video refresh rate, high-tones or low-tones and a 9 or 24 pin printer. Power input is a 2.5 mm jack, audio input is a mini jack, video out is an RCA phono jack and the parallel printer port is a DB-25. A complete system will require the following components:

•	Universal M-900
	The heart of the system!
•	Your Quality Shortwave Receiv
	Must be stable and selective.
_	

- Power Supply 12 VDC 1 Amp Filtered See #0096 this page or equivalent.
- Video Monitor Any composite video, monochromatic. (Not EGA, CGA, RGB, TTL or TV's)

#### LIMITED WARRANTY

Standard Manufacturer Warranty:	182 days
Optional Extended Warranty To:	365 days
Order #2897	\$19.00

# Power Adapter

This compact 12 VDC wall adapter is perfect for the M-900. It delivers filtered 12 VDC at 1000 ma (1 amp). Features 2.5 mm plug to connect directly into the M-900 power jack. (No shipping charge on this item if ordered with the M-900).

Order #0096	Amp Power Adapter 	Regu Regu Spec
<ul> <li>Visa, MC, Discover</li> <li>Prices are subject to change.</li> <li>Full catalog \$1 postpaid</li> </ul>	STORE HC Monday - Friday Except Thursday Saturday Sunday	10:00-5:30

- Compatible Parallel Printer Required for FAX mode only. See page 37 #1642, #0514 or other compatible printer from list below.
- Printer Cable See item #2427 on page 37.
- Audio & Video Cables An audio cable to your receiver and a video cable for the monitor are required.

#### PRICING

M-900 List Price	\$599.00
M-900 Discount Price	
Order #0936	\$549.95
Shipping/Handling/Insurance	\$8.00

#### SYSTEM PACKAGE PRICING

Universal M-900 Converter	#540.0C
Universal 12VDC Power Adptr	17.95
Magnavox BM-7652 Monitor	109.95
Video Monitor Cable	2.99
Seikosha SP-180AI Printer	179.95
Printer Cable.	19.95
Audio Cable (specify receiver)	2.99
Regular System Total	\$883.73

► Special System Price .......... \$799.99 Special System Shipping . \$20.00

# Universal M-900

#### RECEPTION MODES

- □ Morse Code with auto speed ranging. 6 to 35 W.P.M. C RTTY Baudot - Standard Speeds:
- 45, 50, and 74 baud. 60, 66, and 100 W.P.M.
- Sitor A (ARQTOR, Amtor A)
- Sitor B (FECTOR, Amtor B) Collective and Selective
- G Facsimile (FAX) FM 60, 120 and 240 LPM. 288 or 576 I.O.C. Line or Gray. Positive or Negative. Automatic or Manual (To Parallel Printer Port only)

#### SPECIFICATIONS

Dimensions
Weight 5 Lbs. (7 Lbs. ship)
Power 12-16 VDC @ 800 ma
Audio Input 4 to 600 ohms .25 V p-p nominal
Printer Output Parallel ASCII 8 bit Centr.

Composite 75 ohms Video Output ... 1.5v p-p (50 or 60 Hz)

#### COMPATIBLE PRINTERS M-800/900 AND M-7000

Epson FX-85	Sears SR-2000
Epson FX-86e	Star NR-15^
Epson FX-185	Printer Plus NLQ
Epson FX-286e	Seikosha SL-80AI^
Epson RX-80	Seikosha SP-180AI
Epson RX-100	Seikosha SP-1000A
Epson LQ-500^	Diconix 150
Epson LQ-800^	NEC N-5 or N-7
Epson LQ-850^	NEC P-5/XL or P-6
Epson LQ-1000^	Star SG-10
Epson LQ-2500^	Honeywell NP-10
Epson LX-86	IBM Proprinter 2
Epson LX-800	<b>IBM Graphics Printer</b>
Epson JX-80	Panasonic 1595
	C.Itoh C310-CXP
(^24 pin=best choice)	

**Universal Shortwave Radio** 1280 Aida Drive Dept. FREN Reynoldsburg, Ohio 43068 U.S.A. Toll Free: 800 431-3939 Ohio: 614 866-4267

Serving Listeners Since 19421

From the Executive Director Chuck Rippel 1272 Parkside Place Virginia Beach, VA 23454 COMPUSERV- 72571,1046

Welcome to the May issue of *FRENDX*! I continue to see positive results from the efforts of the NASWA membership. Our membership continues to grow, and contributions to the bulletin are increasing. Publisher Bill Oliver tells me that the membership in NASWA has grown 18.5% in the first quarter of 1989. I would like to thank all of you who took the time to consider NASWA membership and join. Be aware that others benefit from your effort to share knowledge and experiences. We invite you to share your Short Wave Listening experiences with the membership of the club by contributing to the various column editors.

Speaking of sharing, the 7.240 ANARC SWL NET is going strong. For some real time tips and conversation among NASWA members and other listening enthusiasts, give a listen. The NET meets every Sunday at 10:00 EST on 7.240 MHZ LSB. If you possess an amateur radio operator's license, please feel free to join in. If you are not a licensed amateur and can't transmit - no problem! There are "gateway" stations that will take your telephone call and relay your information to the group during the NET. Contributions can also be made by mail to Bob Brown at the address listed on the back cover of *FRENDX* or via Compuserve 71715,1432, the ANARC BBS, or the Pinelands BBS. The coverage of the NET depends on propagation but it is heard regularly as far west as Wisconsin, north into Canada and south into the Carolinas. Come join us whether you can transmit or listen!

I must say that I am encouraged by the size of Log Report "A". I have not seen it that large in years. Log "A" editor Bob Brown and distributing editor Kris Field note that NASWA members are not only going for the tough ones in the Tropical Bands, but they are sharing their experiences with the rest of us. Your information or contribution for all the columns is appreciated!

There are many things happening as a result of some of the behind the scenes efforts I have been alluding to the past few months. Notice that the style and quality of printing in many of the columns has significantly improved. We are striving to overcome some logistical nightmares. The NASWA editorial staff is spread throughout the United States making close coordination of columns very difficult. To the rescue comes good old American technology, often imitated but never duplicated. Several of our editors are now sending their computer generated columns via modem through the Compuserve Network to members of the Editorial Committee who have access to laser printers. The final result is a cleaner, easier to read publication that is truly hi-tech. We hope to expand on this concept and have as many *FRENDX* editors as possible included in this program in the near future.

The benefit to the membership is that they receive the most up to date information offered by monthly publications, presented in the most readable style possible. Did you know that some information in *FRENDX* is only 5 days old? Various other monthly publications strive for a 30 day lead time. Many of the commercial publications must maintain a 90 day lead time. The goal of NASWA is to provide information more quickly as well as more accurately! We will continue to upgrade the monthly bulletin to meet this goal. If members have any specific suggestions, please drop Editor-in-Chief, Dr. Harold Cones, a line! The NASWA staff is always glad to review your suggestions! They are important to us.

Speaking of the bulletin, our March bulletin was a whopping 72 pages long. Because of present postage and printing cost limitations, our limit stands at 56 pages. The Editorial Committee last month recommended that all of the material received by the various editors be included in it's entirety. The committee wanted to demonstrate to the membership how much interest there is in the Short Wave Medium and NASWA.

This month, we have asked all of the editors to shorten their columns somewhat to make room for Tom Sundstrom's complete English Language Short Wave schedule. Tom receives schedules from many different International Broadcasters and enters the time and frequency data for the English Language programs into a computer via a professional level software application he has designed and written. This software application is MS-DOS (IBM) compatible and available for purchase for a very reasonable \$20. For an additional \$25 per year, the data files can be updated via the Pinelands computer bulletin board. The result is like having an accurate, computerized Short Wave version of the TV guide at your fingertips! The capability to produce various hard copy reports including the one appearing in the back of this month's *FRENDX* is included. For ordering information, see Tom's column for details. If some of you can find the time, please mail Tom a copy of any current station schedule you might receive. It makes his job much easier and the information more accurate. Let's face it, the level of personal effort Tom is putting into this project is worth some effort from all of us.

# DX'ers Forum

Dedicated to Furthering the Art, Science and Enjoyment of DX'ing

Conducted by Rowland Archer, 5524 Hawthorne Park, Raleigh, NC 27613

Our page count is short this month so I'll get right into the meat of the column. A few months ago promised a series of "DX Panel Sessions," simulating a question and answer session with some ac complished DXers. The first one will run in two parts, concluding in next month's column.

The purpose behind this panel session is to explore the "nuts and bolts" of DXing by asking some experts to share their approaches to the hobby with us. One of the best ways of learning is to watch an expert at work and ask questions. Unfortunately, experienced DX'ers are few and far between. This pane session will bring out, step-by-step, the actual techniques used by three top-notch DX'ers, Rich D' Angelo, Mitch Sams, and Dan Sheedy, to come up with those great loggings. Imagine yourself at thei side as we explore:

# Fundamental DX'ing Techniques: Part I

## A DX'ers Forum Panel Session

With Rich D'Angelo, Mitch Sams, and Dan Sheedy

Forum: Welcome to DX'ers Forum! Let's start with a quick bio; please fill us in on how long you've been DXing, any special hobby interests, accomplishments, activities? Your current shack setup?

D'Angelo: I started DXing in 1964 when I discovered my brother's Hallicrafters S-85 in the basement. I was essentially inactive from 1973 to 1978 with marriage, beginning a career, graduate school and being an apartment dweller all teaming up to put my hobby on hold. I resumed DXing when we bought a house and I have been active since. Current rig is an Icom R-70 with an Alpha Delta DX SWL Sloper. Somewhere I have an old National NC 190, a CR-2021 and an RF 2900. My main interest for the last 2-3 years has been Latin America.

Sams: I've been fascinated with shortwave since first tuning around in 1972. My father was in the Air Force and we did travel overseas quite a bit while I was growing up. That experience has given me a real appreciation for what shortwave is. I remember while living in Turkey my family would listen most mornings to the VOA's "Breakfast Show" on my shortwave radio. The local AFRTS MW outlet had a limited sked so the VOA really filled the void. My current shack consists of a modified HQ-180A and a modified FRG-7. The HQ-180A is the one I turn to when the going gets tough, although the FRG-7 has served me well, too.

Sheedy: I've been playing radio in one form or another since 1960. I'm an inactive Advanced class ham, WBGFJD since 1975. My interests lie in Latins, especially Brazil, lowering my continental QRP total, an apparently lifelong struggle to hear Greenland, hitting 210 HIC, and trying to avoid the label "Senior DXer"! I also helped edit Fine Tuning and the Ozark Mountain DX Club bulletin for two to three years (due to Mitch Sams...trust is a rare commodity, thanks comrade). I belong to Fine Tuning, DX South Florida, Numero Uno and NASWA (I originally joined in 1963 or 1964 when Bill Eddings was running it and it was "NASA").

I've been using a modified Icom R70 since '84, plus a Sony ICF2010 on loan for a month or so, and now have a Philips D1835 for beach SWLing A Drake R4B in need of about \$200 + worth of repairs also holds a place in my heart. Antennas' An Eavesdropper, an Alpia Delta Sloper and a couple of random wires outside and a 20' indoon wire for the Sony so I can check the hit list (see below) without really committing myself to going downstairs and freezing. Other than that...I just hit 40, work as a repair technician for Pacific Bell, wear a ponytail, two tattoos and spend evenings at the local musclehead gym trying to compensate for not hearing Greenland (yet).

Forum: I've found that as I advance in the hobby, I spend almost as much time gathering and organizing information related to DXing as I do DXing. How do you organize the data that helps you when you sit down to DX?

D'Angelo: To me, organizing DX-related data is the most important prelude to actual DXing. Keep it simple though. I use a yellow highlighter to note key logs or QSL data in the various DX club bulletins I receive. Each month I summarize all that data on a sheet of paper which is divided into 24 hourly sections. The station/country data that I have highlighted is written in the appropriate place on the 24 hour summary. So, if I can't sleep, and stumble out of bed at say, 0800, I check my target sheet and start hunting. Naturally, all entries are footnoted as to source in case I need more background information.

Sams: There are several very good DX newsletters in circulation today from which I glean a majority of my DX info. These newsletters are filed away in some 10 3-ring notebooks. I read, or at least skim through each week's offerings and then rely on my memory to refer me back to the data when necessary. The notebooks are right there next to the radios.

Sheedy: I run a pretty constant "hit list" from the ridiculous (GREENLAND) to the sublime (TONGA), that's updated through FT/DXSF/NU and FRENDX. With respect to the Indos especially, I tend to delete them every 4-6 months as their frequency volatility seems high and I can always catch up next season when Mitch [Sams], Kirk [Allen], or that tall, distinguished gentleman in Stillwater log everything that's audible. Latins tend to stay on the list nearly forever -- I don't give up on obsessions that easily, especially Brazilians. My wanted countries list is kept current from WRTH, so I needn't wade through it when I'm idly scanning for Lithuania or whoever.

The list itself is split up into ASIA, LATIN AMERICA, and NEEDED COUNTRIES with a MISC. section for generalized weirdness and pet projects (logging all Peruvians with poor mike audio and great music audio for example). Each station is set down with frequency (current and past, in the case of some Indos, Vietnamese, and Laotians), times heard, and any helpful ID info (such as: ID followed by much laughter and mention of "lagu lagu Stillwater..").

As a confirmed "fussy man" I derive great pleasure from redlining a station from the list. One of these days I may redline them all, heard or not, just to see what it feels like.

Postscript: unlike most(?) DXers, I don't keep permanent logbooks nor do I keep bulletins after I've updated the "hit list". Tidy? You bet! But it does lack the genial ambiance of most DXers shacks...and the usual nuclear fallout effect of three years of weekly bulletins trashed and scattered looking for the special Bolivian ID info.

Forum: OK, it's time to DX. Let's set the scene: It's your favorite time of day to DX. The rig is warmed up, your coffee or favorite DXing beverage is at hand, and you're ready to hit the dials. As Bob Brown posed the question at his first Winter SWL Fest, "what do you do after you turn on the radio?" What's a typical DXing session like?

D'Angelo: Naturally, you never know what propagation conditions are going to be like until you actually turn on the radio. For the most part, my sessions are predetermined by my target list and the amount of time I have available to DX. Generally, I'm looking for new stations (which sometimes means a new country) or a previously logged station that I haven't verified. The last couple of years I've focused considerable time and effort on QSLing many Latins that I hadn't previously verified. If conditions are exceptionally favorable, I have my special targets (a most wanted list of Indos and PNG's) ready for the occasion. Being ready is very important.

Sams: Depending on the time of day/season I will have usually targeted a specific band to begin tuning. It's usually a frequency range that has provided good DX at this particular time in the past. In other words, 60 & 90 meters at sunrise and sunset, 49 meters at late morning or early afternoon, etc. These checks will give me an idea of how good conditions are at the moment.

My receiver bandwidth will be set around 3 kHz and I will tune in the AM mode. While learning the hobby in the 70's I never did develop the habit of DXing in SSB. I realize that the SSB "whistle" makes it easier to spot a station, but I find that over the length of an extended listening session the SSB whistle becomes difficult to tolerate. I think I've developed an ear for the "whooshing" sound of an AM-detected carrier.

Sheedy: It's almost 0930, which is untypical, butthe 60M band is in mediocre shape, which IS typical..vawn..semi-decent signal from my #1 Latin semi-ID, Nuevo Mundo 4881.7..notch out the 4880 het, and sit ... and sit ... and wish the mike gain was better. All I hear is time checks and "lo mejor de la musica tropical." Oh boy! Whoops, mentions of Pucallpa at 0955. Do I want to stick around for the 1000 ID? I've only been chasing an ID here for a few weeks, so why not?! Ahhh! 1000 comes with a TC and "oyentes ... en Radio Nuevo Mundo.," and a minute or so later another ID. Three weeks of cold feet and boredom and getting twitchy has paid off. Now what? Cruise 120M for a thrill. 2360? Hmm, Indian language hymn, Swing up to 3325. Yup, //. Back to 2360 for a nice "Maya de Barillas.. Huehuetenango.." ID at 1101. Not new, but with the noise level I have on 120M anything is a keeper. A quick swing through the Indo targets leaves me nothing and so I'll goof off up around 5 MHz. Latin on 5019.7, a bit fuzzy and suffering from Cuba-5025 (yeah, even on the R70). World news, pretty pro job. RN Venezuela has been here before, but all I hear are mentions of CARACOL and telephone remotes from Barranquilla, Medellin, etc. Whozis? Starting to die after a UTC-5 TC and never did get an ID. New HJ? A moved HJ? It's 1130 and I'm ready to do something else ...

Not especially "typical" since I nailed a longsought one and have an interesting UNID. But the pattern is pretty similar to most times at the radio. Check the hit list, get bored, (or not..), rapid scans of 60/90M. Maybe another shot at the list, and so on.

Forum: One important DXing technique is the bandscan, or tuning up the dial and checking each station in a given range. If our readers could watch you scan the bands, what would they observe?

D'Angelo: Most of my DX time is spent on the 60 and 90 meter bands. If you spend enough time on certain bands then you know how they should "sound". FInding/hearing something new or interesting becomes relatively easy if you know the band and have your DX reference materials handy. Rarely do I take written notes on what's active on the bands I'm most interested in; if I'm tuning regularly then it all fits into my memory quite nicely.

Sams: I spend more time on the tropical bands and especially enjoy the lower frequency "fringe" limit of propagation, in other words, DXing a band just before it really fades in or fades out. For example: just before sunrise I will check 2 MHz looking for unusual conditions, then move up to scan 90 meters for a quick check. I know the regulars, so this quick scan should reveal whether anything new may be lurking about. As the sun rises and the minimum usable frequency moves up, so do I.

If nothing's happening here I move up to 60 meters. Checking the propagation indicator frequencies I have memorized -- 4087 Blitar, 4607 Serui, 4635 Dushanbe, 4658 Laos, etc. I may skip up the bands hitting these memorized frequencies just to get a feel for conditions.

I repeat this cycle several times in a listening session, always checking the lower frequency limit of propagation and moving upward trying to pinpoint something new. I note potential DX signals on a scratch pad as I'm tuning, returning to those frequencies later to sit on.

This process is most effective when you can rely on your memory to determine whether to stop or a particular station or move on.

Sheedy: Trick question, huh? OK, I usually scar 60M/49M only. 90M/120M are pretty noisy and unless I sort of fall into something on those bands, I tend to avoid them except for targets Due to somewhat limited DX time, and sticking to two fairly straightforward bands, I can, with clean living and some practice, run through 49M in a few minutes, depending on the time of day (0000-0400). Mornings take a bit longer - say 1/4 hour for a quick look. 60M with its larger group ing of smaller stations may take an hour or so With a good working knowledge of what's "usual ly" available, the odd stuff (or lack of it) tends to stand out. The increase in the past few years o utility traffic and general cruddiness on 60M chops large sections of the band into hash. Thi also cuts down on scan time, unfortunately.

References used? ILG when and if it gets here hi. Also my hit list and occasionally WRTH fo a little more detail than is available in ILG ILG's format makes color-coding the various sta tions and times of reception pretty easy. But familiarity does breed contempt (or at least a to trusting attitude), so from time to time I dispensiwith the lists and just see if what I'm hearing i what I'm "supposed" to hear. Boring? Yup especially on 49M, but no one said it was goin to be easy.

Next month: The conclusion of this Panel Session featuring the technique of station targeting, turnin, UNID's into ID's, and how to be the first to hea new stations. See you then!



Easy Listening

Editor: Alex Batman, 300 Hill St., Apt. 6, Boone, NC 28607

#### SUNDAY

1315-1330 Listeners' Corner (Radio Norway International). This show appears irregularly on Sundays and is a better than average mail-bag program. Readers answer listeners comments. (21.705. Repeated at 1615 on 21.705/15.310 and at 2015 on 15.310).

#### MONDAY

0050-0125 <u>Research File</u> (Radio Netherlands). This is Radio Netherlands science program, and it is an excellent one. Topics discussed so far have been environmental concerns in the Netherlands, protection of the coral reef off Bonair in the Netherlands Antilles, salt production from sea water, new theories about pulsars, and astronomers' theories that a massive gravitational pull will one day make the expanding universe collapse on itself (fortunately a few billion years away). (15.315).

#### TUESDAY

2115-2130 <u>Business Matters</u> (BBC). A good but perhaps too brief analysis of a host of topics relating to business and the economy, such as the world wide rising interest rates, an interview with an official of the American Stock Exchange, predictions for the future of British stocks, and an interview with the author of One Page Management. If you're interested in economic topics, this is an excellent program. If not, you'll find it as dry as the subject itself. (15.260).

#### WEDNESDAY

0130-0145 Living In Germany (Deutsche Welle). One of Deutsche Welle's newly revamped shows since the change in programming last September. Focus is on modern life in Germany, and past shows have featured relations between East and West Berliners, the growth of semi-private gardens in Germany, the second rate status of mental health in Germany's public health insurance, and the number of elderly people living together in communal centers. (6.040/6.085/6.145. Repeated at 0330 on 9.545/9.605 /6.130 and at 0530 on 6.120/6.130).

#### **THURSDAY**

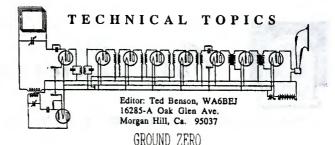
2250-2305 Industrial and Economic Report (Radio Mediterranean). Reception of this program is variable, sometimes being inaudible because of interference from Radio Budapest, and sometimes being relatively clear. Past programs have featured an analysis of the economy of Cuba, the debt problems facing the Egyptian economy, trade relations among EEC members, etc. Whether this show is worth putting up with the sometimes poor reception or not, all depends on how interested you are in economics (6.110).

#### FRIDAY

1250-1300 <u>Panorama</u> (Radio Berlin International). This program focuses on cultural, economic and scientific cooperation among the socialist countries. It's about as exciting as it sounds. (21.540/21.465/17.880).

#### SATURDAY

1410-1500 VOA Jazz Hour (VOA). In case you're wondering whatever happened to Willis Conover and the Jazz Hour now that it has been dropped from both the South American and the African transmissions, this is it (or at least part of it). Willis Conover in his deliberative and careful way presents some of the finest of American jazz, past and present. Past shows have featured Chick Correa's long album "Works", a segment on Woody Herman's first band, "The Band That Plays the Blues" (from a recently released album), and a host of jazz artists that includes everyone from Herbie Hancock to Louis Armstrong. 9.760. Repeated at 2010 on Saturdays and weekdays on 9.760/ 11.760).



Most of us who grew up in the "nuclear age" think of ground zero as the impact point of a nuclear warhead. To radio enthusiasts, however, it can mean something completely different.

The ideal ground for radio reception represents zero ohms of resistance, and no impedance whatsoever. As with everything else in our hobby, however, there is the theoretical, and then there is the reality. I reality, perfect ground is impossible to attain. Commercial radio stations bury thousands of feet of copper wire to obtain a good ground, and even thi is not perfect. But why is a ground connection important at all?

Electricity flows only when a difference in potential exists between two points. There are two power prongs on our wall sockets (the third is a ground - more on this later). At any one time, one prong has far more electrons than the other. If you connect a circuit between the prongs (suc as a lamp) the excess electrons will flow through the circuit to the other terminal, in an attempt to reach a balance. It is the *flow* of these electrons which performs *work* - in this case lighting the lamp. Unless current flow can occur, no work can be done. Ah, you say, what about the time as a kid when you stuck a key in the wall socket? Only one prong was connected, but you still got a nasty shock. Where did the current flow to as it coursed through your body? It flowed through your feet to ground. Because the ground wasn't very good, only a little current was able to flow and you survived (literally folks - this is no joke). Many people are killed each year because the ground was good. Perhaps they were wet or standing in water, or barefooted on moist soil. The better the ground, the more work (or harm) the electricity was able to do.

Your shortwave receiver is in essence a circuit, which is connected to a power source similar to your wall socket. In this case, though, the power source is the radio signal you wish to receive. How can a potential exist when the entire signal flows through the air? The question provides its ov answer! The radio energy is almost all in the air. Almost none of it is i the ground. The potential exists, therefore, between the air and the ground. But how do we plug our circuit - the receiver - into the air and ground? Well, the air connection is of course made by an antenna, which gathers as much signal as it can. The ground connection is made in any number of ways. Many people simply connect the ground terminal of their receiver to the little screw in the middle of the wall socket. Others driv a stake or rod into the ground and connect this to the radio's ground terminal. Neither of these techniques are really adequate. Although the little screw on your wall socket is a moderately good ground for 60 Hz AC, it can literally appear as an open connection at radio frequencies. In other words, relying on this point as your ground is like making no ground connection at all! Driving a copper rod into the earth might provide a goc ground connection. if the soil around it was very conductive. Most soil, though, is not. Some method must be used to increase the conductivity of the soil around the ground rod. Figure 1 suggests a technique for improvir

Older reference books suggest using copper or nickel chloride instead of the table salt (sodium chloride) shown in figure 1. Although the copper and nickel chloride do work better than sodium chloride, they also contaminate the soil. In this age of ground water contamination, as is rampant here in the Silicon Valley, the last thing we need is to contribute more! Table salt, as shown, is also much cheaper than other salts. In fact, a huge bag of water softener salt works fine, and can cost as little as \$5.00. In areas of very dry soil, it may also be necessary to "water" your ground occasionally to keep the soil moist in and around the pit.

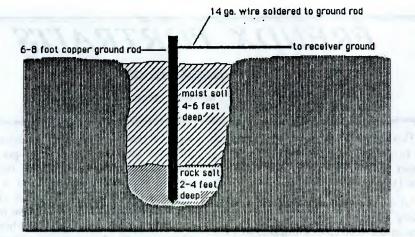


Figure 1. Suggested Ground Rod Installation

Why all this bother about a ground connection? Well, as we saw earlier, the ground is the other half of the power source. The better a connection you make to the power source, the more signal will flow through your receiver's front end. And the more signal that flows, the more you will hear!

#### CONNECTIONS

Now that we have a good ground, how do we connect it to our receiver? Many receivers, particularly the older ones, have a separate binding post for the ground connection - either as a ground terminal, or as on half of a balanced antenna input (see Figure 2). Newer receivers often come with only a coaxial connector. The outer shell of this connector is ground. When using this type of receiver simply connect the ground wire to the shell of the connector. Be careful when connecting to any other metal part of a receiver - particularly table top models powered by the wall socket. In some of these receivers the chassis may be "hot," that is, it may have a substantial amount of AC voltage present. This voltage will arc and perhaps trip a circuit breaker when grounded. Also, many receivers do not have all of the metal chassis parts connected together, so you may be connecting to an insulated bracket instead of the receiver's front end. Always use heavy gauge wire (#14 as is used for house wiring is good) when connecting to a ground, and keep the length as short as possible.

#### EXCEPTIONS TO THE RULE

Many antennas are designed to be used without a ground. Instead of using the earth as the other half of the power source, these antennas contain two elements, and each element in effect becomes an opposite pole of the power source. Examples of these antennas are dipoles and Yagi beams. But even with these antennas, a ground can often improve reception, if for no other reason than it lowers the noise level. For the most common types of SWL antennas, like the random wire or vertical, a ground is absolutely essential.

One other aspect of the ground has not yet been discussed. Safety can be enhanced by the use of an outside ground. Most have never seen what lightning can do when it strikes an antenna and enters a house while looking for ground. I have. As a Coroner, I once visited a home in which the amateur radio operator had grounded everything to the wall socket ground. Well, lightning can be very unpredictable. Before it eventually found the wall socket ground it travelled around his radio shack, and took a detour through him in the process! I implore you, if using a coaxial feedline use a lightning arrestor as well. If using a random wire or similar antenna, use a large switch as close to where your antenna lead enters the house as you can, and use it to short your antenna lead to ground when not in use. In either case, connect the arrestor or switch to the *outside ground*. It's a little inconvenience that can save a lot of inconvenience.

Next month we will look at one of the most misunderstood items in radio - the balun. Until then, happy hunting.

Notice: Figure 2 of this article appears on page 33.

# FRENDX PORTRAITS

## a look at the members of NASWA

edited by Tom McElvy - P.O. Box 9645 - Norfolk, VA 23505-0645

This month we have a very interesting bio from **Dr. Richard Wood**, a former *FRENDX* editor, who writes us from Hawaii.

"A native of Dundee Scotland, I began DXing as a teenager in Newcastle upon Tyne in the northeast of England in 1957. I have been continuously active since then, mainly on MW and SWBC but when living on the U.S. mainland also successful in FM and TV DX, with FM catches from Guatemala, Jamaica and Cuba.

A naturalized U.S. citizen, I have lived and DXed in the following places: 1957-60 - Newcastle, England; 1960-63 - Cambridge England (while getting my B.A. and M.A. in Languages), 1963-67 - Bloomington, Indiana, while getting my Ph.D. in Linguistics; 1967-70 - Oahu, Hawaii, where I taught at the University of Hawaii, Manoa; 1970-82 - various locations in the U.S. mainland; 1982-84 -Abha, south western Saudi Arabia as a professor of English; and from 1984 until now about 12 miles southeast of Hilo, capitol of Hawaii's Big Island.

At my home in the rural, uncrowded Big Island I have six Beverage antennas averaging one mile in length and the potential to expand some of them to over three miles. Two of them run to near the water's edge. I also own an oceanfront lot



where I plan to try different antennas an saltwater grounds, though beverages ther will not be possible. My home operate strictly on 12VDC power from a sola collector and is not on the public electri grid. This reduces powerline noise thoug even then some noise enters the house a times thru the phone wire or by transmision through the ether. However, with s beverages to choose from (all of whic can be switched together) I can usual find several noise-free ones.

Reception from Africa in Hawaii strikingly good, also the Middle East an most parts of Asia. However, years ( experience suggest that at least this ea side of the Big Island is not a particular good area for Indonesian reception, an NASWA members in the U.S. Midwe and even in Florida have reporte Indonesians which I have yet to hear. I a subject to horizon blockage to my SW, 1 and NW by Kilauea (the world's large volcano), Mauna Loa and Mauna Kea. recently bought some land (with room fo beverages) on the southwest side of th mountain range and hope to report resul from there within a year or so.

This most southerly part of Hawaii al: provides fairly good reception fro Europe, probably better than in mo parts of the western U.S. During yea when the sunspot count was favorable, logged 13 European countries on MW, well as 6 African MW countries and c about 30 occasions I observed the stu ning phenomenon of the antipodea effect of reception at my local dusk of tl SWABC in Gobabis, Namibia, on 7kHz, a 12,000-mile path. By contrast, tl current sunspot cycle has forced n willy-nilly into h.f. SW DXing and it over a year since I heard even one European or African MW station, or even Argentina, Uruguay, Paraguay, Ecuador, etc., all of which were regulars on MW around 1984-1986.

Until recently I taught Spanish and linguistics full-time at the University of Hawaii at Hilo, the only accredited 4-year college on the Neighbor Islands of Hawaii. I am currently teaching part-time, linguistics only. Now I am primarily a farmer (white, nonacid pineapples; pumpkins; tomatoes; cucumbers; string beans, you name it, bountiful Hawaiian nature provides it) and the owner/operator of Richard's Fruitstand in Honokaa on the north side of this island, with plans to expand to other locations.

I am interested in most phases of DXing except hobby pirates, though I enjoy political clandestines. I am a firm believer in QSL verifications and here in Hilo I have a lifetime collection of them including some world rarities such as the last verification letter from Emissora de Goa, Portuguese India, delivered to me when the country had already been invaded by India and ceased to exist; a magnificent OSL certificate in French from VTVN Dalat (6112 kHz) in the former royal capitol of Vietnam; the only known QSL letter from Radio Juventud de Ribadavia, Spain, which was licensed to MW 1250 kHz but operated for a week without permission on 7185 kHz (presumably using a ham transmitter); and fondly remembered stations in the old colonial Africa such as Radio Congo-Belge with its service "for Europeans and educated Africans", Radio Diamang serving the diamond miners of Angola, the Aero Clube da Beira in Mozambique, and Usumbura (now Bujumbura, Burundi) on 6195 which was a fall-back station serving the Belgians being evacuated from the Congo during the chaotic days of its hastily-granted independence.

I have a strong interest in world politics and am, of course, a professional linguist, so I am generally able to follow current political crises around the world via shortwave, especially in Africa, Latin America and the Middle East.

Regarding club memberships, the first I ever joined was the Malmo Shortwave Club of Malmo, Sweden, when I heard a tiny MW station in Spain conducting a DX test for it. I recall that the station first ran a power of 1 kW and then reduced it to 150 watts, but was still audible. Shortly after that I joined the Danish Shortwave Clubs International. I joined NASA (now NASWA) in about 1965 and in the early 1970s was Editor of its main article feature "Shortwave Center." As an active NASWA contributor, I may well volunteer as an editor once more, perhaps for one of the Log Report sections. I have been in many other clubs in the past including the Union of Asian DXers and clubs in Australia, New Zealand and Finland. Since 1959 I have been an active contributor to "Sweden Calling DXers" and I wish to thank the Swedish taxpayers who have



been sending me that fine bulletin for all those years. Some NASWA members may also have heard my course on "Recognition of Languages" broadcast on RCI. My favorite party game, I suppose, is testing DXers and non-DX visitors to my home in instant recognition of languages heard on the air-- I suppose I can identify some 800, without counting numerous dialects of Arabic and other variegated languages. It is nice to be able to add new languages now coming on SWBC for the first time, such as Romantsch and Galician.

My hobby plans include adding more antennas, new receivers (currently use a simple R-1000 and SPR-4, both 12VDC of course) and getting back into QSL reporting, something I have not had the time to do due to pressure of work since 1986. I'd like to start attending DX club and ANARC conventions as I used to on the U.S. mainland, but one problem is that they are generally in the summer when I am busy with the peak pineapple harvest. In addition to DXing, I am also a keen SWL for program content. The BBCWS is my overwhelming favorite, in part because of my British birth, followed by SRI (I will never forget a marathon interviewing session when I visited the SRI studios in Bern. I was interviewed in seven languages and the Portuguese announcer who taped me thought I spoke with a Mozambican accent--something I certainly acquired through listening to stations broadcasting to, and from, Lusophone Africa), Radio Finland, Radio Norway and --- for the music --- Radio Tahiti and Radio Pyongyang. With Tonga now on the air on 5030 I am sure there are many other pleasant surprises in store in shortwave broadcasting, and I look forward to the future of this vibrant medium."

And now from the editorial staff of *FRENDX*;

## Ted Bensen, WA6BEJ

"I became interested in shortwave as soon as I figured out how to turn on my father's Fisher stereo by myself. Until recently I have always owned several Hallifrafter or Hammarlund receviers (tube type, of course). Maintaining these on a kid's budget taught me electronics theory in a hurry. When I was 13 I passed my amateur radio license exam, and that same year passed my advanced exam. I have worked on and off for years in the commercial end of radio, and it was at my last radio job that I met NASWA in the guise of Chuck Ripple. I was working for an antenna manufacturer, and Chuck called for some help. He asked why w didn't make SWL antennas, and I replie that I couldn't interest anyone there i doing so. Pity, I added, because I was closet SWL myself (one has to be carefu of admitting such things when one has ham license). One thing led to another and I found myself writing Technica Topics.

It tied in well with my professiona career, which evolved into a full tim position as a technical writer. I am also contract writer for Tiare Publications, and have written the now almost famous boo The SWL Antenna Survey. When I ar not writing, I am busy as a voluntee license examiner helping aspiring ham take the plunge (er, I mean test). I coun myself as the only person in the United States who holds a radiotelegraph licens and has never been to sea. By the way, hold the record as the youngest person to have been sworn in as a Coroner. Fo someone who loves to communicate, thi job didn't suit me much.

My current radio pursuits include VLI ( am a member of the LWCA) and radia astronomy. My column is usually written on a Commodore 128, when I cannot ge after hours access to the Macintosh and laser printer I use at work. I have three sons who already show signs of promise in the radio field (they love to twiddlknobs). I am 34, and since I work in the Silicon Valley, I am almost at retiremen age!"

Guess that wraps it up for anothe month! Hope that many of you an making plans to attend ANARCON '89 in Florida, and for those of you who come, am sure that we will have a mos enjoyable weekend! Until next month, 7. and good DX!

