

NASAA

the JOURNAL

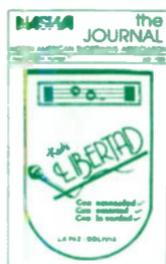
NORTH AMERICAN SHORTWAVE ASSOCIATION

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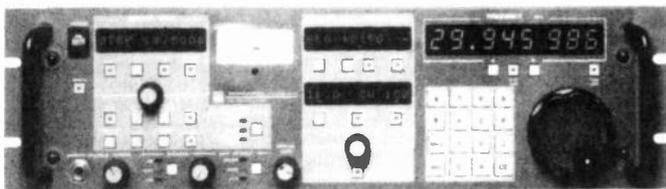


Holiday Greetings





HF-1000 LF/MF/HF COMMUNICATIONS RECEIVER



The new Watkins-Johnson HF-1000 is a fully synthesized general coverage receiver that combines analog and digital signal processing (DSP) to achieve a level of performance not previously available to the shortwave listener. Covering 5 kHz to 30 MHz with 1 Hz tuning and display resolution, the HF-1000 now provides capability previously enjoyed only by military and commercial users. Functions such as synchronous AM demodulation, noise blanking, I.F. filtering, AGC, demodulation, Beat Frequency Oscillator and passband tuning are accomplished through the use of DSP techniques. Filters with superior amplitude and group delay characteristics are achieved with digital stability and repeatability. An astounding array of 58 I.F. bandwidths are available to allow the operator to optimize selectivity under any signal environment. Filters range from 56 Hz, for monitoring CW with exceptional signal-to-noise ratios, all the way up to 8 kHz for monitoring AM signals with maximum fidelity. Available detection modes are synchronous AM, FM, CW, USB, LSB and ISB. A tunable BFO can be adjusted in 10 Hz steps over a ± 8000 Hz range, and passband tuning is available to further enhance the reception of CW signals. Gain control can be accomplished manually or automatically, with fast and slow AGC modes available. The squelch threshold is adjustable from 0 to -135 dBm, or it can be disabled. A noise blanking feature can also be enabled to effectively eliminate the adverse effects of impulse noise. A tunable I.F. notch filter allows the operator to reject undesired signals within the IF passband. The HF-1000 has an internal switchable preamplifier and attenuator, and analog S-meter, plus a built-in diagnostic self-test capability.

In addition to fixed-frequency tuning, the HF-1000 provides fast, flexible scanning capability. Three scan modes are available: channel scan, F1-F2 scan and F1-F2 scan with lockouts. For all scan modes, the dwell time can be set from .5 to 20 seconds or infinite. In channel scan mode, 100 programmable memory channels are available. Sectors of memory can be specified for individual channel scans, allowing the available memory to be subdivided into multiple search scenarios. The operator can specify certain channels to be skipped without having to delete them from memory. Memory channels can also be single-stepped manually. In both F1-F2 scan modes, the step size is user-selectable from 1 Hz to 25 Hz. Up to 100 independent frequency lockouts can be stored.

The HF-1000 can be operated locally via the front panel or remotely via one of two selectable serial interfaces. Measuring 5.25 x 19 inches, the microprocessor-controlled front panel provides a user-friendly operator interface with dedicated, logically arranged controls and large, easy-to-read LED displays. A majority of the HF-1000 operator-selectable parameters are controllable and accessible via the RS-232 remote interface. A carrier Sense Multiple Access with Collision Detection (CSMA) with a limited instruction set interface may be enabled, in lieu of RS-232 to allow the HF-1000 to be controlled using a command protocol similar to several popular consumer receivers. Selection of the active interface is via an internal switch setting or by front panel entry. All receiver inputs and outputs are available on the rear panel of the unit with the exception of the front-panel mounted headphone jack. The antenna and external reference inputs, as well as the signal monitor and predetected I.F. outputs are available on BNC connectors. Speaker and dual-balanced line audio outputs are available on a terminal strip along with DC-coupled audio, RSSI and squelch outputs and a mute control input. The RS-232 interface is available on a DB-25 and CSMA interface is provided via a miniature stereo phone jack. The HF-1000 can be used as a tabletop receiver or mounted in a standard 19 inch equipment rack occupying 5.25 inches of vertical space. Operates 97 to 253 VAC (47-63 Hz) automatically adjusting to the input line voltage. One year limited warranty. Made in U.S.A.

SPECIFICATIONS

Dimensions	19.0"W x 5.25"H x 20.0"D	Ref. Freq. Stability	≤ 1 p.p.m.	56	113	225	450	900	1800	3600	7200
Weight	15 Lbs. (19 Lbs. ship)	I.F. Rejection	85 dB min (>90 typical)	63	125	250	500	1000	2000	4000	8000
Frequency Range	5 - 30000 kHz	3rd Order Intercept	+30 dBm typical	69	138	275	550	1100	2200	4400	
Display Resolution	1 Hz	2nd Order Intercept	+60 dBm typical	75	150	300	600	1200	2400	4800	
Power	97 - 253 VAC (47-440 Hz)	AGC Attack Time	15 msec typical	81	163	325	650	1300	2600	5200	
Consumption	35W typical	AGC Decay Time	Fast: 25 msec typical	88	175	350	700	1400	2800	5600	
Antenna Impedance	50 or 450 ohm	Slow: 4 seconds typical		94	188	375	750	1500	3000	6000	
Selectivity (-3dB)	see IF FILTERS chart	Audio Output	1 Watt @ 8 Ohms	100	200	400	800	1600	3200	6400	
Sensitivity	< -35 μ V 5-30 MHz CW	Antenna Input	50 ohms nominal, BNC								
	< -56 μ V 5-30 MHz SSB	I.F. Output	455 kHz, 50 ohms, BNC								
	< 1.56 μ V 5-30 MHz AM	Noise Figure	14 dB max, 11 with pre.								
	(S+N/N=10dB, no preamp)	Remote Control	RS-232 full dupl. DB25.								

I.F. FILTERS (-3dB)

56	113	225	450	900	1800	3600	7200
63	125	250	500	1000	2000	4000	8000
69	138	275	550	1100	2200	4400	
75	150	300	600	1200	2400	4800	
81	163	325	650	1300	2600	5200	
88	175	350	700	1400	2800	5600	
94	188	375	750	1500	3000	6000	
100	200	400	800	1600	3200	6400	

PRICING

HF-1000 List Price	\$3995.00
HF-1000 Discount Price	
Order #1500	Please call.



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NASWA Notes

Bob Brown KW3F
238 Cricklewood Circle
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CompuServe 74756,1557
Genie R.BROWN106
Packet KW3F @ WB3JOE



I mentioned Ralph Brandi assuming additional editorial responsibilities in a previous NASWA Notes column. This month Ralph has expanded his role in the production of the bulletin. In a short period of time, he has become instrumental in the monthly production cycle of the JOURNAL. I think you will notice the improvements.

As we close out another year it's time to plan for some of 1994's major DX events. In March, the seventh annual Winter SWL Festival will be held in Kulpsville, PA. A registration form with details appears in this month's JOURNAL. Plan now to spend March 10, 11 and 12 at the FEST with a bunch of fun loving hobbyists. Many members of the NASWA staff are active in getting this event off the ground. We look forward to seeing you there.

March is also the time of the year for the annual North American DX Championships (NADXC). We haven't received the official announcement so I am not sure of the dates

ANARC SWL Ham Net

Tune in Sunday mornings at 10 A. M. Eastern Time on 7240 LSB for the latest in shortwave listening, DX tips, and up to the minute hobby news. Contributors share their DX tips via their own amateur radio stations or by telephoning a "gateway" station who then broadcasts the relayed tips. Net Controls Bob Brown KW3F, Dave Kirby N8JQX, and Hausie WB4JSP, host an always lively gang of DX monitors. (Best heard in the eastern half of NAm)

as I write this. However, our own Harold Cones, who is Chairman of the NADXC, promises another very exciting event. I hope many of our club members will take the time to participate in this annual hobby tradition.

Frequently, I am asked about radio gatherings on the west coast. Almost as if to respond to those many requests a new radio gathering has taken shape and is scheduled for the west coast this August. It's been a number of years

Welcome to the following new NASWA members -

Dexter Ball, Watsonville, CA	Rich McHule, Upper Darby, PA
Thomas E. Beuchnau, Lansing, MI	James Mills, TURKS & CAICOS ISL.
John P. Devon, South Pasadena, CA	Frank Murchison, Cedar Ridge, CA
Allan Diggins, Windsor, ONTARIO	Jon L. Oswald, Jupiter, FL
DR. Martin TH. A. Van Duinen, HOLLAND	J. D. Peters, Minneapolis, MN
Kevin L. Flynn, Oakmont, PA	Troy H. Rocha, Columbus, GA
Steven R. Friedberg, Cincinnati, OH	James B. Sulla, Chicago, IL
John F. Gulo, Belleville, IL	Richard A. Sklar, Seattle, WA
Holger Henn, Dayton, OH	John Stamm, Nikolski, AK
Mr & Mrs Joseph Jasuirkowski Jr., Westville, CT	Al J. Starks, Fort Worth, TX
Edward Lewis Jr., San Pablo, CA	Anders Stot, S. Burlington, VT
Ted Marshall, Astoria, OR	Samuel Tiner MD CM, Narberth, PA
Jose Benito Martinez Jr. KE6CPQ, Fresno, CA	David J. Williams, Astoria, OR

Our Motto is - "Unity and Friendship"

since DXers and SWL's have had a radio convention in California. This is an opportune time to support an event for that part of the country. East coast DXers may want to plan their summer vacations for the west coast to coincide with this event. Radio Com'94 is jointly sponsored by the American Shortwave Listeners Club (ASWLC) and the Southern California Area DXerS (SCADS). This all wave affair will be held at the Holiday Inn in Bristol Plaza in the city of Costa Mesa, California on 10 through 14 of August 1994. There will be displays from vendors, clubs and broadcasters in addition to a Swap Meet site to allow hobbyists an opportunity to buy and trade equipment. Further information about Radio Com'94 is available for return postage (a #10 SASE) from SCADS at 6398 Pheasant Drive, Buena Park, CA 90620. Updates on the convention can be heard

through HCJB's DX Partyline program during the ASWLC club segment.

WANTED: Hobbyist with an interest in hosting a NASWA segment on DX Partyline. It has been a number of months since Steve Forest had to step down as The Voice of NASWA on HCJB's DX Partyline program. Unfortunately, we have been unable to locate a replacement. Perhaps we are just not looking in the right places. If you have some time and an interest in producing short segments to be sent to Quito for broadcast, this may be the opportunity for you. Contact either myself or Rich D'Angelo (2216 Burky Drive, Wyomissing, PA 19610) if you are interested. Thanks.

That's enough of me for this month. I hope you and yours has a great Holiday Season!

Calendar Of Events

- Dec 15** - Meeting, N.E. Ohio SWLs. Cuyahoga County Library, 9089 Brecksville Rd., Brecksville, OH (Rt. 21, just South of Rt. 82). 7:00 PM. For info send SASE to: NE Ohio SWLs, c/o Donald J. Weber, P.O. Box 652, Westlake, OH 44145-0652
- Dec 17** - Meeting, Philadelphia Area NASWA Chapter. Kulpville Holiday Inn, Kulpville, PA. 7:30 PM Contact Dan Cashin (215)446-7831
- Dec 17** - Meeting, The Boston Area NASWA Chapter. Ben Krepp describes his DXing during a recent trip to Hawaii. Bull Cafeteria, Billerica, Mass. 7:30 PM For additional information please contact Paul Graveline (508) 470-1971, or via modem on Tom's BBS, (617) 698-8649 (300/1200/2400 baud), (617) 698-8734 (9600).
- Dec 18** - The Miami Valley DX Club (All band orientation) meets on the third Saturday of each month at 1 PM. Locations vary but are announced in advance. For info, call the MVDXC (614) 471-9973 Or, send a SASE to MVDXC, Box 292132, Columbus, OH 43229-8132
- Jan 2** - The Tidewater SWLs meet on the first Sunday of each month at 6:30 PM. For info, call Joe Buch, (804) 721-2782.
- Mar 11-12** The 7th Annual Winter SWL Festival, Kulpville Holiday Inn, Kulpville, PA. Registration form in this month's Journal or SASE to Winter SWL Fest, PO Box 591, Colmar, PA 18915

Members are invited to submit items to be included in this calendar to Bob Brown.

Musings

This column provides a forum wheras members can express comments, ideas, and thoughts about NASWA or the SW radio hobby. Please feel free to comment on anything presented this month (or previous months). Opinions expressed here are solely those of the submitters.

Vernon Hyson, 5410 Camp Stewart Road, Charlotte, N.C. 28215

HELPING HANDS NEEDED

Picture yourself with a fine communications receiver, an antenna tuner, all the right filters installed in your receiver, a great set of headphones and all you can get for an antenna is a 20' hunk of wire in your shack, or if you are lucky, maybe 20' outside the window. Not the rosiest of pictures is it?

This is what quite a few of our fellow listeners contend with. They cannot put up and maintain a good antenna because they are in a wheel chair or they are blind. You don't hear too much about them because they are silent or not vocal enough about their situation. My challenge to you is to seek them out and offer your help. It wouldn't take that much time to put up a good random wire antenna, help with internal connections. You would be not only helping another radio hobbyist, but would be promoting your hobby with more than words.

ed - If you know someone that needs help, or you would like to volunteer to help someone in need, please drop me a note.

Richard A. D'Angelo, 2216 Burkey Dr., Wyomissing, PA 19610

Nothing can signify the start of the DX season better than a DXpedition. Early in November the first East-West Pennsylvania and Central Maryland NASWA chapter held its first meeting at Gifford Pinchot. The cast of characters included Hans "Oreo" Johnson, Dave Valko, Fred Kohlbrenner, Kris Field and myself. By the time the weekend was completed, the usual basket of DX goodies was heard resulting in many reception reports.

This was our 8th DXpedition to Gifford Pinchot and we have become rather efficient at many things. Despite some efficiencies, I managed to completely forget about sleeping - no sleeping bag or pillow! Since most of the gang arrived Thursday evening, I roughed it on Thursday night but made an excursion home for sleeping gear (and pancake making equipment) Friday morning. It was a very worthwhile investment in time.

This DXpedition saw more attention paid to antenna details. I did my best to stay away from such activities thereby increasing our odds at a successful operation. I focused my efforts on making Friday evening's traditional pasta dinner. Chef Johnson took a turn at pancake making on Saturday morning. In between the group would feast on a Kohlbrenner. Not Fred, but a sandwich named after its inventor. A lack of sleep tends to dull the taste buds making 4:00 AM sandwiches a treat.

One sad note to report. Kris Field provided too much temptation for Mr. Oreo! Yes, after many months of clean living, Hans Johnson went on another oreo cookie binge. However, after logging some great stuff, and naturally sharing the results with his tormentors, we can only conclude that oreo cookies sharpen Hans' DXing skills. Truly a senior DXer if there ever was one.

The season has only begun but great things are being heard. Incidentally, did you ever wonder why the BAD guys have to leave their home state for a DXpedition?

73 - RAD

Easy Listening

Richard D. Cuff
213 Parkview Avenue
Allentown, PA 18104-5323
GENie R.CUFF
MCI Mail 375-4854
Prodigy NCHT70A

Electronic Communications

With the Prodigy Service's recent introduction of its Mail Manager software, members of all the major online services can send electronic messages to each other, and to thousands (if not millions) of people worldwide through the Internet. CompuServe, Delphi, and America Online users have had this capability the longest; GENie users have had an extra-cost gateway that is now provided for no additional charge. Prodigy has per-message fees for messages sent and received through the Internet; the cost is 10 cents per recipient per 6000 bytes.

Prodigy users can receive Internet messages without installing the Mail Manager software, but cannot send Internet messages without the package.

CompuServe users can also send and receive E-mail to and from X.400-linked systems; the primary advantage to this commercial E-mail standard is that binary files can be attached to messages or can be sent as messages themselves. MCI Mail and AT&T Easylink users can send messages and files to CompuServe via the X.400 link. I do not believe any of the other common online services have the X.400 link.

Keep in mind the Internet is a platform for a lot more than electronic mail; one can directly log onto many computer systems via the Internet and access an overwhelming amount of information. The primary way to do this is via a process called Telnet in Unix lingo. Many universities and private companies with Internet gateways provide the facility for Telnetting; of the commercial services, only Delphi offers this capability. Last time I checked, there was an additional monthly fee for this added privilege.

Here are the electronic mail addresses of major international broadcasters accessible via the Internet:

Monitor Radio International (WCSN, WSHB, KHBI), USA, letters and reception reports: letterbox@csms.com; Technical questions: letterbox-tech@csms.com; normal procedures at MRI are not to answer via email, but to print e-mails out and forward them to the department concerned.