Yor



# isteners Notebook

### GLENN HAUSER, Box 1684, Enid, OK 73702

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AUSTRALIA RA reported 2/4: today we hope to begin test xmsns from new xmtr site in Brandon, Queensland, 6020 at 08-14, 20-21, directed towards PNG, Solomons, daily (WBI 7/4) 9/4, RA Communicator interviewed controller of resources Ron Place. /Presenter/ Last Sunday we began test xmsns from Brandon, but Cyclone Aivu passed directly overhead damaging our antennas and silencing tests--not before listeners reported good reception on single fq 6020. Why build xmtr in cyclone-prone area? /Place/ Brandon roughly right position, already ABC AM xmtr 4QN there, so building was there, enough land to put of extra couple aerials, meant only to give eve bc to PNG, Vanuatu. We have problem w/northern sites: Darwin taken out by Cyclone Tracy; Carnarvon also damaged last year by cyclone. LP antenna for tests, and three 10 kW xmtrs at Brandon all moved from Lyndhurst, former site in Victoria. LP will stay as reserve; should not be any delay in commissioning of curtains, sometime in July. Svc will be EG much of the time, but also PNG svc, FR to Vanuatu (WBI 14/4) RA Brandon on 6019.85, hrd 3/4 from 1100 EG pgm & IS to 1403\*; QRMs XEUW, causing bad het, tho many other fqs are clear; RA now has at least 5 xmtrs on 49m, totally unnecessary overkill (Ernie Behr, Kenora Ont, 6/4) RA Communicator 23/4 and Brandon tests resumed on same sked; I hear a het presumably thence, but 6020 dominated by XEUW after 1130, and RN Bonaire before then, which is sked 09-1225 (Sunday from 0925), so maybe clear 08-09 (gh, TX)

AUSTRIA RAI total output is 185.30 hours per week, led heftily by CM 111.05, EG 31. 30, FR & SP 21 each, Esperanto 0.55, i.e. Suns 0930-10 & 1305-1330 (WBI 7/4) RAI Austrian SW Panorama reported 9/4: 4/4, 3-man delegation from RAI flew to China for talks in Peking about a possibl exch of being hours and a relay cooperation agreement. Aim is to improve reception of Vienna in SEAs, Pac. During 10-day visit at invitation of R Beijing, Chinese govt, RAI delegation inspecting xmtr and relay stn sites in capital, Xian, Shanghai. RB in 38 langs, already relays w/Switz, Canada, Mali, Spain (WBI 14/4) ASWP expanded to 24 mins but at fewer times not favoring NAm. Best of the lot is Sun 1430-1454 on 21490, 13730 (gh)

BOLIVIA R San Gabriel, 6080.0, F-P w/RA QRM (Soviet QRM off for now), \*0825 light mx, diff selexions every day; 0830 choral anthem, tent. ID "La Voz...(Aymara?)", never hrd mentn of San Gabriel, into pgm of BOl mx, noted 20, 21, 22/3. UnID on 6078.8 LSB, QRM 6080.0, 17/3 1012-1045, VP, Bol mx, maybe R 21 de Dic? (Ron Howard, Santa Barbara CA) Maybe same stn, viz: (gh) 6078.8, R San Gabriel, La Paz, 0909-1105 F 21/3, pgm in Aymara, folk mx, greetings, 1158 ID w/folk mx theme of RSG, "En 610 kc, R-S-G-, LV del Pueblo Aymara, La Paz" Fq presently varying 6078.8 to 6080.1 (Takayuki Inoue Nozaki, Tokyo, Japan, Relampago DX)

<u>BRAZIL</u> R Cultura, Foz do Iguaçu, 6104.6, 22/3 0457 PT song, 0449 clear ID as R Cultura but didn't hear Foz mentd, 0500 choral anthem?, 0501\* weak and chex thru 27/3 found only vy weak sig (Ron Howard, Santa Barbara CA) Foz = falls

 BULGARIA
 R Sofia in EG:
 03-04
 Am 11735.
 03-04
 Af 15140
 11765
 11720.
 0630-07
 Eu

 11720
 9700.
 1430-15
 Af 15310
 11735
 9740.
 1730-18
 Af 15310
 11735
 9740.
 1830-19
 Eu

 11720
 9700
 6070.
 2030-21
 Eu/Am 11735
 11720
 9700.
 2130-2230
 Eu
 11720
 9700.
 23-24

 Am 11720
 9700.
 Totals
 303.40
 hpw, led by EG
 52.30, FR
 37.55, TK
 32, SP
 31.30
 (WBI)

BURUNDI National R of the Republic of Burundi, V of the Revolution, Bujumbura; HF pgm that to be composite of the two FM svcs, Ch 1 in Kirundi, Ch 2 in FR, SH, EG. 03-07 3300, 10-1530 6140, 1530-21 6140 3300; except Sunday morns, 03-06 3300, 06-10+ 6140. EG pgms: 1145-12 nx. M-F 15-1505 nx summary. 1530-1540 M-F nx. 16-1610 Sat nx. 16-1610 Sun nx and nx of Southern Africa. 1615-1630 Sat Nx Panorama, weekly nx roundup. All of this considered domestic svc (WBI 31/3)

CANADA RCI EG changes effective 7/5, compare to April LN-25: M-F 0515-0530 & 0545-06 Dav 15225 ex-15180. 1445-15 Sackville now on 15160 and Mon-Sat 21545 and new 17795; Sines on 11915 15315. 1830-19 Eu 21675 ex-11945; Dav 9555 ex-5995. 21-22 Eu 17875 ex-11945. Contrary to a mention on Media Network, RCI does not plan to go on the 13 MHz band until 1/7, when these changes are to take place:

13720 replaces 9755 at 01-03 Tue-Sat, 01-02 Sun/Mon to LAm, but different power and beam 181 degrees; all 13 MHz are shown as 100 kW, while mostother Sack fqs are 250. To Af 13680 is added to the other 2 fqs at 18-20, exact same 105 degree beam on all. To Eu 13660 is added at 19-2130. On 13m from Sack, note that 21545 is still used until 1700, then 21675 takes over until 21; info from RCI engineering sked 17/3 (gh) On 3/4, Xian stn erroneously carried R Beijing Burmese svc at 13-1330 instead of RCI EG relay (Tetsuya Kondo, Toru Yamashita, Asian Broadcasting Institute)

CHINA (PEOPLE'S REPUBLIC)

CHINA will adopt a DST as from April 16 this year. (Toru Yamashita)

According to "A Statistic report concerning development of national economics and society in 1988" published by State Statistics Bureau of China on Feb. 28. China had 461 broadcasting stations. 645 trans-mitting stns or relay stns, 422 TV stns and 811 TV transmitting stns or relay stns with over 1000 watts outlet. As of the end of 1988. [cf. LN Jun. 1988 page 20] (Satoru Suga)

Radio Beijing Jp pgm announced on Mar. 3 that it would operate a new frq 1323kHz in place of 1044kHz as from Mar. 15. However monitoring reveals that it has operated 1323kHz since Mar. 10 in par-of 1044kHz since Mar. 15 as previously planned. [The feeder frq of 4960kHz has been also inactive since that day.] According to a letter from R. Beijing, the antenna for 1044kHz is under repair and it will revert to the use as from Oct. 15. On 1323kHz the test transmission had been heard between Jan. 15 and Peb. 15 at 1400-1457. [including R. Beijing Jp om between Jeb. 13

15 at 1400-1457. [including R. Beijing Jp pgm between Feb. 13 5. (Kunihiro Nishida, Satoru Suga, Akira Yamanaka, Hirofumi Yamaoka, Tatsuo Gima) Feb. 13 and 15.

Voice of the Strait B. S. has Changed its shortwave xmsn schedule.
First noted on Peb. 6. This schedule includes some new frqs. The monitored schedule in Mar. is as follows: <u>1st Program</u>: 2055-0031 & 0955-1751 overall: 11590 0955-1430, 7280 0955-1751, 6170 0955-1751, 6115 2231-0031 0955-1751, 5050 2200-0031, 4940 2200-0031, 4840 2200-0031 1431-1751 3900 2055-2230, 1377 2055-0031 0955-1751, 1269 0955-1751.
<u>2nd Program</u>: 0355-1626 overall: 950 0355-1626, 6000 0355-1626. 846 and 666 are also transmitted.

2nd Program: 0355-1626 overall; 9505 0355-1626, 6000 0355-1626, 846 and 666 are also transmitted. (V of the Strait is officially named as Chinese People's Liberation Army "V of the Strait" B. S., renamed from Fujian Front B. S. on Jan.1 1984. This stn is systematically independent of CPBS & regional PESS] (Satoru Suga, Tatsuo Gima, Hiroshi Pujita)

Beijing PBS 1st Program is heard daily on 14340kHz with poor con-dition. Broadcast from around 2300 to 0540 and signed on again at 0740. The service is parallel with 828kHz & 103.2MHz.(Hiroshi Fujita)

Guizhou PBS 1st Program broadcasts at 2150-0110, 0150-0600, 0850-1605 on 7275, 3260, 1026, 927, 765kHz. And PM 94.6, 101.6, 103.4HHz. 21825kHz, the 3rd harmonics of 7275kHz can be heard daily with good condition. (Akira Yamanaka)

Chongging Economics B. S. was founded on Dec. 20 last year. The test xmsn was started on Dec. 25, broadcast daily at 2145-0500 on 101.5MHz stereo. "Chongqing Radio and TV Journal" published on Dec. 21 reported that the formal pgm would be transmitted at 2145-1000. This stn becomes the 5th economics radio stn in China, continued from Zhujiang, Shanghai, Liaoning, Tianjing. A frq of 101.5MHz had radiated Chongqing PBS 3rd Program until Dec. 24th. This Pgm is now be on 105.5MHz. (Isami Hyuga - CHONGQING, CHINA) (Fast Asian DX News of the Asian Reodessting Institute 15/6 commitded and

(East Asian DX News of the Asian Broadcasting Institute, 15/4, compiled and translated by Tetsuya Kondo, Japan)

Further to an ABI item above, besides replacing 1044 kHz for JP svc at 0930-1530, also seems gone from 918 and 719 kHz, and ancs two new SW fqs 7295 11515. Xinhua reported 15/3: tea party celebrates 30th anniv of China's bc in Hindu

/sic/ language, started 15/3/59. Last year got 4 kiloletters from listeners (WBI 24/ 3)

<u>CUBA</u> Tele-Rebelde reported 24/3: Comms Ministry will install new xmtrs this year to improve quality of TV sigs, replacing existing ones in use 404 yrs, in Guanito, Pinar del Rio; Cueva Arriba, Guantanamo; Camaguey prov; and Tele Villa in Havana. Power increased in some cases, qual of TV sigs improved in others, mainly in mountainous area. The 7 contracted xmtrs utilise modern technology, ICs, more reliable. Natl TV nets now cover 85%+ of country. Most reliable reception in Villa Clara, Ciego de Avila, least in Granma. TR reported 15/3: greater exploitation of FM and replacement of radio system's obsolete technology among CM's priority tasks this year. Six MF xmtrs will be replaced, exploitation of FM increased. Natl nets now cover 90% of country; most reliable in Isle of Youth, least in Las Tunas. Certain rugged areas not yet reached such as Escambray mtns, Sierra Maestra, Sierra de los Organos. Now are 173 MW radio xmtrs, fed by microwave, phone lines, radio linx, coax cable.

Monitoring 19-20/3: Since intro of summer time in Cuba 19/3, R Taino, SP & EG to visitors has been 24 hpd on 1160 and 830 kHz. Also obs on unancd 1040 at 00-04, fq relaying R Moscow at other times. Anmts 19/3 stated "proudly on air 24 hpd, new pgms and reruns from 12 to 6 am to give you a more pleasant stay in Cuba" Formerly usually operated 11-05 UTC (WBI 31/3) Monitoring 20-28/3: Since 27/3, R Taino has ancd 1160 only; 830 no longer ancd or.obs, tho continues addl unancd xmtr on 1040 irreg (WBI 14/ 4) R Rebelde reported 29/3: 1989-90 protocol signed w/USSR on bc cooperation. In Moscow we have a manager operating the Spanish sexion of R Moscow's form svc. Two ancrs also contribute to this stn's bcs in SP. Soviets here and we in Moscow have permanent correspondents (WBI 7/4)

DENMARK As from 7/5, R Denmark bcs to Au/As are to use 25850: 21-2152 80 degrees to Au; 12-1252 80 to Au/JE; 09-0952 40 to Japan; 13-1352 65 to EAs; 14-1452 85 India (Danish PTT via April Australian DX News) On same page it is reported that Norway is now sked on 25850 at 19-23 for SAm/WAf, w/out drawing any connexion. It had been reported that Norway would relay Denmark the second halves of hours, and Norway's sked for its own svcs has been reorganised to first halves of hours, but nothing explicit on whether such a relay has already started and whether any of the R Denmark xmsns we may hear are axually still from a site in Denmark! (gh)

DOMINICAN REPUBLIC Monitoring 16/2-10/3: Since 16/2, xmtr on 11700 relaying pgms of R Mil, R Clarin. Usually s/on betw 1030 and 1130 w/R Mil Informando morning nx bulletin in progress until end arnd 1230. Then relays of R Clarin local svc, exc for R Mil nx at 16-1730/1745, 2130-23 apx. Relays of R Clarin local svc incl eve nx Clarin Informativo 23-24. These obs Mon-Sat; obs not made on Suns but in past nx bulls not usually bc on that day. Xmtr on 11700 not obs since mid-July 1988 and continues to experience fqt breaks in svc. RC also bcs on 860, 105.5 (WBI 17/3) No obs made on Suns? Highly unprofessional for a monitoring svc (probably FBIS) to take a day off!

ECUADOR HCJB total output is 485.25 hours per week, of which 137.45 is EG, 133.00 SP. In 3rd place is Quechua, 77 hpw (no doubt several dialects). In last place is Macedonian, 2 hpw (WBI 24/3)

EGYPT R Cairo, general pgm in AR on 15685 at 1121-1124\* discussion 9/3 //12050, SIO 343 (Dave Kernick, UKOGBANI, April DSWCI SW News)

 $\frac{\text{FRANCE}}{\text{slavia}}$  RFI ancd 22/3, increase in bcs to EEu, by 45% to USSR, Poland, Romania, Yugoslavia, w/out sacrifice to pgms in FR to EEu. No reduxion either in other efforts such as bcs to Af, and EG bcs. Add 8 persons to staff (WBI 31/3)

GERMANY WEST /non/ DPA reported 8/3: All E Bloc jamming known to date of pgms from Western stas now discontinued. DW ancd 8/3 that even jamming vs bcs to Afghanistan in Pashto & Dari silent since 2/3 (WBI 17/3)

D W German svc has a DX program for 15 minutes on the 4th Monday at 0115, 0515, 0915, 1315, 1715. Does this mean that the daily DW pgm cycle now starts at 0000 UTC rather than 0600? Or did BBCM screw up again, so the 0115 and 0515 airings should have been specified as the Tuesday following the fourth Monday (calling it 4th Tuesday would also be incorrect in cases where a month starts on Tuesday). Total output 586.29 hpw, led by CM 166.29 (not 168 since there is a 13-minute break daily at 0547). Just like with HCJB, Macedonian is in last place here too, 3.30 hpw. BBCM shows no relay sites except Radiobras, 23-0050 SP on 15185 6145, 01-03 9545 in GM--and claims Std Chinese at 1230-1350 is still via R Veritas on 11845 (WBI 31/3) HAITI Prensa Latina, Havana, reported 7/4 from Santo Domingo: Haitian Natl Guard. holding onto precarious authority of de facto Pres Avril 6/4 cut antennas belonging to major local radio stns, 14 of them. Only 4 stns continued on: the offl R Nationale, private Arc-en-Ciel, Catholic Church's R Soleil, protestant R Lumiere. The two relig stns says seems result of non-compliance w/press cencorship decree to prevent forces trying to overthrow him from siring their communiques.

R Soleil reported 7/4: Ants of 4 /sic/ stns hit yesterday, people wounded at some and ants totally wrecked. R Haiti-Inter: director says 20 uniformed soldiers att-acked xmtrs before curfew went into effect at 2300 UTC yesterday. R Metropole, which has 2 groups of antennas, one near Fort Dimanche, other in Boutilliers--soldiers first cut off FM; later AM mast near Fort Dimanche stopped xmtg. R Antilles Intl also silent, went off betw 18 and 19; watchman said soldiers held gun to his head, entered site on Cul-de-Sac plain, carted away some xmtg eqp. Soldiers totally destroyed xmtr of R Liberte, on the Bicentennaire; also put ants in Boutilliers out of commission, hurting security guard Antoine Jean-Juste (WBI 14/4)

IRAN Excerpt from a speech by Pres Ali Khamene'i to scholars and clergymen at Qom seminary, on VIRI 16/3: Issue of frivolous music has caused much debate among clergy. Nx on radio and TV before revolution mainly consisted of songs rather than classic Iranian folk music. These songs were like a garbage heap. Tone, context, words, singers drew people to corruption. In no way comparable to a singer now singing poetry from Hafez of Milawi (WBI 24/3)

VIRI reported about news production at VIRI with head of news Mr Hemmati: Forn radio stns did not come into existence because we do not present the news. But because there is a great conspiracy underway against the Islamic revolution. A large number of forn radio pgms consist of "poison against the revolution". Hemmati concedes that forn stns are often able to present nx in such a way that the listener feels the nx is being bc in an objective manner even tho it is in fact biased. A pgm devoted to review forn radio bcs exposes many of the conspiracies, by presenting contradictory statements, Fridays 0400 gmt (WBI 31/3)

IRELAND R Dublin, which stayed on the air in Jan despite govt restrixions, was raided 7/2, govt officials stripping the place of xmtrs, other eqp including SW xmtr on 6910. But it came back on from other locations twice, and was raided two more times, and at last check was still able to bc (Ken Baird, March DSWCI SWN)

RNMN reported 6/4: 500-kW longwave commercial stn project jointly by R Tara and R Luxembourg status per Travis Baxter, stn mgr: xmtr is built and shipped over from Continental in Dallas. Hope to test in summer, launch around September. TD will be All Europe Radio, Atlantic 252. Actually on 254 kHz until next Feb (WBI)

#### JAPAN

R. Japan has put into operation of M89-2 schedule since Apr. 3 0400 UTC. Before it started, RFI via R. Japan has been prolonged the ser-vice 1.5hours/day since Apr. 1 0930UTC. RCI via R. Japan has been also rearranged since Apr. 2 1300UTC.

On R. Japan M89-2 some pgms in the Regional service are altered in bc time: AR 1830-1900 (ex- 1630-1700), FR 1900-1930 (ex- 1700-1730) 2030-2100 (ex- 2000-2030), GM 2000-2030 (ex- 1930-2000), Malay 1200-1230 (ex- 1330-1400), Swahili 1630-1700 (ex- 1730-1800) and Thai 1330-1400 (ex- 1200-1230). [cf. LN Apr. Page 28]

RFI is now relayed 6hours/day at 0930-1230 FR 15215, 1030-1159 FR

RT 15 now relayed shours/day at 0500-1135 rk 15113, 1500 1135 rk 17705, 2300-0030 FR 17710. RCI is relayed thours/day as before. Now at 1300-1330 EG 17810 15270, 1330-1400 RS 6150, 1400-1430 UK 6150, 1930-2000 RS 9650, 2200-2230 EG 15440 11705, 2230-2300 FR 11705.

Kaz Matsuda, Producer/Host of DX Corner in EG, shows J89 EG xmsn schedule (effective May 7 through Sep. 2).

 Schedule (effective may / through exp.

 General service:

 0100-0200
 17845
 17835
 17810
 5960(C),
 0300-0400
 17835
 17810
 17765

 7125(until 0330, G),
 0500-0600
 17825
 17810
 17765
 15195,

 0700-0800
 21690(G)
 21500
 17810
 17765
 15270,
 0900-1000
 17810,

 1100-1200
 11840
 11815
 6120(C),
 1400-1500
 11865
 11815,
 1500-1600

 21700(G)
 11865
 11815,
 1700-1800
 11865
 11815,
 1900-1930

 15270
 11865,
 1500,
 1765
 17810,
 17810,

2300-2400 21610 1.0100 1.0100 1.010 1.010 1.010 1.010 1.010 1.010 1.010

R. Japan DX Corner will be broadcast as follows:

EG (19min. Producer/Host: Kaz Matsuda); 0925-0944(Sun) 17810(S.B.Asia), 1525-1544(Sun) 21700(Eu, M.E. & Af,

Gabon relay) 11865(N.Am) 11815(S.E.Asia), 0125-0144(Mon) 17845 (S.Asia) 17835(Asian Cont.) 17810(S.E.Asia) 5960(N.Am Canada relay), 0325-0344(Mon) 17835(Asian Cont.) 17810(S.E.Asia) 17765(Asian Cont.) 7125(until 0330, to S.Af, Gabon relay).

KR (about Smin, Producer/Host: Toru Yamashita in ABI): [DX Corner in Korean has been bc on every Sats since Apr. 8. Formerly once a month, the 1st Sat bc. The pym starts around 1100 and 1400.] 1100a-1105a (Sat) 9580 7210, 1400a-1405a (Sat) 7210 6080. All frqs to Asian Cont. (Toru Yamashita, Tetsuya Kondo)

(E Asian DX News of Asian Bcing Institute 15/4 xltd & via Tetsuya Kondo, Japan) The new 11865 starting at 1400 is for NAm direct from Japan--must have been picked by someone who never turns on a SW radio, else they'd know that Indonesia 300 kW DS is there, bound to clash; Indo off freq on high side, so het too (gh)

KASHMIR AZAD No controversy over seldom heard Azad Kashmir R, Muzafarabad actually coming from w/in Azad Kashmir. Muz is capital. Pen friend there confirms existence of radio stn, can see studios, ants, tall masts on hilltop. Hrd quite regularly on 792 MW, but SW 3660v vy erratic. Noted now in Sri Lanka arnd 1500, sked 0040-04, 1155 -1804. And via Islamabad on 4980 0040-0430; 12-1415, 1430-1803 on 4790, 0603-0903 on 7265 (Victor Goonetilleke, Union of Asian DXers, Feb-Mar)

KENYA Daily Nation reported 27/3: Kenya will soon have a private radio & TV channel if 6th natl development plan adopted (WBI 31/3) VOK reported 29/3: KBC will tomorow launch a Pokot vernacular radio svc, via Kisumu, the 17th vern on VOK (WBI 7/4)

KOREA SOUTH Tong-a Ilbo, Seoul, reported 17/3: To get material necessary for preparing pgms on N Korea, KBS plans to install aerials at border to receive NK TV; MinCom says this does not violate current regs (WBI 24/3)

<u>KUWAIT</u> R Kuwait main AR pgm on SW: 0230 on 9840 6055. 04 on 17895 17850 11665 9840 6055. 05 on 17895 17850 15495 11665 9840 6055. 06 on 17895 15495 11665 9840 6055.
0615 on 17895 15505 15495 11990 11665 9840 6055. 0730 on 15505 15495 11990 11665 9840 6055. 09 on 17885 15505 15495 11990 11665 9840 6055. 10 on 17885 15495 11990 11665 9840 9750 6055 (also on EX 15505). 11 on 15505 15495 11990 9840 9750 6055.
13 on same. 1530 on 15510 15505 15495 11990 9840 6055. 16 on same plus 9880. 18 on 15510 15505 15495 11990 9880 6055. 1830 on 15505 15495 11990 9880 7120 6055. 2115 -23 on 15505 15495 11990 6055. R Kuwait Special AR svc 07-13 on 15505 to Eu/Am. Holy Koran Svc at 01-05 on 15495 15245, 16-21 on unknown fgs. Persian 08-10 on 9750. Urdu 16-18 on 17895. EC 05-08 on 15345, 18-21 on 11665. (WBI 24/3)

LIBERIA ELBC now back on SW, hrd \*0500, varying up to 15 mins, on 3255 ancg sked as 05-09 & 18-24 on 3255, 09-18 on 6090. But eve xmsn obs several times from \*1900 on 3255. Same fq carries BBC Lesotho 1745-2030 in EG (David Kernick, UK, Apr DSWCI SWN)

<u>MALAYSIA</u> R Australia reported 2/4 from Singapore: RTM from 1/7 will prohibit ads portraying Western lifestyles; no Caucasian models; no women in swimsuits. Ads must reflect racial reality of society. Info Ministry must approve ads before aired. Ad agencies protest they could spend 100 kilo\$ on a new beer ad only to be told the actors don't look enough like average Malaysians (WBI 7/4) See also SINGAPORE. Why doesn't Malaysia just stage an Islamic Revolution and get it over with? (gh)

EG DS, Blue Net on 7295 has increased airtime from 1/1. Mon-Thu 22-01, 05-06, 09-16 continues but Fri now 22-06, 09-16. Sa/Su 22-16. On Mon-Thu 01-05 & 06-09 contains educ pgms for schools. From 1990 domestic nets no longer known as Natl Net (Malay), Blue (English), Red (Tamil), Green (Chinese) but as Radio 1 to Radio 7. R l will be Malay, currently 24h on 5965; R 2 the FM stereo svc; R 3 English, R 4 local regional bcs, R 5 Chinese, R 6 Tamil, R 7 the Orang Asli (native people) svc (Lim Kong Jin, Penang, March DSWCI SWN) All bc svcs are ultimately to use FM\$ 18 hpd; meantime; setting up two new regionals in Shah Alam, State of Selangor, and Seremban, State of Negeri Sembilan, so all states would then have own regional stns. Native People svc in Bahasa Malaysia has bc at 06-08 on 6100 not listed in WRTVH. Addr is P 0 Box 11272, 50740 Kuala Lumpur (Lim Kong Jin, Penang, April DSWCI SWN)

MALTA V of Mediterranean, and R Mediterranean stns are distinct from one another. VOM is joint venture between Malta and Libya. RM is joint Malta/Algeria; both from same xmtrs at Xrobb il-Chagin but at different times. SW is 250 kW omni antenna, MW 600 kW w/three mast system. VOM offl langs AR, EG, FR, the latter to start in a few months; 06-08 1557 9765, 14-16 11925, addr P O Box 143, Valetta. Director is Richard Vella Laurent (Salvatore Placanica, Italy, April DSWCI SWN)

MONCOLIA RUB on new sked incl FR 1720-1750\* on new 9985, resuming at \*1755, SINPO 35553 (Franz Suss, Romania, April DSWCI SWN)

<u>NEW ZEALAND</u> RA Communicator reported 19/3 from Auckland correspondent: Radio & TV being funded by ads and public fee, payable for each household w/TV, about NZ\$72 for a colour set, i.e. about US\$44. Last year this provided NZBC w/ \$52 million; 46% of that went to RNZ, mainly for non-commercial bes such as those relayed on SW; 31% to TVNZ for cultural, local pgming; 13% to fund NZ Symph Orch. Now MinBC Jonathan Hunt intimates increased fee likely soon. Possibly \$108 a year as from 1/7, a 51% increase (WBI 24/3) RNZI J89 from 6/5 to 2/9: 1830-2105 11780 15150. 2345-0145, 0145-0330 Sat/Sun only, 0330-0730 15150 17705. 09-1205 6100 9850 (Barry Cook, RNZI)

NICARAGUA LV de Nic in SP at 1058 on 6098.6, many ments of Revolucion, seems canned as mixed w/SP mx. 1103 ID, people talking, dogs barking in background, 1115 t/out 12/ 4. Also again 13/4 but weaker (Nick Terrence, Huntington NY) R Sandino reported 16/3: R Catolica dir Msgr Bismarck Carballo ancd that the "Iglesia" nx bulletins will return to air 27/3. We have right to carry news w/out having to negotiate it (WBI 24/ 3) Monitoring 28/3: R Catolica bc nx today, first time since stn resumed opns 19/8/ 88. Would be daily 1800 (WBI 7/4)

NIGERIA R Nigeria reported 15/3: Min of Info & Culture, Prince Tony Momoh, gives assurance that V of Nigeria, ES will soon be reactivated. Also noted that of the 60 xmtrs belonging to the FRCN, no more than half were funxioning, due to economic situation (WBI 24/3) PANA reported 24/3 from Abeokuta: OAU radio recording studio, to publicise activities of continental body, and those of libn struggles in S Africa will begin opns in May 1989, per Dir Info Ibrahim Dagash. Studio would record pgms for other stns to bc. Should build a full radio stn to bc 2 hpd w/in next 10 yrs. R Nigeria reported 22/3: Kaduna Bcing Corp to install two new xmtrs at Zaria and Kafanchan stns to insure full radio cov of state (WBI 31/3) R Nigeria reported 28/3: new director general of FRCN is Alhaji Mohamed Ibrahim (WBI 7/4)

NORTHERN IRELAND /non?/ This info dated 6/4 rcvd from new free radio stn Triangle Nightime Radio: New project is a weekend FM 98.5 stn; hope to operate SW svc on 6273 relaying TNR to E Coast of NAm. Hope to begin 15-16/4; times 22 Sat nite until 01 Sun morn your time (presumably 02-05 UTC Sun - Bares). We're sure this will be of great interest to all radio enthusiasts on E Coast, esply as it is live and comes from Ireland. Stn is vy interested in reports from NAm, addr: Triangle Nightime Radio, The Strand Hotel, Strand Road, Portstewart, Co Londonderry, Northern Ireland. As a courtesy I believe listeners should enclose return postage (Gregg Bares, CT, 19/4) "relay"? Does this mean it's really from a NAm pirate?? (gh)

PAKISTAN R Pak on 21740 in EG, t/in 1613 w/slow speed nx of ME, 1616 ID, //21580 but not hrd there. More nx, ending at 1630\* abrupt 9/4 (Nick Terrence, NY)

<u>PANAMA</u> Melodia reported 17/3: Cland stn Voz de la Libertad yesterday jammed a bc of the Panama City stn R Ondas Populares. Subversive stn, which carried brief msgs against the country's authorities, hrd arnd noon yesterday during nx on O.P. In last fewnmonths, 3 local radio stns incl R Nacional jammed by the cland. Subversive bc coincided w/commem of first anniv of unsuccessful mily coup against Genl Noriega (WBI 24/3) Press report says perpetrator of cland bcs arrested (gh)

<u>PAPUA NEW GUINEA</u> R Australia reported 19/3: Chairman of natl FM radio svc, Kalang Advertising, warns svc could fall into form hands. RA Port Moresby office says Kalang svc nearly had to close down last week because of financial difficulties. But got temporary reprieve when PNG P&T Corp agreed to give stn more time to find money owed for telecomms svc amounting to more than 240 kilo\$. Kalang chairman says financial plight means nation's FM svc could easily be lost to forn buyers (WBI 24/3)

RA Communicator reported 9/4: Per press reports, Comms Minister Malipu Balakau seeks govt permission for NBC to op a TV stn, to promote cultural values of PNC society. Also said NBC must do away with providing free being sves. Britging Kalang FM sve under direct control of NBC would be revenue-producing; its debts total a megakina (WBI 14/4)

PHILIPPINES FEBC have begun new DX pgm in EG called "DX", Mon 0145 on 15480, Thu 1540 on 11850 (April ADXN) Innovative name (gh) Since 5/3, RVA using a new 250 kW xmtr on 300 degree beam: 00-0058 15255, 01-0330 15365, 1230-1630 15220. Replaces 50 kW with log periodic which were purchased from short-lived SEARV; EG from RVA now: 0130-02 15325 15365; 15-1530 15465 15220. Due to QRM on 15220 until 15 I have recommended that 1230-15 they use 15215, then 15-1630 15215 fsic; means still 15220?/ so watch out (Victor Goonetilleke, Sri Lanka, Feb-Mar UADX)

PORTUGAL R Renascenca reported 14/3: new head of RDP management board is president Cardoso Meneses. RDP Antena 1 reported 14/3: Asst Secy of State for Media Albino Soares says 150 local radios will be authorised before Easter (WBI 24/3)

March issue of AWR Current, Forli Italy reports: AWR started being from Sines over a sesquidecade ago, still going strong. Producers send pgms to AWR Lisbon office where they are prepared on a special tape, delivered to Sisimbra where goes by relay to xmtrs at RTE Sines, 80 mi S of Lisbon. At Sines, three 150 kW Marconis, Siemens master control, aux eqp, ants by Brown Boveri using curtains, LPs. AWR uses two of the three xmtrs. Since RTE owns Sines opn, AWR buys time each week, paying apx \$300K a year for 75 hpw be time, all AWR can now afford. Why don't we just use the money to buy our own 250 kW xmtr at Forli? Would jump at chance if radio laws were stable in Italy; current situation not merit taking such chances. So will continue as present to EEu/NAf, except for EG Sun 08-09 on 9670 (WBI 7/4)

SEYCHELLES FEBA Radio News, Worthing, Apr-Jun issue reports: ON 21/2, the Ville de Rouen reached Victoria harbour, Mahe carrying extremely valuable cargo for FEBA--TX4, our new 100 kW xmtr. Old 25 kW, TX 1, replaced by TX4, was switched off 20/2 and has been removed. New xmtr physicallyneeds the space TX1 occupied. As we went to press engineers were installing TX4, aim to have it opl for new sked beginning 5/3 (WBI 7/4) FEBA Radio Fri pgm for time being (Salvatore Placanica, Italy, SWN)

SINCAPORE AFP reported 21/3: Singapore to ban sale and installation of satellite dishes for receiving TV bcs from abroad, Min of State for Comms and Info Mah Bow Tyan told parliament. Unlimited access to pgms beamed by forn TV stns could not be allowed because in developed countries commercial TV was designed to make money, but might transmit harmful values. TV should filter out unacceptable values. Many Sing homes already receive bcs from neighbouring Indo & Malaysia w/out specialized eqp, also concerning parliament. Cantonese pgms from Malaysia run counter to Singapore's offl Mandarin-only policy, plus cigaret ads in direct conflict w/govts anti-smoking policy (WBI 31/3) Whew, what a police state. Why don't they just declare a People's Republic and be done with it? (gh) When will Singapore become "developed"?

SOUTH AFRICA R RSA has nice ham radio DX pgm, Amateur Radio Spectrum, hrd best on Sats 1344-1355 on 21590 and 17755 (Sanmura Sundaram, Tamil Nadu, India, VU2FOT, UADX) Monitoring 5-11 April: Since 5/4, R RSA has be on 4965 from f/in 1720 till close 2056. 11/4 was hrd //6130. Pgms appear in Ovambo, main indigenous lang of Namibia. Per tent fq sked for J89, new svc in Ovambo l6-21 on those two fqs, and in Afrikaans same 0350-0515; new be in Kavango to Namibia listed 14-1555 on 11805 (WBI 14/4)

<u>SPAIN</u> RNE Radio Exterior sked excerpts: EG 00-01 & 01-02 & 05-06 Am 15110 9630. 19-20 Eu/ME/Af 15395 15375 15280 11790. 21-22 Eu 15280 11790. Multilingual w/nx in SP, Catalan, Galician, Basque: 0930-10 Eu/ME 21595 17730 15395 12035 11920 11790 9875.oné hour later in winter. Also at 0930-10 yearound to Am on 21570 21555 17815-Sunday.1930-20 Eu/Af in Cat/Cal/Bas one hour later in winter on 17890 12035 11920 9875 9765. 23-2315 in the 4 langs to Am on 21360. Ladino, for Sephardic Jews, Thu 18-1830 to ME on 17770. Spaniards at Sea pgm in SP is Mon-Sat 1405-15 on 21595 21555 17890. Total output is 331h15m per week, ranging from 248.30 in SP to 35 in EG to 0.30 in Ladino (WBI 7/4)

SRI LANKA Viswawani, TWR off air 1/3 to 12/3 on 5990 00-0130, 12-1330 the latter in EG, due to tube failure on xmtr. Cost about US\$20K I'm told, back now seems better (Victor Goonetilleke, Sri Lanka, UADX Feb-Mar)

SURINAME R Apintie, 5005.7, logged 10/2 2358-0215 w/phone in pgm 00-01 so I called +597-97950/98800 and got on the air. Had been looking for this months and months. Power seems 350 watts. SINPO 21221 w/VG condx from SAm. Founder of stn Mr Verwuurt died but son continues (Wian Stienstra, Neth, March DSWCI SW News)

SWEDEN R Sweden reported in Swedish 19/3 on changes to ES from 26/3: all half-hour xmsns ended w/IDs repeated in 7 langs. Not really necessary now that xmsns reorganised to remain on same beam for as long as possible; now IS reduced to 8 times a day (WBI 24/3) Same pgm 28/3 reported that Estonian and Latvian at 1645-17 introed due to new openness in Soviet Uniton out of general budget; anything more than nx would require addl staff, much more expensive (WBI 31/3) R Sweden output totals 181.15 hpw of which 66 is in Swedish, then 24.30 in EG (WBI 14/4)

SYRIA Monitoring 9/4: R Damascus ES hrd to Eu on 17710 15095 in GM 1805-1905, FR 1905-2005, EG 2005-2105 (WBI 14/4) Obviously influenced by Ted Turner (gh)

TAIWAN CNA nx agcy reported 3/4: govt will establish natl nx agcy and natl radio stn in a few years, Shaw Yu-ming, dirgen of govt info office ancd. Says GIO has met w Kuomintang-run Central News Agency many times in past years to discuss transforming it into govt-run natl nx agcy w/in 3 yrs. Shaw also expressed hope govt would take over overseas dept of Kuomintang-run BCC and expand it into natl radio stn in a few years (WBI 14/4) Splitting hairs

TANZANIA R Tanzania reported 14/3: Pres Ali Hassan Mwinyi visited R Tanzania today. Chief Editor Ndugu Kassim Mpenda told pres that for long time newsroom unable obtain nx flashes, cause Shihata, Tanz nx agcy, had not paid debts to Brit nx agcy Reuter, which in turn halted info supply to RT. Resultantly, nxroom decided to monitor nx from forn radios (WBI 24/3) RT reportd 28/3: RT to begin being new pgm by amalgamating the Commercial and Natl sves into one dept. Bc dir David Wakati said after amalg, beshd begin at 0200 gmt instead of 0300, w/relig pgms, uninterrupted mx until 03 nx in brief, press review, funeral anmts, ads, mx, anmts until 04 nx bulletin; rest of nx sked as before until 2100\*. New stn known as R Tanzania, from 2/4. Eqp of Commercial Sve being repaired; was faulty and caused constant interruptions of bes, to be completed in 3-4 months. First time since inception RT bes so early (WBI 7/4) And that extra hour should be a big help to WHem DXers (gh)

TONGA R Australia's NZ corresp reported 2/4: CE of Tonga Being Comm, Mr Indiran, says new xmtr on 5030 in opn since 28/2. SW svc meant for outlying islands, such as Vava'u and Niua to the north of main island Tongatapu. Power 1 kW, ops 1750-10 6 dpw, no SW frm 1750 Sat to 10 Sun. Also has new 10 kW solidstate on MW 1017 since March 88 (WBI) More details: 5030 is DSB AM full carrier, ant simple dipole. Xmtr locally designed and assembled by TBC staff. Fq arranged by Tonga PTT after tests to determine QRM and coverage; allocated for fixed or being. Xmtr xtal controlled. Only available fq is 5030. Reports wanted to Mr Indiran, CE, TBC, PO Box 36, Nuku'alofa (Bob Padula, March ADXN)

<u>UGANDA</u> R Uganda reported 5/4: MInfo & BC has been urged to give more autonomy to R Uganda, TV to boost professional quality as mass media; needs forn exchange to buy required components (WBI 14/4)

USA WORLD OF RADIO sked on WRNO remains as in Apr LN, but Thu 1530 on 11965 has been appearing more often, sometimes w/last week's pgm rather than new one; Sun 2030 on 15420 has varied widely, once at 2000, another week at 2108 after fq change to 13720, yet another week inaudible here and WRNO either off or propped out (gh)

KCEI has 4-min DX Internacional pgm in SP M-F 0006 0336 0706 1305, Sa/Su 0005 0405 0700(Sun 0705) and 1330. Fq is 15280 before 0312, 9615 after (Dieter Lippman, GDR, MarchDSWCI SWN)

<u>U S S R</u> Complete listing of langs and fqs for R Stn Peace & Progress, effective 7/5 to 2/9: Eu GM 1430 (invariably 29-min long) 13700 12040 9775 7340 7420 1386; 2030 on 1386 263; 2130 on 15240 11980 9820 9550 7420 7340 1386; EG 20 on 263; 21 on 15240 And rest of fqs as for GM at 2130. To SEAs in Peking dialect (sic) 13 on 17870 17730 17635 17610 15180 11870; 1330 on 17835 17730 17635 17610 15560 15480 15180 11870. To Asia in EG 14 on 17645 17635 17610 15220 11890. SWAs Persian 1530 on 15320 15210 11910 11695 9840; Azerbaijanian (sic) at 16 on 15520 15210 11910 11695 6135 6110 1296. EG at 1630 on 12055 11910 11695 6110 6135 1296. ME in AR 1330 on 17580 15520 15455 15425 11900 9810; HB 1630 on 15520 15500 12065 11975 7305 1170. Af in EG at 1630 on 17615 17595 11775 11670 9830. LAm in SP 00 on 15355 9665 9580=until 31/7, 7350=from 1/8. 0330 on 17580 15585 15520 15510 15475 15210 11860 11630. Creole 00 & 02 on 1 15150 12060 11920; Guarani Tue/Fri 01 on 15475 15210 9470; PT 03 on 17580 15575 15520 15510 15475 15210 11860 11630. If you think that's a 10t of fqs, original sked had the March-May period, May-Sept, and Sept-on periods!! (Bill Matthews, Columbus OH)

Addl minority lang svcs are being added to various stns: Lithuania thinking about Ukrainian; Kirghiz R has Turkish once a week; Evenk lang for SFE shortly; Chita TV in Buryat. Groznyy, Checheno-Ingushkaya ASSR gives equal air time to Chechen, Ingush and Russian; 90% of pop considers RS their 2nd lang (WBI 7/4) regular radio bcs now in Nivkh lang in Sakhalin oblast; Turkmenia gets to watch TV in Uzbek. Taldy-Kurgan now bcs in RS, KZ, Uigur, German, plans Korean too (WBI 14/4)

Homeland, Tallinn reported 22/3: As of 27/4, Estonian R forn svc bcs weekly pgm in EG, Mons 2030-21 on 1035 and 5925, other days Estonian (WBI 7/4) R Vilnius ancd 18/3: details of our fqs, sites: 666 is Kaunas 500 kW non-dir but slightly turned to 315 degrees; 6100 is Kaunas 50 kW 250 deg. Bcs to ENAm: Until 26/3 9765 is Lvov in W Ukraine 500 kW, 305 deg; from 26/3 9750 Plovdiv, Bulgaria, 500 kW 290 deg; 9860 in Yevpatoriya, Crimea, 500 kW 310 deg; xmtrs rented /sic/ from R Moscow. To WNAm: 15240 Nikolayevsk-na-Amure, 40 km from mouth of Amur river, 240 kW, 40 deg; 15455 in Petropaviovsk/Kænchatskiy, 100 kW 65 deg; 17660(?) ditto (WBI 31/3) R Vilnius quoted Lith DX Club report 27/3: in mid-Feb, Central Committee of Lith CP approved plan to found youth radio stn in Vil on FM; the first non-governmental one in USSR (WBI 31/3) R Alma Ata hrd 25/2 1245-13 in RS on 15780, 3 x 5260, SINPO 23432 (Nobuyoshi Aoi, Japan, April DSWCI SW News)

Govorit i Pokazyvaet Moskva reported in its 12th 1989 issue: Six republican channels have been xmtd; to Moscow on SW since 14/3: Promin, nx & mx ch of Ukrainian R is much like Mayak; 5-min nx not half hour and on hour, but at 15 and 45; Uk folk and tradl mx. Weekdays live pgm Contact 1945-22, weekends From Morning to Midday is live 0715-1020; plus literary pgms from Molodaya Gvardiya stn. Belorussian R pgms incl Morning in Countryside, Restruxuring Microphone, Republican Nx, concerts, plays; nx & Mx Spring, Krynitsa in BR, daily 06-11; pgm pvws 0530. On Estonian R channel letters pgm, literary, mx, children's, morning pgms w/nx 0230-06. Lithuanian includes Q&A pgm live.0630 & 14 on every day except Sun, kid pgms, includes sports. Moldavian R pgming is mixed, incl 7 hoursof All Union R, and 12 of republican being, science, law, roundtable, literary, mx pgms.

GiPM reported 12/1989: From 21/3 these start: Georgia 7215 at 0358-16, 15145 1605-20. Azerbaijan 7300 03-15, 15180 1505-21; Armenia 7175 0533-1530, 15110 1535-20. Presumably one hour earlier due DST from 26/3 (WBI 24/3)

AUR reported 16/3: DST starts at 2300 GMT 26/3 all over USSR, except no change will be made in Latvia, Lithuania, Estonia; in the Astrakhan, Kaliningrad, Kuybyshev, Kirov, Ulyanovsk oblasts of RSFSR, and Uralsk oblast of Kazakstan (WBI 24/3)

GiPM 13/1989 reported: From 28/3 all republican pgms can be hrd on SW band in Moscow. Shalkar is name of Kazakh R info/mx pgm, similar to Mayak, but also includes block of pgms from youth stn Yeshlik, and the Karmok satirical pgm, some in langs of natl minorities. Azerbaijan R info/mx pgm takes name from river Araz (Araks); also has concert pgm adjusting times to accomodate lengthy musical works. Frequencies: Uzbek on 9595 02-1330, 17840 1335-1900. Kazakh 9690 00-1530, 17730 1535-17. Kirghiz 9735 2257-15, 17785 1505-17. Tajik 9660 2315-13, 17865 1305-1750. Turkmen 9565 0415-1430, 17635 1435-18. These fqs will shortly change due to summer sked (WBI 31/3) R Vilnius reported in EG DX pgm 27/3: from 14/3 Moscow xmtg Lith R domestic first pgm, ex-jamming xmtrs: on 6010 03-16, 9750 1605-22, unconfirmed 50 kW, environs of Moscow, exact site, azimuth unk; C here in Lith up to 18 before Eu QRM (WBI 31/3)

AUR Mayak reported 30/3: Moscow & Leningrad residents can now listen to Uzbek R; for first time the Mashal (Torch) info/mx pgm, Uzbek R 2nd program, on airwaves in these cities, in RS, UZ. Powerful relay stns, until recently jammers, now obsolete due glasnost. Pgm soon hrd in RSFSR Non-Black Soil Zone /mainly Eu RSFSR/where many Uzbex work. Ed note: Obs on9595 at 02-1330, 17840 1335-19 from xmtrs believed in Moscow area (WBI 7/4)

GiPM reported in 10-16/4 issue: From 11/4, pgms of Tatar ASSR relayed in Moscow on SW, 02-14 on 11945, 1405-18 on 17810, confirmed at 02-14 and 1415-18 11/4, mainly relays of AUR Pgm I from Moscow w/only short local bcs from Kazan in Tatar, RS.

GiPM 10-16/4 issue reported: Armenian pgms include Business Radio Club, arts; Kirghiz R begins daily w/Kyrgyzstan nx/mx pgm; 10 nx bulls in KC, 3 in RS; lots of literary, drama. Turkmen R social political themes. Tajik R in 7 langs, much from listener suggestion, housing pgm, Panorama info hour (WBI 14/4)

Riga-1, new relay via Moscow on 5920 04-14 since 14/3, 33433 (Karel Honzik, DSWCI) On 6125, Tallinn-1 ditto 0425-14, 32332 (Karel Honzik, Czechoślovakia, DSWCI SWN)

Pravda reported 15/3: Airwaves free from 'black holes'. For about 50 yrs was secret dept at USSR MinCom, recently known informally as Krestyaninova Svc, since for 25 yrs Nataliya Yevgenyevna Krestyaninova was in charge of jamming. A 1937 Geneva conference confirmed right of every state to ban all bcs that might incite citizens, adopted by 22 countries, not incl Germany, Italy, Japan, US. Two years later jam svc set up in our country. Now the svc entirely abolished, but naive to think form voices now operate extlusively in interest of peace, freedom, mutual understanding; still to be hrd are falsifications, distortions, psywar, but glasnost' will not jam them. The jamming eqp in part will be used to air on SW republican svcs from all over the SU in the Moscow area; also plan spl pgms on advertising, medical, for drivers (WBI 24/3)

Sovetskaya Rossiya reported 23/3: AP report from Washington that jamming resumed 13/3 is refuted. Jamming has been terminated! and xmtrs turned over to other uses. P Perhaps AP correspondent took the new relays for jamming. R Vilnius reported 27/3: former jamming devices in Moscow now used to xmit radio pgms of union republics. Jammers in Lith reported to have been of slight capacity and no use for normal xmsns so being dismantled (WBI 31/3) Somebody pointed out that using 16m to serve Moscow must mean the xmtrs are quite some distance away. Normally this would be true, but don't forget that there were many ground-wave jammers for close-range blanketing (gh)

VATICAN 21650 is a new fq from VR to Af 1515-16 including EG after 1545. VR output total is 251.05 hpw led by EG 31.40, not incl relig svcs invarious langs (WBI 14/4)

VENEZUELA R Continental, 4939.6 LSB, QRM from 4940, weak 16/3 0951-1045, TCs, IDs betw selexions of pop, lite Venez mx (Ron Howard, Santa Barbara CA) New stn hrd 19/3 0915-0945 on 4939.6, Buenos Dias Barinas pgm, llanera mx, ancd 4940 l kW (Inoue, Jpn) R Nacional, 1059 IS, 1100 s/on w/ID, fqs, hrd on 9540, nx in SP, 1106 ID, comtry 11/4 (Nick Terrence, Huntington NY) R Rumbos on new 9723, 1806-1816 dance mx, ID, ex-9660? 45554 (Manuel Rodriguez, Venezuela, DSWCI SWN; logged 3/3)

YEMEN NORTH Al Siyasah reported from Kuwait 19/3: Informed Yemeni source denies holding any contacts to effect an alleged reconciliation between followers of Ali Nasir Muhammad, fromer Pres of S Yemen, and current leadership in Aden. Referring to the halt to bcs by Ali Nasir's radio, which used to xmit from San'a, source said this positive step by northern part will contribute to success of meetings of Higher Yemeni Council, to be convened in Aden soon (WBI 31/3) Which stn/pgm referred to?

ZAMBIA ZNBC General Svc, in EC: 0240-0530 on 6165 3346. 0530-1530 7235 6165, 1530-2210 6165 3346. Pgms include Rise & Shine, reports from provincial correspondents, Mon-Sat 03-04. ZNBC Home Service, multilingual: 0245-0530 6060 4910; 0530-1530 on 7220 6060. 1530-2105(Sat/Sun 2205) on 6060 4910 (WBI 24/3)

ZNBC ES sent this sked, details not confirmed: 0445-0730 Sun on 11880; 1045-1230 Sun 11880; 1545-21 daily 9505, Fri/Sat to 22; and also on 17895 Suns from 1650. Almost all in EC except during some cland pgms which are: V of Namibia, SWAPO Sun 1130-1230. R Freedom, ANC in Nyanja Fri 1630-17. R Freedom Mon-Thu 17-1745. Workers' Front ANC Fri 17-1745. R Freedom ANC Sun 17-18. V of Namibia SWAPO: Sun/Fri 1815-1915, Mon-Thu 1830-1930, Sat 1845-1945, Fri 1930-20. Other ANC pgms Thu 1930-20 also Wed; Fri 2015-2045; and UN anti-apartheid pgm Mon & Fri 1930-20. (WBI 7/4)

<u>CLANDESTINE</u> <u>CRANNY</u> <u>V of Namibia</u> /see also ZAMBIA above/ On 4715 is new stn claiming to be from Lubango, Angola, irr \*18-1930v\*, unusually good and strong sig, unseems black. Mainly vern but some EG, says back at 6:00 but no trace on any fq at 04 or 16 (Vashek Korinek, RSA, NU via Finn Krone, via April DSWCI SWN)

<u>R Cadena del Sur</u>, 9565.1, t/in 0700 to 0759\*, in SP, mainly entertainment, pop mx, comedy, "for all those who sympathize w/liberation of South Angola," quite weak, seems Sum only (ibid) Believe I quoted some DX pgm report of this as "Carina"; am positive the middle vowel was "ee", but maybe Cadena mispronounced (gh)

<u>R Siboney</u>, new stn on 6100.2, named for evergreen Cuban song, daily \*1757-1940v\*, slogans Voice of Cuban Exiles, pgm for Cuban troops in Angola. Better on USB as was always characteristic of 60mb Galo Negro (Korinek, ibid) Same hrd 5/3 1730-1827 6100.2 (WBI 14/4)

<u>R Marti</u> RNMN reported 6/4: Has just expanded to 24h sked; spokesman Tommy Jones says people want to listen 11 pm to 5 am. \$16 million approved for TV Marti; ch 13 seems only one open (WBI 14/4) Haven't found a SW fq in 03-0930 period, nor in VOA sked (gh)

The Voice of the Resistance, first monitored 13/3/88, pgms hostile to Colombian govt, by Revolutionary Armed Forces of Colombia, 25-min bcs Sunday only in SP: 14 on 6195, 15 on 6150=USB, 17 on 6195, 18 on 4250-USB, 21 on 7425 USB (WBI 7/4) axually hrd???

North American Pirates WJDI may test to Europe in late April, arnd 2200, some Saturday nite with sesquikilowatt xmtr (Ken Baird, April DSWCI SWN) Fq same as this? (gh) WJDI on 1620 kHz 27/3 0429-0535\* SIO 444, mostly recent pop mx, shows more fun w/DJ talk. 0503 said someone brought pizza, soda, so on a while longer. Addr PO Box 142, Cottack Hill NY 12419. WKND, 6240, 14/3 \*0236-0320\*, SIO 444, 70s metal mx, lots of electronic IDs, many hard to understand. Also on 1620 1/4 0507-0520+, SIO 312, bits of mx in terrible QRN; call from stn made ID definite. Has started QSLing. V of Tomorrow, 7410, 19/3 \*2200-2258\* SIO 555, unhrd since 7/84. Entire show was talk about Wm Joyce aka Lord Haw-Haw and his involvement w/Nazi Germany, "a man of unbelievable heroism". When is FCC gonna stop wasting time on harmless pirates like CBOR, KBBR, KKMO and go after these weirdos? <u>Radio USA</u>, 7415, 1/4 2220-2242\*, SIO 455, medly of punk tunes, contest for listeners to name original songs and groups. DX show w/many recent pirates, fqs, ads for "tongue on astick". <u>Maildrop info</u>: Any stn wanting to use my addr as a drop can; just write me at: 3007R 4th Ave, Beaver Falls PA 15010. Hilo HI addr is still open and accepting stns too (A Yoder, PA)

October Storm (Std CH: Shi Yue Feng Bo) hostile to Chinese govt, shares xmtr w/V of PLA, Contingent of Proletarian Fighters, R Spark, irr since 1968 w/long absences. Fqs used in past: 9659.5, 9267.6 or 7524.6; 1984/85, 10-min pgms betw 09 & 1130. Now on 9270.3 Fri/Sat/Sun 1445-1455, 15-1510 (WBI 14/4) open & close w/4 bars of Internationale, IDs have provincial accents, hrd 7/1 & 29/1 for 7 mins at above times (Peter Wilhelm Mueller, FR Germany, Mar DSWCI SW News)

<u>Eelam National Democratic Liberation Front</u> returned first week of Feb to back candidates for 15/2 elexion but stayed on, modulation often terrible. Govt uninterested but some weak jamming probably from other Tamil groups; in TM 0130-0215, 1030-1115 on 6925, quite strong here but unk how far hrd; also readable in S India (Victor Goonetilleke, Sri Lanka, Feb/Mar UADX)

... until the next, 73, Glenn

QSL REPORT

Please send your QSL reports to:

Sam Barto, NASWA QSL Editor 47 Prospect Place Bristol, CT 06010 USA.

- ALU DRABI: Voice of the UAE 11965 p/d folder cd. for \* the Capital Radio relay in 3 wks. for 1 IRC. v/s Ahmed Shouly.(Wallace-MA). 11965, 6170 and 9595 same w/ sticker for the relay in 5 wks.(Barto-CT). 11965 p/d ltr. in 26 ds. for 1 IRC.(Weber-OH). f/d folder cd. in 3<sup>1</sup>/<sub>2</sub> wks.(Huniwell-NJ). same in 3 wks. for 2 IRCs. Schedule rcvd. (Kohlbrenner-PA).
- ALASKA: KNLS 6065 f/d cd. in 19 ds.(Connor-PA). same in 1 mo. for \$1.00. (Kohlbrenner-PA).
- <u>ANTARCTICA:</u> <u>Radio Nacional</u> <u>LRA36</u> 15476 f/d cd. in 82 ds. for a SP rpt. v/s Raul Marcelo Navarro, Jefe Oficina Radiopostal. (Cichorek-NJ). in 2½ mo. for a SP rpt. and 4 IRCs. Also sent a registered tape w/ my rpt.(Wallace-MA).

<u>ARMENIAN SSR: Radio Yerevan</u> 9470 f/d cd. w/ schedule in 139 ds.(Cichorek-NJ).(Wallace). <u>ASCENSION ISLAND: PUBC</u> 15400 p/d cd. via London in 5 wks. for a rpt. direct to the site. <u>ASIATIC RUSSIA: Radio Moscow</u> 7310 via <u>Khabarovsk</u> f/d cd. in 38 ds.(Zobro-MI). 7490 and 9545 f/d cds. in 75 ds. 7490 was for USB reception.(Rigas-IL). 9780 via <u>Nikolayevskon-Amur</u> f/d "Yuri Gagarin" cd. in 1<sup>1</sup>/<sub>2</sub> mo.(Wallace). 17825, 17890 and 9875 via <u>Irkutsk</u> f/d cd. in 38 ds.(Zobro). 17860 via <u>Chita</u> f/d cd. in 1 mo.(Moore-OH). 17880 via <u>Irkutsk</u> f/d cd. in 1 mo.(Moore). 12010 via <u>Petropavlosk-Kamchatsky</u> f/d cd. in 38 ds. (Zobro). 9705 via <u>Vladivostok</u> f/d cd. in 1 mo.(Moore).

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**BADIO DEUT** 

- AUSTRALIA: VIMIS 15425 f/d personal ltr. in 157 ds. for 2 IRCs. v/s Murray Green, Station Manager. Also rcvd. sticker and a receipt for my IRCs!(Brouillette-IL). VNG 5000 f/d folder cd. w/ personal ltr. in 36 ds. for 1 IRC.(Hazzard-PA). VLQ9 9660 f/d "ABC" cd. in 2 mo. for \$1.00. (Wallace). VL&A, VL&T and VL&K p/d ltr. in 5 wks. for a taped rpt. and ms. v/s Sandra McCormack.(Huniwell-NJ).
- AUSTRIA: <u>Radio Austria International</u> 9875 f/d cd. w/ schedule in 90 ds.(Turnick-PA). f/d "Rural Costume" cd. in 59 ds. w/ schedule. (Levison-PA).
- BANGLDESH: Radio Bangladesh 17710 p/d cd. w/ ltr. in 7 wks. for 3 IRCs. v/s Munshi Ahsan Kabir.(Kohlbrenner-PA).
- BOLIVIA: Radio San Miquel 3310.4 p/d personal ltr. w/ 20th
   Anniversary pennant in 99 ds. for a SP rpt. v/s Hector Salas Takana, Director. (Archer-NC).
- BRASIL: Radio Cancao Nova 4825 f/d "Clock" cd. w/ sticker in 4½ mo. for a PT rpt., tape and ms.(Huniwell). same in 4 mo. for a PT rpt. My 110th QSL from Brasil.(Field-MI). Radio Record 15135 f/d cd. w/ personal ltr. in 2 mo. on my 5th try for a PT rpt. Two different stickers rcvd.(Field). RadioBras 11745 f/d cd. w/
- \* sticker and schedule in 107 ds.(Turnick). <u>Radio Alvorada de Lond-rina</u> 3335 f/d prepared cd. w/ ltr. in 26 ds. for an SASE and ms. (not used). v/s Pe. Jose Guidoreni. Postcard rcvd. from Laura Bozz-fan at the station.(Moore-OH). <u>Radio Cultura de Sao Paulo</u> 17815 p/d ltr. w/ info. sheet, sticker and photo in 38 ds. for a PT rpt. and \$1.00. v/s Jose Munhoz, Coodenador de

Engehnaria.(Wakisaka-MD). n/d ltr. w/ Radio stickers and photos in 51 ds. ia John Carson for a PT rpt. and ms. (Moore-OH). Radio Tabajara 4795 f/d prepared BOX 1 cd. for SASE (not used) and a f/up on an 81 reception. (Moore) CAP HAITIEN Radio Nacional Amazonia 11780 f/d prepared cd. in 2 mo. for a HAITI PT rpt. and \$1.00. v/s Eudson WEST INDIES Monteiro Lima. (Palmersheim-MN).



Radio Canada

International

BRASIL: Radio Timbira 4975 f/d prepared cd. w/ ----info. sheet and long EG ltr. for a PT rpt. & SASE. v/s Joao Ferreira. (Moore-OH). Radio Itatiaia 4807 f/d cd. w/ personal ltr. in 6 wks. on my 7th try for a PT rpt. v/s Claudio de Diclosbre de 1988 Carneiro.(Field-MI). <u>Radio Gaucha</u> 6020 and 11915 p/d EG folder cd. in 33 ds. for a PT rpt. and SASE (not used). (Moore-OH). Radio Educadora do Braganca 4825 f/d prepared cd. w/ personal ltr. and a blue/white 25th Anniversary pennant from 1985. All this in 39 ds. may grain resibir ou carta na dandu nos hace asher miiniifusora na lo fromuneta 9,833 kha.e na lo --for a PT rpt. and SASE. v/s Socorro Barros, Secretaria. (Moore-OH). HULGARIA: Radio Sofia 7115 f/d cd. w/ schedule in 83 ds. (Connor). Radio Moscow 9700 via Sofia f/d cd. w/ site in 55 ds. (Rigas-IL). BURKINA FASO: Radio Burkina 4815 f/d form ltr. in 38 ds. for a FR rpt. and 1 IRC. (Hoffman). Nice to hear from you again - Charlie...Sam. BYELORUSSIAN SSR: Radio Moscow 15320 via Orsha f/d cd. in 38 ds.(Zobro-MI). 9820 f/d cd. in 1 mo.(Moore). 15320 and 17700 f/d cds. in 1 mo.(Moore-OH).11745 via Minsk f/d cd. in 1 mo.(Moore-OH). CANADA: CFRX 6070 f/d cd. in 270 ds. for \$1.00 (Connor). cd. in 9 mo. for 1 IRC. v/s Ron Halkins.(Wakisaka). Radio Japan 5960 via RCI n/d "Winter in Kenrokuen, Kanazawa" cd. w/ schedule in 28 ds.(Zobro-MI). CANARY ISLANDS: Radio Nacional de Espana - Tenerife 11775 f/d cd. in 4 mo. for a SP rpt. and 2 IRCs(returned). v/s A. Careueu Baez. Also rcvd. pennant. (Palmersheim-MN). QSL CHINA, PEOPLES REP. OF: Radio Beijing 11715 f/d cd. in BELOISCHE BADIO EN 45 ds. w/ badge.(Levison)...Sure this isn't Mali? TELEVISIE (BAT) CLANDESTINE: Radio Flag of Freedom of Iran 9045 f/d ltr. in 26 ds. for \$1.00. v/s Dr. Manouchehr Ganji, Sec-This is to verify your reception report of our broadcast of JARC II at LL.CO. GMT retary-General. (Wakisaka). 9045 and 15555 f/d prepared On Irequency \_9921 . hHz cd. w/ ltr. in 58 ds. for 1 IRC (returned). Addr: 250 KW ORU 2 Derafsh, 20 rue de Condorcet, 75009 Paris, France. 100 KW OBU 4 (D'Angelo-PA). Radio Liberacion 5889 and Radio 15 de ann Iow 1612 kHz Septiembre 5930 personal ltr. in 48 ds. for a SP rpt. To Africa - N. America - S. America and \$1.00. v/s Alvaro Icaza Vargas. Addr: Centro de Europe - Far East via Terrence Informacion Evaluacion, Apartado 348-1200, San Jose, Ask for our schedule at the following address: Costa Rica. (D'Angelo). Radio Venceremos p/d ltr. in 2 BAT - P.O.B. M wks. for a SP rpt. and a tape. (Huniwell-NJ). 8 - 1998 BAUSSELS - BELGIUM COLOMBIA: Radio Villavicencio 4935 f/d prepared cd. w/ RCN stickers in 5 wks. for a SP rpt. on a 1979 reception. v/s Jairo Alberto Martin-\* ez G., Gerente. (Moore-OH). La Voz de Comercio 4795 f/d prepared cd. w/ n/d ltr. in 23 ds. for a SP rpt. and SASE (used). This was for a f/up rpt. on a 1974 reception. v/s Jorge Eliecer Orozco Davila.(Moore). La Voz del Cinaruco 4865 n/d ltr. w/ felt pennant in 206 ds. for a SP rpt. and ms. (Archer-NC). COSTA RICA: Radio Impacto 5030 f/d ltr. w/ pennant and schedule in 53 ds. for a SP rpt. and 1 IRC. v/s Hector Requena C. (Bishop-FL). f/d ltr. w/ sticker and pennant in 65 ds. for a taped rpt. and 2 IRCs.(Turnick). CUBA: Radio Moscow 4765 via Habana f/d cd. w/ site in 40 ds. for a RS rpt. v/s Marina Rubashevskaya. (Rigas). 11840 f/d cd. in 38 ds. (Zobro). 6000 and 11840 f/d cd. in 1 mo.(Moore). CYPRUS: BBC 6180 f/d "Map/Antenna" cd. in 3 wks. direct from station. Sticker rcvd. Use Box 219 not 209. (Behr-ONT). same cd. w/ sticker in Can anyone identify this world traveler and 1 mo. for \$1.00 and SASE (not used) expert Latin DXer? Photo was taken during the (Wallace-MA). pie eating contest at one of the famous or

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infamous Black Rock DX Outings.... Any guesses?

- CZECHOSLOVAKIA: Radio Praha 5930 f/d cd. in 45 ds. (Levison). f/d "Castle" cd. in 45 ds. (Connor-PA).
- DOMINICAN REP: Radio Mil HIBE 11700 via Radio Clarin p/d ltr. in 89 ds. for a SP rpt. Also rcvd. a German language tourist brochure: v/s Pedro Justiniano P., Vice Pte. Director General. Addr: Maximo Gomez 65, Apartado 1372, Santo
- Domingo. (D'Angelo). Onda Musicales 4780 f/d prepared cd. in 48 ds. for a SP rpt and SASE (used) for a 1974 reception. (Moore-OH).

ECUADOR: HCJB 17790 f/d "Ecuadorian Sketbook" cd. in 1 mo. (Blight-MD). 11775,

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9720 and 6230 f/d "Postage Stamps" cd. in 25 ds. (Connor). Radio Jesus del Gran Poder 5050 p/d cd. in 140 ds. for a SP rpt. and ms. v/s Jorge Enriquez S.(Paszkiewicz). Radio Federacion Shuar HCSK7 4960 n/d cd. w/ f/d prepared cd. and personal ltr. in 9 mo. for a SP rpt. and ms. v/s Angel Arutam Kuja, Director. (Palmersheim). p/d cd. w/ Itr. in 7 mo. for a SP rpt. and \$1.00. (Wakisaka). La Voz del Napo HCVN7 cd. w/ pennant and decal in 1 mo. for a SP rpt.(Huniwell). Radio Zaracay 3395 f/d folder cd. in 132 ds. for a SP rpt. and ms. Pennant rcvd. v/s Elssy Cun C., Secretaria.(Brouillette)

- ENCLAND: Spectrum Leisure Communications 25796.5 f/d ltr. w/ info. sheet and personal ltr. in 42 ds. for 2 IRCs. 80 watts! (Bishop-FL). Radio Orion 6815 cd. w/ ltr. in 1 mo. for a taped rpt. of test transmission. v/s Mike Wilson. Mike said my rpt. was the first correct one from the US. Power was 20 watts !! He also mentioned hearing me interviewed
- \* on Radio Apollo while visiting the UK. (Bares-CT)...Gregg give me a call...Sam. Radio Cemini 6230 cd. w/ info. sheet and personal 1tr. in 6 wks. for a taped rpt. v/s Edwin Borg. 150 watts: (Bares-CT).
- ESTONIA: Radio Tallinn 5925 p/d cd. w/ schedule in 96 ds. for ms.(Archer-NC). f/d cd. in 104 ds.(Paszkiewicz). f/d "Barns at a Farm" cd. in 4½ mo. for an Estonian/EG rpt.(Swar-
- EUROPEAN RUSSIA: Radio Moscow 9880 via Moscow f/d cd. in 65 ds. (Rigas). ingen-NC). 9515, 15150 and 15560 f/d cds. in 1 mo.(Moore). 7175 via Blagoveschensk f/d cd. in 38 ds.(Zobro). 5980 via Armavir f/d cd. in 38 ds.(Zobro). 7170 via Kazan f/d cd. in 1 mo. (Moore). 9620 via <u>Zhiqulevsk</u> f/d cd. in 1 mo.(Moore). 15540 via <u>Ryazan</u> f/d cd. in 1 mo.(Moore). 17765 via <u>Tula</u> f/d cd. in 1 mo.(Moore).
- FERNANDO POO: Radio Nacional Malabo 6250 f/d "Map/Antenna" cd. in 3 mo. direct from stat-\* ion for \$1.00. Card is of my own design and was delivered to the station by the President of Pierce International - I guess they liked it and will probably use it for their own QSL cards. (Behr-ONT). p/d ltr. in 63 ds. for a SP rpt. and \$1.00. v/s Cipriano Somori Suakin. (Wakisaka-MD).

FRENCH CUIANA: Radio Beijing 11695 via RPI site w/ f/d cd. w/ pin in 47 ds. (Connor). f/d cd. in 7 wks.(Huniwell). RFI 11670 f/d cd. in 33 ds.(Washburn-ME). burn-ME). CABON: Africa No. 1 4830 p/d cd. in 368 ds. for a FR rpt., tape, 1 IRC and \$1.00.(Wash-GERMANY, FEDERAL REP. OF: Bayerischer Rundfunk 6085 p/d cd. in 55 ds. for \$1.00.(Wakisaka) CUAM: KSDA 11980 f/d cd. in 51 ds. for \$1.00.(Blight-MD).

CUATEMALA: Radio K'ekchi TGVC 4845 f/d cd. w/ pennant in 5 mo. for a SP rpt. and ms. (Lobdell-MA). f/d cd. in 6 mo. for a SP rpt. Pennant rcvd. QSL rcvd. from Medios Educativos A.C., Apartado 310, CD Satelite, Edo. de Mexico, 53100 Mexico City. (Field-MI). n/d ltr. w/ card and paper pennant in 7 mo. for a SP rpt. and ms. v/s David Daniell, Asesor de Comunicaciones. (Moore). La Voz de Nahuala 3360 cd. w/ form ltr. in 351 ds.

Rock Rodin WiteRustional. 105 Questimilis Road, Coleraine, Colonouso Erry, Brisz 2005,	I have Marked an X where will are Silvert, an the 93L GHEET. We were answering the shipsing	for a SP rpt. Pennant rcvd. v/s Juan Fidel Lepe Juarez, Jefe de Mantenimiento y Tecnico Auxiliar.(Archer-NC).
MARTHERN IRELAND . U.K.	But are transition would not the stand	TGNA 3300 f/d cd. in 14 mo. v/s Mariella Posa-
But are user survived to we have user survived to better to the form the convite so there are about a local the better and baser to the sorther the better and baser to the sorther	First medi sine cus under to the First. RR1's First Broadst was on Il acconder 1988, wear the ant FRE Robo Station In the East of Instan Jeluis, which by the way is Bot of the works have any	das.(Eckert-PA). Union Radio/AMR 5980 f/d cd. in 53 ds. for a SP rpt. and \$1.00. Also rcvd. personal ltr. and penn-
For Lorriso the fine so co this For Rock and below. I sour entered and GSL. According Eclebrate and a Art and of working Eclebrate and a Art and Scientilla for a buck	ανα αδοίν Βοικτιά νατ καιά. Σαλ ω δεσ βασό. Αυδί Οδοία. Αναν εβλά το ασόπ αεσό μπος	ant. v/s Juan Franciso Lopez, Sub-Gerente. (Archer-NC). <u>Radio Mam</u> <u>TGMN</u> 4825 p/d ltr. in 26 ds. for a SP rpt.
of 200 wetts and is located an	via G. Bares	Paper pennant rcvd.