Radio Havana, Cuba: radiohc@tinored.cu

HCJB — The Voice of the Andes, Ecuador, English Department: english_department@nhs.hcjb.com.ec

Radio Netherlands: Jonathan Marks ("Media Network"): MCI Mail 338-2983 (Internet 3382983@mcimail.com)

Radio New Zealand International, Adrian Sainsbury (Frequency Manager at RNZI): ajsainsbury@swell.actrix.gen.nz (Note—Mr. Sainsbury is not the QSL manager)

Radio Austria International, Wolf Harranth OE1WHC ("Shortwave Panorama"): wolf_harranth@p9.f18.n310.z2.fidonet.org

Radio Sweden, George Wood ("Media Scan/Sweden Calling DXers"): CompuServe 70247.3516 (Internet 70247.3516@compuserve.com)

Voice of America, frequency information: df@voa3.voa.gov; program information: ke@voa3.voa.gov; also: MCI Mail 408-6039 (Internet 4086039@mcimail.com)

Many thanks to Thorsten Koch of the German DX club ADDX e.V. for compiling this information, and for Philip Potts for posting this on the GENie Radio/Electronics RoundTable.

Which of these online services is most appropriate for SWLing and DXing? From my own personal perspective, GENie still represents the most appropriate service, although it isn't quite the bargain it used to be.

Radio Australia

Past Easy Listening and Listeners' Notebook columns have highlighted the substantial schedule modifications at Radio Australia. I was already a Radio Australia fan before these changes, and I like their service even more now. Much of the music "filler" between program features has been replaced by current affairs and interviews, and the hourly news bulletins are also a nice service to tap into. The weekend programs that fill the weekday time slot used by International Report (even hours, on the half hour) add further diversity to Radio Australia's program schedule.

One thing that hasn't changed is Radio Australia's focus on the Asia and Pacific regions. For me, that's not a disadvantage—there are many news sources, such as the BBC and Monitor Radio International, that have a global perspective.

Radio Bulgaria

I have recently received Radio Bulgaria's fall/winter schedule, and it's a nice improvement from Radio Bulgaria's previous practice of only identifying times, frequencies, and targets. The new schedule includes this information, plus transmitter location, power, and bearing.

Attached to this frequency schedule was a program schedule, which I'll summarize below. I would expect that programs shown for Mondays actually air Tuesdays on the UTC clock for the 0100 and 0500 broadcasts.

Each broadcast begins with a 15-minute news bulletin, followed by a 15-minute current affairs review. Other program features:

Mondays: Business & Finance, looking at Bulgarian business and banking, along with international trade cooperation; Sports Roundup, reviewing major Bulgarian sports events and international events featuring Bulgarians; History Club, with features on various periods in Bulgarian history.

Tuesdays: Cultural Review, focusing on Bulgarian literature and the arts; From School To Campus, a feature targeted for high school and university-age students.

Wednesdays: Economy & Farming, looking at industrial development, small businesses, and privatization; Science, Technology, and the Environment, dealing with Bulgarian environmental problems along with science and technology achievements; Across The Map Of Bulgaria, profiling scenic attractions and places of interest.

Thursdays: Lifestyle, profiling everyday Bulgarian life; History & Religion, focusing primarily on Orthodox Christianity but looking at other religions practiced in Bulgaria; Women's Own, a biweekly feature targeted to women listeners, alternating with Youth Corner, focusing on the lives and challenges of Bulgaria's youth.

Fridays: Sports & Tourism looks at the past week's sports events, along with information of interest to prospective tourists; DX, information on SWLing and DXing.

Saturdays: Weekly Spotlight, looking at major political developments of the past week, including speech excerpts; Folk Studio, with stories of Bulgarian myths, legends, customs, and rituals associated with folk holidays.

Sundays: Answering Your Letters, your typical letterbox and listener request-type program.

Mondays, Wednesdays, and Fridays also include Timeout For Music, with anything from classical to popular to folk music.

Tuesdays, Saturdays, and Sundays have program previews and schedule information.

Radio Bulgaria's address: 4 Dragan Tsankov Blvd, Sofia 1040, Bulgaria.

Swiss Radio International

SRI has added some variety to its current affairs program Dateline, with features on science and technology, business and economics, and culture and the arts. Its listener feedback program, The Grapevine, airing Saturdays, has a contest underway for young people aged 16 through 25, with free trips to Switzerland awarded to contest winners. SRI is looking for written essays or 5 minutes on audio cassette on your home country culture. Unfortunately, I didn't bring the details I had transcribed on this current trip; you'll have to listen to The Grapevine on SRI for more details.

Oh Where, Oh Where, has my BBC Worldwide Gone?

Once again this month, I didn't receive BBC Worldwide in time for NASWA Journal

deadlines. I'm continuing to pursue this with the folks at BBC Worldwide; I'll do what I can to get improved delivery, or to pick up a copy locally in time for next month's column.

How Am I Doing?

I know it's difficult to cover everyone's interests in this column, but I'd appreciate any comments—favorable or unfavorable—regarding the Easy Listening column. Are there subjects you'd like to see more of? Less of? Just like the broadcasters themselves, column content depends on suggestions to stay fresh. Could you spare five minutes and a 19-cent stamp (or a few bytes on line) and let me know how I can enhance the Easy Listening column? Thanks for your help.

Season's Greetings

Here's hoping your holiday season finds you well, and may your 1994 be your best year yet. I look forward to bringing you more Easy Listening columns in the new year.

Until next month,

73 DE Richard

FOR SALE: JRC NRD-515. Sherwood modified with 9, 6, 4, and 2.4 kHz filters, Sherwood SE-3 synchronous detector and NCM-515 controller. All in good condition. Price \$875.00. Will consider splitting up if not sold as a set. Also JRC CFL-260 and CFL-230 mounted on filter board. Price \$115.00. All items plus shipping. Steven R. Lare, 824 West 25th Street, Holland, MI 49423. Phone (616) 335-2270.

FOR SALE: Customized Beam Headings (from/to) and Distances (MI/KM) to over 482 WRTH-93 transmitter sites including new Russian Republics. ITU Country Codes included. Send your location or coordinates. Price \$6.95. NASWA Journals '91 and '92 complete, \$10.50 a year or \$20.00 for both. WRTH-91, \$8.95. "Passport to World Band Radio" '92 and '93, \$7.95 each or \$15.00 for both. All items include shipping (overseas shipping extra). Cashiers check or money order only, please. Al Drehmann, Route 2, Box 3-B, Tryon, NC 28782. Phone (704) 894-3398, not collect.

DX Target



Radio Enga Elusive Prize of the Papua New Guinea Highlands

By Kevin Murray*

Sampling the broadcasts of some of Papua New Guinea's 19 provincial stations is truly an interesting cultural experience. It can also be a challenging rite of passage for DXers growing in the hobby. For me, the mystique of logging the only 120 meter PNG station took hold and my search for the elusive Radio Enga began. Persistence, great propagation conditions, luck and decent equipment (though only an average antenna) all contributed to logging this unusual DX catch. (One year later, I have yet to log Enga again!) On an encouraging note, Radio Enga appears in the Tropical Band loggings most of the year across the U.S. time zones.

The Country

Papua New Guinea has been called the "last unknown", with some isolated regions such as the Highlands having no contact with Europeans until the 1930s. Papua New Guinea stands between the line of large islands bending down from Southeast Asia and the vast stretches of the Pacific Ocean dotted with small islands to the south. It occupies the eastern half of the world's second largest island of New Guinea and a smattering of mostly volcanic islands to the north and east --- New Ireland, New Britain, Manus and Bougainville. Approximately 3 1/2 million people live in an area slightly larger than California.

The Land

Spectacular rivers and mountains dominate the landscape, and often separate neighboring tribes just a few miles apart. A range of thickly forested mountains, with peaks over 12,000 ft., runs down the center of the main island, opening to the populous and fertile valleys of the Highlands region. The coastal areas vary widely from flat grasslands in the west to mangrove swamps and

forested foothills elsewhere.

Papua New Guinea is a warm and humid place. Rainfall, like everything else here, varies tremendously from 40 inches in "dry" Port Moresby and 80 inches in Rabaul to 175 inches in Lae and 20 feet of rain in the Gulf and Western provinces. Coastal temperatures average in the 70s and 80s year around while it is considerably cooler in the inland mountain regions.

Well known for the 700+ species of birds, the island of New Guinea hosts 38 of the world's 43 types of birds of paradise, some with deadly toxins. There are also 9000 species of plants mostly found in the rain forests, 250 species of mammals (including tree kangaroos and bats with 3" wingspans!) and countless thousands of insect species would you believe butterflies a foot wide?!). Some of the world's greatest marine biodiversity is found in the coral reefs and lagoons here, as species from both the Indian and Pacific Oceans thrive on the nutrients washed into the sea by daily thunderstorms inland.

The People

The current inhabitants of Papua New Guinea are probably descended from Asians who began migrating across the islands of present day Indonesia some 50,000 years ago. There is a rich mixture of ethnic groups, dominated by Papuans in the south and interior, and Melanesians in the north and east. Minorities include pygmies, Chinese, Australians and Polynesians. Socially and politically, there are 4 groupings of people: Islanders, New Guineans (north), Papuans (south) and Highlanders. Dominant languages are English, Pidgin and Melanesian. There are, however, about 717 separate languages and dialects spoken in Papua New Guinea, some by as few as 100 people. This represents 45% of all of the languages in the world! Most of the population is rural, illiterate and subsistence

* 30 Powder Horn Lane
Holliston, MA 01746

farmers, and the only practical means of mass communication is by radio.

Papua New Guineans were among the world's first farmers, with evidence of gardening 9000 years ago in the Western Highlands Province. Traditional society prior to modernization was focused on the extended family and tribe. Ownership was based on households, not individuals. Advancements such as the wheel and metal instruments were introduced to some interior tribes less than six decades ago. Modernization, including the impact of radio communication on traditional clan culture, is not uniform. Tribal fighting and "payback" feuds between neighboring clans still occur, although often casualties are low. Fighting can be averted or peace reestablished through payments in cash or pigs.

The Enga Province

Northwest of Mt. Hagen lies the Enga Province, an area the size of Maryland and Delaware combined. Enga was originally part of Western Province. There are two major rivers, the Lai and the Lagaip, and plenty of mountains and high altitude valleys. This province comprises some of the world's most rugged terrain. There are several areas of the province in which access by foot is the only option. Like other provinces in the highlands, coffee is one of the major crops. There are literally hundreds of tribes in Enga alone. Most speak the Enga language and illiteracy is about 90%.

While the province is less developed than most, this is changing with the opening of the largest gold mine outside of South Africa in Porgera, in western Enga Province. Tribal warfare is not uncommon and visitors report the sight of fenced, circular areas which serve as burial grounds for the victims. The capital, Wabag, has some interesting cultural sights, including a museum with tribal warshields and masks from around PNG, and an art gallery where local artists can be seen making colorful "sand paintings".

The Origins of the National Broadcasting Commission

Prior to World War II, the Amalgamated Wireless of Australia established a radio station in Port Moresby (call signs 4PM/9PA). War closed down the station, although the Australian army began operating another station in early 1944 to entertain the troops in and around Port Moresby. Upon civilian rule in 1946, a 2 kilowatt transmitter

(VLT9) began broadcasting a few hours a day on 7280 khz, switching to 9520 khz in 1948. (Note that reports in the hobby press this spring mention VLT, 9520 khz may return to shortwave later this year with the help of an Australian aid package.) While VLT9 used programming from other countries to appeal to expatriates, local programming was introduced such as choral singing and news in Motu and Pidgin.

Social unrest in the 1950s, including the Nuvunerun riot in New Britain in 1958, caused the Australian Administration in Papua New Guinea to consider regional radio stations as a solution. The purpose was to disseminate information on government policies and programs, and build up a mutual understanding with the indigenous people. Provincial radio stations broadcasting with 250 watts power in the 120 and 90 meter bands were established, beginning with Rabaul (1961), East Sepik (1963), Gulf (1964), Western Province and Eastern Highlands (1965) and Western Highlands (1966). Transmitting power was upgraded to 2 kilowatts in 1968. Stations continued to be built, including Madang and Morobe (1971) and Southern Highlands and West New Britain (1973).

The National Broadcasting Commission was founded on December 1st, 1973, Self Government Day in PNG. Their charter is to encourage national unity, provide coverage of the diverse cultures (particularly in rural areas), stimulate pride in the traditional cultural heritage of PNG, avoid inflaming racial feelings and share information on government economic and social programs.

A typical station comprises 12-15 people, including a Provincial Program Manager (formerly Station Manager), his assistant, 5-8 broadcast officers (announcers), a journalist, a broadcast Technician and some support people (drivers, secretaries). Their mission is simple, as stated in a verification letter by Andrew Meles of Radio Southern Highlands. "The sole reason of our broadcast is to educate, inform and entertain the people of Papua New Guinea and those of our global audiences like you." While it is not uncommon to hear Country & Western, pop or even rock music, the often reported "island chorals" and "tribal singing" is traditional PNG Singing. This is called TUMBUNA SINGSING in Pidgin and means the singing inherited from the Ancestors. Since most (if not all) PNG provincial stations were upgraded to 10 kw transmitters donated by Japan during the last several years. PNG stations have been heard

by more listeners around the globe. Verification letters often express genuine appreciation for their international audience despite the domestic charter of NBC stations.

NBC has 3 radio services: Karai Service -- National Network broadcasting on 4890 kHz from Port Moresby, Kalang Service -- about a dozen commercial FM stations with 100 watts or so, and the Kundu Service -- 19 Provincial Stations in the 120, 90 and 75 meter bands.

Radio Enga

Radio Enga began broadcasting in 1980. They broadcast to approximately 200,000 people primarily in the Enga language, mixed with some Pidgin and a little English. The station attempts to become part of the informal, verbal communication networks of each of the rural villages by providing radio programs to train local community leaders to support education, development, health and agriculture efforts. Limited funding has often kept the station from involving clan and tribal leaders in the actual production of programs, due in part to the near impossible logistics of maintaining 4 wheel drive vehicles to travel the rough roads of the Enga Province.

WRTH lists Radio Enga's ID as "Karai Bilong Miok", which can be translated as the Voice of Miok or the Voice of Paradise. The Miok is the Princess Stephanie Bird of Paradise (*Astrapia stephaniae*). In Enga culture, the Miok is king of all birdlife, pigs (highly valued in PNG) and men. In Enga songs, it is considered a great honor to be called a Miok and this label is also given to the finest porker in a pig exchange.

Those readers not lucky enough to monitor Radio Enga can take some comfort in the knowledge that the station is difficult to hear within the province itself! Technical problems abound. Start with 120 meters, a situation which John Kuk, Provincial Station Manager would like to improve with a higher frequency allocation so he could reach all his Enga listeners and others throughout Papua New Guinea. There is also incorrect aerial matching with the transmitter, perhaps explaining why the signal seems to DXers to have significant modulation problems. Faulty lines between the station and the transmitter add a third difficulty, humming sounds and distortion waves on the signal. Fourth, frequent power failures in Wabag have led to

extensive off-air periods, including 14 months from October 1988 - November 1989. Stand-by power generators are not operational due to budget constraints. In addition, when storms knock down power or transmission lines, some tribal groups have demanded high compensation sums prior to repair of lines crossing their lines.

Radio Enga has developed some innovative programming to meet the needs of their listeners, funding permitting. One program is called "Radio Enga Wantaem - Haus Laen". Each segment features one village, with residents telling other listeners about past and present lifestyles, what they think of tribal confrontations, what can be done to stop the fighting and what government services they receive.

A second program in the planning stages is "Law and Order". As John Kuk explains, "We intend to go into the battle fields and interview clashing tribes in depth (to find out) how satisfied they are after killing an enemy, how long will the tribes (remain enemies), why do they pay compensation to the relatives of the death victims, (whether) fighting and compensation is economical for a tribe or family, and reiterate why fighting is bad." Other programming plans include a look at the benefits and disadvantages of the huge Porgera mine in the Enga Province.

As Radio Enga struggles with funding issues to resolve their technical problems and launch new programming, it is interesting to reflect on the importance of radio in PNG life and particularly in the Enga culture. There is simply no other medium with the reach, immediate impact and universal appeal to communicate essential information to almost a quarter million illiterate people in Enga Province spread out over some of the world's most difficult terrain. Radio has the flexibility to react to events, such as tribal clashes, and the ability to communicate one message to thousands at the same time. More than just a DX target, Radio Enga is an excellent example of how important short wave radio remains in affecting the lives of billions of people around the globe through the domestic broadcasts in the "tropical bands".

Radio Enga is a reliable verifier when a polite reception report is accompanied by an SASE and return postage. Provincial Program Manager John Kuk is a real friend to DXers.

Compatible Single Sideband

The conversion of all international broadcasting to Single SideBand (SSB) has been mandated during the next decade by the international regulatory authorities. Already stations like HCJB in Quito and Radio Havana Cuba have begun experimental broadcasts in this mode. This month we will look at the problems with this approach and suggest an alternative.

The spectrum of the normal amplitude modulated signal is shown in Figure 1. Audio sidebands extend on both sides of the carrier to a frequency span corresponding to twice the maximum audio frequency in the modulating signal. A signal with a 5 kHz upper audio frequency limit would occupy a band of plus and minus 5 kHz above and below the carrier frequency.

SSB transmission as used in utility services and in amateur radio remove one of the

sidebands (usually the lower) and suppress the carrier by 30 dB or more. This approach requires the receiver operator to reinsert the carrier at the receiver. The frequency of the reinserted carrier must be within a few Hertz to satisfy the critical ear when listening to music. The receiver also must be stable and designed for SSB reception. Millions of receivers in common use today are useless for receiving this new mode. While that may be good news for the receiver manufacturers, it is bad news for the broadcaster and the average listener.