PHILIPPINES: Radio Veritas 15465 f/d cd. in 2 wks. (Huniwell).

POLAND: Radio Polonia 7270 f/d cd. w/ station pennant in 148 ds.(Levison-PA).

PORTUGAL: RFE 17725 via Gloria f/d ltr. w/ schedule in 1 mo. for ms. v/s Dave Walcutt. (Moore-OH). RFE/RL 15215 p/d "Map" cd. in 5 wks. (Huniwell).

OATAR: OBS 11820 f/d cd. in 4 mo. for ms. (Wallace-MA).

RWANDA: Radio Rwandaise 3330 p/d cd. w/ form ltr. in 129 ds. for a FR rpt. v/s Fidele \* Nkulikiyumukiza, Chef du Section Documentation et Censure.(Archer-NC).

SAIPAN: KFBS 12025 f/d "Map" cd. in 51 ds. for ms. v/s Erna I. Kapileo, QSL Secretary. (Washburn). KYOI 17780 n/d "WCSN" cd. in 1 mo. (Connor-PA).

SAUDI ARABIA: BSKSA 15060 f/d cd. in 71 ds. for a taped rpt.(Blight-MD).

SCOTLAND: Weekend Music Radio 6317 f/d cd. w/ paper pennants in 2 mo. for a taped rpt. v/s Jack Russel.(Lobdell-MA). f/d cd. w/ ltrs. and stickers in 48 ds. for a taped rpt. and \$2.00.(Archer-NC). 6312 and 6317 2 f/d cds. w/ ltr. in 51 ds. Banners and info. sheets rcvd. Jack says that a possible DX program on 15045 may be started in the Spring around 2200UTC. (D'Angelo-PA). 15044.5 same as above in 37 ds. for 1 IRC. 100 watts. (Bishop-FL). 6312.7, 6317.2 and 15043 same as above for a series of 7 rpts. on tests to the USA. (Bares).

SEYCHELLES: BBC 11750 f/d prepared cd. in 25 ds. v/s Peter J. Loveday, Senior Transmitter Manager. (Rigas-IL).

SOUTH AFRICA: Radio Orion 3320 f/d prepared cd. w/ sticker, flashlight and sticker in 257 ds. v/s Bill Sharp, Manager. (Archer-NC). Radio RSA 6010 f/d "Sandstone Cliffs" cd. in 81 ds. v/s Minnie Visser. (Kacir-MI). 9615 f/d cd. in 12 ds. (Kacir). Radio

Five 4880 f/d cd. in 5 wks. for 2 IRCs. (Kohlbrenner-PA). (Brouillette-IL). SPAIN: Radio Exterior de Espana 9630 f/d "Alcazares" cd. in 70 ds. for a SP rpt.

SPANISH MOROCCO: Radio Medi Un 9575 f/d "Globe" cd. in 9 wks. for an AR/EG rpt. and 1 IRC. Sticker and schedule rcvd. (Swaringen). cd. in 2 mo. w/ sticker. (Behr-ONT).

SRI LANKA: Trans World Radio 11920 f/d ltr. in 18 ds. for ms. v/s Vic Flaming. (Wash-SULAWESI: RRI Manado 3215 f/d prepared cd. w/ f/d personal ltr. in 36 ds. burn-ME). for ms. v/s Daniel Narande, Kepala Stasiun. (Archer-NC).

SUMATRA: RRI Jambi 4927 f/d prepared cd. w/ personal ltr. in 38 ds. for an IN rpt.

v/s Drs. H. Ali Amran and M. Yazad.(Archer-NC). SYRIA: Radio Damascus 15095 f/d "Globe" cd. in 5 mo. for 3 IRCs. Sticker rcvd.(Kohlbrenner). f/d "Map/Logo" cd. w/ sticker and 1 UK stamp! in 161 ds. for 2 IRCs. (Brouillette). 12085 f/d cd. w/ flag in 208 ds. via registered mail.(Turnick). f/d cd. in 5 mo. w/ pennant and sticker.(Field).

TADZHIK SSR: Radio Moscow 15140 via Dushanbe f/d cd. in 38 ds. (Zobro-MI).

TAIWAN: Voice of Free China 15345 f/d cd. w/ stickers in 28 ds. (Hazzard-PA). 9955 f/d "Global View" cd. w/ stickers in 27 ds. (Connor-PA).

TANGIER: Radiodiffusion Television Morocaine 17595 f/d "Logo" cd. w/ schedule in 3 mo. for a FR rpt. and 1 IRC. v/s Tanane M'hammed Jamal Eddine, Technical Director. (Kohlbrenner-PA).

TURKEY: Voice of Turkey 9445 f/d "Tapestry" cd. w/ sked. and stickers in 23 ds. for \$1.00. (Kacir-MI). same in 7 wks. w/ pennant for \$1.00 (Kohlbrenner). Voice of Meteorology 6900 p/d form ltr. in 2 mo. for \$1.00. v/s M. Cemil Ozgul, Director General. (Wakisaka-MD).

UKRAINIAN SSR: Radio Moscow 17680 via Simferopol f/d "Gargarin" cd. in 7 mo. v/s Tanya Lavrova. (Eckert-PA). 7195, 7165, 7105 and 15475 f/d cds. in 38 ds.(Zobro). 5980, 17810 and 15475 f/d cd. in 1 mo. (Moore-OH). 7115 and 7310 via Ivano-Frankovsk f/d cd. in 38 ds. (Zobro-MI).

TONGA BROADCASTING COMMISSION alegende & Cables readende, Tange. NUKU ALOFA . Telephone : 31-313 F. G. Ben M Date, 30 Herch. 1982.

via James Young !!!

Bal: 6/3/1

Hr. James W. Young, P.O. Box 376, Wrightwood, Wrightwood, California - 92397-0376, U.S.A.

Thanks for the phone call Jim.

ELCEPTION REPORT OF OUR SV SERVICE 5030 INZ.

#### Dear Mr. Young,

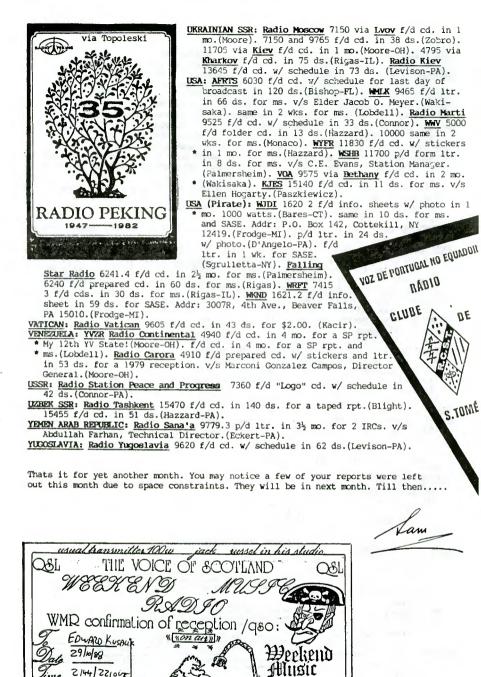
Thank you very much for your Comprohensive reception report of our new MF service on 5030 DEC. The programme details ours verified and found to be OC. It presents we do not have appropriate GGL card and hence this Detter is being 54 ...

It is heartaning to note that you have taken hear interest in our station and triad is get it verified through our nanouncers, and through your 'has' friends in New Zaaland and Tange. I am extremely plaused with your heas interest, which that you continue to monitor our corritor.

We have started 3030 DZ service using a "IDA000" HV transmitter and a simile dipute antenas as 24.3.1807. This is sainly east for our outlying islands, mains Mine propraed Yava's prophy where our MM service 1017 DZ is not practiced satisfactority. To our startionant, we have reacted to report and outly from our outlying islands but also from New Zealand and Amstralia. Yours is the first report fore baselies.

I hape that our new service should help not only the Tengane living shread but also the keen foreign anticonate, BUESS and "has" like you. I also theat you for your pictury on Skilley's Const.





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otlands

On. Op

at

5044

autan

close cambridge, england



#### FRENDX CONTRIBUTORS SECTION -- MAY 1989 ISSUE

The following members submitted loggings this month:

Brian ALEXANDER, Mechanicsburg, PA	
Donald BERHENT, Willowick, OH	
William BLIGHT, Baltimore, MD	FRG 8800
Norman BOBB, Minneapolis, MN	XCR 30
John BRYANT, Stillwater, OK	NRD 525
Edward CIHOREK, Somerset, NJ	FRG 8800
Keith CUSHING, Louisville, KY	ICF 2010
Richard D'ANGELO, Wyomissing, PA	R71A
Peter DILLON, Greece	DX 400
Rufus JORDAN, Pittsburgh, PA	DX 302
Dennis KELLY, Mt. Clemens, MI	DX 160
Tom LASKOWSKI, South Bend, IN	
Harold LEVINSON, Philadelphia, PA	R70
Dale PARK, Honolulu, HI	ICF 6700W
Sheryl PASZKIEWICZ, Manitowoc, WI	NRD 515
Edward RUBIN, Port Chester, NY	1CF 2010
Roland SCHULZE, Stuttgart, West Germany	R 5000
Dan SHEEDY, Encinitas, CA	
John TUCHSHERER, Neenan, WI	R70, FRG 7700

Hi everyone! Thanks to Kap for his help in putting this months contributors section together. I hope I haven't misspelled any names or left out any information. I'm already receiving loggings for next months issue. Thanks to everyone for the kind words of encouragement! For anyone who hasn't already copied it down, send your loggings to me:

> Kris W. Field, 431 Babylon Road, Ambler, PA 19002-2302 Deadline: 12th of each month.

As always, kindly cut your loggings apart and sort them in frequency order unless a Log Report Editor specifically asks otherwise. Log Report Editors, please let me know how I can continue giving you the reliable service you've been used to getting with the loggings.

Until next time – 73



Editor: Bob Brown, P.O. Box 591, Colmar, PA 18915

1620	USA (PIRATE) WJDI *0359-0427 EG, NA, ID, Oldies/dedications. ID's, mention
2360	Central NY/1500 watts. PO BOX 142 Cottekill, NY 12419. SIO454 (D'Angelo-PA 3/13) <u>GUATEMALA</u> R. Maya de Barillas 1100-1105 SP/Indian, campo mx in Indian John Maya 1000 1100 1100 1100 1100 1100 1100 1
3204.4	dialect, ID @ 1101 then Indian yak, //3325 better. Fair. (Sheedy-CA 3/19) INDONESIA RRI Bandung 1358-1405+ IN, westrn pops, ad/promo, new piano synth IS hell 9 are a second by the second synthesis of the synthesis of the second synthesis of the s
3214.9	IS, Icl ID & nx. Spur on 3180.7 also hrd fairly well. Good. (Sheedy-CA 3/25) CELEBESE RRI Manado 1155 Lagu pops 'til 1158, then SCI + Jakarta relay. Sig
3215	excellent (Bryant-OK 4/20) S. <u>AFRICA</u> R. Oranje 0414 AK/EG. EG ID, pgm notes/ads in AK90M quiet for once!
3220	Fair. (Sheedy-CA 3/13) ECUADOR HCJB 0910-0930 Quechua svc by M/W, simple mx, ID in EG. Fair/QRN
3220	(Bobb-MN 4/1) <u>PAPUA TERRITORY</u> Radio Morobe 1157 Modern pops w/ male ann. and probable
3222.9 <u>p</u>	ID in Pidgin at 1200. Good sig (Bryant-OK 4/21) <u>NUSA TENGGARA</u> RRI Mataram SCI + Jak relay at 1200. Fixed their tx after years
3245	of awful mod! Great mod on med sig (Bryant-OK 4/21) PAPUA TERRITORY R. Gulf 1128-1154 Pidgin, Tribal snding vels, drums etc. mx
	w/OM tlk. ID @ 1130 and EG ment of Ntl Besting Comm @ 1145. SIO353 (D'Angelo- PA 2/28)
3250	HONDURAS R. Luz Y Vida 0231 SP, CA mx, ID by OM (Cushing-KY 3/8)
3264.7	<u>CELEBESE</u> RRI Gorontalo Inst mx until 1200 Jakarta Relay. ID by YL before SCI. Goron been drifting arnd here lately. No sign of near co-chan RRI Bengkulu. Good
3270	(Bryant-OK 4/20) NAMIBIA SWABC 0440 EG (unsked then!) nx of UN in Namibia, 0442 abruptly into
3274.8	AK; not African lang. as sked in WRTH '89, Good (Wood-HI 4/4) <u>VENEZUELA</u> R. Mara 0726- SP, non-descript LA ballads, "R. Mara" slogans & ID
3306.1 <u>p</u>	tag to TCs, spcl Sun pgm or what, not usually till 1000 or so. Fair. (Sheedy-CA 3/19) NUSA TENGGARA RRI Dili Presumed this w/Jakarta relay at 1200 til 1210 Fair sig
3320	(Bryant-OK 4/21) SOUTH AFRICA R. Orion 2340-2400 EG/AK, Pop mx, DJ chatter, ID. //4810
3324.8	(Alexander-PA 3/12) GUATEMALA R. Maya 1026-1040 SP, t-in to ID w/call,loc & freqs, NA. Ranchera
	mx at 1030 & tlk by DJ. Strong. (Alexander-PA 3/25)
3330.2	RWANDA Rdiff de la Republique Rwandaise 1725-, Venecular, Afr folk mx, ID by YL as "R. Rawanda", Excellent! (Schulze-W. Germany 3/12)
3345	MOLLUCCAS RRI Ternate During Ramadan, this station runing continuous Islamic rel. prgs. No Jak relay heard in multiple 1200 loggings. Unusual. (Bryant-OK 4/*.*)
3370	GUATEMALA R. Tezulutlan 0235-0247 SP, marimba mx, tlk by OM. Anmnts @
3375	0245 followed by ID and more marimba mx. SIO343 (D'Angelo-PA 3/8) NEW GUINEA TERRITORY (PNG) R. Western Highlands 1133-1202 f/out, Pidgin,
2205	var lcl vcl mx w/YL tlk. ID@ 1200 followed by OM w/nx. SIO252 (D'Angelo-PA 2/27)
3395	NEW GUINEA TERRITORY (PNG) R. Eastern Highlands 1148-1210 f/out, Pidgin, Stringed instr, Icl vcls w/OM, ID @ 1200 followed by more Icl mx. SIO353/252
3774.9	(D'Angelo-PA 2/28) <u>NUSA TENGGARA</u> RKPDT2 Sumbawa 1140 Male speaker in Indo, w/ many ments
3909.4	of Sumbawa faded out before max dawn on both 4/18 and 4/22. Good Ivl. (Bryant-OK) CHINA Yunnan PBS 2240-2300 Relay R. Beijing, ID, Vietnamese, OM/YL tlk, TP
3965	(Schulze-W. Germany 3/25) FRANCE RFI 0520 FR, political discussion, Good for listed 4 KW. (Wood-HI 4/2)
4461.8	PERU R. Nor Andina 0346-0412 SP, Vcls, anmts, mention Celendin. (Paszkiewicz- WI 3/13)
4485 <u>a</u>	UNID Peru? 0135-0141+ SP, OA style vcls, few ancmts & weaker than mx, Bagua
4510 5	Grande here in 85/86. Poor (Sheedy-CA 3/21)

4518.5 BOLIVIA R. Nuevo Horizonte 1002-1025 ID & pres. opening anmnts, orch NA, huanyos, OM w/TC's & tlk. Fair (Atkins-AL 3/30)

4607.3	NETH. NEW GUINEA RRI Serui Playing gangbusters Melan/Micronesian mx 1100-
4000.0	1200 during Ramadan (??!). Usually fair to good at max dawn in OK (Bryant-OK 4/*.*)
4699.0	JAVA RKIP Surabaya 1200 Jakarta relay after partial local ID by male. Fair sig at max
1705	dawn. (Bryant-OK 4/18)
4705	PERU R. Imperio 1017-1103 fade, campo mx w/OM anmnts/TC's; YL ID "R. Imperio,
	Rioja" @ 1059 foll. by flute bridge. Fair w/usual ute absent. (Atkins-AL 4/6)
4719.3	CELEBESE RRI Ujung Pandang 1200 Jakarta relay at 1200 daily. Moved here from
	4753 at the start of Ramadan. (Bryant OK 4/*.*)
4760	LIBERIA ELWA Monrovia 1936-2000 EE, ID, rel pgm "The World Of Love"
	(Schulze-W. Germany 3/15)
4780	UNID ASIAN 1305-1325 t/out. JP/KR/?, SEAs or China? M/W yakking away w/
	breaks for CH style vcls. Lang snds more JP than choppy KR. Maybe Viet or Laos? Poor.
	(Sheedy-CA 3/19)
4789.7	NETH. NEW GUINEA RRI FakFak 1207 Koranic recitation and no Jakarta relay at
	1200. Sig very strong here lately. (Bryant OK 4/21)
4790	PERU R. Atlantida 0932-1030 SP, Andean mx w/ nice flute playing. Ment of Peru &
	Stn. Poor-Fair (Bobb-MN 4/2)
4800h	CUBA R. Rebelde 0017 SP, SP pops, YL ancr. 8th harmonic of 600 khz. Hd //600 &
10001	6th harm., 3600. Also @ 0830 on same freqs. (Alexander-PA 3/25)
4800	GUATEMALA R. Buenas Nuevas 1128-1158 Lang/SP, ID @ 1129, rel svc, tlk/mx.
4000	ID @ 1157. F/G (Bobb-MN 4/3) 0045 (Jordan-PA 4/5)
4805	BRAZIL R. Difusora do Amazonas 0145-0220* PT, Live coverage of Futebol by 2
4005	OMs, many ments of Brazil. Sudden off during coverage. SIO353 (D'Angelo-PA 3/10)
4810	SOUTH AFRICA R. Orion 0200 EG/AK, bilingual ID after bilingual wx for Pretoria,
4010	
	Durban, etc. hrd as early as 0045 & past 0400. Good (Sheedy-CA 3/13) (Alexander-PA
4820	3/11) (Tuchscherer-WI 3/23) (Paszkiewicz-WI 3/9)
4820.8	BOTSWANA R. Botswana 0448 Setswana tlk, ID Good (Wood-HI 3/24)
4020.0	PERU R. Atahualpa 0120-0133 SP, OA vcls, "R. Atahualpaonda corta" @ 0130,
4024.0	and tightly produced ad string (blanqueria, etc.) Fair (Sheedy-CA 3/21)
4824.9	BRAZIL R. Cancao Nova 0012 PT, several "Cancao Nova" IDs, slo mx, on air phone
40.25	calls, //9674.9 but weaker. (Laskowski-IN 3/27)
4825	BRAZIL R. Educadora 0846-0905 PT ezl mx, M/W w/ tlk & rel. svc., rooster crow,
1005	BR. mx. F/QRN (Bobb-MN 4/1)
4835	GUATEMALA R. Tezulutlan 1145-1200 M in lang, simple inst/vcl mx. ID on hr. F
	(Bobb-MN 4/1)
4844.5	GUATEMALA R. Kekchi *1057-1115 Indian lang, s/on w/ /opening anmts, chorus
	@ 1058 followed by rel tlk & lcl rel. mx. (Alexander-PA 3/25) 0155 (Schulze-W.
	Germany 3/27)
4850	CAMEROON CRTV Yaounde 1756-1800 EE, Afr folk mx, IS, TP, ID "This is
	Yaounde, the National Serv. of Cameroon R." (Schulze-W. Germany 3/12) 2302 (Cush-
	ing-KY 3/8)
48511	ECUADOR R. Luz y Vida 1045-1100 SP, rel svc by M & congregation. (Bobb-MN
	4/4)
4860	INDIA AIR Delhi 1729-1735 EE, ID, nx. (Schulze-W. Germany 3/25)
4865	COLOMBIA LV del Cineruco 0856-0908 SP, M w/tik, ID, ment of Caracol, LAm
	mx. Good/QRN (Bobb-MN 4/4)
4871	INDONESIA RRI Wamena 1141-1210* lagu pops @ t-in, then tracked 1 side of
	Conway Twitty/Loretta Lynn album. NA & Love Ambon @ clsing. G. (Atkins-AL 4/3)
4875	BRAZIL R. Nac. Boa Vista *0859-0920 orch mx intro, om w/opening anmnt/ID/
	freqs, mix of Brasopops & ranchero mx. F-G (Atkins-AL 3/17) 0358* (Jordan-PA 3/12)
4875.4	BOLIVIA R. Cruz del Sur 1009-1030 Indian lang, ilk, hymns, 2 ID's @ 1025, jingles,
1075.1	Andean mx. (Paszkiewicz-WI 3/26)
4881.7	PERU R. Nuevo Mundo 0928-1002 SP, "lo mejor de la musica tropical", ID tags
4001.7	
1907 5	after TCs. best hrd by 1000 w/ "oyentes en R. Nuevo Mundo" Fair (Sheedy-CA 3/19)
4897.5	GABON RFI Via Moyabi 0442 FR, goofing off up here //9800, ID/Sked @ 0455,
1000	Bck on 4890 3/17. Good (Sheedy-CA 3/15)
4920	ECUADOR R. Quito 0311 SP, mx "Love is Blue" by P. Mauriat. ID SIO322 (Blight-
1021 6	MD 3/5)
4931.6	IAVA RRI Surabaya 1205-1215 w/ Jakarta relay followed by local nx. Sig generally
	good in multiple loggings in April. (Bryant-OK 4/*.*)

Whew, it all fit! John Bryant tells me that all his Indo and PNG loggings should be hearable on the East coast. I received a nice veri from RRI Bukittinggi this month, so yes, they do verify! Remember to use Compuserve 74756,1557 or the BBS's if possible. 73 - Bob KW3F



Editor: Sheryl Paszkiewicz, 1015 Green St., Manitowoc, WI 54220-6231

4905	BRAZIL, R. Araguaia, 3/25, 0050-0140 w/ID, QTH refs, FC, poss. nx 0100, tlks, lite vocals. (Jordan-PA) Also at 0835-0845 w/IDs, ads, ballads. (Alexander-PA) BRAZIL, R. Relogio Federal, 3/5, 2220 w/the ID
4905	Also at 0835-0845 w/IDs, ads, ballads. (Alexander-PA) BRAZIL, R. Relogio Federal, 3/5, 2220 w/tlk, ID. mx. time
4911	BRAZIL, R. Relogio Federal, 3/5, 2220 w/tlk, ID, mx, time sigs, mixing w/R. Beijing. (Schulze-FRG) ZAMBIA, R. Zambia, 3/24, 0445 w/EG ID, Fish Eagle IS, Afro rhythms, good sig. (Wood-HI)
4915	GHANA, GBC-1, 3/12 0612 th FC of the stand
4934	KENYA VO Kenyo Z/10 0000 0700 0000 KENJ
4935	PERU, R. Tropical, 4/05, 0956-1025 w/Andean mx, ID 0957, echo effects, noisy, (Bobb M), (Andean mx, ID 0957,
4940	VENEZUELA, R. Continental, 3/16, 0320 w/lively Latin vcls,
4965	TC, IDs between songs. Fair. (Howard-CA) 0951 w/ <u>BRAZIL</u> , R. Alvorada, 3/25, *0855-0910 w/instl mx, tlk, FC.
4965	PDATIALS & pop mx. Good. (Alexander-PA)
4970.4	BRAZIL, R. Alvorada, 3/25, *0855-0910 w/instl mx, tlk, FC, ID, ballads & pop mx. Good. (Alexander-PA) BRAZIL, R. Poti, 3/26, 0137-0154 w/ID, Latin mx. (Schulze) VENEZUELA, R. Rumbos, 3/18, 0238 w/EZL mx, 0256 ID, TC, ads, anned numbers (maybe lottery?-sp) (Cichorek-NI)
4980	CHINA, Xinjiang PBC, Ummod Z/11 0747 (Chendler Har)
4980	VENEZUELA, Ecos del Tomboo Z (1)
*5003.7	SURINAM, R. Apintie 3/26 0250 in DD. (TD. )
5014.9	BRAZIL, R. Pioneira, 3/19 OBIE OBUE
5015	BRAZIL, R. Cult. de Cuiaba, 3/18, 0836-0904 w/long tlks, ment Brasil & Cultura, TC, vols, ads September 70, 200
5015	(D'Angelo-PA) <u>CLANDESTINE</u> , R. Truth, 3/25, 0415-0432 in vern/EG w/tlk, Afr. pops, bird IS 0430, EG anmts w/"Hello Zimbabwe" & ID. (Alexander-PA)
5025	(Alexander-PA) AUSTRALIA, VL8K Katherine 3/5 2134(TD
5025	AUSTRALIA, VL8K Katherine, 3/5, 2134 w/ID, country mx, ID TC, anmt. (Schulze-FRG) BENIN, ORTH Parakou, 3/26, 2105 w/TD
5025	BENIN, ORTB Parakou, 3/26, 2105 w/ID, Afr. folk mx, drums before the hour. (Schulze-FRG) CUBA, R. Rebelde, 3/4, 1128 w/corres. rpt, 4 TP 1130, jingle rapid tlk. (Park-HI)
	rapid tlk. (Park-HI)
5030	ID 0213, EZL WY. (Cichonek NI) 3/22 1055 Houtiful ballads,
5070	interviews, electronic mx bridge. (Jordan-PA)
5030	PERU, R. Los Andes, 4/9, 0907 w/lcl mx, sev. IDs (Howard-CA) TONGA, TBC, 4/11, 0615 tent, w/tlk in lang island
5030	at 0700, nx, more tlk in lang, mx, weak. (Howard-CA)
5075	Royal Highness," (Wood-HT) Courtsm in the presence of "Your
5035	call sign & OTH. (Schulze-EBC) "ICI, player, choir, ID W/
5040	(Schulze-FRG)
5040	VENEZITELA P Maturia Z/20 casa (
5050	COLOMBIA, LV de Yopal, 3/18, 0004 w/ID, mx, "Informe la Hora." (Schulze-FRG)
5055	FRENCH GUIANA, RFO Cayenne, 3/3, 0205, ment. Cayenne, tlks, Faro del Caribe in background. (Schulze-FRG)

5055	FRENCH GUIANA, RFO Cayenne, 3/12, 0659-0745 w/tlk, instl
5274	PERU, R. Onda Popular, 3/4, 0451-0501* w/vcls, 0453 ID,
FOFF	Colombia, IV de los Centauros, 3/5, 0434 w/lively Latin vcls
5955	TC. IDs. Also 2330 W/sports tik, ads. (D'Angelo-PA)
5960	CANADA, R. Japan relay, 3/5, 0300 in EG w/nx, features. (Jordan-PA)
5960 <u>t</u>	(BODD-MN) (BODD-MN)
5985	USA, VOFC via WYFR, 3/4, 0215 in EG w/tlk, ROC Today, CH drama. (Berhent-OH) 3/17, 0227 w/tlks abt tea. (Levison-PA) AUSTRALIA, RA, 4/3, 1200 in EG w/Intl & SEAs nx. (Bobb-NN) BRAZIL, R. Guaiba, 3/19, 2340 w/tlk, ads, jingles, ID.
5995	AUSTRALIA, RA, 4/3, 1200 in EG w/Intl & SEAs nx. (Bobb-FIN)
6000	7/11785, both poor w/co-channel QRM. (Alexander-PA)
6005	CANADA, CFCX, 3/25, 1232 w/sports, wx, ID, E2L, lotto numbers, pop mx. Nice sig. (Cichorek-NJ)
6005	USA, USHB, 3/17, 0429 EG w/test tone, full 10, (Jordan-PA)
6015	CYPRUS, BBC relay, 3/4, 1620-1645* in Farsi. (Dillon-GREECE)
6020	BRAZIL, R. Gaucha, 3/19, 2310 w/ID, tlk, ads, //11915. Both
0020	w/co-channel (RM (Alexander-PA)
6020	MEXICO, La U de Veracruz, 4/4, 1140 w/singing 1D, mx, tik.
6024.9	PARAGUAY, RN, 4/1, 0850-0910 w/mx, ID, echo anmts, DJ ulk,
31 . 287	very weak. //much stronger 9735. (Alexander-PA)
6025	<u>PARAGUAY</u> , RN, 4/1, 0850-0910 w/mx, ID, echo anmts, DJ tlk, <u>very weak</u> . //much stronger 9735. (Alexander-PA) <u>DOMINICAN REPUBLIC</u> , R. Amanacer, 3/19, *1032 w/ID, anmts, <u>location</u> , mx pgm. (Laskowski-IN)
6025 .	HUNGARY, R. Kossuth, 3/4, 1645-1735 in HH w/folk mx, story, HUNGARY, R. Kossuth, 3/4, 1645-1735 in HH w/folk mx, story, ID, IS, TP, nx 1730. (Dillon-GREECE) <u>CYPRUS</u> , CBC, 3/11, 2234 in GM w/drama, ID & 2245* (Dillon) <u>OMAN</u> , BBC relay, 3/8, 1855 in AR w/"Huna Lundun" ID, world nx, co-channel QRM. (Dillon-GREECE) TENN WOLEL 3/9 1010 in FR w(world nx skad oly my ID
6030	CYPRUS, CBC, 3/11, 2234 in GM w/drama, ID & 2245* (Dillon)
6030	OMAN, BBC relay, 3/8, 1855 in AR w/"Huna Lundun" ID, world
6035	IRAN. VUIRI, 2/0, 1910 III FR W/WOITH IR, SKEN, CIA MA, 10,
6040	addm TS WE at 1940 (Dillon-GREECE)
6040	ENGLAND, VOA relay, 3/9, 1715 in EG w/nx, ID, stories, sked, FC, "Now Music U.S.A." (Dillon-GREECE) <u>ANTIGUA</u> , Deutsche Welle relay, 3/3, 0105 in EG w/nx, ID.
	(Berhent-OH)
6070	PAKISTAN, RP Peshawar, 3/23, 1445 in Urdu w/Pak. mx, tlk abt Pakistan, good. (Wood-HI)
6075	VEST GERMANY, DW, 3/11, 1616 in GG W/sports, 18. (Dillon)
6078.8	abt Fakistan, good. (Wood-HI) WEST GERMANY, DW, 3/11, 1616 in GG w/sports, IS. (Dillon) UNIT, 3/17, 1012-1045 w/Bolivian type mx but very weak. QRM from 6080. (Howard-CA)
6080	ALBANTA, R. Tirana, 3/11, 1730 in RS w/IS. NA. ment. Albania
0000	ALBANIA, R. Tirana, 3/11, 1730 in RS w/IS, NA, ment. Albania "Govorit Tirana" ID. (Dillon-GREECE)
6080 <u>t</u>	BOLIVIA, R. San Gabriel, 3/20, 21, 23, *0825-0900 w/lite mx
	choral anthem, "La Voz(Aymara?)" Bol. mx. (Howard-CA)
6085	BOLIVIA, R. San Gabriel, 3/20, 21, 23, *0825-0900 w/lite mx choral anthem, "La Voz(Aymara?)" Bol. mx. (Howard-CA) <u>WEST GERMANY</u> , Bayerischer R. 3/13, 1731 in GM w/accordion, yodeling, nx 1800. (Dillon-GREECE) BRATL R Bandeirentes 3/19, 2323 w/ID ads pops. (Alexander)
6090	manufilly no bandoli anos si
6090	LUZEMEÓURG, RL, 3/13, 1810 in GM w/pop mx, ads, nx, wx 1900, ID, fair. (Dillon-GREECE) USA, WHRI, 3/24, 0637 w/rel, ID. (Schulze-FRG) BRAZIL, R. Cult. Foz do Iguacu, 3/26, 0457 w/ID, NA. (Howard) BRAZIL, R. Cancao Nova, 3/18, 2330 w/tlk, ballads (Alexander) COLOMBIA, LV del Llano, 3/15, 0003 w/nx, ads, ID 0013. Geomagnetic storm with A Index of 175! (D'Angelo-PA) FOUMDD, VOID 2/(Contor 10, VID, 0000 (Schulze)
6100	USA, WHRI, 3/24, 0637 w/rel, ID. (Schulze-FRG)
6104.6	ERAZIL, R. Cult. Foz do Iguacu, 3/26, 0457 w/ID, NA. (Howard)
6105	BRAZIL, R. Cancao Nova, 3/18, 2330 w/tlk, ballads (Alexander)
6116	COLOMBÍA, LV del Llano, 3/15, 0003 w/nx, ads, ID 0013.
120022	Geomagnetic storm with A Index of 175! (D'Angelo-PA)
6130	ECUADOR, HCJB, 3/5, 0810 w/EG rel, DW QRM 0830. (Schulze)
6134.8	ECUADOR, HCJB, 3/5, 0810 w/EG rel, DW ORN 0830. (Schulze) BOLIVIA, R. Santa Cruz, 3/25, 0925 w/lcl mx, tlk, ID 1000,
Lipscho	poor in URN. (Alexander-PA)
6135	SWITZERLAND, SRI, 3/10, 0205 in EG w/nx, mx, rpt from Afr. World Bank Director. (Berhent-OH)
6180	CYPRUS, BBC relay, 3/19, 1630 in EG w/nx. features (Dillon)
6185	MEXICO, R. Educacion, 4/1, 0940 w/mx pgm, ID. Fair in QRN.
BILS IN-DO	CYPRUS, BBC relay, 3/19, 1630 in EG w/nx, features (Dillon) MEXICO, R. Educacion, 4/1, 0940 w/mx pgm, ID. Fair in QRN. (Bobb-MN) 3/25, 1113 w/sev IDs, pop mx. (Alexander-PA)
11.7	The set of the set of the second the set of the second set of the

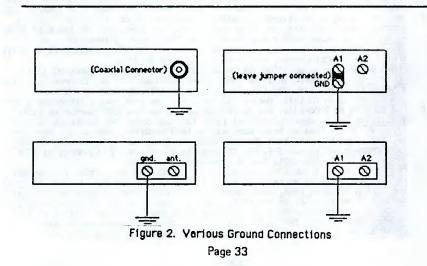
Welcome to our new reporters--tnx for the support. I'm out of room but more April loggings will appear next time! CUN30



Editor: Jerry Ervine, Box 5204, Hidalgo, TX 78557

JAPAN RJ 0320 EG/JP om re. food & restaurants; 222 (Frodge-MI) 6210 6210nf CANADA R.Japan vie Seckville 0310-0335 EG nx, ID, mx pgm, // 5960, pos spur. (Alexander-PA 3/5) CLAND R. Quince de Septiembre 2350 SP cmtry, anthem (Frodge-MI) PIRATE R.Caroline 0604 EG "Wid Mission R.", 333 (Frodge-MI 2/24) 6214 6215 / 0258 nx w/Nick Jackson, pop & oldies mx after ad./0232 located off of Kent. Brit. DJ w/EG,FR pop mx, om w/wx. 225 (Frodge-MI) 6239.9 USA.PIRATE WKND 0308-0340 EG rock mx, ID's, 'WKND, commercial free weekend radio' strong signal; (Alexander-PA 2/12) 6240 USA.PIRATE ? 0200-0324\* EG Big Ed playing hard rock; 'Kiss', Stepenwolf. 252 (D'Angelo-PA 2/11) 6248 VATICAN VR 1708-1720 Romanian/Bulgarian om w/tx abt Christ, IS, organ mx. Jammers w/Bulgarian. (Dillon-GR 2/18) EQ.GUINEA RNEG \*0500 SP ID by y1, high life mx. g (Wood-HI 3/13) USA.PIRATE Vo Communism 0348-0443\* EG hilerious px of satire. 6250 6275 re: Jetsons, My Three Sons. First heard in 1987. (Wallace-MA 3/5) CUBA LV del CID 0557 SP 2 oms w/cmtry, mx, nx, 433. (Frodge-MI) 6305 CLAND R. Venceremos 0217 on w/cmtry mx, p. (Frodge-MI 2/10) 6590 CLAND Farabundo Marti 0223 SP yl w/cmtry, mx. (Frodge-MI 2/15) 6595t 6726.5 PERU R. Satelite 0200-0255\* SP LA ballads, ID, ancmts, TCs, om DJ. closing encmts by yl, NA. (Alexander-PA 2/19) PERU R. Sensacion 0115-0204# SP mx, om w/TCs, IDs, yl hosted px 6895 of vocals, s/off anomits, NA. 322 ute QRM (D'Angelo-PA 2/8) <u>Rulgaria</u> R.Sofia 0450 EG 'Music from Bulgaria', IS, Turkish svc 7115 e0500 ID as 'Burasi Sofia Radyosu' 545. (Blight-MD 1/17) / \*0400-0459\* ID, wld nx, vg. (Jordan-PA 2/14) / 0434 yl w/contest promo to folk mx. 333 (Frodge-MI 2/13) GERMANY, FR R. Free AFGH #0300-0329# Lang. yl w/address info, om into prayers, ME mx, ID, ment of Kabul mx.vg signal.Jordan-PA 7145 GERMANY, FR R. Liberty #0330-0345 RS yl ancr s/on, ID, tx by om, 7145 g. (Jordaan-PA 2/15) 7170 QATAR DOHA 0243-0300 AR ID'd via NA before VOA s/on DOHA continued w/cmts at dawn. (Tuchscherer-WI 2/14) 7199 SOMALIA SBS, R. Mogadishu #0300-0330 SOMALI (p) anthem, ID, tx, ME mx, Afro Hi-life, mx. (Jordan-PA 2/26) AUSTRALIA RA 1310 EG nx of Aus. sports. //6080, 6060, 5995. 7205 (Wood-HI 1/26) 2. 7255 NIGERIA VoN 0502-0530 EG pop mx, ID W. Afr. svc. (Tuchscherer) 7260 VANUATU Vila 0700 Bjlama ID, nx. g. (Wood-HI 3/7) 7260 INDIA AIR-Bombay #0128-0150 Hindi oc, IS, ID, tx into Vividh px. nice background subcont. vocals. f. (Sheedy-CA 2/16) 7270 INDONESIA RRI-Jakarta 0624-0630 IN nx, IS, ID 'Payaun Pulan Keleps' EG ID 'The Song of the Coconut IS. '434 (Streitmatter) 7270 POLAND R. Polonia 2330-2355 EG study of Polish business management, TV mx px. (Becker-NY 2/12) GERMANY, FR DW 0212 EG re: Afgenisten, ID, usb good. (Cichorek) UK/SEYCHELLES BBC-Skelton (ILG) \*0528 FR IS, opening, ID, 7285 7285 st-no wey. //7105 Ascension. f. (Sheedy-CA 2/21) BOTSWANA RB 0343-0430 Vern/EG IS, NA, rlg pgm. (Alexander-PA) 7255 7310 UKRAINIAN SSR RH-Simferopol 0429 EG yl w/nx, 'RS by R.' (Frodge) 7355 USA, ALASKA KNLS 1530 EG request reports, dance mx, (Wood-HI 2/19 7365 USA.ALASKA KNLS RS IS, ID, elso FCC-licensed WCSN. (Wood-HI 1/31) 7380 USSR RM 0000 RS yltx, classical mx. 22332. (Baiernhuber-NY 2/14 7400 LITHUANUAN SSR R. Vilnius 2305-2328 EG mailbag, Lithuanian by Redio. (Becker-NY 2/12) / wid nx, nx abt Lithuania, 'Youth in Focus' 45424. (Bauernhuber-NY 2/14) USSR RM vie Kresnoder 0226 RS om tx ebt Pushkin, mx bridges. 7400 444. (Cichorek-NJ 2/11)

7405	<u>CHINA,PR</u> RB 1548 EG yl/om w/'Listener's Letterbox',yl/sked. 222. (Frodge-Ml 2/26)
7412	INDIA AIR 2225 EG 43444. // 0010, beston usb. (Courtney-KY 2/0)
7430	GREECE ERT, Athens 0500 GR IS, flute and sheep bell. NA, ID,
	SIO-353. (Blight-HD 2/18)
7465	ISRAEL KOL 0000-0020 EG [ancd 7460, but txmt on 7465]. (Becker)
	/ wid nx magazine. 3312. (Bauernhuber-NY 2/14)
7475	TUNISIA RTV Tunisienne 0515 AR tx. (Courtney-KY 2/9)
7520	USA WHRI 0415-0448 EG Christian mx. (Becker-NY 2/8) / EG 'R.
1020	Earth-Wid wide Commercial R. "Swiss SW Merry-go-round" 443.
	(Frodge-HI 2/21)
7650	USA VOA 0100-0110 URDU. AN SSB txmsn. (Becker-NY 3/5) / 7651
1000	usb 0244 EG/Estonian IS, ID by om in EG, nx by om in Estonian.
	544. (Cichorek-NJ 2/11)
9022	IFAN IRIB 2015-2030* EG/SP ID, address, om nx, into SP @2040
BOLL	re: territory still occupied by Iraq. (Birkhueuser-CT 2/19) /
	0325 pres. Iran, audio hrd but dominated by bubble jam. (Frodge)
0075-4	ICELAND ISBS #2301-2337# IC s/on w tx by y1, chimes, 9-note
9275hi	
0000	nx bridge & tx by on. S/off.// 17558. (Alexander-PA 2/5)
9320	USSE R. Rodine 2325-2335 RS usb feeder mx, ID, IS. tx by om/yl.
0005	AF freq. // 4795. (Alexander-PA 2/17)
9395	GREECE Vog 0333 EG/GK vocal mx, yl/EG nx, promo for VoG contest
	continues in GK. 333. (Frodge-MI 2/10)
9420	GREECE VOG 0340 EG omaner w/lcl & wld nx. 444. (Bauernhuber-NY)
9435	SUDAN Nat'l Unity R. 1435-1503* AR/EG tx by om, AR mx. (2/15) /
	vccal mx sels, om w/s/on encmts, ID's, tx. (Jordan-PA 2/17) /
	1433-1500* AR px, EG ID, nx, lcl mx. nx, mx, s/off, address.252.
	(D'Angelo-PA 2/12)
9435	ISRAEL KOL 2243 EG M-East nx. 45444. (Courtney-KY 2/8)
9440	CHINA.PR RB #1300-1341 Cambodian (p) 'Voice of Dem. Kampuchea'
	vis RB. om tx, oriental mx, (Jordan-PA 2/26)
844E	TURKEY VOT 0025 Turkish prayers, tx by om & yl. (Bauernhuber-NY
9455	EGYPT R. Cairo 0406-0451 AR prayers, on w/cmtry, ID. (Jordan-PA
9465	NO. MARIANAS KFBS 1406-1441 RS (p) on w/rlg tx, mx, ID. (Jordan
9470	EGYPT R. Cairo 0255-0326* EG readingsfrom Q'ran, re: book fair.
	(Birkehoiser-CT 2/15)
9505	CZECHOSLOVAKIA RP *0555 CZ ID, multilingual/. g.(Wood-HI 3/6)
9509	ALGERIA R.Algiers 1945-2000 EG/SP ID, US pops, 1cl mx, yl encr.
	// 15215 (Alexander-PA 3/4)
9510	ROMANIA +0400 EG IS to N.A., mx; f. (Wood-HI 3/7)
9515	IRAQ R.Bagdad 0400 EG 'Wid of Lit', rock mx, QRM WYFR; (Frodge)
9525	LIBERIA VOA-Monrovia 0420 EG CH econ. rpt. & new cars. // 3990
	f. (Sheedy-CA 2/3)
9535	CANADA RCI 0035 SP wid nx by om to CA & SA4- (Bauernhuber)
9540	MADAGASCAR RN 2050 EG Newsline for AF. dis ID. 44234 (Courtney)
9560	JORDAN R. Jordan 2000-2015 EG om w/several ID's, pop mx-Bon Jovi
	(Birkheueuser-CT 2/14) / also reported between 1900-2042 by the
	following: Cichorek-NJ, Courtney-KY, Wallace-MA.
9565	MONSERATT DW 0103 EG nx, catry, 444. (Levison-PA1/31)





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11700 ALASKA KNLS in JP 2010-2059, ID, "Watch to the World", mx (Schulze W. GERMANY) 11715 MALI R. Beijing relay in EG 0030, tlk, ID, Silk Road Music (Berhent OH 3/3) BUIGARIA R. Sofia in EG 0042, cmntry on concert, interview, g (Levison PA 3/3) BUIGARIA R. Sofia in EG 0042, cmntry on concert, interview, g (Levison PA 3/1) SOUTH AFRICA RSA in EG \*0200-0254\*, ID, nx, pop mx, discussions & interviews, amateur radio pgm, g-vg (Jordan PA 4/2) "Music from Africa" 0230 (Schulze W.GER: BUIGARIA R. Sofia in EG \*0400, IS, ID, sked, nx, f (Jordan PA 3/5) YUGOSLAVIA RY in EG 0100, nx, ID, mx, "Spotlight on Culture" (Berhent OH 3/2) 11720 11730 11735 11735 NO. KOREA R. Pyongyang in FR 1448\*, ID, hymn, //11855, both g (Wood HI 3/23) AUSTRIA RAI in GM/EG 2208, tlk, ID, nx, promo, into EG 2230 (Berhent OH 3/17) 11735 11780 EAST GERMANY RBI in EG 0504, mass transit in GDR, Easter pgm (Kelly MI 3/25) 11785 SEYCHELLES FEBA in SH 0310, IS, ID, sermon, //9610, both g (Wood HI 4/3) WEST GERMANY DW in EG \*0700, IS, nx, tlks, xmsn to Africa, p (Jordan PA 3/19) LIBERIA ELWA Monrovia in EG/FR 0706-0803, relig pgm, ID, f-p (Jordan PA 3/5) BULGARIA R. Sofia in TK 1944, tlk, ID 1945, mx bridges, f-g (Cichorek NJ 3/21) 11810 11810 11830 11870 11880 SOUTH AFRICA R. Five in EG 0500, ID, nx, g (Wood HI 3/28) 11885 MALAYSIA VOM in CH \*1030-1106, IS, ID, modern CH pops, //15295 (Sheedy CA 3/5) HUNGARY R. Budapest in EG 0039, polit tlk, ID 0041, g (Cichorek NJ 3/11) in EG 0031, tlk, ID, mx by the Beetles, disc of Hungarian TV (Berhent OH 3/22) 11910 PORTUGAL R. Canada relay in EG 1553, nx, ID 1556, p (Cichorek NJ 3/22) NETHERIANDS ANTILLES TWR in EG 0500, "Caribbean Nite Call", g (Rhyne NC 3/27) UNITED ARAB EMIRATES V of UAE in AR 1601, nx, ID 1608, relig mx (Cichorek 3/22) 11915 11930 11965 GUAM AWR in EG 1613, relig tlk, choral singing, drama, p (Cichorek 3/22) in KR 1345, relig mx & tlks, ID in EG 1359, into JP 1400 (Alexander PA 3/11) 11980 11990 KUWAIT RK in AR 2245, mid-East mx, vocals, ID 2257, g (Cichorek NJ 3/10) CZECHOSLOVAKIA R. Prague in EG 0338, mx, kids singing, nx, g (Levison PA 3/12) 11990 MONCOLIA R. Ulan Bator in EG 1208, nx, mx bridge, ID, //12015, f (D'Angelo PA) 11991 TUNISIA R. Tunis in AR 1722, call to prayer, ID, discussions (Dillon GREDCE 3/3) NO. KOREA R. Pyongyang in EG 0610, political nx, //15115, both g (Wood HI 4/4) PARKISTAN RP in TK 1658, ID, nx, TK pop mx (Schulze W. GERMANY 3/17) 12005 13650 13665 CZECHOSLOVAKIA R. Prague in EG 1753, polit cmntry, ID 1756, f (Cichorek NJ 3/22) 13715 xmsn in EG to Africa-Asia \*1530, g (Wood HI 3/27) 13720 GUAM AWR IN EG 1358, ID, Hong Kong addr, into Burmese 1400 (Alexander PA 3/11) in EG \*2000, ID following pgm in KR, exc signal (Schulze W. GERMANY 3/27) KIRIBATI RK in EG 1858, local mx, ID, relay of R. Oz, ex-14802 (Park HI 4/4) TURKEY VOT in TK 1525-1555\*, TK w/YL anncr (Tuchscherer WI 3/21) 14917nf 15050 SPAIN Span. Natl R. in EG 0105, nx, SP mx (Tuchscherer 3/16) in EG 0148, travel 15110nf talk (Cushing 3/6) in EG 0045-0200, mx, lang lesson, nx, econ disc (Jordan 3/21) 15130nf USSR R. Moscow in AR 0442-0500\*, tlks, interviews, AR mx, f (Jordan PA 3/25) 15140 AUSTRALIA RA in EG 1444, ID, local mx artists, new time slot (Cichorek NJ 3/22) 15150 MADAGASCAR R. Nederlands relay in EG 1525\*, list freqs, g (Wood HI 3/28) 15150 NEW ZEALAND RNZ in EG 0602, nx, soccer scores, wx, ID 0607,g (Cichorek NJ 3/12) NORWAY RNI in NO/EG \*0600, ID, nx in NO, g (Wood HI 3/27) 15165 15165 CHINA R. Beijing in EG 1530, tlk on Catholics in Shanghai, g (Wood HI 3/21) SOCIETY IS. RFO Tahiti in TT/FR 0554, nice island mx, ID, nx (Cichorek NJ 3/12) 15171 FINLAND RF in FN 1525, ID, list freqs, into SW 1530, f (Wood HI 3/21) BANGLADESH RB in EG 1241, cmntry, ID 1242, mx, QRM from VOA, p (Cichorek 3/19) 15185 15195 15205nf USA WSHB in EG 2300-2330, nx, "Kaleidoscope", promo for CSM (Jordan PA 3/29) 15220 PHILIPPINE IS. R. Veritas in Tamil 1401, tlk, ID, addr, f-g (Cichorek NJ 3/22) LIBYA V. of the Greater Arabs Homeland in AR 0300-0435\*, instrum'1 & vocal mx, 15235 nx, tlk segments, patriotic chorus, prayer at close out, g-vg (Jordan FA 3/9) EAST GERMANY RBI in EG 1314, IS, ID, xmsn to Africa, nx, p (Cichorek NJ 3/19) 15240 TALY RAI in IT 0138-0201, nx, ID (Tuchscherer WI 3/18) CANADA BBC relay in EG 1700, nx, cmntry on Tibetan uprising, play (Blight MD) NETHERLANDS ANTILLES RN relay in EG 0119, "Happy Station" pgm, f (Park HI 3/27) YUGOSLAVIA RY in EG 1304, polit cmntry, ID 1313, TC, mx, f (Cichorek NJ 3/24) 15245 15260 15315 15325 15355 ANTIGUA D. Welle relay in GM 2155\*, tlks, ID, abrupt s/off (Tuchscherer WI 3/22) 15360 SINCAPORE BBC relay in EG 1032, "Vintage Chart Show", ID, nx, g (Park HI 4/3) NEITHERLANDS ANTILLES TWR in PT 2159, mx bit, ID, nx (Tuchscherer WI 3/22) 15385 15390 JAPAN RJ in JP 0838, Day 12 of Grand Sumo tournament, g (Park HI 3/23)

15395 SPAIN RNE R. Exterior in SP 0600, req repts, sports, //9650, g (Wood HI 3/27) FINEAND RF in EG 1302, tlk, ID, mx, summer fqys (Berhent OH 3/24) <u>PHILIPPINE IS.</u> VOA relay in EG 1006, nx, ID, "Newsline", g (Park HI 4/5) in EG 1419, jazz hr w/Willis Conover, oldie jazz, f (Cichorek NJ 3/18) 15400 15425 15465 PHILIPPINE IS. R. Veritas in EG 1505, nx, ID, relig pgm (Schulze W. GERM. 3/24) CHINA R. Beljing in EG 1200, nx, f-g (Rhyne NC 3/24) in EG 0046, drama, ID, fqy annomts, addr, IS 0056 (Cichorek NJ 3/24) 15540 MADAGASCAR R. Nederlands relay in EG 1858, "Media Network", p (Park HI 3/30) SO. KOREA RK in EG 1434, sights & sounds show, mailbag, f (Cichorek NJ 3/18) ISRAEL Rashuth Hashidur in HB 2008, jazz mx, ID?, f (Cichorek NJ 3/21) 15560 15575 15615 ISRAEL Kol Israel in EG 0000, nx, vg, //1605 (Rhyne NC 3/22) in EG 2245 w/tlk about the "Islamic Movement", //12077 (Tuchscherer WI 3/11) CHINA Clandestine "Voice of Unity" in Pashto/Dari 1610, "semi-intense" tlk by W, 15640 15685 TRUE Clances the voice of the partial master of the partial max, ID 1625, 1 khz tone, and into uniden lang 1630 (Sheedy CA 3/20) ICELAND ISBS Reykavik in IC 2337, tlk, local wx (Paszkiewicz WI 3/2) INDIA AIR in EG 0115\*, sked in Indian Std time & UTC (Paszkiewicz WI 3/8) PAKISTAN RP in Gujrati 0500\*, ID "Pakistan zihdabad", no NA, g (Wood HI 3/28) 17558 17725 17725 ALGERIA RTA in AR 0600, ID, chimes, nx, g (Wood HI 4/8) FRANCE RFI in EG 1635, tlk, ID, mailbag, mx from Mozambique (Berhent OH 3/5) 17745 17795 ANTIGUA D. Welle relay in GM 2155\*, mx, tlks, EG ID at s/off (Tuchscherer 3/31) SWEDEN RS in EG 1530 after IS 1528, multiling ID, mx, g (Wood HI 3/21) 17810 17815 RWANDA D. Welle relay in GM 1907, nx at 1907 tune in, mx 1915 (Tuchscherer 3/20) 17860 EAST GERMANY RBI in EG 0523, tlk re agriculture, //21540, g (Wood HI 4/2) BELGIUM RTBF in FR \*1600-1645\*, Afro drums, ID, fqys, mx intro into tlks, mx, interviews, sels of FR pops, f (Jordan PA 3/18) 21450 21460 21460nf SPAIN RNE in SP 1915-2045, soccer game, many ID's, fqys, nx, sports round-up, SP pop & classical guitar, into serious polit tlks, vg (Jordan PA 4/1) SPAIN REE in SP 2320-0100+, heroic choral mx, classical guitar, ID's, tlks, 21495nf interviews, folk mx, local & world nx, not hrd at 0200 retune (Jordan PA 3/12) SAUDI ARABIA BSKSA in AR 1630-1700\*, pips, ID, nx, AR songs, g (Iwai JAPAN 3/14) 21505nf in AR 1515, AR recitations, somber flute mx, ID?k, tlks, f (Jordan PA 4/4) 21510nf SAUDI ARABIA BSKSA in AR 0830, Holy Koran pgm, f-g, //21495 (Iwai JAPAN 3/11) in AR 0605, Qur'an recitation, g (Wood HI 4/4) EAST GERMANY RBI in EG 1308, cmntry, pop mx, g (Levison PA 3/8) CANADA RCI in FR/EG 1600-1625, IS, nx, into EG 1615, g (Treibel WA 4/8) Note: This might be a relay of R. Canada but there was no site annomt. 21540usb 21545nf SPAIN RNE in SP 0055-0157\*, tlks, ID 0100, nx, mx, f //21495 (Jordan PA 3/29) 21555nf QATAR QBS in AR 1225-1306\*, piano mx, ID 1230 & 1250, interviews (Jordan PA 4/3) 21565nf PAKISTAN RP in Urdu 0645\*, nx, tlk, folk song, f (Iwai JAPAN 3/36) Note: Iwai reports that RP is usually on 21580 and was back on that fqy on 3/27. 21570nf USSR R. Afghanistan in EG 1010, folk songs, nx, cmntry, f (Iwai JAPAN 3/11) Note: Iwai rpts RS pgm of R. Pyongyang on this fqy at 0900 3/16. No R. Afghan! 21595 21600 UNITED ARAB EMIRATES R. Dubai in EG 1337, nx, wx, ID 1340, f (Cichorek NJ 3/22) 21605 ISRAEL Kol Israel in HB 1500, nx, cmntry, g (Iwai JAPAN 3/12) 21625 TRANEL KOT ISTATE IN HE ISDU, NX, CHMITY, G (IWAI GARANG/IZ) FRENCH GUIANA RFI relay in FR 1646-1659\*, pop mx, dialogues (Tuchscherer 3/31) SOUTH AFRICA RSA in EG 1500, ID, nx, g, //21590 (IWAI JAPAN 3/26) VATICAN STATE VR in EG/FR 1757, Holy Mass, ID 1805, choir (Cichorek NJ 3/24) FRANCE RFI in FR 1639, pop mx, annonts, nx (Tuchscherer WI 3/22) NORWAY RNI in NO 0700, ID in EG, nx in NO, g (Wood HI 3/24) BEIGIUM BRT in DT 0620, interview, ID, g (Wood HI 3/24) BEIGIUM BRT in DT 0620, interview, reproder g (Ioution BN 3/2) 21645 21670nf 21670nf 21685 21730 21810 NETGION BRT in EG 1331, nx, contry, press review, g (Levison PA 3/1) NETHERLANDS RN in lang 1310, test tones 1310, tlks, IS, pop mx, test tones for 21815 25675nf 6 mins to 1356, pips, then test tones to 1400, g (Jordan Pa 3/15) SOUTH AFRICA RSA in EG 1410, tlk, ID, mx by Bright Blue (Berhent OH 3/24) in EG 25790 1436 w/travel promo, interview, ID, fqys (Cichorek NJ 3/24)

CORRECTION: Dr. Richard Wood on Hawaii rpts that the 17710 logging by Hart of Malaysia listed in April LR-D is actually a relay of R. Canada from Yamata, Japan. Thanks, Richard!

Several loggings were repeats of items listed in the April LR-D and thus were not included above. Please check the April FRENDX for a more complete update. Also, R. Moscow and some other powerful outlets could not be included due to space limitations. Special thanks to those sending in the several new frequency reports noted above.

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Vincentown NJ 08088-2275 Voice: 609-859-2447	CompuServe:	BCF811 (send via MCI Mail) W2XQ @ WB2MNF
Fax: 609-859-3226	 Pinelands RBBS:	

Notes in no particular order: Austria seems to have dropped much of its English language schedule. Austria does not print a decent schedule or announce its target areas and frequencies, so it makes it very difficult to determine what is going on. Thanks to Al Quaglieri (NY) for acquiring the actual schedule. SW Panorama now is aired only three times (on Sunday at 1030, 1130 and 1430. The 17870 kHz outlet at 1130 to NA is reasonably decent here, although there is another station underneath that eventually gets pushed down as Austria's signal gets stronger. Also thanks to John Carson (OK) for the schedules from South Africa, Wellington and Prague -- first time I have seen a printed schedule from Prague in years -- which corrected some typos. The program content listing was dated 1988; it probably has not changed in more than a year, John. Paul Garland (TX) sent along a host of schedules and loggings via the fax machine -- thanks Paul --which shed light on some postings here. Per an announcement on Communicator April 2, R Australia began testing from the new Brandon, Queensland, site on 6240 kHz 08-14 and 20-21 UT. Within a week a storm destroyed antenna systems and delayed tests; it should be on again by the time you read this. Vietnam on~15010 has a consistently good signal all day long; the announced schedule does not coincide with the WBI information Glenn had last month. The complaints about 31m spurs from the Bonaire transmitters of R Nederland must be a figment of someone's receiver or imagination. At the request of Jonathan Marks I did some extensive checking using the JRC NRD-525s, a Kenwood R-2000 and TS-940S and a Sony 2010 with a variety of antennas. No spurs. The R Moscow WS frequencies listed last month have all changed. China's 11840 04 UT Canada relay is almost unreadable here. I must be too close. Despite some reports that Austria moved English to 05 UT, I still hear it at 0530 UT. The V of UAE is not yet announcing its new 22m frequency at 22-24 UT. The "new" Yugoslavia 13 UT listed in Hauser's LN last month is at 12 UT, on a shift from standard to summer time. Thanks to George Jacobs & Associates for info on his clients. WWCR info via Jonathan Marks, Media Network.

Chuck Oliver (TX) sent along a list of 77 R Moscow frequencies he found that are not listed in the WRTH, and wonders "why not?" Some transmitters are not in the Soviet Union, and others may not have been active at the time the WRTH monitors had to submit material for press deadlines. Two examples of the first group are 4765 via Cuba (c.f. page 279) and 7115 via Bulgaria. Another possible explanation is that some frequencies were heretofore used for jamming. As mentioned in a recent FRENDX, Roger Legge's USSR Newsletter is an excellent source of USSR site information.

Look up the April 24th issue of INSIGHT containing a cover story titled "Getting the Word Out with Shortwave." Daniel Kagan is to be commended for this excellent 10-page feature on the politics and programming found on shortwave. The recent one-page "world band" article generated more mail than any other story Insight had run. This feature article was a direct result of the reader interest.

A NASWA EXCLUSIVE Supplement 7:48:43 4/29/1989 \_\_\_\_\_ Tom Sundstrom, Editor It never fails. As soon as the schedule is printed for FRENDX, a day later something additional with significant changes arrives in the mail. CHINA: Effective May 8, the following Radio Beijing schedule will be in effect. Note that the main NA frequency of 15540 moves up to 17855. Relays not identified, but the known relays are noted. All 1 hour broadcasts except as noted. Eastern NA 0000 17855, 17715 (v Mali), 15130 (v Mali) 0300 15130 (v Mali), 11715 (v Mali), 9690 (v Spain) 0400 11840 (v Canada), 11685 (v Fr Guinea) 1100 17855 1200 17855 (note no mentions of Mali relay frequencies) Western NA 0300 17855, 15130 (v Mali), 11715 (v Mali), 9690 (v Spain) 0400 15195, 11840 (v Canada), 11685 (v Fr. Guinea) 1300 11855 1400 11855 South Pacific 0830 17710, 15440, 11755 0930 17710, 15440, 11755 15450, 11600 1200 1300 11600 Southeast Asia 1200 15400, 11660, 1341 1300 15400, 11660, 1341 South Asia 15165, 11795 15165, 11795 1400 1500 East & South Africa 15110 (v Mali), 11715 (v Mali), 9570 1600 1700 15165, 11575, 9570 2000 11715 (v Mali) West & North Africa 1900 11515, 9440 2000 15110, 9440 Europe 2000 11500, 9820 11500, 9820 2100 2100 3985 (-2130, v Switzerland)

### All Records Included

### ENGLISH LANGUAGE SW BROADCAST SCHEDULES: By Start Time Compiled by Thomas R. Sundstrom, W2XQ

	Start Time (UTC)	Time	Country	Station	Freq 81	freq #2	Freq #3	Freq #4	freg #5	Freq Ø6	Freq 8 7	freq #8	Target Area	Notes	Record Last Updated
				*******											
	0000	0100	Australia	R Amstralia	21740	17305	17754	45704							
	0000	0100	China	R Deijing		11715			/ 15240	15160	15140		As/Pac/PapNG		12/10/88
	0000	0200	Cuba	R Havana	11820		9//0	,					ENA	#263 v Mali	03/27/89
	0000	0030	Israel	Kol Israel		15615							Americas		03/26/89
	0000	0050	North Korea	R Pyongyang		13613							NA		04/24/89
			Norway	R Norway	11845								Aa		11/13/87
	0000	0100	Spain	Spanish Wat'] R		9630							SA	Eng Mon only	03/30/89
		0200	USA	VOA		11580		0155	-				NA		03/06/89
	0000	0200	USA	WCSN	9850	11300	1//3	9455	5995				Caribbean/LA		11/12/89
	0000	0200	USA	WHRI		7365							W Afr	90 deg	08/13/88
	0000	0300	USA	WRWO	7355	(90)							Eu/CA/SA		08/13/88
	0000	0200	USA	WSHB	13760	7405							NA/CA	20 deg	03/08/87
,	0000	0100	USA	WYFR	13/80								CA/SA/ME Canada	167/25 deg	04/24/89
	0000	0300	USSR	R Noscow	17605		0730	TIAF		7045			MA	Network	03/25/89
	0000	0045	Yuqoslavia	R Yuqoslavia		9620	5980	4903	7310	/215			ENA	and other freqs	03/27/89
1	030		Ecuador	нсув	15250	1020	3190						W EU/NA		03/26789
	030	0230	England	BBC	12095	2100	9590	7325					Americas		02/18/89
1	030 (		Hungary	R Budapest		11910				5975			WS: MA/CA/Carib	<b>#3 Bethany</b>	04/06/89
	030 (		Netherlands	R Nederland	15315			1363	¥32V	6110			NA		03/26/89
	030 (		Pakistan	R Pakistan	15115		6010						ENA	#142 v Bonaire	03/17/89
	035 (	500	Ecuador	HCJB	15155								S & SE As	World Service	09/06/87
G	045 0		South Korea	R Korea	15575	11/15	9/43						NA		04/15/89
0	050 0		Vatican State	Vatican Radio	11780	BIAS							60S	World News Service	11/05/88
0	100 0		Australia	R Australia				17715	15705				NA		03/27/89
0	100 0		Canada	R Canada Int'l	13720	11173	1//30	0755	12343	15320	15240 1		As/Pac/PapNG		12/10/88
0	100 0		Costa Rica	R for Peace	21565		11043	1/35	4272				LA	Su-No122s eff 7/1	03/22/89
0	100 0		Czechoslovakia	R Praque	11990		0540	77.45	INFF						04/13/89
0	100 0		Fed Rep Germany	R Beutsche Welle	15105					5930	1010		NA		03/28/89
0			German Den Rep	R Berlin Int'l	11890		1/32	1003	0143	6085	6040		ENA		03/07/89

ENA

MA

03/26/89

04/24/89

0100 0130 Israel

0100 0100 Test.

Kol Israel

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11890 6080

15640 15615 11605

0100	0200	Japan	R Japan	17880 17845 17835 17810 5960 GOS/Asia/NA 17835 -0130:49s Can	04/09/89
0100	0200	Spain	Spanish Nat'l R	15110 9630 MA	03/06/89
0100	0130	Sweden	R Sweden	17790 15390 As/Pac	03/21/89
0100	0500	USA	KUSH	11695 Conada 70 deg	10/14/88
0100	0400	USA	KVOH	13695 CA/Carib 100 deg	10/30/88
0100	0500	USA	WYFR	9505 3950 NA Network	03/25/89
0130	0200	Austria	ORF	13370 9875 9870 NA/SA	64/01/89
0130	0138	Greece	V of Greece	11645 9420 7430 NA News in Eng ex Su	12/19/88
0130	\$145	Hungary	R Budapest	15160 11910 9835 9585 9520 6110 NA Tu/W/F/Sa	03/26/89
0130	0330	Iraq	R Baghdad	11880 9515 Ind/Pakis/MA/SA	04/10/89
0130	0200	Philippines	R Veritas Asia	15365 15275 As	02/20/89
0145	0230	German Des Rep	R Berlin Int'l	11890 11785 9620 6080 ENA/MA	03/26/89
0145	0330	New Zealand	R New Zealand Int'l	17705 15150 Pac/Aus/Melanesia Sat & Su only	03/06/89
0200	0300	Argentina	RAE	9690 Americas	03/13/89
0200	0300	Australia	R Australia	21740 17795 17750 15395 15240 15160 As/Pac/Papil6	03/17/89
0200	0250	Brazil	R Bras	11745 NA/CA	02/28/88
0200	0300	Canada	R Canada Int'l	13720 11940 11845 9755 9535 LA Tu-Sa:220 eff 7/1	03/22/89
0200	0400	Cuba	R Havana	11820 9655 Americas	03/18/89
0200	0330	Egypt	R Cairo	9675 9475 84	07/20/86
0200	0250	Fed Rep Germany	R Deutsche Welle	15235 11945-11835 9690 9615 7285 As	03/07/89
0200	0700	Suan	KSDA	15225 11700 As Eng 02-03	04/24/89
0200	0800	N Mariana Is	KYOI	17780 Japan 340 deg	12/03/87
0200	0255	Romania	R Bucharest	11940 11830 9570 9510 \$155 5990 \$A	06/05/88
0200	0256	South Africa	Radio RSA	11730 9615 9585 NA	02/26/89
0200	0230	Switzerland	R Swiss Int'l	17730 12035 9885 9725 6135 6095 NA 17730 v Brazil	11/12/88
0200	0300	Taiwan	V of Asia	7285 SE As	07/20/87
0200	0300	Taiwan	V of Free China	15345 11860 11740 9765 9680 7445 3985 MA/Jap/As/CA/AusNZ WYFR:11740,9680,5985	
0200	-0400	USA	NCSN	9850 E Afr 75 deg	08/13/88
0200	0400	USA	WHR1	9495 7365 Eu/CA/SA	04/24/89
0200	0400	USA	WSHB	13760 9455 CA/Canada 188/315 deg	03/08/89
0200	9230	USSR	R Kiev	17665 15455 15240 9840 9800 9750 NA	03/26/89
0200	0400	USSR	R Moscow	17890 17825 17765 17740 15280 15200 15140 Horld Service 7310 03-04	03/26/89
0200	0215	Vatican State	Vatican Radio	9650 7125 6025 SE As/India/Pak	03/27/89
0210	0430	Netherland Antilles	Trans World Radio	11930 MA Su/Mo-0530:alt 11790	
0230	0300	Albania	R Tirana	9760 NG	02/20/89
0230	0330	England	BBC	12095 9915 9660 7325 6175 5975 MS: MA/CA/Carib #3 Bethany	04/06/89
0230	0257	Finland	R Finland	15185 11755 NA/SA	04/03/B9
0230	0315	German Des Rep	R Berlin Int'l	11970 9730 6165 LA	03/26/89
0230	0245	Pakistan	R Pakistan	17725 17760 15580 15115 7175 S & SE As Giow-speed news	05/13/88
0230	0300	Portugal	R Portugal	11840 9705 9680 9600 \$4/NA Tue-Sat	11/17/68
0300	0400	Australia	R Australia	21740 17795 17750 17715 15395 15320 15240 15160 As/Pac/PapWG/Afr	12/10/BB
0300	0330	Austria	R Canada Int'l	11730 ME Sa/Bu-O41v Austria	03/22/89

11840	22711	10	7115					Afr / Wi		03/26/89
2510	1015	9770	0696					1	9690 Spain19770 Mali	03/27/89
1990	12	945	1345	2504	5936					03/28/89
5265	_	-						3		03/07/89
971								1		03/24/09
9011										12/23/87
21410		E.	17810	1715	1333	SOATE SAIST STEEL SHILL OTHER STALL STALL	Sal	BOS/Asta/NA	314 6abi15325 Fr Bui	63/12/20
								4	5w/ho -0530	11/12/98
1880										03/24/89
101-1										12/28/88
202	2446						-	3		03/721/09
1	-	6778		7445	Servic		-	- Illan/As/dec/An	WFR: 9480, 5985	09/29/88
17740								EE As/THA		68/51/10
2166								Canada	70 degineras use	10/14/08
1								MA/CA	20 444	03/08/86
2452	15425	15240 12050	12050					114	add'l frees in use	03/26/89
12035	1984	EL.	112				_	M6/CA	Tattr after last bu	03/18/84
4150							-	4		03/27/89
E		11700 11670	200	-	Ê	7175	Ę	As/Afr/jad/As/Eu	meus in English	84/50/15
1544	7065						_			10/23/188
	247		1						STTR. By Colors	03/71/89
	1181		CXC I							11/11/24
-								And the file marine		02/24/89
2011	00101		0110							02/24/89
		1410							Mens/Eng exc Sa	03/74/09
				1				-		03/26/89
								2 45		04/08/89
17455		15445 15240	-	1745			-	<b>W</b>	mews in English	04/11/86
0676							-	Americas		03/13/89
21740	54113	17750	17715	15395	15320	17795 17750 17715 15395 15320 15240 15140		As /Pac /Paph6/4fr		12/10/88
15275								*	H-Flv Austria	03/22/89
56151		11040 11685						<b>WAR</b>	42 Canada:183 Fr Buin	04/10/B6
11820	11740	1276	5945					Americas		03/18/89
11745	9765			7150				SACKE Mr		06/30/06
17430	-	-	11655	11585				Aus/As/MA/NE Eu		04/24/86
17765								SE A6		11/25/86
11940			5	6135	3990			*		96/02/88
11900	0854							Hr/IE		62/26/89
22021			4135					1		05/24/86
929								S Mr	105 deg	03/08/84
2676	7345							Eu/CA/SA		04/24/89
11140								CA/Canada	245/315 deg	63/06/84
4910									news/English M-F	61/14/10
17440	11105	15405 12015						*	Horld Service	11/90/60
22.62	1005							<b>Mediterranean</b>		04/08/89
7705										04/17/89
144	0070							bir.		12/24/86
11812		2076						MS: MA/CA/Carib	#243 v Antique	04/09/Bd
CTL.										