Broadcasters have found that listeners who normally listen to FM quality sound do not want to listen to programming distorted by fading and narrow bandwidth receivers. SSB broadcasts, as currently transmitted, may result in driving away the rest of what is already a dwindling audience in countries with developed domestic broadcast services.

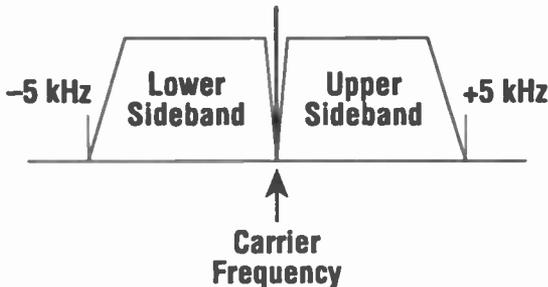


Figure 1. Normal Double-Sideband Spectrum

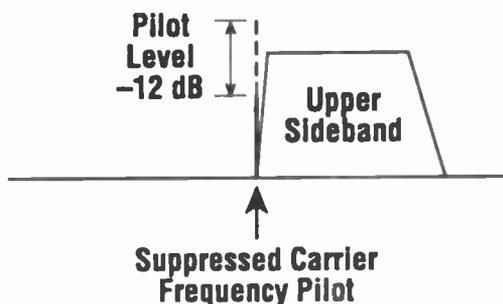


Figure 2. Normal Broadcast SSB Spectrum

In an attempt to assist the listener to tune in the SSB transmissions, the broadcasters are sending a pilot carrier along with the SSB audio. See Figure 2. This pilot carrier is reduced 12 dB from the normal full strength carrier. The pilot allows the listener to tune for a zero-beat condition between the pilot and the receiver's locally generated carrier.

The pilot carrier can also serve as a reference for the phase locking of a synchronous detector if the bandwidth of the tracking loop is made narrow enough. The tracking loop must reject pulling effects from low frequency components in the audio sideband. Informal tests I have conducted on several receivers (NRD-535, R8, Sony 2010, Lowe HF-150) with sync detectors showed that all of them were pulled off frequency by low frequency audio components when locked to the pilot carrier of HCJB's SSB transmissions. Major improvements are needed in current sync detector design and broadcasters will have to limit low frequency audio response before phase locked sync detectors will be useful for SSB reception.

One would think that if a full strength carrier was transmitted along with the SSB, the

signal could be demodulated in the ordinary envelope detector used in most AM radios for the past 80 years. Studies and experiments have been conducted since the 1930s on this very concept. Unfortunately, the envelope of a carrier, fully modulated by a single frequency sine wave, is not a sine wave. The carrier envelope looks like Figure 3. The harmonic distortion present is a little over 23%. One way to reduce the distortion would be to reduce the sideband amplitude with respect to the carrier. Reducing the modulation percentage to 38% produces an audio distortion of 10% which is still not acceptable to most ears. In addition, the transmissions are less efficient and more susceptible to noise for a given transmitter power.

In the 1950s, Leonard Kahn of Kahn Research Laboratories, Freeport, NY, invented and patented a technique for transmitting compatible SSB (CSSB) which could be received on an ordinary radio with an envelope detector. His technique involves modulating the carrier with both phase and amplitude information in such a way that an envelope detector demodulates the signal without distortion. Kahn saw applications in



Figure 3. Distorted Envelope of Standard Full Carrier SSB at 67% Modulation with Sine Wave Single Tone Modulation. Distortion is 23% using Envelope Detector.

shortwave broadcasting, HF aeronautical communications, and AM stereo broadcasting.

Several on-air tests were conducted. In 1956 the VOA one megawatt station in Munich was modified to transmit this mode. Tests also followed over WMGM and WABC, New York, and WSM, Nashville. Because the CSSB transmissions were simply SSB with full carrier, they did not suffer the degree of selecting fading distortion seen on double sideband AM. The transmissions also were "Hi-Fi," since 10 kHz of audio bandwidth could be contained in the same spectrum space normally occupied by a conventional AM transmission.

Kahn also devised a way to transmit the left channel of a stereo signal on the lower sideband and the right channel on the upper sideband, again with full carrier. I remember hearing what was probably the first full-time AM stereo station (XETRA) in Tijuana, Mexico, in the early 1960s using this technique. The announcer suggest listeners use two radios. The one of the left was tuned slightly below center frequency and the radio on the right tuned slightly above center. The result was a crude AM stereo receiver. The left-right separation was a function of how selective the radios were. On sky-wave transmissions the stereo image wandered back and forth between the radios as selective fading changed the relative sideband amplitudes and phase relationships.

While the Kahn technique did not survive for AM stereo, the technology has promise for converting thousands of existing shortwave transmitters to CSSB that can be received on the millions of existing AM radios having only envelope detectors.

Today there is only one surviving station that I know of using CSSB transmission. Time signal station CHU on 3330 kHz, 7335 kHz, and 14670 kHz uses compatible upper sideband. This stations is routinely received on radios with envelope detectors. My tin ears cannot detect any distortion on their transmissions but I lack the necessary distortion analyzer to make quantitative measurements.

The international broadcast community should begin the conversion to CSSB now. That process begins with the necessary regulatory changes to specify this mode instead of the SSB with pilot carrier mode that is currently planned.

CSSB is user friendly. Critical tuning is not required with CSSB. CSSB allows existing radios to remain useful. CSSB can be modified into existing transmitters that use class C RF amplifiers and high level audio modulation. CSSB is less prone to selective fading distortion than normal AM. CSSB can provide higher fidelity audio on existing receivers than either conventional AM or SSB with pilot carrier. If broadcasters are to maintain their shortwave audiences in the face of competing, high-quality, audio transmission technologies, they should look again at CSSB.

That's it for this month. I hope those of you who made it to Virginia Beach for the PopComm SWL convention on October 2-3 enjoyed my city and got in some great ocean side DXing. Until next time, stay tuned.

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Listener's Library

T. J. "Skip" Arøy WB2GHA
P.O. Box 644
Waterford Works, NJ 08089
Genie T. AREY I

Well, 'Tis the Season and all that. I know you have all been good little DXers. You have been dutifully listening and sending in your loggings to The NASWA Journal. You have come to every Kulpsville Winterfest since the Pink and Purple Pancho Villa Room gathering. You have introduced several people to the joys of shortwave listening. Since you have done all these things, you are no doubt planning to ask Santa Claus for something special under the tree. Perhaps a new receiver or that "hot" accessory you have had your eyes on. I just wanted to remind you to save a few spaces on your wish list for some neat books that have recently crossed my desk.

RADIO RECEIVER PROJECTS YOU CAN BUILD

by *Homer L. Davidson*
312 Pages
\$18.95
Tab Books
Blue Ridge Summit, PA
ISBN 0-8306-4190-4

This is one of the most fun books I have read in a long time! Admittedly I have always been one to warm up the soldering iron. I have never been shy to rip into the innards of my equipment and I have always had a small project or two on the workbench in some state of partial completion. If you have ever had the urge to either build something or to get a "hands on" idea of how these magic boxes we call radios work, this is the book for you. Just as the front cover states, inside you will find thirty-three complete receiver projects that will take you from construction of a basic crystal radio up through a high performance superhetrodyne shortwave receiver complete with ceramic filters. In each case, Davidson leads you by the hand, step by step. The book includes 250 detailed illustrations.

What sets this book apart from similar texts in the past is that Davidson starts from the premise that you know doodly about radio, electronics, components, or construction techniques. While building a project, you also get a comprehensive education in all pertinent theory and practice.

One of my great failings has always been coil winding. I just never could get the hang of it. That is, until now. Davidson techniques not only apply to his projects, the information crosses over to other electronic projects as well.

The more basic projects include various crystal set designs taken right out of the era of Marconi, Armstrong and Fessenden. Now I know that you're sitting there in front of your ultra-hot digitally enhanced modern receiver. Don't sell these early radio designs short. Build up the circuit for a TRF crystal set and you will be surprised at its performance.

On the modern front, there are many excellent designs including the latest in varactor tuning and IC control. There is even a great little circuit for a solar powered AM radio that would be sure to get any kid an "A+" at the science fair. Speaking of kids, this book would be a neat hook to drag junior away from the Nintendo. Build a couple of projects together and pass the hobby on. Come to think of it, you may want to put this book in your kid's stocking instead of yours. Besides you can read it any time you want.

As for me, I'm routing through my parts boxes already. The way I see it, it won't be too long till I have 33 neat little radios all in a row. None of the circuits look as though they would cost any more to build than a good dinner. Heck, half of them could be built on what you would spend for a quick lunch. Give RADIO RECEIVER PROJECTS YOU CAN BUILD a chance to turn you on to home brewing. I think a reception report that mentions that you heard the station on a receiver you built with your own hands would get a special notice. It would also give you a great deal of satisfaction.

POCKET REF

Compiled by *Thomas J. Glover*
490 pages
Sequoia Publishing, Inc.
Littleton, Colorado
available from
Universal Radio Inc.
Reynoldsburg, Ohio
(800) 431-3939

There I was, cruising the booths at the Monitoring Times Convention in Atlanta. I was doing my usual radio author thing, that is, begging for books to review at every turn. I was hanging around the Universal Radio display, asking Fred Osterman if he had any new publications in the works, when a diminutive little text caught my eye. I picked up the copy of POCKET REF (no doubt short for "pocket reference" as it would fit in any shirt pocket) and started thumbing through its information laden pages. I was mesmerized. After about ten minutes of standing there in silence (no mean trick with a convention caffeine buzz going) Fred finally gave me the book to review because I was blocking traffic. He also mentioned that the book had the same effect on him as well. So, I went about the rest of my convention business, leading workshops, schmoozing with friends and colleagues and playing radio sage. But every chance I got, I reached into my back pocket and pulled out the POCKET REF for a quick glance. Some folks, knowing my background, asked me if I were reading The Bible.

At first, the POCKET REF looks like any traditional collection of facts and data that you might find in the back of a technical manual or maybe an almanac. What makes this book different is that all the facts are fairly useful in the real world. Anybody who has ever tried to hook up a printer to a personal computer will be pleased to find a good list of popular printer control codes. If you are planning to run a few extra power lines to beef up your shack's outlet quotient, you will find a comprehensive list of electricians' facts. The electronics section contains all of the useful formulas as well as component values and codes. There is a list of conversion formulas that will allow you to convert from just about any standard of measurement to any other.

In mentioning the electronics hobby relevant stuff, I have only barely scratched the surface. This book is just chock full of fascinating facts about the world around us. The natural curiosity that makes most of us radio hobbyists is turned on full blast by the neat stuff you can discover in this book. For instance, there are entire sections devoted to geology, surveying and mapping, physics, chemistry, hardware and tools, even welding.

A few hours with this book will turn you into a classic Jeffersonian "Renaissance Man" or "Woman" as the case may be. The only problem arising from this small sized text is that those of us whose eyesight is starting to fail will require

a pocket magnifying glass to go along with the pocket sized book. The POCKET REF is my choice as the best "stocking stuffer" for any radio hobbyist.

SHORTWAVE SIDELINES

DICTIONARY OF SCANNER TERMS SLANG AND ABBREVIATIONS

by Les Mattson
110 Pages
\$14.95 + \$2.00 Shipping
DX RADIO SUPPLY
PO BOX 360-N
Wagontown, PA 19376

More than a few radio hobbyists have a VHF/UHF scanner going in the background while they chase shortwave signals. One of the more dedicated Scanner folks out there is Les Mattson, publisher of the North-East Scanning News. Les is one of the most well respected leaders in the scanning hobby. Over the years, Les has made a study of the terms and abbreviations used by folks heard over scanning receivers. Les has treated subscribers to NESN with lists of his findings. Finally, Les has accepted the advice of his friends and followers and published the whole shootin' match in a single volume. Now you will be able to tell your USP from your UPS, your RMP from your RMS, even your MFA from your MFN. The collection of terms and abbreviations is exhaustive. I spend a great deal of time listening in to TV and Radio news crew operations. Those folks behind the "talking heads" on the evening news have a language all their own. I discovered the meaning behind terms such as FILM TAPE and NATURAL SOUND. Of course this book is just the thing for trying to translate all that copspeak that shows up on your scanner. So polish up your junior G-man badge and check out Les' first book. Hopefully it won't be his last. If your holiday hopes include a scanner (and remember folks, this is the last Christmas Santa will be allowed to bring you full 800 MHz coverage) maybe you can also ask Santa to include the DICTIONARY OF SCANNER TERMS, SLANG AND ABBREVIATIONS. Besides, its red cover will go great with your Holiday Decor.

Old Uncle Skip, my long suffering Spouse, Number One Son, Number Two Son and Pogo the Dog wish you all the most happy, joyous Holiday Season and a peaceful New Year. See you in 94 Folks!!!

Feature Article

Please submit all contributions to:

Bob Brown KW3F

238 Cricklewood Circle

Lansdale, PA 19446

CompuServe 74756,1557

Genie R.BROWN106

Packet KW3F @ WB3JOE

USER EVALUATION: NRD535D

by Rick Krzemienark

Having operated the Japan Radio Company NRD-535D for the past year, I am presenting yet another user's evaluation of this receiver. I purchased it new from Universal Radio in August of 1992. A good portion of that summer had been spent deciding between the 535 and the Drake R8 after seeing both receivers at the Dayton Hamvention in April. I gathered all of the spec sheets, test reports and articles that I could find regarding them. It was a tough decision, but I felt the 535 had the edge, both in terms of features and performance. So, I am going to break down this review and present it in some specific categories.

Aesthetics

Clean, uncluttered layout of frequency display and front panel. All controls and keypad buttons are nicely spaced and comfortable to use. All control markings are clear and legible. It has all the features that a good DX receiver needs: passband shift, notch, good filters, variable noise blanker, selectable AGC, etc. The signal strength meter is a digitally segmented type that resembles an analog style meter by the way the scale is curved. There is a provision for changing the normal bargraph display to a single lit segment - sort of like a pointer or needle. The frequency display (10 Hz resolution), 'S' meter and control indicators are shown on a vacuum fluorescent display that has three levels of brightness.

Construction

Interior construction is excellent; professional

grade with use of plug-in printed circuit cards for ease of troubleshooting and repair. Chip components are used throughout and wire bundles are kept to a minimum for reliability. The outside front panel is typical of modern day radios in that it is constructed of lower quality plastic. The control knobs also have a 'lightweight' feel to them. The keypad and control pushbuttons all have a nice, solid feel.

Performance

I can only give an appraisal of performance through actual operation, as I have no laboratory or test equipment to determine electrical specifications or measurements. This receiver exhibits excellent sensitivity with a very low noise floor when used with a 50' random wire. Dynamic range is excellent, as I've also used the receiver with an MFJ1024 outdoor active antenna and no undesired images, overload or cross-modulation characteristics were noted. Selectivity is excellent with decent deep-skirt rejection. There are four I.F. filter positions available - wide (6kHz), intermediate (2.3kHz), narrow (1 kHz) and auxiliary. The one feature that sold me on this receiver was the variable bandwidth control (BWC), which I use on a regular basis. In the wide filter position, it allows you to vary the bandwidth from 6kHz down to approximately 2kHz. The intermediate filter is varied between 2.3kHz and 500Hz. The BWC does not function in the narrow or aux positions.

In another report on this receiver, the reviewer expressed some concern over using the BWC. There was a complaint of many 'birdies' and squeals present when using the BWC and that the deep skirts were only adequate. After

* 3398 Concerto Circle
Concord, CA 94521-3250

many hours of listening, I haven't noticed any birdies, squeals or images of any kind. I am unable to give any measurable specifics on deep-skirt selectivity, but can only say that they appear to be excellent as far as my ear can determine. The BWC is very useful and comes highly recommended by me.

Another area of concern by some is the notch control. It has been reported that the attenuation factor is only 30db or so. During the few times that I have used it, it has been of adequate depth and has performed well. It does not appear to be as 'touchy' as that on the R8. This is possibly the result of it being an RF notch as opposed to an audio notch.

Passband shift is available and allows one to move the receiver's I.F. passband away from an undesired signal to further reduce interference. Its range is approximately 1khz. The receiver's AGC can be set to fast, slow or off. The 2 position (wide and narrow width) noise blanker has a variable level control and is very effective against power line noise. It is by far the best I have ever used on a receiver.

Tuning

The digital synthesizer (DDS) moves in 1 hertz steps for a fine, analog-type tuning feel. The receiver is very stable and no noticeable drift is present after warm-up. This is excellent for utility modes such as Fax and RTTY. The VFO knob is smooth in operation and of proper size - it feels good. Tuning can also be accomplished by left/right slewing keys, direct frequency input via the keypad or from one of the 200 available memories (all tunable). There are 3 tuning rates to choose from - 10hz, 100hz and 1khz. I would like to see some sort of option for variable speed steps. The digital display reads down to 10hz which can be disabled to read only to 100hz.