P Sofia	R Bei jing	R Prague	F Gentache Belle	R Berins lat's	TONC	R Japan	Iraas World Radio	Radio 5	Kadto Grange	K Sames	V of free China	V of Turkey	KUNN .	Cleaner	R MONCON	Int 'I Red Cross	Vatican Radie	R france int'l	R Tsrana	<b>B</b> 8C	A Japan	R Nederland	R they lead and list	# beari	V of Greece	R Berlin Int'l	IM	# Terese	JIME.	R Amstralia	R Canada Int'l	f Beijing	# Havana	# Beutsche Welle	tal israel	Brengyang	R Bucharest	Radio RSA	R Swiss lat'l	MCSN -	19HB	SH2	R Zambia	R Pakistan	RAI	Radio Oranje	A Israna	360
							1																	÷																								England
0100	9490	122.0	0320	0345	528	0220	0430	2110	0210	0220	0010	0528	000	007	0/00	1221	0110	5250	0010	2X W	8	22	921		0348	0430	M10	8	0054	2	NN N	9	0090	0420	415	0630	0455	0415	0430	0070	8	0070	01M	2190	9440	14 40	0050	0545
0300	6300	0300	0300	0200	0300	0300	0300	0300	0300	0300	0300	0300	0300	0020	0200	0330	0330	0315	0220	0330	0330	-0230	0220	2	0340	8345	NETO	0220	8	9010	8	999	0010	0400	80	0400	0400	0400	0010	0010	0010	0400	0010	0415	124	1210	0430	0430

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0430	0455	Netherlands	R Nederland	13700 9895 WE/E Air	03/02/85
		Sevchelles	FEBA	17820 15325 SE As H & Sa	03/11/89
	1630	South Africa	Radio 5	11880	03/26/8
	0600	Australia	R Australia	21740 17795 17750 17715 15395 15320 15240 15160 As/Pac/PapHG	03/05/8
		Ecuador	нсја	11775 9745 6230 MA	04/15/8
		Fed Rep Germany	R Deutsche Welle	11810 11705 9700 9670 6130 5960 E Af/WMA	03/07/8
-			R Berlin Int'l	13410 11810 9645 6115 5963 AF/ME/Eu	03/26/8
	0545	German Des Rep	R Japan	17825 17810 17765 15270 15195 GOS/As/NA/Oceania	03/21/8
		Japan Kuwait	R Kuwait	15345 Far E/SLE As/Ans/HZ	04/18/8
	0800		Spanish Nat'l R	15110	03/06/9
	0600	Spain	KUSU	6175 Canada 70 deg	08/13/8
	0700	USA		17640 15566 11580 5950 Af/Eu/MA 84 Network	03/25/B
0500	0600	USA	WYFR	17730 15199 E Af	03/27/8
		Vaticam State	Vatican Radio		03/22/8
	0530	Canada	R Canada Int'l		03/26/8
0515	0000	Geraan Ben Rep	R Serlin Int'l		04/09/8
0530	0600	Austria	ORF	0013	
0530	0555	Romania	R Bucharest	17770 17720 15380 15340 11940 11830 Afr	12/26/8
0530	0630	Seychelles	FEBA	17820 India Fr	09/30/8
0530	0600	United Arab Emirates		21700 17865 15435 11730 Far E/Aus/As	02/24/8
0545	0600	Canada	R Canada Int'l	15225 11775 9750 7295 6140 6050 W Eu/Afr/ME \$1,4,6 v UK	03/22/8
0545	0730	England	8BC	9640 5975 WS: WA/CA/Carib v Antigua	04/06/8
0600	0630	Australia	R Australia	21740 17750 17715 15395 15320 15240 15160 11945 As/Pac/PapM6/Afr	03/05/8
0600	0080	Cuba	R Havana	11835 American	04/08/8
0600	0650	Fed Rep Germany	R Deutsche Welle	17875 15185 13790 11765 W Afr	09/30/8
0600	0700	Malta	R Hediterranear	9765	09/24/8
0600	0650	North Korea	R Pyongyang	15180 15160 15115 13650 SE As	11/25/8
0600	0630	Norway	R Norway	21725 15165 ME/Pac Eng-Sun only	03/30/8
0600	0700	South Korea	R Korea	9570 7275 6060 Ae/605	11/05/8
0500		Taiwan	V of Asia	7285 SE As	07/20/8
0600	0800	USA	WESN	9840 Eu 60 deg	04/24/8
0600	0800	VSA	WHRI	9620 9495 Eu/CA/SA	03/08/8
0600	1200	USA	WRNO	6185 NA/CA 20 deg (Su only)	02/15/8
0600	0800	USA	WSHB	11980 9455 CA/Canada 245/315 deg	04/24/8
0400	0700		WYFR	17640 15566 13760 7355 5950 Eu/NA/NA 85 Network	03/25/8
0600	0620		Vatican Radig	9645 6185 Eu	03/27/8
0600		Vatican State	Vatican Radio	17730 15190 CLS Af H-Sa	03/27/8
		Albania	R Tirana	9500 7065 Eu	12/24/1
0630	0700	Australia	R Australia	17750 17715 15395 15320 15240 15160 11945 As/Pac/PapNG/Afr	03/17/8
0630			R Sofia	11720 9700 W Eu	03/26/0
0630	0700		R Finland	11755 9560 6120 Eu/NE/Afr	04/03/1
0630		Finland	R Jordan	13655	03/13/1
0630	1415	Jordan Switzerland	R Swiss Int'l	17570 15430 12030 Afr	05/09/8

0645	0830	Ecuador
0645	0715	Rosania
0700	0730	Australia
0700	0725	Belgium
0700	1030	Ecuador
0700	0900	Guan
0700	0800	Japan
0700	1115	Pakistan
0700	0800	Taiwan
0700	1100	USA
0700	0800	USA
0715	0730	Vatican State
0727	0835	Seychelles
0730	0800	Australia
0730	0800	Austria
0730	0800	Czechoslovakia
0730	0815	England
0730	0800	Italy
0730	0825	Netherlands
0740	0757	Switzerland
0745	0830	German Des Rep
0800	0830	Albania
0800	0830	Australia
0800	0830	Bangladesh
0800	0855	Finland
0600	1600	N Hariana Is
0800	0850	North Korea
0800	0830	Могнау
0690	0900	South Korea
0800	0900	USA
0800	1100	USA
0800	1000	USA
0905	0930	Guan
0828	0855	
0830	0900	Australia
0830	0930	
0630	0900	
0830	0925	Netherlands
0830	0900	Switzerland
	4484	

	0830	Ecuador	нсэв
0645	0715		R Bucharest
0700	0730		R Australia
0700	0725		BRT
0700	1030		NCJB
0700	0900		KSBA
0700	0800	Japan	R Japan
0700	1115	Pakistan	R Pakistan
0700	0800	Taiwan	V of Free China
0700	1100	USA	KUSW
0700			WYFR
0715	0730	Vatican State	Vatican Radio
0727	0835	Seychelles	FEBA
0730	0800	Australia	R Australia
0730	0800	Austria	ORF
0730	0800	Czechoslovakia	R Prague
0730	0815	England	BBC
0730	0600	Italy	AWR Europe
0730	0825	Netherlands	R Nederland
0740	0757	Switzerland	Int'l Red Cross
0745	0830	German Den Rep	R Berlin Int'l
0800	0830	Albania	R Tirana
0800	0830	Australia	R Australia
0800	0830	Bangladesh	R Bangladesh
0800	0855	Finland	R Finland
0080	1600	W Hariana Is	KYDI
0080	0850	North Korea	R Pyongyang
0800	0830	Norway	R Norway
0800	0900	South Korea	R Korea
0800	0900	USA	KNLS
0800	1100	USA	WHR 1
0800	1000	USA	WSHB
0805	0930	Guan	KTWR
0828	0855	Netherlands	R Nederland
0830	0900	Australia	R Australia
0830	0930	China	R Beijing
0630	0900	Czechoslovakia	R Praque
0830	0925	Netherlands	R Nederland
0830	0900	Switzerland	R Swiss Int'l
0900	1000	Afghanistan	R Afghamistan
0900	0915	Australia	R Australia
0900	0925	Belgiwa	BRT
0900	0950	Fed Rep Germany	R Deutsche Welle

11835 9610						Eu
21665 1790						Pac
17750 1771		15320	15240	15160	9655	
21815 1169						SE As/Aus
11925 974						S Pac
15225 1170						As
21695 17810		15270	15235			60S/As/Aa/Dc/Eu/H
17660 1560	i i					Eu
5985						<b>MA</b>
6135						Canada
15566 1376	7355					Af/Eu
17730 1519	)					CLISEN AF
17780 1527	5					SE As
17750 1771	5 15395	15320	15160	9655		As/Pac/PapMG
21490 1549	13730	6155				Eu/NE/Af
21705 1784	11685					SHE As/Pac
9640						WS: WA/CA/Carib
7125						Eu
9715 963	)					MZ/Aus
21695 1767	13685	9560				Australasia
21465 2154	9730	7185	6115	6040		Far E/Eu
11835 950	)					As/Aus
17750 1771	5 15395	11770	9655	9580		As/Pac/PapNG
17710 1519	5					Eu
17795 1524	5					Aus/SASE As
9530						Japan
15180 1516	0 15115	11830				SE As
21730 1516	5					Aus/NA/Pac
13670 755	Ú					Eu
11715						As
7355						Eu/CA/SA
17855 945	5					Canada/SA
11805						Far East
9770						Aus
17750 1771	5 15395	11770	11720	9655	5980	As/Pac/PapNG
15445 1175	5 9700	1				S Pacific
21705 1784	0 11685					SLE As/Pac
21485 1757	5					Asia
21695 1767	0 13685	1560	9535	6165		Aus/H2/Eu
21600 1772	0					NE
17715 1541	5 11770	11720	9760	9655	9580	As/Pac7PapNG
26050 2181	0 17595	9925				Atr/Eu
21680 2165	0 21600	17785	17780	11945	11785	9650 Aus/As/SECLE Afr

U	Sat-Sun 0700-0830	02/18/89
26		11/13/86
s/Pac/PapN6		03/17/89
E As/Aus	Non-Fri	03/11/89
Pac		02/1B/89
as a second s		44/24/89
OS/As/As/Oc/Eu/HE	21695 v Gabon	03/21/89
u	Norld Service	05/13/88
6A	via WYFR	07/21/86
anada	70 dec	02/15/88
¥f/Eu		03/25/89
ASAN AF	#-Sa	93/27/89
Æ As	Se	03/11/89
s/Pac/PapMG		03/17/89
Eu/ME/Af		04/09/89
SHE As/Pac		04/14/89
S: NA/CA/Carib	v Antiqua	04/06/89
Eu		-10/30/88
17/Aus	via Bonaire	44/08/89
ustralasia -	Noblh after last Su	03/18/89
Far E/Eu	#1.3.4.6 Sa-Se only	03/26/89
Aus		12/24/86
As /Pac /PapNG		03/05/89
Eu		03/04/89
Aus/SASE As	Sa -0900	04/03/89
Japan	340 deg	04/24/89
SE As		11/25/88
Aus/NA/Pac	Ene Sun only	03/30/89
Eu		10/03/87
As		03/23/89
Eu/CA/SA		08/13/88
Canada/SA	260/152 deg	04/24/89
Far East		10/28/88
Aus	weekday5	09/16/88
As/Pac/PaoNG		03/05/89
S Pacifit		05/25/88
SLE As/Pac	Sat & See to 0930	04/14/89
Asia		09/19/86
Aus/WZ/Eu		04/17/89
NE	v USSR	04/09/89
As/Pac/PaoNG		03/05/89
Atr/Eu	H-F	03/30/89
Aus/As/SICLE Afr		03/07/89

0900 1000 Guan KSD6 11980 11700 As	Sa-Su only	03/26/89
		03/08/89
0900 1000 Japan R Japan 17810 605/As/Dc		03/21/89
0900 0930 Norway R Norway 17840 F East/N2/Aus Em	ng Sun only	03/30/89
0900 fade Papua-N Guinea ABC-Port Moresby 4920	105 1-24	09/08/85
0900 0930 Portugal AMR Europe 9670 Eu Su	inday only	10/30/88
0900 1400 South Africa Radio RSA 11805 S Afr		04/23/89
0910 0940 Mongolia R Ulan Bator 21770 12015 Dc		01/11/89
0915 0930 Australia R Australia 15415 11770 11720 9760 9655 9580 As/Pac/PapMG		03/05/89
0930 1030 Australia R Australia 15415 9760 9655 9580 As/Pac/PapNG		12/10/88
0930 0940 Canada R Canada Int'l 9755 5960 Carib H-	f	03/22/89
0930 1030 Chima R Beijing 15445 11755 9700 S Pacific		05/25/88
0930 1100 Suan KTWR 11805 AusNZ		08/31/87
0945 1030 German Bea Rep R Berlin Int'l 6115 Eu		03/26/89
0945 1000 Hungary R Budapest 15160-11910 7835 9585 9520 6110 Eu Su	4	03/26/89
	ng 1000-1030	01/29/89
1000 1100 India AIR 17837 15335 15155 11920 11860 GOS/E As/Aes/NZ		05/31/88
1000 1030 Israel Kol Israel 21760 17578 15560 11585 WEE Eu/Aus/Aus		04/24/89
1000 1205 New Zealand R New Zealand Int'l 11780 9850 Aus/Kelanesia		92/24/89
1000 1030 Switzerland R Swiss Int'l 21695 17670 13685 9560 Aus/NZ		04/17/89
1000 1200 USA WSHB 9495 9455 CA/SA/ME Canada 25	5/167 deg	03/08/89
1000 1100 USA WYFR 5950 NA		03/25/89
1000 1030 Vietnam V of Vietnam 15010 12030 9840		69/25/88
1030 1100 Austria DRF 21490 15450 Austria		04/09/89
1030 1130 Ecuador HCJB 11925 6130 6 Pac		02/18/89
1030 1045 Hungary R Budapest 15160 11910 9835 9585 9520 6110 Eu Sa		03/26/89
1030 1125 Netherlands R Nederland 9675 6020 Aus/Carib vi	ia Bonaire	03/02/89
1030 1040 Taiwan V of Asia 5980 SE As		07/20/87
1030 1130 United Arab Emirates R Dubai 21605 17865 15435 15320 Eu/Afr		-04/01/89
1040 1057 Switzerland Int'l Red Cross 21550 17830 15570 13635 Far East No	olTh after last Su	03/18/89
1100 1130 Australia R Australia 11800 11705 9770 9710 9645 9580 7215 6080 As/Pac/PapNG		05/21/88
1100 1200 China R Beijing 15540 ENA		03/27/89
1100 1330 England BBC 11775 9515 6195 WS: MA/CA/Carib 41	143 Anti# 2 Sack	04/06/89
1100 1150 Fed Rep Germany R Deutsche Welle 21600 17800 17765 15410 W Afr 17	7800,15410 v Kigali	09/30/88
1100 1125 Finland R Finland 21550 15400 NA N-	-f	04/03/89
1100 1145 German Dem Rep R Berlin Int'l 17775 13700 9665 6115 Eu/ME		03/26/89
1100 1400 Guan KSDA 13720 11990 As/Indonesia		01/29/89
1100 1200 Japan R Japan 11840 11815 6120 605/Asia/NA 61	120 v Canada	03/21/89
1100 1150 North Korea R Pyongyang 11735 9977 9600 Am		01/14/89
1100 1156 South Africa Radio RSA 21550 21535 11900 Afr/ME/UK/Ireland		02/26/B9
1100 1200 South Korea R Korea 15575 ME/Afr		10/03/87
1100 1130 Switzerland Int'l Red Cross 7210 Eu la	ast Su of month	03/18/89

	1200	Switzerland Taiwan	R Swiss Int'l	21550		1,337.4	12022					SE As/Aus/M2		64/17/89	
	1100		V of Asia	7445	5980							SE As		07/20/87	
	1400	USA	KUSW	9850	3100							Canada	70 deg	03/08/89	
	1400	USA	WHRI	11790	0445							Eu/CA/SA		03/08/89	
	1300	USA	WYFR	11580								NA		03/25/89	
		Vietsas	V of Vietnan	15010		0040						-		09/25/88	
	1257	Netherland Antilles		15345		1010						NA	Sat -1400/Sun -1332		
		Pakistan	R Pakistan	17660								Eu	Slow-speed news	09/06/87	
		Vatican State	Vatican Radio	17840								EAf		03/27/89	
	1200	Albania	R Tirana	11855	9480							As/Aus		12/24/86	
		Australia	R Australia			9770	9710	9645	9580	7215	6080	As/Pac/PapW6		05/21/88	
	1200	Austria	ORF	17870								ENA/As/Aus		04/09/89	
		Ecuador	HCJB	11740								Americas		02/18/89	
	1215	German Des Rep	R Berlin Int'l		21465	17880	15445					As		03/26/89	
	1225		R Tehran	11790								WE		04/13/89	
1130	1225	Netherlands	R Nederland	21615	21480	17575	9715	5955				Eu/HE/As	21480 v Madagascar	03/02/89	
1130	1200	Sevchelles	FEBA	15325								India	F & Sa	09/30/88	
1130	1230	Thailand	R Thailand	9655										09/11/88	
1200	1230	Australia	R Australia	11800	9770	9710	9580	7215	7205	6080	6060	As/Pac/PapN6		05/21/88	
1200	1300	Canada	R Canada Int'l	17820	11855	9635						Carib/USA	N-F	03/22/89	
1200	1300	China	R Beijing	17715	15540	15280	15110	11660	11600	7820		ENA/SE As/S Pac	<b>\$124 v Bali</b>	03/27/B9	
1200	1600	Ecuador	HCJB	17890	15115	11740						Americas		02/18/89	
1200	1225	Fieland	R Finland	21550	15400							MA	N-F	04/03/B9	
1200	1300	Ivory Coast	AWR Africa	17890								Af	Se only	02/28/88	
1200	1230	Hongolia	R Ulan Bator	12015	9615							Far East	exc Tu&F	04/11/89	
1200	1230	Norway	R Norway	15325								NA	Eng Sun only	03/30/89	
1200	1230	Romania	R Bucharest	17720	15280							As		06/05/88	
1200	1256	South Africa	Radio RSA	21590	11900	9585						ELS Afr		02/26/89	
1200	1400	USA	WRND	9715								NA/CA	20 deg (Su only)	03/08/89	
1200	1400	USA	WSHB	11930								CA/NE Canada	188/25 deg	03/08/89	
1200	1200	USSR	R Hoscow	17660	17645	15595	15550	12220	15490	15465	15225	World Service	9600 v Cuba	04/01/89	
	1225	USSR	R Tashkent				9540	7325				As		03/29/89	
	1215	Vatican State	Vatican Radio	21485								CLSLW Af/Aus/WZ	#214 #-F -1220	03/27/89	
	1230	Yugoslavia	R Yegoslavia	11735	9620	5980						W Eu/NA		03/26/89	
	1330	201	R Cairo	17595					1.0			As		06/18/BB	
	1300	Australia	R Aestralia			9580	7215	7205	6080	<b>60</b> 60	5995	As/Pac/PapNG		05/21/88 04/09/89	
	1300		R Bangladesh	17795								Eu		04/08/89	
	1255		BRT	21815	17555							SE AS/NA	\$1 #-F/82 H-Sa	03/26/89	
		German Dem Rep	R Berlin Int'l	13700								IE .		03/21/89	
	1300		R Sweden	21610								As/Pac		04/01/89	
		Turkey	V of Turkey	17785								SW As		03/08/87	
1235	1243	Greece	V of Greece	15630	11642							NA	Eng news	V3/VB/6/	

124	5 1310	France	R France Int'l	21645	17720	15365	15195	15155	11670		An/Afr/Ind/As/Eu	news/English	03/11/89
124	5 1330	Gersan Bes Rep	R Berlin Int'l			17880					As	news, ange east	03/26/89
130	0 1330	Australia	R Australia						5995		As/Pac/PapNG		05/21/88
130	0 1600	Canada	R Canada Int'l		11955						Carib/NA	Sa	03/22/89
130	0 1400	China	R Beijing			11600					WAASE ANS PAC		12/10/88
130	0 1330	China	R Canada Int'l		11955						As & Pacific	via China	03/22/89
130	0 1325	Finland	R Finland		15400						MA	SalSu -1400	04/03/89
130	0 1345	German Ben Rep	R Berlin Int'l	6115							Eu		03/26/89
130	0 1330	Japan	R Canada Int'l		15270						As & Pacific	via Japan	03/22/89
130	0 1350	North Korea	R Pygagyang			9600	9345	9325			SE As/An/Eu		11/25/88
130	0 1330	Norway	R Norway	9590							Eu	Eng Sun only	03/30/89
130	1545	Pakistan	R Pakistan	15605	13675	11615	9475				Æ	Norld Service	05/13/88
130	1355	Romania	R Bucharest	21550	17850	15405	11940				Eu		12/26/88
130	1356	South Africa	Radio RSA			9585					Ind/Pak/FE/S Af		02/26/89
130	1500	Taiwan	WYFR	15055							India	via VDFC	03/26/89
130	1500	USA	WYFR	17895	13695	11830	11580	6015	5950		MA	01,2,3,5 Network	03/26/89
130	1400	USSR	R Hoscow							15465 1522	5 World Service	11840 v Cuba	04/01/89
131	1327	China	lat'l Red Cross	11695							SASE As/Far East	HolTh after last Se	03/18/89
133	1400	Australia	R Australia			6080	6060	5995			As/Pac/PapNG		05/21/88
133	1400	Bulgaria	R Sofia	15310	11840	11735					Afr		03/26/89
133	1500	India	AIR	15335	11810	9545					GOS/SE AS		04/17/87
123	1400	Switzerland	R Swiss Int'l	21675	17830	15570	13635	11695	9620		E Afr/India/Aus/NZ	1169549620 v China	04/17/89
133	1400	United Arab Emirates	R Dubai	21605	17865	15435	15320				Eu/Afr		03/26/89
1330		USSR	R Tashkent	15470	11785	9600	9540	7325			As		03/29/89
1330		Vietnam -	V of Vietnam	15010	12030	9840							09/25/88
		German Des Rep	R Berlin Int'l	9730							Eu		03/26/89
134			Vatican Radio	11740	9645	7250	6248				Eu		03/27/89
1400		Albania	R Tirana	11985	7500						As/Aus		11/12/88
1400		Australia	R Australia	9580	7205	6080	6060	5995			As/Pac/PapNG		12/10/88
1400		China	R Beijing	15165	11600	7405					S Asia/MNA		12/04/88
1400		France	R France Int'l	17695							SE As	news/English	03/18/89
		Guas	KSDA	13720	08911						As/India	Eng 16-17	03/18/89
1400		Japan	R Japan	11815	9505						60S/As/Aa		03/21/89
1400		Malta	R Mediterranean	11925									09/24/88
1400		Norway	R Norway	21705							S As/Aus	Eng Sun only	03/30/89
1400		South Africa	Radio RSA	25790	21670	21590	17555	11925			UK/Eu/NA/Afr/NE		02/26/89
1400		South Korga	R Korea	15575	9750	9570					An/SE As		11/05/88
1400		Sweden	R Sweden	21610							As/Pac		03/21/89
1400		Switzer] and	R Swiss Int'I	12030	9535	6165					Eu		05/01/88
1400		USA	NCSN	21780							Eu	45 deg	04/24/89
1400		USA	WHRI	15105	9495						Eu/CA/SA	Alfant ( Tan -	04/24/89
1400	1500	USA	WRND	11965							NA/CA	20 deg (Su only)	03/08/89

					and the second se
1400	1600	USA	WSHB	7555 13760 CA/Canada 245/31	
	1500		R Moscow	5540 15530 15490 15135 11840 Norld Service 11840	
1400	1430	USSR	R Stn Peace & Progress	7645 As	04/11/89
1405	1430	Finland	R Finland	7800 15185 11925 Eu/NE/Afr	04/03/89
1415	2200	Jordan	R Jordan	9560	02/18/89
1420	1430	Sudan	National Unity Radio	9435 nx/EE	some days 12/19/88
1430	1500	Austria	ORF	1490 13730 11780 6155 W Af/SE As/Eu	04/01/89
1430	1457	Ezechoslovakia	R Prague	1505 17705 15155 15110 13715 11685 9605 Afr/S As	04/14/89
1430	1500	Italy	AWR Europe	7125 Eu	10/30/88
1430	1525	Netherlands	R Nederland	7605 17575 15150 13770 5955 SEE As/Eu	01/22/89
1445	1500	Canada	R Canada Int'l	1545 17820 17795 15325 15305 15160 11935 CHE Eu 42,4,5	,7 v Eu relays 03/22/89
1445	1530	German Des Rep	R Berlis Int'l	7880 15240 As	03/26/89
1445	1515	Mongolia	R Ulan Bator	5305 9575 S As	01/11/89
1458	1610	Seychelles	FEBA	1870 15325 India Su & H	
1500	1530	Australia	R Australia	9580 7215 7205 6080 6060 5995 As/Pac/PapNG	12/10/88
1500	1600	China	R Beijing	5165 11600 7405 S Asia/WNA	08/13/88
1500	1745	England	BBC	5260 11775 WS: MA/CA/Carib @1 Sac	k182 Antigua 04/06/89
1500	1550	Fed Rep Germany	R Deutsche Welle	1600 17810 11965 9735 SECHE Afr	05/01/88
1500	1640	Guas	KTWR	1650 India Su -16	
1500	1600	Japan	R Japan	1700 11815 9505 605/As/An/Eu/ME 21700	v Gabon 03/21/89
1500	1550	North Korea	R Pyongyang	1740 9325 Eu	11/25/88
1500	1530	Philippines	R Veritas Asia	5460 15220 As	12/19/88
		Portugal	R Portugal	5245 India/NE H-F	04/10/89
	1530		R Bucharest	7745 17720 15335 15250 11940 11775 As	06/05/88
1500	1515	Taiwab	WYFR	1550 India via VD	FC 03/26/89
1500	1600	USA	KNLS	9750 As	03/23/89
1500	1700	USA	MHRI	1840 15105 Eu/CA/SA	01/02/89
	1700		WRNO	1965 NA/CA 20 de	g 03/08/89
	1515		WYFR	7895 13695 11580 5950 NA #1,2 M	etwork 03/26/89
	1600		R HOSCON	7810 17660 15490 15135 11840 World Service 11840	v Cuba 04/01/89
		Vatican State	Vatican Radio	7870 15090 11955 SE As/India/Pak	03/27/89
	1530		R Budapest	5160 11910 9835 9585 9520 6110 Eu H/Th	03/26/89
	1600		WYFR		etwork 03/25/89
		Albania	R Tirana	1835 9480 Afr	12/24/86
		Australia	R Australia	9580 7215 7205 6080 6060 6035 5995 As/Pac/PapNG	12/10/88
		Belgius	BRI	1810 17650 17595 Afr #-Sa	03/11/89
		Czechoslovakia	R Praque	1505 17705 15155 15110 13715 11990 11685 9605 Afr/5 As/Eu	04/14/89
		Greece	V of Greece	7580 15630 11645 MA Eng ne	ws 02/20/89
		Sweden	R Sweden	1610 17880 17705 - MA/As/Pac	03/21/89
		Switzerland	R Swiss Int'l	1630 17830 15430 13685 ME/E Afr	04/25/98
		Taiwan	V of Asia	7445 5980 SE As	07/20/87
		German Des Rep	R Berlin Ant'l	7775 15255 9730 7295 Af /Eu	03/26/89
1343	1020	peraan pea kep	A DEFILM ANT I	///J 13233 7/30 /273 HI/EW	vo. 20/01

		Pakistan	R Pakistan				17660	15605 11	1895	ME/ELS Afr	Slow-speed news 1615	
1545		Vatican State	Vatican Radio	17730						E Af		03/27/89
		China	R Beijing	15130		9570	7295			E&S Afr	19 k 25m v Mali	12/10/88
1600		Costa Rica	R for Peace	25945							schil sub to chy	04/13/B9
		Fed Rep Germany	R Deutsche Welle					7225	6170	Aus/As		03/07/89
1600		France	R France Int'l	17795	17620	15360	11705	6175		Afr/HE/As/# Eu	11705 v Gabon	11/05/88
		Norway	R Norway	17780	12210					NA/CA	Eng Sun only	03/30/89
1600	2100		BC Serv of Kingdom of Si								best later in xase	07/20/86
1600		South Korea	R Korea	9870	5975					HE/Afr/605		11/05/88
1600	1640	United Arab Emirates	R Dubai	17865	15435	15320	9640			Ew/Afr		04/01/89
1600	1700	USA	KHLS	12025						As		03/23/89
1600	2200	USA	KUSH	15650						Canada	70 deg	10/14/88
1600	1800	USA	NCSH	21640						S Afr	105 deg	02/15/88
1600	2000	USA	WHEK	9465								04/10/88
1600	1700	USA	WYFR	21615	21525	17895	17612	15440 1	5215 13695	Af/Eu/NA	\$3.7 Network	03/25/89
1600	1700	USSR	R Noscow	17810						Norld Service	11840 v Cuba	04/01/89
1600	1630	Vietnam	V of Vietnam	15010								09/25/88
1610	1625	Sevchelles	FEBA	15325						SE As	#-Sa	03/11/89
1615	1630	Canada	R Canada Int'l	21545	17820	15325	15305	11935		C&E Eu	#345 v Eu relavs	03/22/89
1630	1700	Austria	ORF	21490						W AT/SE As/Eu		04/01/89
1630	1700	Bulgaria	R Sofia	15310						Air		03/26/89
1630	1830	Egypt	R Cairo	15255						S Afr		08/17/87
1630	1725	Netherlands	R Nederland	15570	6070					SHE AFr		03/02/89
1630	1900	Pakistan	R Pakistan	11570						Eu	Norld Service	05/13/88
1630	2200	South Africa	Radio 5	4880	/ ****							03/26/89
1630	1700		R Sta Peace & Progress		13115	17030	11775	11670	0799	Af		03/26/89
	1930		Radio Oranje	3215	10010	11030	11/14	110/4	1000			04/17/89
	1750	Brazil	R Bras	15265						Eu		10/28/87
		China	R Beijing		05.00	7295				ELS Afr		12/10/88
		Israel	Kol Israel	11655		1415				ELW Eu		04/24/89
		Japan	R Japan	11815		0575	0505			GOS/As/Aa		03/21/89
		North Korea	R Pyongyang	11740		1999	1000			Eu		11/25/88
		Norway	R Norway							W AF/NA	For Discontin	03/30/89
		Switzerland	Int'l Red Cross	25730 7210	1//60						Eng Sun only No after last Su/ao	03/18/89
1700	2200	USA	VOA				41710			Eu	HD STEET ISSU DU/BU	11/12/88
				17785		12410	11/60					
	1800	USA	WHRI	15105	13760					Eu/CA/SA	N. 1 -	01/02/89
	2100	USA	MRND	15420						NA/CA/Eu	20 deg	03/08/89
	0200	USA	WWCR	15690							target date 5-29-89	04/27/89
	1900		WYFR	17895			11580			NA/Eu	#1,3 Network	03/25/89
1700	1800		R Hoscow	15475				100		World Service	11840 v Ceba	03/26/89
1710	1727		Int'l Red Cross				11955	9885		Africa	MowTh after last Su	
1715	1800	German Des Rep	R Berlin Int'l	9730	7295	7260				Eu		03/26/89

1730       1830       Argentina       RAE       1545       Ea/Afr       Ea/Afr       07/13/09         1730       1735       Belgium       BFT       11695       5710       Ea       07/11/09         1730       1735       Berlan       R Prague       1205       15110       13715       1170       11695       5710       Ea       07/13/09         1731       Bios Generala       R Prague       1205       15145       15410       5540       Afr       05/16/07         1731       Bios Generala       R Bercharesti       17745       17720       1520       15480       540       44r       05/12/87         1731       Bios Generala       R Canada       R Canada       R Canada       1717       17720       1520       15480       540       44r       545a       152/2/87         1800       1807       Canada       R Canada       R Canada       R Canada       17100       1620       55.6       F45a       162/4       07/11/87         1800       1807       India       A IR       15450       11465       Ea       07/06/87       07/06/87         1800       1807       India       R Canada       R Cate=d'Ivoire       7213	1730	1800	Albania	R Tirana	9480	7155					Eu		06/05/88
1730       Projos	1730	1830	Argentina	RAE	15345						En/Afr		03/13/89
1125       Certanbearting       R Pray       1205       1511       1171       1175       1172       1173       1175       1173       1175       1173       1175       1173       1175       1173       1175       1173       1175       1173       1175       1174       11775       11720       15255       15360       Afr       0722/89       0720/89       0720/89       0720/89       0720/89       0720/89       0720/89       0720/89       0720/89       0722/89       0722/89	1730	1755	Belgium	BRT	11695	5910					Eu		
1303       Bornania       R       Buckrest       1774       1205       13745       1205       1205	1730	1825	Czechoslovakia	R Praque	21505	15110	13715	11790	11685	9605	Afr/S As		
1731       1840       Seychelles       FEBA       11810       11810       St. As       FLSA - 1824       07/11/89         1800       1830       Canada       R       Canada       INTE Toolog Dotto       Arr       Sabbu - 1900:122 / 11       83722/89         1800       1837       Czechoslovakia       R       Frague       7345       5830       Eu       07/01/87       805/E Arr       07/01/87       805/E Arr       04/11/87       18/00       97/201/87       18/00       97/201/87       18/00       97/201/87       18/00       97/201/87       18/00/10/201/87       12/05/87       12/05/87       04/11/87       18/00       98/20       11/11 <td< td=""><td>1730</td><td>1815</td><td>German Dem Rep</td><td>R Berlin Int'l</td><td>15255</td><td>15145</td><td>13610</td><td>9665</td><td></td><td></td><td>Af</td><td></td><td></td></td<>	1730	1815	German Dem Rep	R Berlin Int'l	15255	15145	13610	9665			Af		
No. 10.00         District         Arr         SakSu -1900122s 7/1         GJ/22/89           1800         1807         Crechoslovakia         R Prague         7345         5330         Eu         04/07/87           1800         1807         Crechoslovakia         A IR         15350         1804         057E         Afr         SakSu -1900122s 7/1         05/22/89           1800         1807         Crechoslovakia         A IR         15350         1806         057E         Afr         04/07/87           1800         1900         Ivory Coast         R Cote-d'Ivoire         7215         Eu/Af/MA/Aux/NZ         10/20/88           1800         1805         Kuwait         R korway         21730         Eu/Af/MA/Aux/NZ         340 deg         05/30/89           1800         1855         South Africa         Radio RSA         21535         1795         Eu         11/05/88           1800         1855         South Kriaa         R Sweden         9615         6065         Eu/Af         03/21/89           1800         1900         USA         KHES         11650         As         07/23/89           1800         1900         USA         KHES         11650         As         07/2	1730	1800	Rosania	R Bucharest	17745	17720	15365	15340			Afr		
1800       1827       Czechoslovalia       R       Prague       745       5930       Eu       09706/87         1800       1827       Czechoslovalia       AIR       15360       1940       DOS/E Afr       04/17/87         1800       1907       Cozet-d'Ivoire       7215       ecc Sendays       12/05/87         1800       1900       Kuwait       R Kewait       11665       Eu/Af/NA/Aus/NZ       10/20/88         1800       1800       Mormay       R       Noray       21330       E       Af       Eng Sun only       63/30/89         1800       1856       South Africa       Radio RSA       21535       17795       UK/Ireland       62/26/69         1800       1856       South Korea       R Korea       15575       Eu       1105/88         1800       1800       USA       KUES       14650       As       03/21/89         1800       1900       USA       KUES       14650       As       03/21/89         1800       1900       USA       MHT       17320       13760       Eu/C/C/SA       02/15/86         1800       1830       USR       R Kiev       720       615       6070       6010	1731	1804	Seychelles	FEBA	11810								
Loss         Link (Link)         Link)         Link (Link)         Link)         Link (Link)         Link)         Link) <thlin)< th=""> <thlink)< th="">         Link)</thlink)<></thlin)<>	1900	1830	Canada	R Canada Int'l	17820	15260	13680				Afr	SatSu -1900:22e 7/1	
Loo         Loo <thloo< th=""> <thloo< th=""> <thloo< th=""></thloo<></thloo<></thloo<>	1800	1827	Czechoslovakia	R Prague	7345	5930							
100       1	1800	2000	India	AIR							GOS/E Afr		
100       100       100       100       100       200       Normay       100       200       03/06/89         1800       1800       Mormay       R Normay       21730       E Af       Eng Sun only       63/30/89         1800       1800       1800       Normay       R Normay       21730       UK/Ireland       02/26/89         1800       1900       500th Africa       R Aforea       15575       Eu       110/05/88         1800       1900       055       South Korea       R Korea       15575       Eu/Af       03/21/89         1800       1900       USA       KNLS       11650       As       03/21/89         1800       1900       USA       KNLS       11650       As       03/23/87         1800       1900       USA       KNLS       11650       As       03/23/87         1800       1900       USA       MKI       17830       13760       Eu/Af       03/24/89         1800       1800       USSR       R Kiev       7240       6155       60%0       6010       Eu       03/26/89         1800       USSR       R Hoscow       11840       Vof Vietnaa       03/13/89       09/25/88<	1800	1900	Ivory Coast	R Cote-d'Ivoire	7215							exc Sundays	
100       1200       Horman	1800	2100	Kuwait	R Kuwait	11665						Eu/Af/NA/Aus/NZ		
1800       1856       South Africa Main RA       Radio RSA       21335       17795       W/Ireland       02/26/89         1800       1856       South Korea R Korea       R Korea R Korea       15575       Eu       11/05/88         1800       1800       1800       Sweden R Sweden       R Sweden R Sweden       9615       6065       Eu/Af       03/21/89         1800       1900       USA NULS       KULS       11650       As       03/21/89         1800       1900       USA USA       KULS       11650       Eu/Af       03/21/89         1800       1900       USA       WHRI       17830       13760       Eu/CA/SA       02/15/68         1800       1800       USSR       R Kiev       7240       6165       6090       6010       Eu       03/26/89         1800       1830       USSR       R Kiev       7240       6165       6090       6010       Eu       07/25/88         1800       1830       USSR       R Kiev       7240       6165       6090       6010       Eu       03/26/89         1800       1830       Vietnaa       10501       12030       9840       607/25/88       03/15/97       03/26/89	1800	2200	N Hariana 1s	KY01	9455								
100       034       Korea       1575       Eu       11/05/88       03/23/89         1800       100       100       USA       KMLS       11650       As       03/23/89         1800       100       USA       MLRI       17830       13760       Eu/CA/SA       03/23/89         1800       100       USA       MLRI       17830       13760       Eu/CA/SA       02/15/88         1800       1830       USSR       R Kiev       7240       6165       6090       6010       Eu       03/26/89         1800       1830       Vietnam       V of Vietnam       1501       1230       9840       07/25/88       03/13/89         1815       1900       Bangladesh       R Bangladesh       1510       7520       Eu/ME       03/26/89       03/26/89         1830       1900       Canada       R Canada       1171       21675       7525       7535	1900	1830	Norway	R Norway	21730						E Af	Eng Sun only	
1000       10000       1000	1800	1856	South Africa	Radio RSA	21535	17795					UK/Ireland		
1000       1000       USA       KNLS       11650       As       03/23/89         1800       1900       USA       MCSN       21640       E Afr       75 deg       10/14/88         1800       2100       USA       MKRI       17830       13760       Eu/CA/SA       02/15/68         1800       1830       USSR       R Kiev       7240       6165       6090       6010       Eu       03/26/89         1800       1830       USSR       R Kiev       7240       6165       6090       6010       Eu       03/26/89         1800       1830       USSR       R Moscow       11840       Vol/189       09/25/88       03/26/89         1800       1800       UsSR       R Bangladesh       11510       7520       Eu/ME       03/13/89         1800       Bangladesh       R Bangladesh       11510       7520       Eu/ME       03/26/89         1830       1900       Canada       R Canada Int'1       21675       17875       15325       9555       7235       W Eu       H-F I #445 v UK       03/22/89         1830       1900       Canada       R Canada       15185       11755       9550       Eu/ME/Afr       03/26	1800	1900	South Korea	R Korea	15575						Eu		
International and the service         International and the service <thinternational and="" service<="" th="" the=""> <thinte< td=""><td>1800</td><td>1830</td><td>Sweden</td><td>R Sweden</td><td>9615</td><td>6065</td><td></td><td></td><td></td><td></td><td>Eu/Af</td><td></td><td></td></thinte<></thinternational>	1800	1830	Sweden	R Sweden	9615	6065					Eu/Af		
1800       2100       USA       HHRI       17830       13760       Eu/CA/SA       02/15/86         1800       2100       USA       HHRI       17830       13760       Eu/CA/SA       02/15/86         1800       2100       USSR       R Kiev       7240       6165       6090       6010       Eu       03/26/89         1800       1830       Ustraa       V of Vietnaa       15010       12030       9840       09/25/88         1815       1900       Bangladesh       R Bangladesh       11510       7520       Eu/NE       03/12/89         1830       1900       Bangladesh       R Canada       11720       9700       M Eu       03/22/89         1830       1900       Canada       R Canada Int'1       21675       15325       9555       7235       W Eu       H-F ! 4445 v UK       03/22/89         1830       1900       Canada       R Canada Int'1       21675       15325       9555       7235       W Eu       H-F ! 4445 v UK       03/22/89         1830       1900       Eugarvia       R Budapest       15140       11910       9635       9585       9520       6110       Eu       03/22/89         1830 <td< td=""><td>1800</td><td>1900</td><td>USA</td><td>KNLS</td><td>11650</td><td></td><td></td><td></td><td></td><td></td><td>As</td><td></td><td></td></td<>	1800	1900	USA	KNLS	11650						As		
1000       1100       1100       111       1100       111       1100       111       1100       111       1100       111       1100       111       1100       1110       1100       1110       1100       1110       1100       1110       1100       1110       1100       1110       1100       11100       111000       11100       11100	1800	2000	USA	NCSN	21640						EAtr	75 deg	
1800       1800	1800	2100	USA	WHRI	17830	13760					Eu/CA/SA		
1000       1000       1000       1000       1000       1000       1000       1000       1000       1000       1000       1000       09/25/88       09/25/88         1815       1900       Bangladesh       R Bangladesh       11510       7520       Ew/ME       03/13/89         1830       1900       Bulgaria       R Sofia       11720       9700       N Eu       03/25/88         1830       1900       Canada       R Canada Int'1       21675       17875       15325       9555       7235       W Eu       01/22/89         1830       1900       Canada       R Canada Int'1       21675       17875       15325       9550       W Eu       01/22/89         1830       1900       Hungary       R Budapest       15160       11910       9835       9585       9520       6110       Eu       03/26/89         1830       1900       Hugary       R Budapest       15160       11910       9835       9585       9520       6110       Eu       03/26/89         1830       1925       Netherlands       R Meerland       21685       17605       15560       Afr       05/09/87       03/26/89         1830       1900       <	1800	1830	USSR	R Kiev	7240	6165	6090	6010			Eu		
1010       1010       1010       1010       1010       1010       1010         1010       1010       Bangladesh       R Bangladesh       11010       7520       Eu/NE       03/13/89         1030       1900       Bulgaria       R Sofia       11720       9700       N Eu       03/26/89         1030       1900       Canada       R Canada Int'l       21675       17875       15325       9555       7235       N Eu       N-F I 4415 v UK       03/22/89         1030       1900       Ethiopia       V of Ethiopia       9640       N Eu       01/22/89       01/22/89         1030       1905       Finland       R Finland       15185       11755       9550       Eu/NE/Afr       04/03/89         1030       1925       Neterlands       R Nederland       21685       17605       15560       Afr       03/21/89       03/22/89         1830       1900       Hugary       R New Zealand Int'l       15150       11780       Pac       03/22/189         1830       1900       Switzerland       R Sviss Int'l       11955       9885       Afr       05/90/87       05/90/87         1830       1900       Switzerland       R Sviss Int'l	1800	2100	USSR	R HOSCOW	11840						Norld Service	11840 v Cuba	
100       Bulgaria       R Sofia       1100       1000       Neu       03726/89         1830       1900       Bulgaria       R Sofia       11720       9700       N Eu       03726/89         1830       1900       Canada       R Canada Int'l       21675       15325       9555       7235       N Eu       N-F ! 4445 v UK       03/22/89         1830       1900       Ethiopia       V of Ethiopia       9640       N Eu       01/22/89       01/22/89         1830       1900       Ethiopia       V of Ethiopia       9640       N Eu       01/22/89         1830       1900       Hungary       R Budapest       15160       11910       9635       9589       9520       6110       Eu       03/26/89         1830       1925       Metherlands       R Mederland       21651       7650       5560       Afr       03/26/89         1830       1925       Metherlands       R Mew Zealand Int'l       15150       11780       Pac       03/26/89         1830       1900       Switzerland       R Sviss Int'l       11955       9885       Afr       05/09/87         1830       1900       Switzerland       R Yugoslavia       9640       960	1800	1830	Vietnam	V of Vietnam	15010	12030	7840						
1830       1900       Ganada       R Canada Int'l       21675       17875       15325       9555       7235       W Eu       N-F ! 4425 v UK       03/22/89         1830       1900       Ethiopia       V of Ethiopia       960       W Eu       01/22/89       01/22/89         1830       1900       Ethiopia       V of Ethiopia       960       W Eu       01/22/89         1830       1900       Hungary       R Budapest       15160       11910       9635       9585       9520       6110       Eu       03/22/89         1830       1900       Hungary       R Budapest       15160       11910       9635       9585       9520       6110       Eu       03/22/89         1830       1925       Metherlands       R Neerland       21685       17605       15560       Afr       13217s       Bon, 19s       Nadg       04/08/89         1830       1925       Metherlands       R New Zealand       R Wer Zealand       8 Wiss Int'l       11755       9885       Afr       05/09/87         1830       1900       Yugoslavia       9640       7620       5780       Afr       05/24/8	1815	1900	Bangladesh	R Bangladesh	11510	7520					Eu/NE		
1830       1900       Ethiopia       V of Ethiopia       960       W Eu       01/22/89         1830       1900       Ethiopia       V of Ethiopia       960       W Eu       01/22/89         1830       1900       Hungary       R Finland       15185       11755       9550       Eu/ME/Afr       04/03/89         1830       1900       Hungary       R Budapest       15160       11910       9835       9585       9520       6110       Eu       05/26/89         1830       1925       Netherlands       R Nederland       21685       17605       15560       Afr       13417a       Bon, 19a       Madg 04/08/89         1830       1925       Metherlands       R Neer Zealand Ist'l       15150       11780       Pac       05/26/89         1830       1900       Switzerland       R Swiss Int'l       11955       9885       Afr       05/09/87         1830       1900       Yugoslavia       9640       9620       5780       Afr       05/26/89         1845       1945       India       AIR       11620       7412       605/W Eu       07/04/88         1900       1930       Afghanistan       R Afghanistan       11830       9640 </td <td>1830</td> <td>1900</td> <td>Bulgaria</td> <td>R Sofia</td> <td>11720</td> <td>9700</td> <td></td> <td></td> <td></td> <td></td> <td>W Eu</td> <td></td> <td>03/26/89</td>	1830	1900	Bulgaria	R Sofia	11720	9700					W Eu		03/26/89
1830       1845       Finland       1810       1810       1810       1845       1845       1845       1846       15185       11755       9550       Eu/ME/Afr       04/03/89         1830       1900       Hungary       R       Budapest       15165       11755       9550       Eu/ME/Afr       03/26/89         1830       1925       Metherlands       R       Nederland       21685       17605       15560       Afr       13217s       Bon, 19s       Madg 04/08/89         1830       1925       Metherlands       R       New Zealand       R       New Zealand       R       80/224/89         1830       1905       Mew Zealand       R       Swiss Int'l       11755       9885       Afr       05/09/87         1830       1900       Swiss Int'l       11755       9885       Afr       05/09/87         1830       1900       Yugoslavia       9640       9620       5780       Afr       05/09/87         1845       1945       India       AIR       11620       7412       60S/W Eu       07/04/88         1900       1930       Afghanistan       11830       9640       509       Eu       04/09/89 <td< td=""><td>1830</td><td>1900</td><td>Canada</td><td>R Canada Int'l</td><td>21675</td><td>17875</td><td>15325</td><td>7555</td><td>7235</td><td></td><td>W Eu</td><td>H-F   4415 v UK</td><td>03/22/89</td></td<>	1830	1900	Canada	R Canada Int'l	21675	17875	15325	7555	7235		W Eu	H-F   4415 v UK	03/22/89
Isso         Formula         Formula         Formula         Formula         Formula         Formula         Operation	1830	1900	Ethiopia	V of Ethiopia	9660						W Eu		01/22/89
ISS0         IP25         Metherlands         R         Nederland         Loss         ISS0	1830	1845	Finland	R Finland	15185	11755	9550				Eu/NE/Afr		04/03/89
1830         2105         New Zealand         R New Zealand         Ist'l         15150         11780         Pac         02/24/89           1830         1900         Switzerland         R Swiss Int'l         11955         9885         Afr         05/09/87           1830         1900         Yugoslavia         R Yugoslavia         9640         9500         Aff/Eu         03/26/89           1845         1945         India         All         11620         7412         605/W Eu         07/04/48           1900         1900         Afgenistan         R Afgenistan         11820         9640         Eu         04/09/89           1900         2000         Algeria         R Afgenistan         11745         15215         9640         9509         01/30/88	1830	1900	Hungary	R Budapest	15160	11910	9835	9585	9520	6110	Eu		03/26/89
1830         1900         Switzerland         R Swiss Int'l         11955         9885         Afr         05/09/87           1830         1900         Yugoslavia         R Vagoslavia         9640         9620         5980         Afr         03/26/89           1845         1945         India         AIR         11620         7412         605/W Eu         07/04/88           1900         1930         Afghanistan         R Afghanistan         11830         9640         Eu         04/09/89           1900         2000         Algeria         R Algiers         17745         15215         9640         9509         01/30/88	1830	1925	Netherlands	R Nederland	21685	17605	15560				Mr	13417s Bon, 19s Hadg	04/08/89
1830         1900         Yugoslavia         R Yugoslavia         9660         9620         5980         Af /Eu         03/26/89           1845         1945         India         AIR         11620         7412         605/W Eu         07/04/88           1900         1930         Afghanistan         R Afghanistan         11830         9640         Eu         04/09/89           1900         2000         Algeria         R Algiers         17745         15215         9640         9509         01/30/88	1830	2105	New Zeal and	R New Zealand Int'l	15150	11780					Pac		02/24/89
1830         1900         Yugoslavia         R         Yugoslavia         9660         9620         5980         Af/Eu         03/26/89           1845         1945         India         AIR         11620         7412         605/W Eu         07/04/88           1900         1930         Afghanistan         R Afghanistan         11830         9640         Eu         04/09/89           1900         2000         Algeria         R Algiers         17745         15215         9640         9509         01/30/88	1830	1900	Switzerland	R Swiss Int'l	11955	9885					Afr		05/09/87
1845         1945         India         AIR         11620         7412         GDS/M Eu         07/04/88           1900         1930         Afghanistan         R Afghanistan         11830         9640         Eu         04/09/89           1900         2000         Algeria         R Algiers         17745         15215         9640         9509         01/30/88	1830	1900	Yuqoslavia	R Yuposlavia							Af/Eu		03/26/89
1900 2000 Algeria R Algiers 17745 15215 9640 9509 01/30/BB	1845	1945	*	*	11620	7412					GOS/W Eu		07/04/88
1900 2000 Algeria R Algiers 17745 15215 9640 9509 01/30/88		1930	Afohanistan								Eu		04/09/89
								9509					01/30/88
	1900	2000	,		9580	7215	7205	6080	6060	6035	As/Pac/PapNG		12/10/88

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1	900	1930	Canada	R Canada Int'l	17820	15260	13680				Air	M-F:22a eff 7/1	03/22/89
1	900	2100	Cuba	R Havana	11800						Eu/Af		10/15/88
1	900	1957	Czechoslovakia	R Prague	7345	5930					Eu		09/08/87
1	900	2000	Ecuador	НСЈВ	21470	17790	15270				Eu		02/18/89
1	900	1950	Fed Rep Sermany	R Deutsche Welle	21600	17810	15390	13790	11785		W Afr		03/07/89
1	900	1930	Israel	Kol Israel	17630	17590	15640	13750	11605		AF/WEE EW/NA		04/24/89
1	900	1930	Japan	R Japan	11850	11705	9505				GOS/Ae/Oc		02/20/89
1	900	1930	Norway	R Norway	15220						Eu	Eng Sun only	03/30/89
1	900	1930	Portugal	R Portugal	15250	11870					Afr	H-F	04/10/89
2	900	1956	South Africa	Radio RSA	21590	17795	7295				Afr/HE		02/26/89
1	900	2000	Spain	Spanish Nat'l R		15375		11790			Afr/NE/Eu		03/06/89
1	900	2000	USA	WYFR	21615	17895	15566	15215	13695		Eu/NA	\$2.5 Network	03/25/89
1	900	2000	USSR	R Moscow	9685	9450	7350	7240			UK/Ireland		03/26/89
1	900	1930	Vietnam	V of Vietnam	15010	12030	9840						09/25/88
1	915	2000	German Den Rep	R Berlin Int'l		13610					Af		03/26/89
1	920	1930	Greece	V of Greece	11645	9905					Eu	News/Eng exc Su	04/11/89
1	930	2000	Austria	ORF	13730	12010	5945				S AF/NE/Eu		04/09/89
1	930	2030	China	R Beijing	11855	11515	9440	6955			MEN Afr		08/06/88
14	930	2025	Iran	R Tehran	9022	6035					HE/H AF/Eu/ENA		04/13/89
1	930	2025	Romania	R Bucharest	7195	7105	6105	5950			Eu		12/26/88
1	930	0300	South Africa	Radio Orion	4810	3320							04/17/89
1	930	2000	Switzerland	R Swiss Int'l	9535	6165	3985				Eu		11/12/88
1	935	1955	Italy	RAI	11800	9710	7275				Great Britain		04/08/89
1	940	2010	Mongolia	R Ulan Bator	11870	9654					Eu		01/11/89
1	945	2030	German Dem Rep	R Berlin Int'l	6115						Eu		03/26/89
1	945	2045	India	AIR	11860	11620	9910	9755	7412		GOS/W Eu/Afr	9910 2000-	12/26/88
1	950	2010	Vatican State	Vatican Radio	9645	7250	6190				Eu		03/27/89
2	000	2030	Australia	R Australia	9620	9580	7215	7205	6060	6035	As/Pac/PapNG		12/10/88
2	000	2100	China	R Beijing	11500	9720					Eu		09/30/88
2	000	2200	England	BBC	5975						WS: WA/CA/Carib	v Antigua	04/06/89
2	000	2100	6uan	KSDA	15225	13720					As		04/24/B9
2	000	2030	Hungary	R Budapest	15160	11910	9835	9585	9520	6110	Eu		03/26/89
2	000	2200	Iraq	R Baghdad	9770						Eu		04/10/89
2	000	2050	North Korea	R Pyongyang	9345	6576					Eu		09/10/88
2	000	2030	Portugal	R Portugal	11740						Eu	N-F	04/10/89
2	000	2050	Turkey	V of Turkey	9825						Eu		04/01/89
2	000	0100	USA	KVOH	17775						CA/Carib	100 deg	08/13/88
2	000	2200	USA	NCSN	15390						Eu	60 deg	03/08/89
2	000	2200	USA	WSHB	21640	17555					CA/Canada	315/437 deg	03/08/89
2	000	2200	USA	NYFR	21615	21525	17895	17612	15566	13695 11580	Eu/Af/NA	#3,6 Network	03/25/89
2		2105	Syria	R Danascus	17710	15095					Eu		64/09/89
2	025	2045	Italy	RAI	11900	7235	5990				Near East		04/08/89

2030	2100	Albania	R Tirana
2030	2100	Australia	R Australia
2030	2100	Bulgaria	R Sofia
2030	2130	China	R Beijing
2030	2200	Egypt	R Cairo
2030	2125	Netherlands	R Nederland
2030	2130	South Korea	R Korea
2030	2100	Vietman	V of Vietnam
2040	2140	Cuba	R Havana
2045	2230	India	AIR
2045	2100	Vatican State	Vatican Radio
2100	2130	Australia	R Australia
2100	2125	Delgium	BRT
2100	2115	Caperoon	R Cameroon
2100	2100	Canada	R Canada Int'l
2100	2200	China	R Beijing
2100	2150	Fed Rep Germany	R Beutsche Welle
2100	2125	Finland	R Finland
2100	2145	Gersan Des Rep	R Berlin Int'l
2100	2110	Shana	Ghana BC Corp
2100	2200	Guan	KSDA
2100	2130	Japan	R Japan
		Romania	R Bucharest
2100	2200	Spain	Spanish Mat'l R
2100	2130	Sweden	R Sweden
2100	2130	Switzerland	R Beijing
		Switzer land	R Swiss Int'l
	2400	USA	WHRI
2100	0000	USA	WRIND
2100	2200	USSR	R Hoscow
	2130		R Stn Peace & Progress
		Yugoslavia	R Yugoslavia
		Syria	R Damascus
2115	2245	Egypt	R Cairo
2130	2200	Albania	R Tirana
2130		Australia	R Australia
2130	2230	Bulgaria	R Sofia
2130	2200	Canada	R Canada Int'l
		Ecuador	HCJB
	2200		R Vilnius
		Gersan Des Rep	R Berlin Int'l
		Argentina	RAE
2200	2400	Australia	R Australia

11835	9375				
9620					
11735	11720	9700			
11855	11515	9440	6955		
15375					
15560	13700	9860			
15575	7550	6480			
	12030				
15340	11725				
11715	11620	9910	9550	7412	
15120	11760	11700	9625		
21740	17795	15320	15240	15160	9620
9925	5910				
5010					
17875	15325				
11500	9720				
15435	11785	9765	9670		
11945	11755	6120			
9730					
3366					
15310	15225				
17890	17810	15270	15230	11845	11815
7195	7105	6105	5950		
15280	11790				
11705	9655				
3985					
15525	13635	9885			
17830	13760				
13720					
11840	9765	7350			
	7340				
9660	9620	7130	5980		
17710	15095				
9900					
9480	7245				
21740	17795	15320	15240	15160	
11720	9700				
17820	15150	11880			
21470	17790	15270			
6100					
9730	5765				
9690					
21740	17795	15320	15240	15160	

Afr		06/05/88
As/Pac/PapNG		12/10/88
Eu/MA		03/26/89
WEN Afr		08/06/88
W Afr		08/17/87
W Afr		04/08/89
Eu/ME/Afr		11/05/88
		09/25/88
Carib		09/04/88
GOS/W Eu/Aus/NZ		03/28/87
CLSLW AF		03/27/89
As/Pac/PapNG		03/17/89
NA/Eu		03/30/89
	news in English	12/04/98
# Eu		03/22/89
Eu		09/30/88
Aus/As		03/07/89
En/HE/AF/Aus/SUSE A		04/03/89
FNA	-	03/26/89
	News in English	12/23/87
E As/Indon		04/24/89
605/As/Oc/Eu	11B45 v Gabon	03/21/89
Eu		12/26/88
Eu		03/06/89
Eu/Af		03/21/89
Eu	v Switzerland	03/28/89
Afr		04/17/89
Eu/CA/SA		03/08/89
MA/CA/Eu	20 deg:@23 7355 alt	04/24/89
Norld Service		04/10/89
Eu		03/26/89
W Eu/NA/India/Af		03/26/89
NA/Aus/NZ		04/09/89
Eu		04/02/88
Eu		04/10/89
As/Pac/PapHG		03/17/89
MA/W Eu		03/26/89
Afr		03/22/89
Eu		02/18/89
Eu		03/26/89
ENA/Eu		03/26/89
Eu/Af	INFSaSu	03/13/89
As/Pac/PapNG		12/10/88