Synchronous detector

Having never used a synchronous detector in a receiver before, I wasn't sure what to

expect. The ECSS synch detector used here seems to lose lock quite easily on moderate to deep fading signals, resulting in some rather annoying distortion. It is disturbing enough to where I do not use it very much - a disappointment. This is an area that JRC needs to address. The ECSS mode is switchable for either the USB or LSB portion of the AM signal. The R8's synch detector seems to hold lock through much deeper fades.

Miscellaneous

There are numerous additional features, some of which are: comprehensive RS-232 computer interface, provision for 12 volt DC operation (included), tone control, main dial lock, line output and record output jacks, 24 hour clock with timer, band and memory scan/sweep, 20db RF attenuator and triple superhet design.

Disadvantages

Pricey; no carrying handle for transporting, no tilt bail or raised front feet. ECSS detector loses lock too easily on fading signals, somewhat 'muddy' audio quality even in the wide filter setting. (I purchased the NVA-88 external speaker for improved sound.) In a side by side comparison, the Drake R8 has better sound quality, although at the expense of some high frequency hiss present in the background. This may be due to a wider audio amplifier frequency response.

Summary

The JRC NRD-535D is a fine receiver. It has just about all the features one could hope for. The BWC control is a welcome addition and the ergonomics and interior construction are excellent. The sound quality and ECSS detector need improvement. For the price of US\$1700, everything should be top notch and little details like a carrying handle should not be left out. In my opinion, the 535 falls a bit short of being a 'superb' radio, but it is otherwise excellent.

African Destinations

Bill Kurrasch
5607 Lincoln Road
Ontario, New York 14519
GENIE W.KURRASCH

With all the radio equipment catalogs that have been appearing in the mailbox lately, there is little doubt that the holiday season is upon us. I've put my wish list together and have been dropping more than subtle hints and I have been trying to be good -- I'll let you know what happens.

How has your African DXing been so far this season? Reception conditions seem quite favorable - even the static levels seem reasonably low. Several nice catches were reported in the loggings section in the November issue of the *Journal*. Now is a good time to try to catch some of those tougher to hear stations with our very early sunset enhancements. (More information on this phenomena can be learned by reviewing several well written articles by David Clark, John Bryant, and Bill Tippett that appeared in the 1991 edition of *Proceedings*, published by Fine Tuning.)

You may recall that last June we started a column that featured an overview of the African continent in an attempt to learn more about this emerging region of the world. We will continue our survey this month.

African Languages: More than 1000 languages are spoken although the majority of them are spoken by relatively few people. Arabic is the most widely spoken language followed by Swahili and Hausa. Many Africans are bi-lingual, especially those from sub-Saharan Africa who speak their own tongue as well as that brought by early European colonial settlers.

Religion: Christianity, the most widespread religion, was introduced into N Africa in the 1st century and spread to Sudan and Ethiopian regions. Eventually, Christianity was overspread by Islam. The religion was reintroduced and spread through tropical Africa with the 15th century rise of European overseas expansion. Today Protestant and Catholic groups are about equally numbered throughout the continent.

Islam, the second most practiced religion, was introduced throughout N Africa in the 7th century and later spread throughout the E African coast and the grasslands of W Africa.

About 15% of African peoples practice indigenous, or local religions. A small number of Jews are located in north and south Africa and Hindu, Buddhist, and Taoist peoples are

scattered throughout east and south Africa.

Cultural Activity: Much of Africa's cultural activity centers on the family and ethnic group. Art music and oral literature serve to reinforce the existing religions and social patterns. The westernized minority, influenced by European culture and Christianity, first rejected African traditional culture, but with the rise of African nationalism, a cultural revival occurred. The governments of most African nations foster national dance and music groups, museums, and to a lesser degree, artists and writers.

Agriculture: Despite the expansion of commerce and industry, most African remain farmers and herders. In NW and N Africa, wheat, oats, barley and corn are the important grain crops. Dates, olives and citrus fruit are the main tree crops. A variety of vegetables are grown. Goats and sheep are the most significant livestock raised. In the Sahara region, nomadic herders raise camels and a few farmers, situated in oases, grow dates and grains. Rice, yam, manioc, okra, plantain and bananas are raised for food. Cattle are difficult to raise due to tsetse fly infestation which affects more than one-third of the continent. Dairy farming is limited, located primarily around urban centers in east and south Africa. Coffee, cotton, cacao, peanuts, palm oil, cloves, sisal and tobacco are grown primarily for export. Some of these items, African produces more than one-half the world supply.

Forestry and Fishing: Although about one-quarter of Africa is covered by forest, much of the timber has little value except as local fuel. Gabon is a major producer of okoume, a wood used in making plywood. Ivory Coast, Liberia, Ghana and Nigeria are major exporters of hardwoods. Inland fishing is concentrated in the Rift Valley lakes and in the increasing numbers of fish farms. Ocean fishing is widespread for local consumption and it is commercially important off Morocco, Namibia, and South Africa.

Mining: Mineral extraction provides the bulk of African export earnings, and the mining industry are the most developed sectors in most African economies. Approximately one-half of Africa's mineral income comes from South Africa. Much of this is derived from gold and diamond mining. The other leading mineral-producing countries are Libya (petroleum), Nigeria (petroleum, natural gas, coal, tin), Algeria (petroleum, natural gas, iron ore) and Zambia (copper, cobalt, coal, lead, zinc). Petroleum is also found along the W African

coast, in the Gabon Basin, the Congo region, Zaire and Angola. About one-third of the uranium in the world is mined in Africa, chiefly in South Africa, Niger, Zaire, Central African Republic and Gabon. The largest uranium supply in the world is located in Zaire. About 20% of the world copper reserve is concentrated in Zambia, Zaire, South Africa and Zimbabwe. Zaire also possesses about 90% of the world's known cobalt, and Sierra Leone has the largest known titanium reserves. Africa produces about three-quarters of the world's gold; South Africa, Zimbabwe, Zaire and Ghana are the major producers. The mines of South Africa and Zaire produce virtually the entire world supply of gem and industrial grade of diamonds. Iron ore is found in all parts of the continent. Most of Africa's mineral wealth has been and is being developed by large, multi-national concerns. Increasingly, in recent years, African governments have become substantial shareholders in the operations within their own countries.

Manufacturing: Stemming from mineral and petroleum extraction and processing industries, such as refining and smelting, which are located in most mineral-rich countries with adequate energy, the bulk of Africa's manufacturing takes place in South Africa. Heavy industry, such as metal producing, machine making and transport manufacturing, is concentrated in South Africa. Significant industrial centers have developed in Zimbabwe, Egypt and Algeria. Mineral related industries are well developed in Zaire, Zambia, Kenya, Nigeria and the Ivory Coast have developed primarily in textiles, light industry, and building materials. Throughout much of the rest of Africa, manufacturing is limited to making or assembling consumer goods, such as shoes, bicycles, textiles, food, and beverages. These industries are often confined by the relatively small size of the consumer market.

Energy: Nigeria, Libya, Algeria and Angola are major world producers of petroleum. Africa's natural-gas exports are centered in Algeria. Coal is concentrated in Zimbabwe and South Africa; the bulk of their production is used internally. The rest of Africa has about 40% of the world's hydropower potential, only a relatively small portion has been developed, mostly due to high construction costs, inaccessibility of sites and their distance from major population centers. Since 1960 however, a number of major hydroelectric installations have been constructed. These include the Aswan High Dam on the Nile River, the Volta Dam on the Volta River and the Kariba and Cobira Bassa dams on the Zambezi River.

Transportation: The economic development of virtually all African nations has been hindered by inadequate transportation systems. Most countries rely on road networks that are

frequently composed largely of dirt roads which become impassable during the rainy seasons. Road networks tend to link the interior of a country to the coast; few road systems link adjacent countries. Although most African nations support a national airline, rail and shipping systems are extremely limited outside South Africa.

Trade: The commercial sectors of most African nations rely heavily on one or a few export commodities. The bulk of trade occurs with industrialized nations, which require raw materials and sell industrial and consumer goods. Trade between Africa states is limited by competitive rather than complimentary, nature of their products and by trade barriers, such as tariffs, and the diversity of currencies. Most former British trade colonies in Africa continue to have loose trade relations with Great Britain and keep monetary reserves in London. Former French colonies have even closer ties with France, and most are members of the French franc zone. In addition, most African nations have economic ties with the European Community and benefit from some tariff barrier reductions. Few successful intra-Africa economic systems have emerged. The most durable and long-lasting are the Economic Community of West Africa and the Central African Economic and Customs Union.

Demography: Although Africa covers about one-fifth of the world land surface, it has only 11% of its population. The total population of the continent is estimated at 500 million people. Average density, some 15 people per sq km (39 per sq mi), is less than half the world average. This figure includes the large areas, such as the Sahara and Kalahari deserts, which are virtually uninhabitable. When the population density is calculated for those living on arable or productive land, the average density increases to some 116 persons per sq km. The most densely settled areas of the continent are those along the N and W coasts; in the Nile, Niger, Congo, and Senegal river basins; and in the E African plateau. Nigeria, with a population of nearly 80 million, is the most populous nation in Africa.

The African birth rate is about 46 per 1000. (By contrast, the birth rate in Europe is about 16 per 1000.) The spread of medical services since World War II is responsible for a sharp decrease in the death rate which averages about 19 per 1000. The continent's population increase annually by about 2.7%. These statistics vary greatly however, from country to country, and from region to region. The age distribution is weighted heavily toward the young. In most African nations, about half the population is 15 years of age or younger. The African population remains predominately rural, with only about one-fifth of the population living in areas of more than 20,000 inhabitants.

Ran out of room! ☐ Happy Holidays To All!! ☐

NASWA Portraits

Jerry Klinck

43 Lein Road
West Seneca, NY 14224



Where does the time go? Seems like the buds were just popping and now the leaves they bore are turning colors. The 60 and 90 meter DX has been cleaning up quite nicely here. A couple of us have been thinking about starting a western New York Chapter of NASWA. Would anyone in the area who is interested please drop me a line in the next few weeks?? Thanks.

Now on to our visit with Michael Bilec of Port Vue, Pennsylvania.

"I have been listening to world band radio on and off for over six years. During the span of time I learned a great deal about many different countries, cultures and lifestyles."

"Over the years I have acquired three receivers; a DX342, a DX350 and a DX380. These are not exactly top of the line like the table models, but it just goes to show you don't need a high performance receiver to enjoy this great hobby. I have logged many countries using this combination and I am still amazed I could hear someone so far away sounding so near."

"Speaking of the hobby, it is a welcome sight when there are no set boundaries or guidelines. For example, my interests vary between trying to get those hard stations with low power below 5000 kHz, to finding new stations, then to just sitting back and listening to my favorite stations. These are all acceptable with NASWA, which truly promotes this hobby to its' fullest."

"I joined NASWA because I heard a great deal about it and also that the members care about world band radio. I am going on the second year in the organization and I hold it in very high esteem. When ever I get the opportunity, I 'spread the word' about this great organization."

Thank you for the brief but interesting visit, Michael. And rest assured we all appreciate the kind words, but were it not for the members such as yourself, the organization would not be what it is. Just by looking back at all the profiles I've done the past few years, I can say NASWA is blessed with a bunch of really fine folks!!

That said, color me RED! A couple of months back, I did a portrait of Nina Allen. I also stated that it was a first for me, as she was the first female member I had profiled. WRONG! In fact, the first female was a lovely young lady named Jodi Lucia Rodriguez of Detroit, Michigan, who appeared in the December, 1992 *JOURNAL*. She has kindly corrected me, stating I shouldn't feel too bad since she is frequently mistaken for a male, in shortwave circles. My apologies were graciously accepted by her. She also updates us on herself as follows:

"I now use a Sangean ATS-803A receiver. I love that radio! Conditions here are O K. for 60 meter DXing and I did hear a few new stations, Radio Santa Fe being my favorite. (You will remember, Jodi enjoys the Latin scene most and has great success QSLing those stations, due in part to her fluent use of the Spanish language - ed.) I have grown so attached to Colombian stations over the past year! Also, I had to make a contract with my mom that she would not turn on the TV in the living room until after 7:00 A.M. Here and that home shopping channel are making my 120 - 60 meter band DXing a nightmare."



Thanks for the correction, the understanding and the update, Jodi.

We are down to just two profiles here, so if you've been procrastinating, now's the time to send in your story. (Along with a photo too, please, if possible. That way I won't mess up anyone else's gender - hi!)

Till next time, FANTASTIC DXing!

NASWA Awards

Dr. Harold Cones
2 Whiffs Court
Newport News, VA 23606
CompuServe 71570.411



Well, deck the halls, the holiday season is upon us and it's time to try to convince your spouse that a new receiver would make you a better partner--hope you have better luck with that line of reasoning than I have had! Perhaps you will receive a necktie with a built-in ferrite rod antenna so that when you turn away from conversations with your inlaws you will actually be peaking up the signal to the receiver that you have hidden in your back pocket tuned to the BBC (nice wordsmithing?). Whatever Old Saint Nick or the dreidel sends your way, I hope your holiday season is a good one with a chance to rest a bit and twist a few knobs.

It has been a pretty busy period here at awards central, with Beppe Gornati, Daniel McCarthy and Ron Downing cleaning out their file cabinets and sending the contents to me. Ron gets the "herniated mailman" award for scooping up nine NASWA greens and Beppe receives the "international herniated mailman" award for his eight awards sent to Italy. Say Howdy also to our new DX Centurions, Beppe Gornati, Ron Downing, Anthony Scott Helm and Barry Schwartz--bet a DX Centurion award will impress the inlaws over a holiday dinner table (Recipient: "Look at this neat certificate I got for spending hundreds of hours locked away in a closet and for spending all my savings on postage and for taking up a new religion to be sure that I received the all important QSL card from IMayotte." Inlaws: "Get a life.")

At any rate, we have thirteen states and three countries represented this month. So, here they are folks, the latest in a long line of crazies that call themselves award winning shortwave listeners:

Paul Buer.....All VOA, 30 station endorsement
Richard E. DavisMaster Soviet Sphere DXer
Ron DowningAustralian DXer
Senior Ecclesiastic DXer
North American Continental DXer
Pirate DXer
Senior Time Station DXer
DX Centurion
International DX Listener with 100 station endorsement
South American Continental DXer
All American DXer
Father John EckertAfrican Continental DXer
Bill FlynnTropical Band DXer
All VOA w/22 station endorsement
Beppe GornatiAll VOA
Senior Ecclesiastic DXer
Asian Continental DXer
Senior China DXer
European Senior DXer
All American DXer
International DX Listener
DX Centurion
Richard E. HankisonAsian Continental DXer
Anthony Scott HelmDX Centurion

Steven Lare	Subcontinental DXer
Daniel McCarthy	DXer de Pacifica
	Master European DXer
	All Continental QRP, 10 kW
	All American DXer
	Pirate DXer
Marina Pappas	Senior Ecclesiastic DXer
Frank Parisot	Pirate DXer w/29 stations
Stephen Price	Subcontinental DXer
David Ringold	All American DXer
John Sgrulletta	220 country endorsement
Barry Schwartz	DX Centurion
Andrew Steinberg	European Senior DXer

ANNOUNCEMENTS

The Winter SWL Fest will be 11-12 March this year. I almost have the program completed and it is gonna be a dandy. Better make plans to be there--you might miss out on something if you don't.

Watch for news of the North American DX Championships (to be held in conjunction with Shortwave Radio Week) the same week as Winterfest. There will be an announcement in next month's Journal with all the details. Why not plan to be involved in the Championships this year? It is a great way to get more enjoyment out of your hobby.

We are almost ready to get the new edition of the "NASWA Country List and Awards Program Booklet" printed--the final proofing is occurring now and it will soon be off to the printer. You will be pleased with the fresh new look. Watch the Journal for details.

FEATURED AWARD OF THE MONTH

There is no featured award this month, just this stupid story: Once upon a time a long time ago in far away Antarctica lived a jolly old fella named St. Helena. There he lived comfortably with his wife Sierra Leone, surrounded by a small band of Eritreans who helped him build toys, such as 12-string Qatars, stuffed Wales and Ball balls, which he delivered to good boys and girls once a year at Comoros. One Comoros, St. Helena said to Sierra Leone, "I've about had it with this Sikkim, I feel Laosy--every year I get in my Sao Tome and ride around all night until I have Azores. This year I feel like staying home and drinking Java and Maltad Maluku and eating a Turkey sandwich, but I guess I better go anyway." "Yemen!" said Sierra Leone, "I have some Lebanon bologna in the kitchen for you to take, but it is a little Greecey so I will have to Cook it up. Do you want it Togo?" "Oh Palau, Iraqin," said St. Helena, "since its time to have my Reunion with Rwanda the red-nosed reindeer. I better be shaking Djibouti--gotta Goa now." And with that, St. Helena kissed Sierra Leone goodby, put on his best Kashmir, donned his new Panama hat, laid his maps in his Latvia and Ascensioned into the night sky. But he was heard to say as he drove out of sight, Merry Comoros to all and to all a Tristan Da Chuna (in your wildest dreams!)



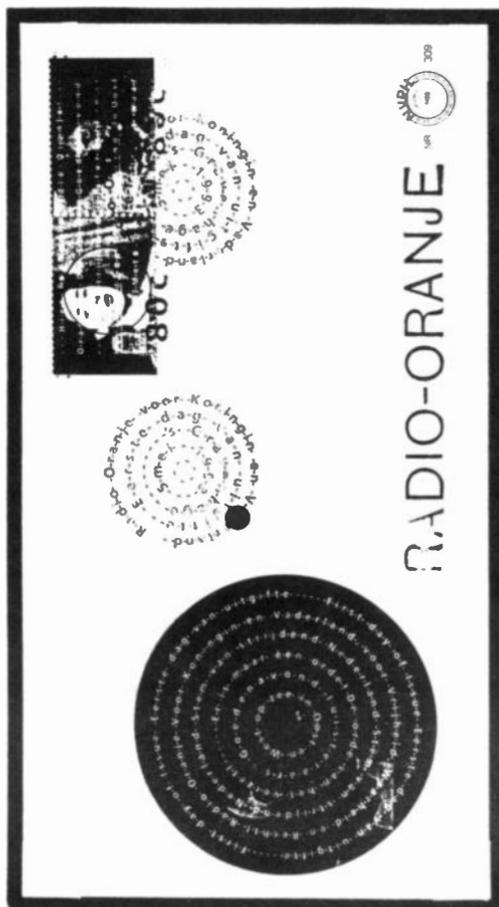
RADIO STAMPS

Neil Carleton
P.O. Box 1644
Almonte, Ontario
K0A 1A0, Canada

Radio Stamps Available in 1993 on First Day Covers

Before the introduction of envelopes in 1840, people folded letters and wrote the address on the outside. Many people covered their letters with an extra sheet of paper on the outside for the address. This sheet, and later envelopes, was called a cover. Stamped envelopes, used air letter sheets and other items of postal stationery are also referred to as covers.

A first day cover is an envelope specially prepared or printed for the first-day-of-issue of a postage stamp. Most official first day covers, offered for sale by postal authorities around the world, include a special printed design on the envelope. This illustration, called a cachet, is often designed to compliment the stamp(s) and the accompanying cancellation on the first-day-of-issue. The first day covers illustrated here in this month's column would certainly make great additions to you collection.



On May 5, 1993, the Dutch Post Office issued two 80 cent stamps as part of a general series on the second world war. The stamps commemorate Radio Oranje, which was a program compiled and presented by the Dutch government in exile, and broadcast over BBC transmitters. The two stamps are unusual as they're printed side by side on one sheet. One stamp, in orange, shows the lead singer of a cabaret group that sang resistance songs over Radio Oranje. The other, in mauve, shows a young man listening to a Radio Oranje broadcast. The round cachet, also in mauve, on the left side of the white envelope, shows a young man with headphones listening illegally to a broadcast using a home made radio hidden under the floor of the house.

The text on each stamp, in Dutch, is taken from the opening announcement of Radio Oranje which gave the wavelengths and greeted Dutch listeners around the world. Along the bottom of the cover a special Radio Oranje banner, in large blue letters, has been added from the original rubber stamp used at Radio Oranje in London. This hand stamp is now part of a collection at Radio Netherlands.

For ordering information from the Dutch philatelic service, write to PTT, Post Filatelie, Postbus 30051, 9700 RN Groningen, Nederland.

On November 4, 1992, New Zealand Post issued a set of six postage stamps celebrating the 1920s. These were the boom years in New Zealand. The arrival of the "wireless", reliable motor cars, the cinema and increased leisure time, combined with a post-war mood of release and optimism, created a period known for its love of fun and leisure activities.

The 50c stamp in the set commemorates the birth of broadcasting in New Zealand. It was on the night of November 17, 1921, that Dr. Robert Jack, Professor of Physics at Otago University in Dunedin, switched on a small transmitter in his laboratory and began broadcasting music from gramophone records. The broadcast was heard as far away as Wellington.

Dr Jack soon had a regular two hour broadcast on Wednesday and Saturday nights. The country became wildly enthusiastic about this new "wireless" that could pick up voices and music from the air. By the end of 1927 more than 30 000 homes had radio licences. The Radio Broadcasting Company of New Zealand was established in 1925 with stations in Auckland, Wellington, Christchurch and Dunedin.

The other five stamps in the set commemorate *Flaming Youth*, *The Invincibles*, *The Swaggie*, *The Motorcar Brings Freedom*, and *The Arrival of the Air Age*. The stamp set and first day cover, designed by Terry Crilley, mixes bright yellow skies with vibrant pinks, blues and greens to convey the 1920s mood of optimism and release. The designs literally paint the clouds with sunshine. Each of the designs is in the poster style of the period, with the typeface, borders, layout and other graphic elements combining to give the stamps and first day cover an unmistakable 1920s look.

A special commemorative cover, illustrated here, was issued with the *Celebrating the Golden Age of Radio in New Zealand* slogan on behalf of the New Zealand Radio DX League. The profits from the sale of these unique covers are donated to the League's Handicapped Aid Programme. H.A.P. was first established in the United States in the 1970s to assist disabled people in taking up the hobby of shortwave radio listening. For more than ten years, H.A.P. New Zealand has operated under the directorship of Arthur Cushen, offering subsidised subscriptions to the League's "NZ DX Times" magazine.



To order one of these special covers for your radio stamps collection, and to help support the H.A.P. in New Zealand, send \$3.00 US for one cover, or \$5.00 US for two covers, to the New Zealand Radio DX League, P.O. Box 3011, Auckland, New Zealand. Please mention that you heard about this offer from the *Radio Stamps* column in the *Journal of the North American Shortwave Association*.

The highlight of my 1992 shortwave listening year was on October 23. I had that day circled on my calendar for the special broadcast, at 2000 UTC, from Radio St. Helena, on the island of St. Helena, in the south Atlantic Ocean between Africa and South America. I hope you were one of the lucky listeners around the world last year to hear that special broadcast, for the 25th anniversary of Radio St. Helena, on St. Helena Day. I hope too that a special broadcast is possible again in 1993 and, by the time you read this column, you were able to hear St. Helena on shortwave.

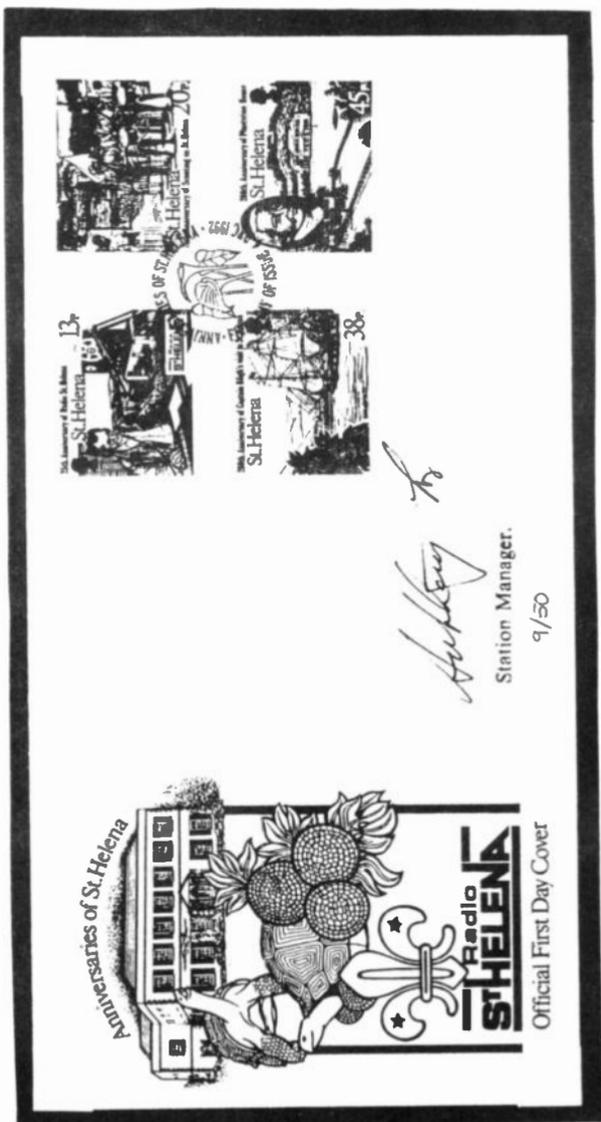
It was certainly exciting in 1992 to hear a new station and log a new country. What a thrill it was to listen in, during the earlier part of the transmission, to the local programming of Radio St. Helena that was being broadcast to the world on shortwave for that day only. One of my interests in listening to international radio is to learn more about the countries, cultures and peoples of the world. It was a rare treat to tune in to Radio St. Helena, and like many radio listeners around the world, I'm grateful to Tony Leo and the other staff at the station for that great listening opportunity.

Whether or not you have been able to hear Radio St. Helena, you can add the station to your collection of radio stamps. A set of four postage stamp was issued by the St. Helena Post Office on December 4, 1992, to mark four significant anniversaries that year. The 13 p stamp in the set commemorates the 25th anniversary of Radio St. Helena.

The design of the St. Helena stamp depicts the studio and equipment of the station, along with an announcer, on air, at the microphone. An official first day cover, illustrated here with all four of the anniversary stamps, was available during 1993.

The set of four stamps was available for 1.16 pound sterling, and the first day cover cost 1.46 pound sterling. For ordering information, write to the St. Helena Post Office, Philatelic Bureau, Jamestown, Island of St. Helena, South Atlantic Ocean. The Philatelic Bureau can also be reached by fax at (290) 2242.

Your comments and suggestions for improvements to the column are always welcome. Let me know what you think. NASWA members are also invited to report on new issues of stamps from around the world on the topic of radio. It's easy to join in as a *Radio Stamps* reporter. Just write with news about any new issues or finds of stamps on the topic of radio - from radio stations to listening to radio. The names of all contributors are entered in an annual draw, held in December each year, to win radio stamps. Each time you contribute as a *Radio Stamps* reporter, your name is entered for the draw. The 1991 and 1992 winners were Rudi Eko Marwanto of Indonesia and Peter Grenfell of New Zealand. The 1993 winner will be announced in the next column. Best wishes for good listening and collecting.



Listener's Notebook

Hans Johnson
7529 Red Craval Court
Columbia, MD 21046
CompuServe 73042.3644

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All times are in UTC and all frequencies are in kiloHertz.

DEADLINE for the January *LN* is Thursday, the 23rd of December.

EDITOR'S NOTES—I mentioned last month that I had received my first direct issue of *OZDX*. I am now pleased to announce that *OZDX* and *NASWA* have now agreed to exchange bulletins. From November 4–7, I had the pleasure of Dxing with Fred Kohlbrenner, Kris Field, Dave Valko and Rich D'Angelo at Gifford Pinchot State Park in Pennsylvania. Items from that Dxpedition listed below will be marked "Gif."

ANGOLA—*Radio Nacional* operates 3 different services that were heard with good signals at 0500 but all were slightly off nominal frequency. That is, 9534.9 9720.2 11954.8. The latter two are listed as being parallel frequencies but were not. (Gif November 7th)

ARGENTINA—*Radio Nacional* 6181v heard testing here until 0145 with distorted audio. Perhaps an indication that they intend to reactivate. (Camporini Radio Panorama No. 52 October via Radio Nuevo Mundo No. 186 November)

ARMENIA—*First Program-Yerevan* is scheduled from 0300–1500 7175 (via Moscow) 6065 4810 and 1500–2100 17705 (via Moscow) 4040. (BBCMS World Broadcasting Information News No. 43 October 22nd)

Radio Verevan has an English transmissions on Sundays only at 0945 on 15445 15485 15510. (Southwell Shortwave News November) 5930 New frequency 1915 Farsi and English at 1945. (Padula Australian Dx News No. 345 November)

AUSTRALIA—The *ABC* seems to be closing down some of its home service stations according to Marcel Rommets. (Media Network October 28th via Mike Fern) After news of *ABC Brisbane* closing down, John Keckes called the station. The station confirmed that 9660 was no longer a viable service and would close down at the end of the

year. Announcements would be made about this decision on the air from November 1st. The future of 4920 also seems bleak. (Onley *OZDX* No. 86 November) The announcement is asking people in Queensland to let the station know when and where they listen. (Media Network November 19th)

ABC Wanneroo (Perth) 6140 9610 15425 seems likely to close after Christmas. Their only regular audience are the Saturday night horse racing fans in the Western Australian outback. (Hambly/Onley *OZDX* No. 86 November)

Australian Armed Forces Radio The service to Cambodia has ended and the Somalia service is about to cease. The station continues to transmit to Australian Forces at Butterworth in Malaysia. A 30 kW transmitter in Canberra is used: 0100 0430 13525 8930 11465 each transmission is an hour long and all are in USB. They are all subjected to real-time monitoring and if there is a problem the station will go to one of the following alternatives: 8115 11465 13525 18735 19969. (Media Network November 19th) Correct sked is 13525 at 0100 and 0430 and 11465 at 0930. (Mike Fern)

BELARUS — *Radio Minsk/Radiostansiya Belarus* is scheduled from 0030–0100 on 7150 and from 1900–2000 on 9685 7210 7105 6010. Some frequencies may be relayed from transmitters in Russia, Ukraine or Moldova. (BBCMS World Broadcasting Information No. 43 October 22nd)

BOLIVIA—Takayuki Inoue Nozaki sends along additional details of many Bolivian stations via his Relampago Dx No. 51 for November:

Radio 9 de Abril 3200.3 heard with a canned id as "*Transmite Radio 9 de Abil desde Pulacayo, Potosi, Republica de Bolivia*" and heard signing off at 0230.

Radio Viloco 3340.2 seems to be inactive on shortwave. The listed address of Casilla Postal 1414 is no longer valid. This station was founded on December 21, 1964 and is the official station of the miners union of Viloco Mine. They use a homemade transmitter of 1 kW at a site that is over 12,000 feet above sea level.

Radio 27 de Diciembre 3350.2 this station recently reactivated and has a canned id as "*Surcando nitidamente los cielos de Bolivia y del mundo, surge una voz amiga chaquena, Radio 27 de Diciembre, en los 3350 khz banda de 90 metros onda corta, dese Villamontes, Tarija, Republica de Bolivia.*" The station was founded on December 23, 1965 and operates with 100 watts.

Radio 11 de Octubre 4183.4 only operates at 250 watts rather than full transmitter power of 350 watts into a 1/4 wave dipole 12 meters high. The postal address is: Casilla Postal 200, Cobija, Departamento de Pando. The station was named in memory of "Batalla de Bahia." During the rubber boom, Brazil annexed the remote Acre Territory immediately upon its secession from Bolivia, having been encouraged by Brazil. Both countries had been ransacking the area so Brazil engineered a dispute and sent in its army.

Radio Perla del Oriente 4211v This station seems to be inactive. Its correct location is: Robore, Provincia Chiquitos, Departamento de Santa Cruz.

Radio Eco 4409 was founded on January 6, 1991 and is named for the founder's family Espinoza CORTES. It is runned by handicapped Carlos Espinoza Cortes and the station is having financial difficulties. When the station requested payment in advance from some of its major advertisers who had been delinquent, they responded by pulling their ads. The station makes a little money by charging about 23 cents for a music dedication and about 1.10 to have a message (comunicado) sent. The station

is operating its 1 kW **HUCARR** transmitter at half power in order to prolong the life of the tubes. They run it into a 1/4 wave dipole 8 meters high. They have a full-data QSL showing the station's signboard. Remember to enclose a dollar or two for return postage as IRCs are not accepted in Bolivia.

Radio Estacion Frontera 4449.9 is the actual name of this station that was founded on May 20, 1979, but they are inactive at the moment. The original transmitter was struck by lightning in 1984 and they did not obtain another transmitter until 1991. They are using a 350 watt **HUCARR** transmitter at 250 watts in order to prolong its life and are feeding it into a 1/4 wave dipole 16 meters high. The station's slogan is "*la radio que hace noticia.*"

Radio Movima 4471.9 This station is not interested in reception reports. Their nominal frequency is 4835 but they operate out of band to avoid QRM. Sign off varies depending on how many musical request they receive. The relay the news program *El Panamericano* from **Radio Panamericana** from 1130-1200 Mondays through Saturdays. The 1 kW transmitter is run at half power to save money on the electric bill into a 1/4 wave dipole 8 meters high. The station is named after the Movima Indian tribe and was founded on July 26, 1972 in order to promote the peoples living in the area. The owner has additional shortwave transmitters and will soon start operating a new station, **Radio San Borja**, with a 350 watt **Brasil Phillips** transmitter. Frequency is unknown.

Radio Hitachi 4530.2 is named after the founder, Jeber Hitachi, who is a Bolivian Nikkei. They started transmitting on June 4, 1990 using a tiny **HUCARR** transmitter of 170 watts in a 1/4 wave dipole 16 meters high. The station is understaffed and as a result has stopped its Sunday transmissions. Some of their programs include: 1100 *La Hora del Pais* 2230 *Evangelical Program* 2300 *Informativo Central de Radio Hitachi*. This station is not authorized to operate in the aeronautical band but a license has not been authorized because their application was defective. Every half hour they have a canned id as: "*Todos los dias la informacion al instante en Emisora Hitachi, onda corta 4530 khz 60 metros, desde Guayaramerin, Departamento de El Beni, Bolivia. La emisora que informa mas y mejor.*"

Radio Horizontes 4542.6 left the air in December 1992 for financial reasons. The owner has moved so don't bother to send a follow up report.