2200         2200         Concessionship         R Prague         405         Function         Concessionship         Concessionship <thconcessionship< th="">         Concessionship</thconcessionship<>	****	****		n Landua INL I	TTAND	7/33	3496				USA		03/22/89
2200         0030         Expland         BEC         12959         915         9570         7225         5175         925         MUCA/Larik         615         527         619	2200	2230	Czechoslovakia	R Praque	6055								
2200         0200         Buas         KSDA         15225         15125         4x75E As         Eng 23-01         65/19/99           2200         2230         Japan         F Canada Int'I         1540         11/26 / 98         Japan         30         06         11/26 / 98           2200         2230         Moraay         R Koray         2370         Japan         30         06 / 98         05/22 / 99         06 / 98         07/10 / 98         50         Japan         30         06 / 98         05/22 / 99         06 / 98         07/10 / 98         50         Japan         30         06 / 98         07/10 / 98         07/10 / 98         07/10 / 98         07/10 / 98         07/10 / 98         07/10 / 98         07/10 / 98         07/10 / 98         07/10 / 98         07/10 / 98         07/10 / 98         07/10 / 98         07/10 / 98         07/10 / 98         07/10 / 98         07/10 / 98         07/10 / 98         07/10 / 98         07/10 / 98 <t< td=""><td>2200</td><td>0030</td><td>England</td><td>BBC</td><td>12095</td><td>9915</td><td>9590</td><td>7325</td><td>6175</td><td>5975</td><td></td><td>4345 Sack146 Antiqua</td><td></td></t<>	2200	0030	England	BBC	12095	9915	9590	7325	6175	5975		4345 Sack146 Antiqua	
2200         2257         Italy         RAI         9710         5990         Japan         11726/88           2200         112/2 (NFR)         03720/PPI         200           2200         2200         114/1 (Arb Erice V of Tarkey         2700         975         4401/2 (NFR)         04720/PPI         200         2200         112/2 (NFR)         0471/7 PPI         0470         PDI PPI         200         2200         112/2 (NFR)         112/2 (NFR)         0471/7 PPI         12/2 (NFR)         041/1 (NFR)<	2200	0200	Guae	KSDA	15225	15125							
2200       2200	2200	2225	Italy	RAL	9710	5990							
2200       0200       M Arriana Is       KU01       15405       Japan       340 deg       12403/01         2200       2300       Norway       R Korway       25730       SA	2200	2230	Japan	R Canada Int'I	15440	11705						v Japan	
2200         2230         Norway         F. Horway         2730         Sa         Eng Sun only         63/30/89           2200         2300         Taixan         V of Fore China         1745 1540 15370         9955         More N/1/16         812 v WTR         63/27/89           2200         2300         Turkey         V of Tarkey         1745 1540 15370         9955         More N/1/16         812 v WTR         63/27/89           2200         2300         Minted Arab Exites V of UAE         13405 11955         9955         More N/1         64/17/80         64/17/80           2200         2000         USA         KEGI         15500         Canada         70 deg         64/20/88           2200         2000         USA         KSB         1755 9475         SA         63/726         64/20/89           2200         2000         USA         KSB         1755 97310         EAA         63/2726         63/2726           2200         2000         USA         R Nocou         1130         63/35 4015         More N/1         63/22/89           2200         2300         USSR         R Nocou         1130         63/35 11055         Ma/1/4/MEE         63/22/89           2200         2300 <td></td> <td></td> <td>H Hariana 1s</td> <td>KYOI</td> <td>15405</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>,</td> <td></td>			H Hariana 1s	KYOI	15405							,	
2200       2200       2200       1214an       V of Free China       17415       15440       15720       9755       AuxH//Eu       812 v 97F8       63/27/89         2200       2200       United Arab Eairates       V of Unkey       17260       9485       9455       SE Ar/Eu/MC/NA       64/15/89         2200       2200       USA       KGEI       15700       SA       Su       64/17/89         2200       2200       USA       KGEI       15700       SA       Su       64/17/89         2200       2000       USA       KUSM       15500       United Arab Eairates       90 deg       64/20/89         2200       2000       USA       KUSM       15500       United Arab       64/24/89       63/25/89         2200       2000       USA       KUSM       17550       9455       SA/ME       63/26/89       63/26/89         2200       2000       USA       KVR       21551       17417       91850       7310       EMA       annod 8 more       63/22/89         2200       2000       USA       R Aucow       11750       7775       5460       755       Ma       Ma////WE       63/26/89         2200       2000	2200		Norway	R Norway	25730								
2200       2200       17260       9485       94417       94110       941110       94110       9	2200	2300	Taiwan	V of Free China	17845	15440	15370	9955			AusK2/Eu		03/27/89
2200       2200       USA       K6EI       13405       1945       9595       6170       MA       94/10/89         2200       USA       KUSH       13580       Canada       70 deg       04/10/89         2200       USA       KUSH       13580       Canada       70 deg       04/10/89         2200       USA       MUSH       13580       Canada       70 deg       04/10/89         2200       USA       MUSH       13505       SAME Canada       152/25 deg       04/10/89         2200       USA       MUSH       13505       SAME Canada       152/25 deg       04/24/89         2200       2300       USA       MUFR       21525       17612       11580       Af/MA       05/27/89         2200       2300       USA       R Mescow       11750       770       9885       7310       EMA       ancd 8 sore       05/27/89         2200       2300       Vistraa       V of Vistraa       17630       1755       16401       1700       MA/L       07/25/88       07/27/89       04/24/89       07/25/88       07/26/89       07/26/89       07/26/89       07/26/89       07/26/89       07/26/89       07/26/89       07/26/89       07	2200	2250	Turkey	V of Turkey	17760	9685	9665	9445					
2200       2200       05Å       KEEI       15280       SÅ       Su       04/17/88         2200       1000       USA       MCSN       15580       Lanada       70 deg       04/20/88         2200       2400       USA       MCSN       15580       Lanada       70 deg       04/20/88         2200       2000       USA       MCSN       17555       9495       SA/ME       Canada       70 deg       04/20/88         2200       2000       USA       MCSN       17555       7495       SA/ME       SA/ME       32/25 deg       04/24/89         2200       2300       USSR       R       Necou       11750       97/20       9485       7310       ENA       aancd 8 aore       05/22/89         2200       2300       USSR       R       Valican Radio       11830       9415       04/24       04/24       04/24/89         2202       2210       Vitana State       Valican Radio       11730       17305       160       NA/LA/ME       04/24/89       04/24/89         2202       2203       Vistaa       60 vitican 1500       17305       940       3530       180       1730       1500       NA/LA/ME       04/24/89	2200	2400	United Arab Emirates	V of UAE	13605	11965	9595	6170					
2200       USA       KUSM       15580       Canada       70 deg       64/20/88         2200       USA       MCSM       15300       SA/WE Canada       152/25 deg       64/20/88         2200       USA       MCSM       15300       SA/WE Canada       152/25 deg       64/20/88         2200       2300       USA       MCME       21525 17612 11580       Af/MA       60/25/89         2200       2300       USSR       R Noscow       11750 770 79485 7310       EMA       anned 8 aore       63/22/89         2200       2300       USSR       R Noscow       11750 7975 1540 9860 7765       MA       67/27/89         2300       2301       USSR       R Noscow       11750 7975 1540 9860 7765       Ma/       67/27/89         2300       Vietnas       15010 12030 9840       1775 1540 9860 7755       Ma/       67/27/89         2300       Vietnas       Sofia       11730 9755       Ma/       67/27/89         2300       Stana       Bohan BC Corp       4915 3336       Carib       67/27/89         2300       Stana       R Canada       nt Carib       67/27/89       67/27/89         2300       Stana       R Canada       Intra       11730 9755				KGEI	15280							Su	
2200       2200       USA       MCSM       15300       M Afr       90 deg       0.706/69         2200       0000       USA       MSHB       17555       9495       SA/ME       152/25       deg       0.4/24/89         2200       2300       USSR       R Moscow       11750       9720       985       7310       ENA       anncd 8 more       0.5/25/89         2200       2300       USSR       R Moscow       11750       9720       985       7310       ENA       anncd 8 more       0.5/27/89         2200       2300       USSR       R Vilnius       1750       9720       985       7310       ENA       ans/NL       0.5/27/89         2200       2300       USSR       R Vilnius       1750       1750       1540       13750       1560       Mar/NL       0.5/27/89         2300       2300       Israel       Kol Israel       1720       9785       NA/N Eu       0.7/27/89       0.7/27/89         2300       2300       Israel       Kol Israel       11710       9775       Sc40       150       1605       NA/N Eu       0.7/27/89         2300       2300       Israel       Kol Israel       15040       15615 <td>2200</td> <td>0100</td> <td>USA</td> <td>KUSN</td> <td>15580</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td>	2200	0100	USA	KUSN	15580								
2200       0000       USA       MSB       1755       945       SA/NE Canada       152/25       deg       0/24/499         2200       2300       USA       MYFR       2152       1751       1750       772       9485       7310       ENA       annot 8 more       03/25/49         2200       2300       USA       R Valians       1765       15455 <td>2200</td> <td></td> <td>USA</td> <td>NCSN</td> <td>15300</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>¥ Afr</td> <td></td> <td></td>	2200		USA	NCSN	15300						¥ Afr		
2200       2300       USA       WYR       21575       17412       11500       Af/NA       03/25/89         2200       2300       USSR       R Moscow       11750       7720       9485       7310       DNA       anncd B more       03/25/89         2200       2300       USSR       R Vilnius       1765       15455       155240       9840       7765       MA       03/25/89         2202       2330       Israel       Kol Israel       17630       17575       15440       15750       1402       03/25/89         2230       2330       Israel       Kol Israel       17630       17575       15440       11550       Ma/NI       04/24/87       04/24/87         2300       Vietnas       U of Vietnas       101       12030       9840       07755       Ma/N       Eu       04/24/87         2300       2305       Biaral       R Canda Int'1       11730       9755       Carib       03/25/87       03/25/87         2300       2305       Larale       Kol Israel       1540       15415       11800       B0/54s/Es/ME/Af       11900       V Babon       02/26/87         2300       2305       Israel       Kol Israel       15				WSHB	17555	9495					SA/NE Canada		
2200       2200       USSR       R Norcow       11750       9720       9485       7310       ENA       ancd 8 more       03/27/89         2200       2230       USSR       R Vilnius       17650       15435       1540       9765       MA       03/27/89         2230       2330       Israel       Vatican Radio       1180       9415       15640       13750       16400       13750       16401       13750       16401       03/27/89         2230       2300       Vietnaa       V of Vietnaa       15010       12030       9840       04/24/89       09/75/88         2245       Shana       Bhana 8C Corp       4915       3366       Na/K Eu       03/22/89         2300       0000       Bulgaria       R Sofia       11720       9700       NA/K Eu       03/22/89         2300       2300       Canada       R Lanada Int'l       11730       9755       Carib       05/74/89         2300       2300       Lanada       R Usenbourg       609       regional       03/22/89       03/22/89         2300       2400       Japan       R Japan       1520       15185       11810       11800       BoS/Ar/Eu/ME/Af       11800 v Babon <td< td=""><td>2200</td><td>2300</td><td>USA</td><td>WYFR</td><td>21525</td><td>17612</td><td>11580</td><td></td><td></td><td></td><td></td><td></td><td></td></td<>	2200	2300	USA	WYFR	21525	17612	11580						
2200       2225       V41stan State       V41iniws       17465       15455       15240       9860       9765       Ma       03726/89         2205       2225       V41stan State       V41ican Radio       11830       9815       6015       Max/M2       03727/89         2230       Israel       Kol Israel       17530       1757       1540       13750       11605       Ma/LA/M&E       04/24/89         2245       2305       Shana       Ghana BC Corp       4115       3366       Ma/LA/M&E       04/24/89       04/24/89         2300       000       Bulgaria       R Sofia       11720       9700       Ma/N Eu       03722/89         2300       2300       Israel       Kol Israel       1540       15815       11800       605/As/Eu/K/Af       11800 v Sabon       04/24/89         2300       2300       Israel       Kol Israel       1540       15815       11800       86       057/as/Eu/K/Af       11800 v Sabon       02/26/83         2300       2300       Israel       R Japan       15230       15195       11810       11800       86/As/Eu/Ke/Af       11800 v Sabon       02/26/83         2300       2300       1600       Work Korea       R	2200	2300	USSR	R Noscow	11750	9720	9685	7310				anned 8 more	
2205       221       Valtcan State       Valtican Radio       11830       9615       6015       Mur/M2       057/27/89         2230       2330       Israel       Kol Israel       17/30       177/3       15640       137/30       1605       Mar/LA/MkE Eu       04/24/89         2230       2300       Viet Naa       Ghana BC Corp       4915       3366       News in English       12/25/87         2300       0000       Bulgaria       R Sofia       11720       9700       MA/M Eu       03/22/89         2300       0230       Israel       Kol Israel       11730       9755       Carib       03/22/89         2300       2300       Japan       R Japan       1520       11815       11810       1800       605/As/Eu/ME/Af       11800 v Sabon       02/26/89         2300       2300       2300       Japan       R Japan       1520       11815       11810       1800       605/As/Eu/ME/Af       11800 v Sabon       02/26/89         2300       2300       1606       Luxeebourg       R Moray       15190       Ma       Ma/CA       Eng Sun only       03/25/89         2300       0000       USSR       R Moray       15190       1750       9685 <td>2200</td> <td>2230</td> <td></td> <td>R Vilnius</td> <td>17665</td> <td>15455</td> <td>15240</td> <td>9860</td> <td>9765</td> <td></td> <td></td> <td></td> <td></td>	2200	2230		R Vilnius	17665	15455	15240	9860	9765				
2230       230       Israel       17630       17575       15640       13750       11605       NA/LA/NAE Eu       04/24/89         2230       2300       Vietaa       V of Vietaa       15010       12030       9840       07/25/88         2245       Shana       Bhana       Bhana BC Corp       4915       3366       News in English       12/23/87         2300       2300       Canada       R Canada Int'l       11720       9700       NA/LA/NAE       Carib       03/22/89         2300       2300       Israel       Kol Israel       15640       15615       11800       BS/Sa/Eu/NE/Af       11800 v Sabon       03/22/89         2300       2301       Israel       Kol Israel       0490       regional       03/22/89         2300       2300       Bold       Korea       R Pyongyang       1540       1510       1800       BS/Sa/Eu/NE/Af       11800 v Sabon       03/26/89         2300       2300       Mort K Korea       R Pyongyang       15450       11755       Na       Ae       Isso other freq 's       03/26/89         2300       0000       USA       WFR       11580       NA       Sabo       03/26/89       03/26/89         2300<	2205	2225	Vatican State	Vatican Radio	11830	9615	6015				Aus/N2		
2250       2300       Vietnaa       15010       12030       9840       09/25/88         2245       2255       Shana       Bhana BC Corp       4915       3366       News in English       12/23/87         2300       0000       Bigaria       R Sofia       11720       9700       NA/N Eu       03/26/89         2300       2300       Canada       R Canada Int'l       11730       9705       Carib       03/26/89         2300       2300       Lanada       R Canada Int'l       11730       9705       Carib       03/26/89         2300       2300       Japan       R Japan       15230       1519       11810       11800       BOS As/Eu/ME/Af       11800 v Sabon       02/26/89         2300       2300       Japan       R Luceabourg       6090       Statis       11735       Aa       Aa       12/28/87         2300       2300       Work Korea       R Pyongyang       13550       11735       Aa       Aa       3a other freg's       03/27/89         2300       2300       0000       USA       MYF R       11580       NI       11750       9655       9720       7310       7215       EMA       also other freg's       03/27/89	2230	2330	Israel	Kol Israel	17630	17575	15640	13750	11605		NA/LA/WAE Eu		
2245       2255       6hana BC Corp       4915       3366       Mews in English       12/23/87         2300       0000       Bulgaria       R Sofia       11720       9700       MA/N Eu       03/22/89         2300       2300       Canada       R Canada Int'l       11730       9755       Carib       03/22/89         2300       2300       Israel       Kol Israel       15400       15615       1605       MA       04/24/89         2300       0400       Japan       R Japan       15230       15195       1815       1810       1800       80S/As/Eu/NE/Af       11800 v Sabon       02/20/89         2300       0400       Luxembourg       R Luxeabourg       6090       regional       7200       720       730       7215       MA       63       03/22/89         2300       0400       USA       WYR       11500       1750       7310       7215       ENA       also other freq's       03/22/89         2300       0400       USA       R Polania       925       720       7310       7215       ENA       also other freq's       03/22/89         2300       0400       USA       R Polania       925       720       7310			Vietnam	V of Vietnam	15010	12030	9840						
2300       0000       Bulgaria       R Sofia       11720       9700       NA/W Eu       03/26/89         2300       2330       Canada       R Canada Int'l       11730       9755       Carib       03/22/99         2300       2300       Israel       Kol Israel       15640       15615       1605       NA       03/22/99         2300       2300       Israel       R Japan       15730       15195       11815       11810       1000       BOS/As/Eu/ME/Af       11800 v Gabon       02/20/89         2300       0100       Luxembourg       R Luxembourg       6090       regional       03/26/89         2300       2300       0100       Luxembourg       R Morway       15190       NA/CA       Eng Sun only       03/26/89         2300       2300       0000       USA       WFR       11580       NA       EuK       also other freq's       03/26/89         2300       0000       USA       R Polania       9525       7270       7145       6135       Eu/NA       also other freq's       03/26/89         2300       0302       Carial       R Canada Int'l       9725       770       7145       6135       Eu/NA       03/26/89       03/26/89	2245	2255	Shana	Ghana BC Corp	4915	3366						News in English	
2300       2330       Canada       R Canada       R Canada       03/22/89         2300       2330       Israel       Kol Israel       1540       15451       1605       NA       04/24/89         2300       2300       Japan       15230       15195       11810       11800       905/As/Ex/FE/Af       11800 v Babon       02/20/89         2300       2400       Japan       15230       15195       11815       11810       11800       905/As/Ex/FE/Af       11800 v Babon       02/20/89         2300       2400       Japan       15230       15195       11815       11810       11800       905/As/Ex/FE/Af       11800 v Babon       02/20/89         2300       2300       Morth Korea       R Pyongyang       13650       11735       Ae       12/28/87         2300       2300       0000       USSR       R Morway       15190       NA       Eng Sun only       03/35/89         2300       0000       USSR       R Polania       7525       770       7310       7215       ENA       also other freq's       03/26/89         2330       0000       Albania       R Cinada Int'l       9725       770       7310       7215       ENA       03/26	2300	0000	Bulgaria	R Sofia	11720	9700					NA/W Eu		
2300       2300       2300       Jarael       Kol Israel       15640       15615       11605       MA       04/24/89         2300       2400       Japan       R Japan       1520       15175       11810       11800       605/As/Es/ME/Af       11800       02/20/89         2300       2400       Luxembourg       R Luxeebourg       6090       regional       03/26/89         2300       2300       Morth Korea       R Pyongyang       1350       11735       Ae       12/20/87         2300       2300       Morth Korea       R Pyongyang       1350       11735       Ae       12/20/87         2300       0000       USA       WYR       11590       MA/CA       Eng Sun osly       03/25/89         2300       0000       USA       WYR       11590       700       7310       7215       ENA       also other freq's       03/25/89         2300       0000       USA       R Moreay       17605       11750       745       6135       Eu/MA       also other freq's       03/25/89         2300       0000       Albania       R Tirana       11825       9760       MA       We/SA       03/26/89         2330       0000				R Canada Int'l	11730	9755							
2300         0100         Luxembourg         R         Ruxembourg         6090         regional         037/87/807           2300         2350         Morth Korea         R         Pyongyang         13650         11735         Ae         037/87/87           2300         2350         Morthay         R         Morway         15190         NA/CA         Eng Sun only         037/26/87           2300         2300         USA         WYFR         11580         NA/CA         Eng Sun only         037/25/89           2300         0000         USA         WYFR         11580         NA         Also other freq's         03/25/89           2300         0000         USA         R         Polania         7525         770         7310         7215         ENA         also other freq's         03/25/89           2300         0000         USA         R         Frana         11825         9760         NA         03/26/89           2300         0000         Albasia         R         Tirana         11825         9750         NA         03/22/89           2300         0030         Canada         R Canada Int'l         9755         5950         NA         News/Eng erc Su			Israel	Kol Israel	15640	15615	11605				MA		
2300         2350         Morth Korea         R Programa         1350         1375         Activity         03728/87           2300         2330         Morth Korea         R Programa         15190         MA/CA         Eng Sun only         03728/87           2300         0000         USA         WYFR         11590         NA         03725/89           2300         0000         USA         WYFR         11590         NA         03725/89           2300         0000         USA         WYFR         11590         NA         03725/89           2300         0000         USA         R Moreav         17605         11705         9685         9720         7310         7215         ENA         also other freq's         03725/89           2300         0000         Albania         R Tirana         11825         9760         NA         03726/89           2330         0000         Albania         R Canada Int'1         9725         NA         Subho-0100         03/22/89           2330         0000         Hungary         R Bedapest         15160         11910         9835         9520         6110         NA         exc Su         03/26/89           2330			Јаран	R Japan	15230	15195	11815	11810	11800		BOS/As/Eu/WE/Af	11800 v Sabon	02/20/89
2300         2330         Normay         R Morway         15190         NA/CA         Eng Sun only         03/25/89           2300         0000         USA         WYFR         11580         NA         03/25/89           2300         0000         USA         WYFR         11580         NA         03/25/89           2300         0000         USA         R Morway         17405         11750         9685         9720         7310         7215         ENA         also other freq's         03/25/89           2305         2355         Polania         9525         7270         7145         6135         Eu/NA         03/26/89           2330         0000         Albania         R Tirana         11825         9760         NA         03/26/89           2330         0300         Canada         R Canada Int'l         9755         5960         NA         Sathwo-0100         03/22/89           2330         0300         Canada         R Canada Int'l         9755         5950         510         NA         News/Eng exc Su         03/26/89           2330         0300         Greece         V of Greece         15160         11910         9835         9520         6110				R Luxembourg	6090						regional		03/26/89
2300       0000       USA       WFR       11500       NA       03/30/87         2300       0000       USSR       R Moscow       17605       11750       9685       9720       7310       7215       EMA       also other freq's       03/32/89         2305       2355       Polania       R Tirana       11825       9720       7310       7215       EMA       also other freq's       03/26/89         2330       0000       Albania       R Tirana       11825       9760       NA       03/26/89         2330       0300       Canada       R Canada       1112       9725       MA/SA       03/26/89         2330       0300       Granda       R Canada       1112       9725       MA       03/26/89         2330       0300       Granda       R Canada       1112       975       5960       USA       SutMo=0100       03/22/89         2330       0300       Granda       R Canada       15160       11910       9835       9520       6110       NA       Rews/Eng exc Su       03/26/89         2330       0400       Witgeral and       R Suiss Int'1       6190       Eng       0501/188       03/26/89         2330				R Pyongyang	13650	11735					An		12/28/87
2300         0000         USSR         R         Hoscow         17605         11750         9685         9720         7310         7215         ENA         also other freq's         03/25/09           2305         2355         Poland         R         Polania         9525         7270         7145         6135         Eu/MA         also other freq's         03/26/09           2330         0000         Albania         R         Tirana         11825         9760         NA         03/26/09           2330         2355         Belgiua         BRT         9725         MA/SA         03/26/09           2330         0300         Canada         R         Canada         Int'l         9755         5760         NA         03/26/09           2330         0300         Genada         R         Canada         Int'l         9755         NA         Hews/Eng exc Su         03/26/09           2330         0300         Hungary         R         Budapest         15160         11910         9835         9520         6110         NA         exc Su         03/26/09           2330         0400         Witzerland         R         Swiss Int'l         6190         Eu				,	15190						NA/CA	Eng Sun only	03/30/89
2305       2355       Polania       Polania       Pola       Polania       Pola       Pola </td <td></td> <td></td> <td></td> <td></td> <td>11580</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>NA</td> <td></td> <td>03/25/89</td>					11580						NA		03/25/89
2330       0000       Albania       R Tirana       1125       9760       NA       03/26/89         2330       02355       Belgiua       BRT       9925       NA       03/22/87         2330       0030       Canada       R Canada       1197       9755       5960       USA       Sukho-0100       03/22/87         2330       0300       Ganada       R Canada       11575       5960       USA       Sukho-0100       03/22/87         2330       0300       Gereece       V of Greece       11595       9375       NA       News/Eng exc Su       03/26/87         2330       0000       Hungary       R Budapest       15160       11910       9835       9585       9520       6110       NA       exc Su       03/26/89         2330       0000       Hungary       R Budapest       15160       11910       9835       9585       9520       6110       NA       exc Su       03/26/89         2330       0000       Hungary       R Korea       15575       Aa       11/057/88       05/01/98         2330       0000       USSR       R Kiev       17655       15435       15240       9860       9800       9750       NA <td></td> <td></td> <td></td> <td></td> <td>17605</td> <td></td> <td></td> <td></td> <td>7310</td> <td>7215</td> <td>ENA</td> <td>also other freq's</td> <td>03/27/89</td>					17605				7310	7215	ENA	also other freq's	03/27/89
2330       2355       Belgiua       BRT       1702       MA       03748767         2330       2355       Belgiua       BRT       9725       MA/SA       03711789         2330       0030       Canada       R Canada Int'l       9735       5760       USA       SubHo-0100       03/22/89         2330       0300       Hungary       R Bedapest       15160       11910       9835       9520       6110       NA       Hews/Eng exc Su       03/26/89         2330       0030       South Korea       R Korea       15575       Aa       11/05/88       03/26/89         2330       0000       USSR       R Kiev       17655       15400       9840       9800       9750       Aa       11/05/88         2330       0000       USSR       R Kiev       17655       15405       15240       9860       9800       9750       NA       03/26/89         2330       2400       Vietnam       V of Vietnam       15010       12030       9840       03/25/89       03/25/89         2340       Vietnam       V of Vietnam       15010       12030       9840       03/25/89         23400       Vietnam       V of Vietnam       15010 <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>7145</td> <td>6135</td> <td></td> <td></td> <td>Eu/NA</td> <td></td> <td>03/26/89</td>							7145	6135			Eu/NA		03/26/89
2330         0030         Canada         R Canada         Int'l         9755         5960         USA         SutMo=0100         03/22/89           2330         0300         Greece         V of Greece         11595         9375         NA         News/Eng exc Su         03/26/89           2330         0000         Hungary         R Budapest         15160         11910         9835         9585         9520         6110         NA         exc Su         03/26/89           2330         0030         South Korea         R Korea         15375         Aa         11/05/88         11/05/88           2330         0400         Switzerland         R Suiss Int'l         6190         Eu         05/01/88         03/26/89           2330         0400         Suitzerland         R Suiss Int'l         6190         Eu         05/01/88         03/26/89           2330         2400         Vietnaa         15010         12030         9840         03/26/89         03/26/89         03/26/89           2340         Vietnaa         V of Vietnaa         15010         12030         9840         03/26/89         03/26/89           2345         0330         Geraan Bea Rep         R Berlin Int'l         1189						9760					NA ·		03/26/89
2330       2340       Greece       V of Greece       1195       9375       NA       Hews/Eng exc Su       03/26/89         2330       0000       Hungary       R Budapest       15160       11910       9835       9585       9520       6110       NA       Hews/Eng exc Su       03/26/89         2330       0000       Hungary       R Budapest       15160       11910       9835       9585       9520       6110       NA       exc Su       03/26/89         2330       0000       Witzerland       R Korea       15575       480       9800       9750       As       11/05/88         2330       0000       USSR       R Kiev       17645       15435       15240       9860       9800       9750       NA       03/26/89         2330       2400       Vietnan       V of Vietnan       15101       12030       9840       9800       9750       NA       03/26/89         2345       0330       German Ben Rep       R Berlin Int'l       11890       6080       EMA       03/26/89											MA/SA		03/11/89
2330         0000         Hungary         R Budapest         15160         11910         9835         9520         6110         NA         exc Su         03/26/89           2330         0030         South Korea         R Korea         15575         As         11/05/88           2330         2400         Switzerland         R Swiss Int'i         6190         P800         9750         NA         05/26/89           2330         2400         Vietnan         V of Vietnan         15101         12030         9840         9900         9750         NA         03/26/89           2345         0030         Berman Ben Rep         R Berlin Int'l         11890         6080         EMA         03/26/89											USA	SelMo-0100	03/22/89
Z330         D030         South Korea         R Korea         15575         As         11/05/88           2330         2400         Switzerland         R Swiss Int'l         6190         Ew         05/01/88           2330         0000 - USSR         R Kiev         17655         15455         15240         9860         9750         NA         03/26/89           2330         2400         Vietnam         15010         12030         9840         9750         NA         03/26/89           2345         0030         German Ben Rep         R Berlin Int'l         11890         6080         EMA         03/26/89				V of Greece	11595	9375					NA	News/Eng exc Su	03/26/89
2330         2400         Switzerland         R Swiss Int'i         6190         Ew         05/01/08           2330         0000 - USSR         R Kiev         17665 15435 15240 9860 9800 9750         NA         05/26/89           2330         2400         Vietnam         V of Vietnam         15010 12030 9840         09/25/88           2345         0030         German Ben Rep         R Berlin Int'l         11890 6080         EMA         03/26/89					15160	11910	9835	9585	9520	6110	#A	exc Su	03/26/89
2330         0000 - USSR         R Kiev         17665         15435         15240         9860         9750         NA         03/26/89           2330         2400         Vietnam         V of Vietnam         15010         12030         9840         9750         NA         03/26/89           2345         0030         German Ben Rep         R Berlin Int'l         11890         6080         EMA         03/26/89					15575						Aa		11/05/88
2330         2400         Vietnam         V of Vietnam         15010         12030         9840         99/25/88         09/25/88           2345         0030         German Ben Rep         R Berlin Int'l         11890         6080         EMA         03/26/89					6190						Eu		05/01/88
2345 0030 German Dem Rep R Berlin Int'l 11890 6080 EMA 03/26/89					17665	15455	15240	9869	9800	9750	NA		03/26/89
					15010	12030	7840						09/25/88
2345 0145 Mew Zealand R New Zealand fat'l 17705 15130 Pac/Aus/Melanesia 02/24/89					11890	6080					ENA		03/26/89
	2345	0145	Hew Lealand	R New Zealand Int'l	17705	15150					Pac/Aus/Helanesia		02/24/89

## All Records Included

### ENGLISH LANGUAGE DX SHOWS: By Day of Week Compiled by Thomas R. Sundstrom, W2XQ

Shortwave DX Program		Start	Country	Station	Freq #I	Freq #2	Freq #3	Freq #4		Freq #6	Freq \$7	Target Area	Notes re DX Show	Record Last Updated
ay ny manana ao amin'	*****													
FF DAY OF THE WEEKS SA		2330	Presider	R Canada Int'l	0755	5960						USA		03/22/89
SWL Digest	0005	2330	Canada Cuba	R Havana	11820							Americas		09/25/88
Diers Unlimited Communications World		0000	USA	VGA		11580	0775	0155	5995			Caribbean/LA		11/12/88
SWE Digest		0100	Canada	R Canada Int'l		11940			9535			LA		03/22/89
DX Party Line	0200	0035	Ecuador	HCJ8		11775		71.55	1200			KA		02/18/89
6W Herry-Go-Round	0220	0200	Switzerland	R Swiss lat'l		12035		0725	4175	6095		NA		05/16/86
Commicator	0230	0200	Australia	R Australia						15160		As/Pac/PapNG		05/21/88
DX Asiawaves	0230		Guan	KSDA		11700		10070	13240	11100		As		02/05/89
Diers Unlimited	0235	0200	Cuba	R Havana		9655						Americas		09/25/88
		0200		Radio RSA		9615						NA		03/18/89
Bonaire Navelength		0210			11730		1200					NA		02/19/89
SW Merry-Go-Round	0420		Switzerland	R Swiss Int'l	12035		9725	6135				NA		05/16/86
OXers Unlimited		0400		R Havana		11760		5965				Americas		09/25/88
DX Party Line	0600		Ecuador	HCJB		9745						NA		03/29/89
Diers Unligited	0635		Cuba	R Havana	11835		92.30					Americas		09/25/88
SW Feedback	0635	0500	South Korea	R Korea		7275	6060					Aa/60S		11/05/88
Communicator	0730	0730	Australia	R Australia					15140	9655		As/Pac/PapNG		12/27/87
SW Feedback	0835	0800	South Korea	R Korea		7550		13349	13100	1033		Eu		02/26/89
	0845	0805		KTWR	11805							Far East		04/22/88
AWR DI Program	0915	0900	Portugal	AWR Europe	9670							Eu		10/30/88
DI Corner		0900	Japan	R Japan	17810							605/As/Dc		04/03/88
SW Club		0945	Hungary	R Budapest		11910	9835	95.95	9520	6110		Eu		03/26/89
Shortwave Panorama	1030	1030	Austria	ORF		15450		100	1320	0110		Aus/As		04/01/89
Shortwave Panorama		1130	Austria	ORF		15450						ENA/As/Aus		04/01/89
SW Feedback	1135	1100	South Korea	R Korea	15575							ME/Afr		02/26/89
DX Programe	1200			R Tashkent			0100	0540	7325			As	Su after 2nd Sat/mo	

Communicator	1230	1230	Australia	R Australia	9770	9710	9580	7215	7205	6080	6060	As/Pac/PapNG	12/25/87
Shortwave Panorama	1430	1430	Austria	ORF	21490	13730	11780	6155				W Af/SE As/Eu	04/01/89
SW Feedback	1435	1400	South Korez	R Korea	15575	9750	9570					Aa/SE As	11/05/88
DX Corner	1525	1500	Japan	R Japan	21700	11815	9505					605/As/As/Eu/HE	04/03/88
SW Feedback	1635	1600	South Korea	R Korea	9970	5975						ME/Afr/GOS	11/05/88
Communicator	1730	1530	Australia	R Australia	9580	7215	7205	6080	6060	6035	5995	As/Pac/PapNG	12/27/87
DX Show & Mailbag	1815	1800	USSR	R Kiev	7240	6165	6090	6010				Eu	03/26/89
SH Feedback	1835	1800	South Korea	R Korea	15575							Eu	11/05/88
DI Corner	1840	1800	South Africa	Radio RSA	21535	17795						UK/Ireland	02/05/88
DX Corner	1920	1900	Israel	Kol Israel	17630	17590	15640	13750	11605			AF/N&E Eu/NA	04/24/89
DX Spot	1930	1900	Spain	Spanish Nat'l R	15395	15375	15280	11790				Afr/ME/Ew	01/01/89
DX Corner	1940	1900	South Africa	Radio RSA	21590	17795	7295					Afr/HE	02/05/88
Communicator	2030	2030	Australia	R Australia	9620							As/Pac/PapNG	12/25/87
World of Radio	2030	1700	USA	WRNO	15420							NA/CA/Es	03/08/89
World of Radio	2100	1600	Costa Rica	R for Peace	25945	21565							04/13/89
SW Feedback	2105	2030	South Korea	R Korea	15575	7550	6480					Eu/NE/Afr	11/05/88
DX Spot	2130	2100	Spain	Spanish Nat'l R	15280	11790						Eu	01/01/89
DX Corner	2150	2130	Israel	Kol Israel									04/24/89
R Sofia Calling	2215	2130	Bulgaria	R Sofia	11720	9700						NA/W Eu	03/26/89
SWL Digest	2305	2300	Canada	R Canada Int'l	11730	9755						Carib	03/22/89
DX Corner	2320	2300	Israel	Kol Israel	15640	15615	11605					NA	04/24/89
<b>DX Asiawaves</b>	2330	2200	6420	KSDA	15225	15125						As/SE As	02/05/89
R Sofia Calling	2345	2300	Bulgaria	R Sofia	11720	9700						NA/W Eu	03/26/89
DX Show & Mailbag	2345	2330	USSR	R Kiev	17665	15455	15240	9860	9800	9750		NA	03/26/89
** DAY OF THE WEEK:	Honday												
SW Feedback	0005	2330	South Korea	R Korea	15575							An	11/05/88
DX Corner	0020	0000	Israel	Kol Israel	15640	15615	11605					MA	04/24/89
DX Spot	0030	0000	Spain	Spanish Nat'l R	15110	9630						NA	01/01/89
DX Corner	0120	0100	Israel	Kol Israel	15640	15615	11605					NA	04/24/89
DX Corner	0125	0100	Japan	R Japan	17880	17845	17835	17810	5960			GOS/Asia/NA	04/03/88
DX Spot	0130	0100	Spain	Spanish Nat'l R	15110	9630						NA	01/01/89
DX Show & Mailbag	0215	0200	USSR	R Kiev				9860	9800	9750		NA	03/26/89
DX Corner	0245	0200	South Africa	Radio RSA	11730	9615	9585					MA	02/28/88
DX Corner	0325	0300	Japan	R Japan	21610	17835	17825	17810	17765	15325	15195	GOS/Asia/NA	04/03/88
R Sofia Calling	0345	0300	Bulgaria	R Sofia	11840	11735	9560	7115				Afr/NA	03/26/89
Waveguide	0530	0430	England	BBC			5975					WS: NA/CA/Carib	12/19/88
DX Spot	0530	0500	Spain	Spanish Nat'l R	15110							MA	01/01/89
Radio World	0705	0700	Belgius	BRT	21815	11695						SE As/Aus	03/11/89

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DX Party Line	0800	0700	Ecuador	HCJB	11925 9745 6130 S Pac	03/29/89
Radio World	0905	0900	Belgium	BRT	26050 21810 17595 9925 Afr/Eu	03/11/89
DX Party Line	1030	1030	Ecuador	HCJB	11925 6130 S Pac	03/29/89
DX Asiawaves	1030	1000	Guan	KSDA	13720 11980 As	02/05/89
Radio World	1235	1230	Belgium	BRT	21815 17555 SE As/NA	03/11/89
SH Club	1515	1515	Hungary	R Budapest	15160 11910 9835 9585 9520 6110 Eu	03/26/89
Diers Calling	2030	1945	India	AIR	11860 11620 9910 9755 7412 605/W Eu/Afr biweekly	12/26/88
RBI DX Club	2120	2100	German Dea Rep	R Berlin Int'I	9730 ENA biweekly	03/26/89
DX Party Line	2130	2130	Ecuador	HCJB	21470 17790 15270 Eu	05/03/86
RBI DX Club	2205	2145	German Dem Rep	R Berlin Int'l	9730 5965 ENA/Eu biweekly	03/26/89
DX Program	2245	2200	USSR	R Moscow	11750 9720 9685 7310 ENA	03/27/89
++ DAY OF THE NEEK:	Tuesday	,				
RBI DX Club	0005	2345	German Dem Rep	R Berlin Int'l	11890 6080 ENA biweekly	03/26/89
DX Program	0045	0000	USSR	R Hoscow	17605 9685 9720 9605 7310 7215 ENA	03/27/89
RBI DX Club	0120	0100	German Den Rep	R Berlin Int'l	11890 6080 ENA biweekly	03/26/89
SW Club	0130	0130	Hungary	R Budapest	15160 11910 9835 9585 9520 6110 NA	03/26/89
DX Party Line	0200	0035	Ecuador	HCJB	15155 11775 9745 NA	02/18/89
RBI DX Club	0205	0145	German Dem Rep	R Berlin Int'l	11890 11785 9620 6080 ENA/WNA biweekly	03/26/89
DX Program	0245	0000	USSR	R Moscow	17605 9685 9720 9605 7310 7215 ENA	03/27/89
Sweden Calling Dier	5 0305	0200	USA	WHRI	9495 7365 Eu/CA/SA R Earth repe	
RBI DY Club	0320	0300	German Dem Rep	R Berlin Int'l	11785 9620 WNA biweekly	03/26/89
SW Herry-Go-Round	0320	0200	USA	WHRI	9495 7365 Eu/CA/SA R Earth repe	
DI Program	0345	0300	USSR	R Noscow	15455 15425 15240 12050 NNA	03/27/89
RBI DX Club	0405	0345	German Den Rep	R Berlin Int'l	11785 9620 WHA biweekly	03/26/89
DI Prograe	0545	0300	USSR	R Noscow	15455 15425 15240 12050 NNA	03/27/89
DX Party Line	0600	0500	Ecuador	HCJB	11775 9745 6230 NA	03/29/89
Waveguide	1115	1100	England	BBC	11775 9515 6195 WS: WA/CA/Carib	12/19/88
SWL Digest	1230	1200	Canada	R Canada Int'l	17820 11855 9635 Carib/USA	03/22/89
Sweden Calling Dier	rs 1240	1230	Sweden	R Sweden	21610 17705 As/Pac	09/21/88
Sweden Calling Dies	rs 1410	1400	Sweden	R Sweden	21610 17705 As/Pac	09/21/88
Sweden Calling Dier	rs 1540	1530	Sweden	R Sweden	21610 17880 17705 NA/As/Pac	09/21/88
World of Radio	1700	1600	Costa Rica	R for Peace	25945 21565	04/13/89
Sweden Calling Dier	rs 1810	1800	Sweden	R Sweden	9615 6065 Eu/Af	09/21/88
SWL Digest	1905	1900	Canada	R Canada Int'l	17820 15260 13680 Afr	03/22/89
Sweden Calling Dier	rs 2110	2100	Sweden	R Sweden	11705 9655 Eu/Af	09/21/88
World of Radio	2300	1600	Costa Rica	R for Peace	25945 21565	04/13/89
** DAY OF THE WEEK:	Wednesd	tay				
Sweden Calling Dier	rs 0110	0100	Sweden	R Sweden	17790 15390 As/Pac	03/21/89

SH Club	0130	0130	Hungary	R Budapest	15160 11910 9835 9585 9520 6110 MA	03/26/89
World of Radio	0300	0100	Costa Rica	R for Peace	21565 13660	04/13/89
SWL Digest	0305		Austria	R Canada Int'l	11730 ME	03/22/89
Sweden Calling Dier		0300		R Sweden	11703 9695 NA	03/21/89
Hae Radio Today	0800	0700	Ecuador	HCJB	11925 9745 6130 S Pac	03/26/88
Ham Radio Today	1030	1030		HCJB	11925 6130 S Pac	03/26/88
Dier's Special	1750	1730	Argentina	RAE	15345 Eu/Afr	02/26/88
Ham Radio Today	2130	2130	Ecuador	HCJB	21470 17790 15270 Eu	01/30/88
Dier's Special	2220	2200	Argentina	RAE	9690 Eu/Af	02/26/88
IN DAY OF THE WEEK:	Thursda	i y				
Waveguide	0130	0030	England	BBC	12095 9915 9590 7325 6175 5975 WS: NA/CA/Carib	12/19/88
Ham Radio Today	0200	0035	Ecuador	HCJB	15155 11775 9745 NA	02/18/89
Dier's Special	0220	0200	Argentina	RAE	9690 Americas	02/26/88
DXer's Special	0420	0400	Argentina	RAE	9690 Americas	02/26/88
Ham Radio Today	0600	0500	Ecuador	HCJB	11775 9745 6230 NA	03/29/89
Media Network	1050	1030	Netherlands	R Nederland	9675 6020 Aus/Carib	04/10/88
<b>Media Network</b>	1150	1130	Netherlands	R Nederland	21615 21480 17575 9715 5955 Eu/ME/As	08/22/86
Hedia Network	1450	1430	Netherlands	R Nederland	17605 17575 15150 13770 5955 S&E As/Eu	09/04/86
SW Club	1515	1515	Hungary	R Budapest	15160 11910 9835 9585 9520 6110 Eu	03/26/89
World of Radio	1530	1500	USA	WRND	11965 NA/CA	03/08/89
<b>Hedia Network</b>	1650	1630	Netherlands	R Nederland	15570 6020 S&E Afr	09/04/85
World of Radio	1700	1600	Costa Rica	R for Peace	25945 21565	
Media Network	1850	1830	Netherlands	R Nederland	21685 17605 15560 Afr	08/22/86
Media Network	2050	2030	Netherlands	R Nederland	15560 13700 9860 W Afr	08/22/86
World of Radio	2300	2100	USA	WRNO	13720 NA/CA/Eu	03/08/89
** DAY OF THE WEEK:	Friday					
Media Network	0050	0030	Netherlands	R Nederland	15315 6165 6020 ENA	03/17/89
SW Club	0130	0130	Hungary	R Budapest	15160 11910 9833 9585 9520 6110 NA	03/26/89
Nedia Network	0350	0330	Netherlands	R Nederland	9590 6165 WNA	03/17/89
DX Show	1515	1500	Portugal	R Portugal	15245 India/ME	04/10/89
DI Show	1915	1900	Portugal	R Portugal	15250 11870 Afr	11/13/97
DI Show	2015	2000	Portugal	R Portugal	11740 Eu	04/10/89
R Sofia Calling	2045	2030	Bulgaria	R Sofia	11735 11720 9700 Eu/NA 1st of wkend se	
World of Radio	2100	1600	Costa Rica	R for Peace	25945 21565	04/13/89
R Sofia Calling	2325	2300	Bulgaria	R Sofia	11720 9700 NA/W Eu	03/26/89

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++ DAY OF THE NEEK:	Saturda	iy .				
World of Radio	0100	0100	Costa Rica	R for Peace	21565 13660	04/13/89
SH Club	0130	0130	Nungary	R Budapest	15160 11910 7835 7585 7520 6110 NA	03/26/89
DX Show	0245	0230	Portugal	R Portugal	11840 9705 9680 9600 SA/NA	01/16/88
World of Radio	0300	0300	USA	WRND	6185 NA/CA	03/08/89
SWL Digest	0330	0300	Austria	R Canada Int'l	11730 ME	03/22/89
R Sofia Calling	0645	0630	Bulgaria	R Sofia	11720 9700 W Eu	03/26/89
DX Party Line	0800	0700	Ecuador	HCJB	11925 9745 6130 S Pac	03/29/89
Pacific DI Magazine	1000	0930	Suan	KTWR	11805 AusHZ	10/28/88
DX Party Line	1030	1030	Ecuador	HCJB	11925 6130 S Pac	03/29/89
SW Club	1030	1030	Hungary	R Budapest	15160 11910 9835 9585 9520 6110 Eu	03/26/89
SW Herry-Go-Round	1115	1100	Switzerland	R Swiss Int'l	21550 17830 15570 13635 SE As/Aus/WZ	09/06/86
Bonaire Wavelength	1145	1110	Netherland Antilles	Trans World Radio	15345 11815 NA	02/05/89
Radio World	1240	1230	Belgium	BRT	21815 17555 SE As/NA	03/11/89
DX Programme	1330	1330	USSR	R Tashkent	15470 11785 9600 9540 7325 As 2nd Sat of month	11/05/88
SW Merry-Go-Round	1345	1330	Switzerland	R Swiss Int'l	21695 17830 15570 13635 11695 9620 E Afr/India/Aus/NZ	09/04/86
Pacific DX Magazine	1515	1500	Guan	KTWR	11650 India	02/22/88
Radio World	1540	1530	Belgium	BRT	21810 17650 17595 Afr	03/11/89
SW Merry-Go-Round	1545	1530	Switzerland	R Swiss Int'l	21630 17830 15430 13685 HE/E Afr	05/24/86
DX Asiawaves		1400	Guan	KSDA	13720 11980 As/India	02/05/89
Radio World	1740	1730	Belgium	BRT	11695 5910 Eu	03/11/89
World of Radio	1800		Costa Rica	R for Peace	25945 21565	04/13/89
Anateur Radio Spect	r 1845	1800	South Africa	Radio RSA	21535 17795 UK/Ireland	02/28/88
Diers Unlimited	1935	1900	Euba	R Havana	11800 Eu/Af	10/08/88
DX Radio Tips	2020	2000	Turkey	V of Turkey	9825 Eu Biweekly	04/15/89
SWL Digest	2105	2100	Canada	R Canada Int'l	17875 15325 ¥ Eu	03/22/89
Radio World	2110	2100	Belgium	BRT	9925 5910 NA/Eu	03/11/89
Communications Worl	d 2110	1700	USA	VOA	17785 15580 15410 11760 Afr	11/12/88
SW Nerry-Go-Round	2115	2100	Switzerland	R Swiss Int'l	15525 13635 9885 Afr	05/24/86
DX Party Line	2130	2130	Ecuador	HCJB	21470 17790 15270 Eu	05/03/86
SWL Digest	2135	2130	Canada	R Canada Int'l	17820 15150 11880 Afr	03/22/89
DI Radio Tips	2220	2200	Turkey	V of Turkey	17760 9685 9665 9445 SE As/Eu/ME/NA Biweekly	04/01/89
World of Radio	2330	2100	USA	WRND	13720 NA/CA/Eu	03/08/89
Radio World	2340	2330	Belgium	BRT	9925 NA/SA	03/11/89



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