Radio Perla del Acre 4600.1 is operating its 300 watt HUCARR transmitter at about 200 watts into a 1/4 wave dipole 10 meters high. At 1100, they relay *La Hora del Pais*, taking the signal from *Radio Fides*. The full id text is: "ul. esta en sintonia de rdio Perla del Acre, que transmite en los 4600 kc banda tropical de 60 metros, 91 mhz en frecuencia modulada, la radio del pueblo."

BRAZIL—*Radio Bandeirantes* 4838.6 heard iding as *Bandeirantes via Satellite* at 0559. (San Gil Shortwave News November)

Radio Alvorada 4865 has reactivated. (Monferini/Vizzoni Play Dx No. 764 November 15th)

Radio Carajas Anapolis 4885 reactivated. (Monferini/Vizzoni Play Dx No. 764 November 15th)

Radio Nacional da Amazonia 6180v In response to a reception report, the station replied: "Since we do not broadcast for listeners abroad we do not send our QSLs. We forwarded your letter to *Radio Nacional do Brasil*, our international service. (Kuhl Shortwave News November) Sign on is now 0800, ex 0900. (Padula Australian Dx News No. 345 November)

Radio Universo 11765.4 a new frequency, apparently ex 11905 and parallel 6059.6 9565 around 2100. (Gif November 5th)

Radio Globo 11805 has reactivated but apparently daytime only. Heard at 0900. (Da Silva Play Dx No. 764 November 15th)

The following regions of Brazil will be UTC -2 from October 17th until February 20th for summertime: Amazonas, Bahia, Espirito Santo, Goias, Brasilia D.F., Minais Gerais, Mato Grosso, Mato Grosso do Sul, Rio de Janeiro, Sao Paulo, Parana, Santa Catarina, Rio Grande do Sul. (Aragao Play Dx No. 762 October 30th) Correct time provided by Hauser in World of Radio No. 721 November 19th. (HJ)

BULGARIA—*Radio Bulgaria* While most shortwave is broadcast from the Plovdiv site, here are some additional sites you might want

to try for: Sofia (Kostinbrod) with Arabic at 1700 on 11870 and Varna with 100 kW used on 5890 in Bulgarian from 0300-0400 and 1700-2000. The Stolnik site (7670 etc) appears to have closed down but the Plovdiv site is still used for the home service *Horizont* on the following schedule: 0500-0800 0800-1000 (Sundays) 1000-1745 9905. (Jerry Berg November 21st)

BURUNDI—*Radio Burundi* 6140 BBCMS contacted the station on November 4th and was told that the shortwave transmitter had suffered a technical breakdown supposedly unconnected with the October 21st coup. The transmitter required a spare part which had been ordered but has not yet arrived. (BBCMS Summary of World Broadcasts No. 46 November 12th)

CANADA—*CFCX* 6005 This station is on the air but is very weak even in Montreal. (Harvey World of Radio No. 717 Part 1 October 31st)

CKZU 6160 This station is now active again. (World of Radio No. 718 November 6th)

Radio Canada International has a special transmission for Canadian peacekeeping troops in Haiti. Programs for the troops follow news at 0300 on 6000 9725 9755. (Westenhaver ibid)

In a letter dated October 27th in response to a listener query, Jack Wiebe, Chief Engineer at *CKFX* 6080, Vancouver, says "unfortunately *CKFX* has been down for over a year. The vintage 1947, 10 watt transmitter gave up the ghost and was deemed unrepairable. A replacement transmitter has been purchased and is in process of being modified and tested. Depending on available time, I expect to have it back in operation by February or March, 1994." (David Shearman on Ecnunet BBS via Harold Sellers World Radio Report Dx Ontario December) I believe it has been stated that the replacement transmitter will be in the range of 100 watts. (David Clark ibid)

CFVP Calgary According to the station's technical director Ken Pasolli, *CFCN* (AM 1010 initially) started transmitting on May 18, 1922. The exact date the shortwave transmitter went on the air is unknown. Transmitter sites have had to move further out over the years as the city has grown. The shortwave transmitter

is a 100 watt LPB AM unit modified for operation on the shortwave band. Its antenna is a quarter wave vertical radiator. Studio equipment is analog but state of the art. The station makes money through professional programming and in part by good technical quality. He added: "Shortwave radio in Canada is a mere curiosity, not really widely listened to by the general public. As a result, there are no immediate plans to upgrade the shortwave transmission facilities". (Letter to HJ dated November 8th)

CANARY ISLANDS—This may be the location of a sideband relay of *Radio Uno*, the first domestic program from Spain. This was heard from 1115 fade in until 1915 fade out on 14880. (Roberts World of Radio No. 719 November 13th)

CHILE—*Radio Triunfal Evangelica* 5825 is again inactive due to transmitter problems. (Barrera via Herkimer Numero Uno No. 1244 November 5th)

CHINA—*CPBS 1st Program* signs on at 1957 on 3220 4460 5320 5880 5915 5955 6125 6750 6840 7504 9080 9290. *CPBS 2nd Program* signs on at 2057 on 4905 5163 6890 7516 7770 9064 10260 11630 11740. (Kito Shortwave News November)

CLANDESTINES — AFRICA *Radio Free Somalia* The IARN reports that the power of this station will be increased from 100 watts to 1200. (Norfolk World of Radio No. 717 Part 2 October 31st) According to the station, they plan to open another station in southern Somalia. (Kuhl Shortwave News November)

Radio Mogadishu 6870 This pro-Aidid station continues to be jammed. (BBCMS World Broadcasting Information News No. 44 October 29th)

Voice of Renamo This station had operated as a clandestine until 1993 and was last observed as such on July 16th. It is now believed to be using the facilities of *Swazi Radio* but is announcing an address in the Transvaal, South Africa. (ibid) BBCMS has changed the status of this station from clandestine to domestic broadcasting in wake of the political settlement between Renamo

and Frelimo, but we will leave it here for now. See the November *LN* for the station's schedule. (HJ)

Voice of the Resistance of the Black Cockerel A Voz da Resistencia do Galo Negro (Vorgan) (Portuguese) broadcasts on behalf of the UNITA movement, led by Jonas Savimbi. Vogan was first heard on January 4, 1979 broadcasting from transmitters believed to be located in South Africa. Test transmissions on current channels began in July 1986. The station announces that it broadcasts from Jamba in Angola. Programs are not only in Portuguese but also in many vernacular languages of the region such as Umbundo and Kwayama. The timing of all programs is subject to variation and are often extended beyond the scheduled sign off. Their current schedule is:

0440-0845	9550 4960
1045-1440	11830 7290
1630-2200	7290 4960

(BBCMS Summary of World Broadcasts No. 45 November 5th)

ASIA—*Democratic Voice of Burma* 11850 New frequency ex 15180 from 1430-1500 with transmissions in Burmese. This station uses *Radio Norway* facilities and can be reached at: P.O. Box 6720, St. Olavs Plass, 0130 Oslo, Norway. (BBCMS World Broadcasting Information News No. 44 October 29th)

Voice of Free Tajikistan Sado-i Tajikistan-i Ozod 7088 from 0300-0330 0600-0630 0900-0945 with broadcast times varying by up to five minutes. After a Koranic recitation at sign on, the station broadcasts the program *Messenger of Khorasan Payk-i Khorasan*. (BBCMS World Broadcasting Information News No. 44 October 29th)

Voice of the People Id is: *This is the Voice of the People coming to you from Pyongyang. Yoginun Pyongyang-eso ponadurinun inminuisoribang-imnida* (Korean). (BBCMS Summary of World Broadcasts No. 46 November 12th)

MIDDLE EAST—*Voice of the People of Kurdistan Sowi Ash-Shab Kurdistan* (Arabic) 4095 was heard on this new frequency with Arabic programming at 0337. (Gif November 5th)

WESTERN HEMISPHERE—*Radio 16 Desam* Per Jeff White has continued past the planned October 29th closure due to the non-return of President Aristide to Haiti as scheduled on October 30th. Its schedule will be two hours per day, Mondays–Fridays from November 1st until at least November 15th. The broadcasts could be extended if Aristide's return is delayed further. Times are 2200–2300 on 17830 via *WHRI* and from 2300–0000 on 7355 via *WRNO*. *WHRI*'s transmissions are best heard by listeners in Haiti and by Haitian exiles in Miami, while *WRNO*'s signals are better heard by Haitians in New York, Montreal and other parts of North America. All transmissions are in Haitian Kreyol. (Terry Krueger DX South Florida No. 312 November 3rd)

Radio Roquero Per Jeff White this Cuban exile program began transmissions on November 6th via *Radio Copan International* and subsequent transmissions will be every Saturday from 2200–2300. The program is the brainchild of a young Cuban exile, Victor Garcia-Riveria, who recorded a national anthem with a twist for the program that reflects the dismal conditions in Cuba. He can be reached at: 5862 Windermere Lane, Fairchild, Ohio 45014. (ibid)

La Voz de la Fundacion is noted via *WHRI* from 1000–1300 on 9850 and 0000–0500 on 9495. Some Dxers may be thrown by the announcement "*Cadena Radial CMQ*" often used during phone-in programs. *CMQ* and *CMW* were Key Cuban commercial stations before the revolution and nationalization. They had shortwave outlets of *COCQ* and *COCW* respectively. Castro did his best to blot out memories of this stations (and the better times associated therewith) by reassigning their calls to stations outside Havana and changing their frequencies. So the slogan plays on knowledge of these events. (Mike Fern October 25th)

COLOMBIA—*La Voz de Guainia* 3501 this station's morning program is *Despatar en la Selva* Waking up in the Jungle. (Klemetz World of Radio No. 719 November 13th)

Onda del Meta 4885 was briefly putting out a spur on 4900. (Klemetz Shortwave Bulletin No. 1237 November 9th)

La Voz del Rio Arauca 4895 is putting out horrible spurs + –50 khz. (Klemetz Shortwave Bulletin No. 1237 November 9th)

La Voz del Rio Arauca 4948 is putting out a very distorted spur on this frequency parallel 4895. (MRL Radio News Electronic Edition No. 9 October 31st)

La Voz de Yopal 5050 is putting out spurs on 4968.6 and 5129.7. (Klemetz Shortwave Bulletin No. 1237 November 9th)

Radio Musical 5119.8 is the precise frequency of a harmonic this station is putting out: 4 x 1280. (Klemetz Shortwave Bulletin No. 1237 November 9th) Do not confuse with another harmonic identified here by David Crawford and other DX South Florida dxers, *Radio Alajuela* in Costa Rica also 4 x 1280. (HJ)

Radio Nacional de Colombia operates on the following schedule in Spanish: 1740–2150 11785 program is repeated 2150–0300 9655. (Klemetz World of Radio No. 719 November 13th)

CONGO—*RTVC* A taped reception report to the B.P. 2241 address was returned as "undeliverable." (Price Fine Tuning No. 712 November 4th)

COMOROS—*Radio Comoros* was still off of shortwave when I visited the islands. (Korinek Dx'ers Calling October via Fred Kohlbrenner)

COSTA RICA—*Radio Universidad de Costa Rica* 6105 Heard from 1339 past 1500 on October 24th with non-stop classical music except for ids. No sign of the co-channel Mexican station *Tus Panteras*. (Terry Krueger DX South Florida No. 312 November 3rd)

RFPI According to the station, 9530 will probably be their future 31 meter band frequency using a sideband transmitter. (delMange CIDX Messenger via World of Radio No. 719 November 13th) The station is running its 30 kW transmitter at 15 kW in AM mode on 7385 and hopes to have its log periodic antenna up soon. (Latham World of Radio via World Radio Report Dx Ontario December)

CUBA—Radio Enciclopedia 2580 This second harmonic of 1290 is being heard in Florida during the local evenings. (Terry Krueger November 4th)

Radio Habana has two fax lines: +537 7-95007 and +537 7-3518. Their Internet net account number is radiohc@tinored.cu. (Coro Dxers Unlimited October 19th via Mike Fern)

Radio Rebelde 5025 Arnie Coro is asking for reception reports for this frequency to: Radio Rebelde, P.O. Box 6577, Habana 10600. (Coro Dxers Unlimited October 26th via Mike Fern) Noted operating in USB at times and completely off at others. (Dave Valko November) 3365v is inactive. (Coro Dxers Unlimited via World of Radio via World Radio Report Dx Ontario December)

CZECH REPUBLIC — Radio Prague is using a few new frequencies for some its English transmissions: 13590 0730 13580 1630 7265 2200. (Buschel Shortwave News November)

The Czech state broadcasting service was the low bidder to operate *Radio Prague*. But the government asked the state radio to agree to a new contract. If not, one of the private operators will be offered the contract instead. (Media Network November 4th via Mike Fern)

DOMINICAN REPUBLIC—Onda Musical 4780.8 This station has drifted as high as 4783 but seems to have settled on the above. (Ed Rausch November 2nd) Updating last month's *LN* report, they are now signing off past 0300 and has been heard as late as 0347 airing music and sports shows as well as many ads. (Marie Lamb November 10th)

Radio Amanecer Internacional 6025 has a new QSL card. This is the only *AWR* station anywhere in the world that is independent and currently not part of the *AWR* network. (Peterson Radio News Bulletin No. 11 October via Radio Nuevo Mundo No. 186 November)

ECUADOR—Radio Oriental 4779.8 Rich McVicar called the station and they provided him with the following details: The station started operating in September (first heard here in Maryland on the 15th HJ) with about 2.5 kW into a horizontal wire. They have had alot of problems with the local electrical supply both in keeping the station on the air

and in providing the proper type of power. They have received reports from the United States but they have not responded to them just yet. They are really interested in reports from the Amazon region. (DX Partyline Novmeber 6th) **Radio Oriental** 4779 has been offering pennants on the air. (Klemetz Dx South Florida No. 313 November 5th)

La Voz del Upano 6000 is still active here despite other reports that it is off. Try at 1125. (MRL Radio News Electronic Edition No. 9 October 31st)

HVCB 15355 is heard carrying *TWR-Bonaire* programs in Portuguese from 2100–2300. (Gaviria Play Dx No. 71 October 24th)

Radio Popular Independiente 4800 has been inactive for several months now. (Klemetz Dx South Florida No. 313 November 5th)

Sistema de Emisoras Progreso 5060.5 is offering pennants to those who report on their nightly 2300 newscast *Hoy en el Progreso Nacional*. (Klemetz Dx South Florida No. 313 November 5th)

Radio Calidad 2899.87 is where the second harmonic of this Riobamba station was heard at 1100. (McVicar Dx Partyline October 16th via Mike Fern)

EQUATORIAL GUINEA—Radio Africa 2000 6910 A QSL was received by enclosing a dollar for postage and sending it to this address: Radio Africa 2000 c/o Spanish Embassy, Bata. (Reiner Play Dx No. 761 October 24th)

Radio Africa 7190.24 Reactivated at the end of October, they had been off since May. Heard until 2327 sign off but then heard on 7203 a few days later signing off at 2257 on a Sunday. (Alexander Fine Tuning No. 713 November 9th)

FINLAND—Radio Finland A QSL was received by enclosing a dollar for postage and writing to: QSL Manager, Radio Finland North American Service, Box 462, Windson, CT 06095 USA. (Humenyk Play Dx No. 761 October 24th)

FRANCE — Radio France International In addition to transmitters in France, this station uses various overseas relay sites. Below are some times and frequencies for the sites. The

relay in Hungary ended on November 20th. Via China 1400-1500 on 11910 in English. Via Moyabi, Gabon 1600-1700 12015 11705 in English. via Yamata, Japan 0000-0030 15445 in French. via Montsinery, French Guyana 9715 0000-0030 in French. via Russia 1100-1200 7305 in Laotian and and the following hour in Cambodian. (BBCMS Summary of World Broadcasts No. 45 November 5th) The site they are using in Russia is Irkutsk. (Nikolai Rudnev October 21st)

Radio Neige 25710 was heard on November 1st from 1300-1600 with programming from *Radio Nostalgie*. (Roberts World of Radio No. 721 November 19th)

Radio France International inaugurated the first of its new shortwave rotatable aerials in Issoudun (Indres department) on 23rd November. These aerials will eventually enable *RFI* to boost its transmitting power fivefold. (BBCMS Summary of World Broadcasts No. 47 November 19th)

GAZA STRIP AND JERICHO—

Government officials signed an agreement with the French government on October 22nd by which France will help the new state set up a radio service. France has provided 18 million French Fr worth of equipment and the station hopes to be testing by January 1st. (BBCMS World Broadcasting Information News No. 44 October 29th)

According to a Palestinian official, one of the problems in establishing a radio station here is getting a frequency. A request has been submitted to the ITU in Geneva to allocate us a frequency. We have to coordinate with the Israeli side. The Israelis have not yet given serious consideration to that issue in the Taba talks, although the right of the Palestinians to have their own telecommunications service had been discussed. The Palestinians had a frequency that they used prior to 1967 in Ramallah. Concerning the problem of finance, most of it has been resolved through contributions from the EC, France and the United Kingdom. Other countries will probably also make contributions in the future, he said. The official noted, however, that the operational budget still represents a problem. (BBCMS Summary of World Broadcasts No. 47 November 19th) No mention of whether the frequency is shortwave or not. (HJ)

GEORGIA—*Radio Georgia* 11805 noted as follows: 0700-0730 Russian 0730-0800 English 0800-0830 German. They also announced that they have a Russian transmissions on 6080 at 1900. (Nikolai Rudnev October 21st)

Georgia Radio 5040 heard signing off at 2203 rather than listed 2100. (Orr Fine Tuning No. 713 November 9th)

GUATEMALA — Notwithstanding some reports to the contrary, *Union Radio (AWR-Guatemala)* is active on a regular basis, using 5980 at 1100-0200 with programs in Spanish and English. The 10 kW transmitter is being operated at about 3.5 kW. As previously announced, a 5 kW transmitter presently in place at *AWR-Costa Rica* is to be moved to Guatemala City and a new channel will be established, probably in the 25 meter band. (Adrian Peterson's Radio News Bulletin #12 via Harold Sellers via World Radio Report Dx Ontario December)

HAWAII—*KWHR* is behind schedule because of problems with the transmitter building. Two antennas have been erected and the *Harris* 100 kW transmitter is on site. The station hopes to be on by Christmas. (Garlinger Media Network November 4th via Mike Fern)

Hawaii's first shortwave broadcaster *KRHO* was operated by the *VOA* on the north coast of Oahu in the 1950's. Entertainment transmissions on shortwave began in the 1930's. The Hawaii Visitors' Bureau sponsored a 30 minute broadcast of Hawaiian music from Waikiki Beach on the *Mutual Network* every Saturday evening. The program was sent to the mainland by commercial shortwave radio telephone facilities which were relatively idle on the weekends. The broadcasts resumed after the war but stopped about 1960. (Mike Fern)

HONDURAS—*La Voz Evangelica de la Mosquitia* 4910.6 Noted for the first time in several months with the *Radio Bible Hour* in English around 0200. (Dave Valko November 8th)

INDIA—*Air Shillong* 4790.5 Noted 500 hz up from their nominal at 1135 with English news. (Clark Numero Uno No. 1243 October 29th) The station ids as: *Regional service of*

All India Radio, broadcasting from the studio in Shillong on 62 (?) and 60 meterbands. (Takayuki Inoue Nozaki Relampago Dx Logging No. 25 October 23-29th)

AIR Port Blair 4760 Noted on October 27th with id as *Akashvani Port Blair* just before 1330 news. (Foster OZDX No 86 November)

INDONESIA—The 9 transmitters of 250 kW are indeed shortwave transmitters to be installed by GEC-Marconi Communications and not mediumwave as some reports indicated. They should replace the old 50, 100 and 120 kW shortwave transmitters installed by Telefunken, Phillips, VEB Funkwerk and Harris. (Ludo Maes November 15th)

RKPD2 Bima 3176.6 now here as it continues its downward drift. (MIM OZDX No. 86 November)

RRI Kupang 3384 Ided at 1520 closing as: *Inilah Radio Republik Indonesia program regional Kupang dengan gelombang 88.62 meter dan 102 mhz FM.* (Takayuki Inoue Nozaki Relampago Dx Logging No. 25 October 23-29th)

RRI Fak Fak 4789.6 Full id is: *Inilah Radio Republik Indonesia Fak Fak gelombang 62.6 meter dan pemancar FM 93.5 mhz.* (Takayuki Inoue Nozaki Relampago Dx Logging No. 25 October 23-29th)

RRI Ambon 4845.1 new frequency, ex 4863.8. Sign off is at 1130. (Juichi Yamada November 20th)

RRI Wamena 4866.4 is the only channel used now and sign off is at 1200. They no longer use 4871.1. (Juichi Yamada November 20th)

RRI Sorong 4874.6 has been inactive since the middle of November. (Juichi Yamada November 20th)

RRI Jambi 4925 is the latest exact frequency, try around 1100. (Juichi Yamada November 20th)

RRI Naribe 5055.4 is back here from 6127.5. Sign off is at the new time of 1250. (Juichi Yamada November 20th)

Unidentified Indos noted on 2286 2374 2418 2456 2556 2584 2683 2792 2870 2874. (Foster OZDX No. 86 November)

ITALY—**Radio Europe** 7294U relays *Radio Marabu International* Saturdays and Sundays from 1000-1100. QSL reports should be sent with 3 IRCs to: Box 22 03 42, D-42373 Wuppertal, Germany. (Play Dx No. 761 October 24th)

Tele Radio Stereo 6012 This is an unlicensed station that is the fourth harmonic of 1503 and reflects the chaotic radio frequency situation in Italy. (Giovanni Serra November 5th) Try around 2330, East Coasters. (HJ)

Radio Europe 7294 has an antenna problem and is only operating with 50 watts right now. They soon hope to have 1 kW. (Monferini Play Dx No. 764 November 15th)

Radio Yoga Network 9970 located in Bologna, this station is suppose to have been on since October 25th. (Radiorama November via Giovanni Serra November 16th) No times or other details given. (HJ)

JAPAN—**NHK-Kasuga Relay Station** 3259 is the official site name and the USB transmitter is used for relaying *NHK-Fukuoka I*. The schedule as monitored during October is 0900-1300 and the only local id is at 1159 as *Fukuoka Daiichi hoso desu, JOLK*. The other outlets of 6133.7 and 9538.7 are seemingly inactive. They have their own QSL card which can be received via: 1-1-10 Ropponmatsu, Chuo-ku, Fukuoka-shi, Fukuoka, No. 810, Japan. (TIN Relampago Dx Logging No. 24 October 4th-22nd)

NHK-Shobukuki Relay Station 3607.5 is the official site name and the USB transmitter relays *NHK-Tokyo I* from 0900-1300. Id is only at 1159 as *Tokyo Daiichi hoso desu, JOAK*. Reports should be sent to: 3047-1 Oaza-Sanga, Shobu-cho, Minami Saitamagun, Saita, No. 346-01. (ibid)

NHK-Mihara Relay Station 3377.5 is the official name and relays educational and cultural programs of *NHK-Osaka 2* in USB from 0900-1300. The other station in Osaka, *JMK2I*, on 6190 has been off the air for a long time. The address is the one in the 1993 WRTH. (ibid)

Radio Japan If you are looking for a detailed QSL you should try via Mr. Kunitoashi Hishikawa, Verification Secretary Radio Japan/NHK, Tokyo 150-01, Japan. (Shortwave News November)

LITHUANIA—*Radio Vilnius* is scheduled from 0000–0030 7150 Sundays and Mondays (via Russia) and 2200–2230 Daily on 9710 in Lithuanian and 0000–0030 Tuesdays through Saturdays 7150 (via Russia) 2000–2030 2230–2300 Daily on 9710. (BBCMS World Broadcasting Information No. 43 October 22nd) The station uses the Russian Krasnodar site for its transmissions on 7150 and the in-country Sitkunai site on 9710. They now have a fax number: +370 (2) 660-526. (Zilionis via Sennitt Media Network October 28th via Mike Fern)

Radio Centras 9400 operates in LSB on the following schedule: Mondays–Fridays 1450–0702 and 24 hours on Saturdays and Sundays. Their transmitter site is *Zemieji Paneriai* (Vilnius) and I verified them while they were using their 1 kW standby transmitter. The verification signer is Rimantas Pleikys, Editor-in-Chief. (Berg Numero Uno No. 1244 November 5th)

MALAYSIA—*RTM-Kuching* 7160 was heard at 1551 carrying programs of *Radio Four* located in Kuala Lumpur. (McGibbon Media Roundup October 24th via Mike Fern) Either they have a satellite feed or the Sarawak English and Chinese networks have been split. (Mike Fern)

MALI—will continue to lease high-powered transmitters on its territory to China through 1998. (BBCMS Summary of World Broadcasts No. 45 November 5th)

MOLDAVA—*Radio Moldova International* Currently they are only broadcasting in French, Spanish and Romanian, but broadcasts in English, German and Ukrainian are planned. All their broadcasts are currently via 120kW transmitters at Galbeni in Romania, because the high power Radio Moscow relay facility at Grigoriopol continues to be under the control of Russian separatists. The broadcasts to North America in Romanian are at 0130–0155 UTC on 7190kHz and 1300–1325 on 15390kHz. That information comes from WRTH 1994. (Fidonet Andy Sennitt November 10th via Dan Ferguson)

MOZAMBIQUE — *Emissao Nacional* is operating on a number of frequencies. Try 3210 4855v 6111.2 or 7234.3 around 0300. (Gif November 5th)

Radio Mozambique Thanks to assistance from Japan and Germany, the station believes it will be heard with good reception by the end of 1994. (BBCMS Summary of World Broadcasts No. 46 November 12th) No further details. (HJ)

MYANMAR—*Radio Myanmar* 5990 Heard at 1209 with vocals. This one is much easier with Australia Shepperton 5995 off the air. (Clark Fine Tuning No. 711 October 29th)

NEW ZEALAND—*ZLXA*, Levin, New Zealand's Radio for the Print Disabled is planning another new frequency - 5960, expected to be on the air soon and it was suggested by the station director that listeners check for this around 0600. (RNZI Mailbox via Glenn Hauser on World of Radio via World Radio Report Dx Ontario December) Perhaps using the 1 kW daytime transmitter which closes at 0500 on 7290? (David Clark ibid)

Radio for the Print Disabled is the new name for this station. They are to use new 5960 around 0600 and will issued a special QSL card for reports on the new channel. (Little/King RNZI Mailbox October 28th via Mike Fern)

NICARAGUA—*Radio Miskut* 5770 This station was born as a clandestine station in 1983 and moved to Puerto Cabezas in August 1990 as a legal station. In order to be a legal station, they had to receive a frequency allocation. This was originally 5970 but they asked and received 5770 due to QRM. They use a *ITT Mackay* HF SSB transceiver *MSR800* with a power of 1 kW into a hi-gain wire dipole, some 60 feet high, extended from the back of the station. Future plans are to expand the schedule to 1100-0500 from 1400-0030v. The station is facing financial difficulties. It takes about 3000 dollars a month to run the station and 500 dollars for quarterly maintenance, but recent economic difficulties have suppressed advertising revenue. (Hirahara Radio Nuevo Mundo No. 186 November)

NIGERIA—*Radio Nigeria* It's rumored that some of this station's broken transmitters are to be fixed. (Sennitt Media Network October 28th via Mike Fern)

NORWAY—*Radio Norway* During the Winter Olympics from February 12th to 27th, this station will provide a 5 minute English Olympic report towards the end of each of its Norwegian transmissions. (Thomas Media Network October 28th via Mike Fern)

PAKISTAN—*Radio Pakistan* 4915 Heard on this new frequency at 0030 in Urdu. (Petersen Shortwave News November)

Radio Pakistan 9513 off 9515 nominal until 0130 sign off with Hindi program. (Padula Australian Dx News No. 345 November)

PAPUA NEW GUINEA—*Radio Enga* 2410 According to *Radio Australia*, this station has been silent since September when its transmitter broke down. (BBCMS Summary of World Broadcasts No. 46 November 12th)

Radio East Sepik 6140 Current schedule for relaying *National Service* Community School Programs is 2230-0400 Mondays to Fridays. (Padula Australian Dx News No. 345 November)

PERU—*Radio Qollasuyo* 3250 has reactivated as heard at 0048. (MRL Radio News Electronic Edition No. 9 October 31st)

Radio San Andres de Llapa 4254.5 signs on at 2350 with the national anthem and then El Condor Pasa with a QTH of Llapa Provincia de San Miguel, Departamento do Cajamarca. (Henrik Klemetz via Takayuki Inoue Nozaki November 5th)

Radio Naylamp 4299.7 In a verification letter signed by Dr. Juan Jose Grandez Vargas, the station states that their power is 500 watts. (Orcutt Radio Nuevo Mundo No. 186 November)

Radio Tayabamba 4500 has been heard on this new frequency, ex 5387 at 1013. Although they id often the transmitter is constantly drifting and will jump 10s of hertz at a time. (HJ October 31st)

Radio Lider 4860 This station has operated on mediumwave for a number of years on 1100 and they had plans for a shortwave operation when I visited them in 1988. (Takayuki Inoue Nozaki November 5th) Confirmation that this is from Cusco with slogan as: *Desde la . . . de Cusco* (Viloria DX Party Line November 13th)

Complete slogan for *Radio Lider* is "*desde la ciudad imperial de Cusco*" (Mike Fern)

Estacion Tarapoto 5019.15 Noted here this week rather than on 5015v. Perhaps they made a transmitter or tube adjustment as their signal is much stronger. (McVicar DX Partyline November 13th)

Radio Quillabamba 5025 This station's morning lineup includes:

1030 *La Voz Campesina*

1100 *Comunidad Cristiana Campesina*

1130 *Noticiero Estelar en Radio Quillabamba*

1230 *El Peru Andino*

(TIN Relampago Dx Logging No. 26 October 30–November 5th)

Radio Mundo 5045 Heard here rather than 5082 and signing on at 0840. (Camporini Radio Panorama No. 52 October via Radio Nuevo Mundo No. 186 November)

Radio Mundo 5046 was heard on this frequency instead of nominal 5082 between 1115–1145. (Floria World of Radio No. 717 Part 2 October 31st)

La Voz de Huamanga 6070.1 noted on this new frequency, ex 6200.6 since November 13th. (HJ)

Radio Nacional del Peru 6095 This station also has authorization to operate *OAX4Z* 6082 15 kW *OAX4R* 9562 50 kW *OBX4R* 11914 40 kW *OAX4T* 15150 15 kW *OCX40* 16890 10 kW *OBX4T* 21600 50 kW but these additional outlets have been inactive for some time. (Takayuki Inoue Nozaki November 5th)

Prior to its reactivation the station was last heard about 10 years ago on 6082. The program at 0200 is *Canto Andino*. (Porsique World of Radio No. 717 Part 2 October 31st) The above program is also heard at 1100. (Gaviria Play Dx No. 761 October 24th) I am not sure if this is a reactivation or a new station. The "old" station was located in Lima and the "new" station is located in Tacna (per Rodriguez) yet they both use the same call sign *OAX4H* (per Barrera) not to mention the fact that they are also on 850 using call sign *OAX4A* (per Barrera) also listed as being in Lima. (HJ) The folk music program before 0100 is *Musica Criolla*. (Barrera via Herkimer Numero Uno No. 1244 November 5th)

Radio La Voz del Alto Mayo 6137.4 A verification letter received from this station was signed by Victor Bustamante Sanchez, Gerente Propietario. Pardon my poor understanding of Spanish but it seems that the station is owned by the Bustamante family. They are using a 500 watt transmitter made in Trujillo, Peru into a 20 meter high antenna. The address for reports is: La Voz del Alto Mayo, Carretera km. 459, Nueva Cajamarca, Provincia de Rioja, Region San Martin. (HJ November 24th)

Radio Oriente 6190 until 1100 their program is *Dulce Despertar* and after 1100 the program is *Un Bar del Recuerdo*. (Takayuki Inoue Nozaki Relampago Dx Logging No. 25 October 23-29th)

PIRATES-EUROPE — Radio Waves International 11401 Heard signing on at 0905 on UTC Sunday parallel 7473. (Campbell Numero Uno No. 1244 November 5th)

Radio Waves International this station, relayed by various pirates worldwide, plans to leave the air from Easter 1994. (Foster/Martin OZDX No. 86 November)

John Campbell provided the below list in Dx South Florida No. 312 November 3rd. Here are some pirates that might be heard in North America this winter. The traditional Europirate times are 2300 Saturday-0200 Sunday on the 75 meter band and 0900-1300 on Sunday on the higher frequencies although some operators start at 0800 or try Saturday morning without notice.

Radio Fusion International 3905-3930v A Scandinavian station. The address (without the station name on the envelope) Media Team, Postboks 33, N-1751 Halden, Norway

Weekend Music Radio 3910v 14 Stone Row, Coleraine, County Londonderry, BT52 1EP, Northern Ireland

Radio Pirana International 3915-3920 Address (without station name) Stefan Printz, Kamnarsvagen 13D:220, S-226 46 Lund, Sweden.

Radio Orang Utan 6205 Postbus 114, 7040 AC, Heerenburg, Netherlands. They have their own broadcasts, but also reay other people, such as Free Radio Service Holland at FRSH, Postbus 2727, 6049 ZG Herten.

Reflections Europe 6205 carries religious programs Sunday from about 1800 to about 2315. They also use 3910. Address: The Forge, Cranleigh, Surrey GU16 7BG, England.

DLR-106 6226v Address: Dun Laoghaire, County Dublin, Ireland.

Jolly Roger Radio 6229.6231.5v Address: JRR, Box 39, Waterford City, Ireland.

Radio Delta 6235 Address: Postbus 65, 7260 AB Ruurlo, Netherlands.

Belgian International Relay Service 6238.7 Very English despite the name. Address: Box 1218, Chelmsford, Essex CM1 4BD. Occasionally uses its own name, but more often carries a wide variety of other programming with other addresses. They will carry anyone's programming for about 10 dollars an hour.

Radio East Coast Commercial 6255 Address: RECC, K Flat, 9-11 Church Street, Cromer Norfolk NR27 9ER England.

Emerald Radio 6268 Address 8 Inverness Road, Dublin 3, Ireland.

Radio London International 6275 Address: Box 293, Merlin, Ontario NOP 1W0, Canada.

Radio Pirana 6275 Address under 3915 and also noted using 7416v, 11419v, and 13950v.

Ozone Radio 6276.8 A long-lived and regular Irish station with an address of 32 Victoria Road, Salisbury, Wiltshire SP1 3NG, England. They also have crystals for 6231.8 6242.2 6279.9 and 6326.7.

Radio Caroline 6294.8 Saturdays and Sundays with an address of Box 963, London SW20 8XL.

Weekend Music Radio 6300.4 Address under 3910. They use many 48 meter band frequencies.

WGAS or **World's Greatest Anorak Station**, B.P. 130, 92504 Rueil-Malmaison Cedex, France. A joint effort by several British operators.

Radio Dublin 6910-11.5v Address: Box 2077, Dublin 8, Ireland.

Radio Stella 7446 Address: RSI, 82 Pentland Place, Kirkcaldy, Fife, Scotland. (Campbell see above)

Remember that Dutch pirates can be verified via the following address for 2 IRCs: D.P.R.S., 12 Dorman Street, Preston, PR2 6AS, United Kingdom. (Taylor Play Dx No. 763 November 8th)

QATAR—*QBS* is scheduled in Arabic as follows: 11785 0245-0800 1700-2130 17825 0800-1700. (ARDXC via AWR KSDA Guam via Shortwave News November)

Radio Qatar 11785 New frequency with 0300 sign on in Arabic. (Padula Australian Dx News No. 345 November)

RUSSIA—In addition to previously reported transmitter sites there is a small one located at Kovytkino, west of Saransk. This may be a former jammer site. The Bolshakova shortwave site in Kalinigrad was off the air the first two weeks of September due to unpaid electrical bills. There have been several such outages in Russia in recent months. (Alm Dx'ers Calling October via Fred Kohlbrenner)

Radio Slavyanka of the Russian Federation's Ministry of Defense began a service jointly with Radio Moscow International for servicemen based in Tajikistan stationed on the border with Afghanistan and for ethnic Russians in the area on August 6th. The service was expanded on November 1st to include troops stationed in the Baltic republics/Kaliningrad oblast, the Caucasus and Central Asia in general. The station's address is Moscow, K-160, ulitsa Marshala Shaposhinkova 14, Slavyanka Radio studio. They have a fax number of +7 095 296-6506. Their schedule is: Daily except Mondays 0200-0400 7235 6160 5930 5920 4975 4740 and 1700-1900 Daily except Sundays 1700-1900 7265 7140 6175 6090 5945 4975 4940. (BBCMS Summary of World Broadcasts No. 45 November 5th)

Radio One Ostankino (Russian) This service for European Russia operates on the following schedule:

0200-0259 6822.5 USB 6035 6000 4055
0259-0359 13820 USB 9655 9540 6000 4055
0359-0459 13820 USB 6000 4055
0459-0559 13820 13760 both USB 11695 4055
0559-0659 13820 13760 both USB 11695 9775 9540 7240 4055

0659-0759 13820 13760 both USB 11695 9775 9540 7240 4055
0759-0859 13820 13760 both USB 11685 9775 9540 7240
0859-0959 13820 13760 USB 11685 9775 9540 7240
0959-1059 13820 13760 both USB 11685 9775 9540 7240
1000-1059 13820 13760 both USB 11685 9775 9540 7240
1159-1259 13820 13760 both USB 11685 9775 9540 7240
1259-1359 13820 13760 both USB 11685 9775 9540 7240
1359-1459 13820 13760 both USB 11685 9540 7240
1459-1559 13820 13760 both USB 9850 7240
1559-1659 13820 USB 11830 6822.5 USB 6035 4055
1659-1759 13820 USB 11830 6822.5 USB 6035 4055
1759-1859 13820 USB 11830 6822.5 USB 4055
1859-1959 13820 USB 11830 6822.5 USB 6035 4055
1959-2059 13820 USB 11830 6822.5 USB 6035 4055
2059-2159 13820 USB 11830 6822.5 USB 4055
2159-2259 6822.5 USB 6035 4055
2259-0000 6822.5 USB 6035 4055
(BBCMS Summary of World Broadcasts No. 45 November 5th)

Radio Two-Youth Channel Yunost (Russian) operates on the following schedule:
0000-0059 7100 6045 6030 5995 4740
0059-0159 drop 6045
0159-0259 add 7200 6045
0259-0359 drop 6030 5995
0359-0459 add 9790 9670
0459-0559 add 9525 drop 7100
0559-0659 add 11880 11820 drop 9670 7200
0659-0859 add 9670 9585 7200 drop 4740
0859-0959 drop 9670
0959-1059 add 15490 9800 drop 9525
1059-1159 drop 11820
1159-1259 add 11820 9670 drop 6045
1259-1359 add 7100 drop 11880

1359-1459 drop 15490 11820
1459-1559 add 15490 12015
1559-1959 add 11965 4740 drop 15490
12015 9800 9670 9585
1959-2059 drop 7100
2059-2159 add 6095 drop 4740
2159-0000 drop 11965 6095 add 6030
(ibid)

Moscow broadcasts news for Polar regions on Thursdays from 1400-1430 on 9490 in Russian. (ibid)

Voice of the Assyrians current schedule is: 1600-1700 5905 12075 and 17890 Wednesdays and Saturdays only. (Nikolai Rudnev October 21st)

Radio Rukhi Miras current schedule is: 1600-1645 4055 7135 9620 12075 17890 Fridays only. (ibid)

U-Radio is off the air but wants to return. (ibid)

Radio Unity Radio Yedinstvo (Russian) was to have started shortwave test transmissions in November. They are planning to commence regular transmissions in January 1994. The transmissions will be beamed to the Middle East and the Caucasus using a 200 kW transmitter. (ibid)

Radio Ufa 4485 broadcasts local programs: 0210-0300 Mondays-Fridays 0210-0900 Saturdays 0320-0900 Sundays 0700-0900 1300-1500 Mondays-Fridays. The station also relays *Radio Russia*. (ibid)

Radio Chita 4860 has local programming at: 1120-1200 2100-2200 Mondays-Saturdays 2210-2300 Daily 2320-0100 Saturdays 0000-0100 Sundays 0100-0200 Saturdays-Sundays 1210-1300 Wednesdays and Fridays. (ibid)

Radio Krasnoyarsk 5290 broadcasts local programs at 2320-0100 0700-0800 1120-1300 Mondays-Fridays 0000-0200 Saturdays 0300-0400 Sundays 0700-0800. They also relay *Radio Russia*. (ibid)

BBC is heard via a few sites in Russia as follows: Yekaterinburg 0500-0530 7380 2000-2030 5920 Programs in Ukrainian. Chita 1000-1300 2200-2300 7330 Programs in Chinese. Irkutsk 2200-2300. 7420 Programs in Chinese. (Nikolai Rudnev October 21st)

TWR 7420 New frequency via Irkutsk with 1230 sign on and programming in South Asian languages. Ex 11655. (Seager Australian Dx News No. 345 November)

RWANDA — *Radiodiffusion Rwandaise* is announcing a new address of B.P. 404, Kigali. (Wilkins Numero Uno No. 1241 October 15th)

Radiodiffusion Rwanda According to a source at the *Deutsche Welle* Kigali site, the above station is using a 100 kW transmitter located at the *DW* site. (Media Network November 12th)

The programs that are now heard on 9610 and 15340 khz are not via the old 50 kW Philips shortwave transmitter installed in 1964 nor via the 20 kW RIZ shortwave transmitter installed in 1985, both at Kigali, but via a new Asea Brown Boveri (now Thomcast) 100 kW shortwave transmitter commissioned in 1991 and installed at a place called Kininya. (Ludo Maes November 15th) I'm not sure where that is, its not in my National Geographic Atlas nor on my Michelin maps of Africa. (HJ)

SIKKIM—*AIR Gangtok* heard only on October 31st only by Cedric Marshall and myself at Newmarket with an apparent religious program after 1200, ID at 1231 and possible local news following on 4775 kHz with quite a good peak for the listed 10 kW. It was not audible on the prior or the next two subsequent Sunday mornings and we don't think it was on the air at all. In any event there would seem to be a number of possibilities accounting for this singular reception over a four-week period: Gangtok may still be testing or may be alternating with another channel - perhaps 3345 or 3395 (?), or maybe it is simply on a very irregular schedule at present. I hope Manosij Guha can shed some light on this. (David Clark World Radio Report Dx Ontario December)

SLOVAKIA—*AWR* is conducting negotiations to transmit from this country 22 hours a day. (Peterson World of Radio No. 719 November 13th) It is unclear whether they will be using existing facilities or building some additional ones. (Hauser ibid)

SOMALIA—*Radio Hargeisa* 7120 A UNHCR delegation toured Hargeisa and noted the destruction to this station's facilities. They

are currently having to operate from temporary facilities and a truck-borne transmitter. (BBCMS Summary of World Broadcasts No. 46 November 12th)

Radio Manta 9540 During its 1000-1045 broadcast this UNOSOM station was subjected to intermittent co-channel interference from an unidentified anti-UNOSOM station. (BBCMS World Broadcasting Information News No. 44 October 29th)

SOUTH AFRICA—*Capital Radio* 7149.4 A while back, *Media Network* did a feature with this station's new ownership. The station planned to switch its format. It was heard at 0328 with the program the *Music Power Half Hour* and an id mentioning the "brand new Capital." (Gif November 7th)

SURINAM—*Radio Apintie* 4990.9 heard again on this frequency. (Gif November 5th) The station is alternating between the above and 5005. (Terry Krueger November 4th)

SWAZILAND—*TWR-Swaziland* 7215 new frequency from 0400-0530 in Chewa and English. Ex 7200. (Padula Australian Dx News No. 345 November)

UKRAINE—*Radio Ukraine* 5960 new frequency, Ukrainian at 1900. (Padula Australian Dx News No. 345 November)

UNITED ARAB EMIRATES—*Radio of the UAE-Abu Dhabi* 15265 Heard in Arabic with unscheduled relay of Home Service from 0530-0600. (Padula Australian Dx News No. 345 November)

UNITED STATES—*KWHR* This station will try and be on the air by December 24th. Their English schedule will be:

0000	17555	1800	13625
0200	17510	2000	13720
0600	9930	2200	17510
1600	7425		

(Jacobs World of Radio No. 717 Part 2 October 31st)

On November 14th Jeff White announced that *Radio Miami International* had begun on-air tests using an auxiliary transmitter with a power of about 400 watts on 9955. The purpose was to test the new corner reflector

antenna which was beamed towards north-central South America at 160 degrees. Listener reports are welcome for these tests. The *RMI* posting also stated that the main 50 kW transmitter was in the final phases of refurbishing and that engineers expected it would be on the air for tests beginning around mid-December. (Jeff White & Harold Sellers on CIS HamNet via Sellers World Radio Report Dx Ontario December)

The Board for International Broadcasting will decide on a new home base for *Radio Free Europe* and *Radio Liberty* by December 1st. *RFE* transmissions in Serbo-Croatian and Albanian were to have started in November. (Fleming Media Roundup October 31st via Mike Fern)

VOA now has a fax number: (202) 619-0211. (Media Network November 4th via Mike Fern)

URUGUAY—*Radio Libertad Sport* 6045 has reactivated. (Camporini Radio Panorama No. 52 October via Radio Nuevo Mundo No. 186 November)

UZBEKISTAN—*Radio Tashkent* 6025 On this new frequency in English parallel 9540 at 1218. (Tony Orr November 8th)

BBC is heard via Tashkent in South Asian languages at 0030-0200 7315 1330-1545 1630-1700 7325. (Nikolai Rudnev October 21st)

VENEZUELA—*Radio Deporte* 3180 Second Harmonic of 1590 heard at 1040. (MRL Radio News Electronic Edition No. 9 October 31st)

Radio Nacional 9547 Heard here at 1200 with very distorted audio rather than on nominal 9540. (Dave Valko November 9th)

Radio Occidental 9750 has been reactivated as heard on October 18th. (San Gil World of Radio No. 717 Part 2 October 31st)

Radio Occidente 3225 although they announce this frequency, I believe that they are only active on 9750. (Klemetz Shortwave Bulletin No. 1237 November 9th)

Radio Occidente 9750 has a new slogan: *Radio Occidente Cobertura Total*. (Gaviria Play Dx No. 764 November 15th)

VIETNAM—*Lao Cai Broadcasting Station* 5596.65 signing on at 1002 with Hanoi news relay at 1100. (TIN Relampago Dx Logging No. 26 October 30th–November 5th)

Home Service 6166.5 Thanks to a tip from Tony Orr, I heard this on November 14th at 1155 parallel 10059. (HJ)

VOV Home Service 4959v is a new 50 kW transmitter here parallel 10059. (Ugusa Media Roundup October 17th via Mike Fern)

ZIMBABWE—Shortwave could return here, read on. (HJ) According to the *Herald* (Harere) newspaper a multi-million dollar *Zimbabwe Broadcasting Corporation [ZBC]* programme to provide adequate television and radio reception countrywide has been halted because of lack of money, parliament heard yesterday.

The Minister of Information, Posts and Telecommunications, Cde [Comrade] David Karimanzira, told parliament that the transmitter development programme had met with problems over the years and transmission in border areas still remained unacceptable. "...The *ZBC* has designed a nationwide transmitter development programme drawn with the intention of acquiring the necessary hardware to provide adequate television and radio reception all over the country." Contributing to debate on the Presidential Address, Cde Karimanzira said the corporation had failed to raise the \$100 million required for the programme. "Because it is not likely that this huge amount will be made easily available in toto in the near future, serious consideration is being given to such factors as population densities and cost efficiency of the new transmitters, as compared with the percentage of receivers in each area," said Cde Karimanzira. The programme would include increasing the radio and television antennae on the Bulawayo transmitter mast, erecting two new transmitters at Matamvi Hills near Beitbridge and another at St Albert in Mudzi. He said the resuscitation of shortwave transmission would solve some of the reception problems. "As is known, shortwave transmission is not affected by topographical characteristics of the ground and it will go a long way to cover those grey areas where FM does not reach. Shortwave has the advantage that it could also be received regionally and

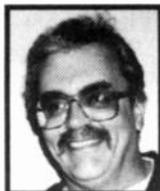
beyond, making it possible for citizens and friends of Zimbabwe abroad to keep in touch with events at home," said Cde Karimanzira. (BBCMS Summary of World Broadcasting No. 47 November 19th)

PROPAGATION — 'Deep Winter' conditions start about November 11th and continue to mid-February. The low solar activity results in an extremely sensitive ionosphere. In the morning, the critical frequency will rise quickly, reaching its maximum of 7 mhz around noon local time. At about 4 P.M the critical frequency falls to extremely low values with a minimum around 2 mhz. This is the framework for Dx success: from mid-morning to early afternoon, the maximum usable frequency is very high, higher than at any time in summer. This sounds paradoxical but it is true. In the late afternoons the critical frequency and the MUF start running down into the very low tropical bands and this causes signal deterioration through ionospheric scattering. Conditions are very favorable but only for circuits running under the cover of night.

Daytime signal attenuation through both the D and E layers is at its annual minimum at the December solstice. Atmospherics due to electrical storms are also at a minimum this time of year. Echos can be heard particularly in the higher bands. When a station on 13 meters sounds like the announcer's voice is bouncing around the studio, its because you are hearing the signal twice: first by the direct path, and the second after one full travel around the earth's far side in a duct, which is an ionospheric waveguide of extremely low attenuation. (Dxers World Meeting No. 31 October 31st via Mike Fern)

PUBLICATIONS—NRD-525/535 owners might want to order the NRD Notes newsletter which discusses modifications and improvements to these two receivers. Send one dollar US or two Canadian to: Bill Carney, P.O. 605, Bay City, Michigan 48707-0605. (Terry Krueger Dx South Florida No. 312 November 3rd)

QSL Reports



Sam Barto
47 Prospect Place
Bristol, CT 06010

ABU DHABI: UAE Radio 15305 f/d folder cd. w/ schedule in 37 ds. (Lane).

ALASKA: KNLS 9615 f/d cd. w/ personal ltr., and pennant in 19 ds. for ms. (Poston-IA).

ALBANIA: Radio Tirana 11840 f/d "Regional Dress" cd. w/ sticker in 72 ds. (Humenyk-ONT).

ASCENSION ISLAND: VOA 15160 f/d cd. in 2 mo. v/s John Vodenik. (Carter-WA).

ASIATIC RUSSIA: RID 10004 f/d ltr. in 65 ds. after a f/up rpt. for 2 IRCs.

The ltr. was computer generated. v/s Feodor Brazhnikov, QSL Secretary. Also rcvd. postcard, calendar and info. sheets. (Wilkins-CO). same w/ goodies in 6 wks. for a taped rpt. Addr: P.O. Box 3036, Irkutsk 664059. (Berg-MA).

University Network 6070 via Novosibirsk f/d cd. in 2 mo. (Barto-CT). **VOA 5925 via Novosibirsk f/d cd.** in 16 ds. after a f/up rpt. v/s Mr. Dan Ferguson. (Kusalik-ALB). 5945

* via **Irkutsk f/d cd.** in 16 ds. (Kusalik). **Radio France International 12025 f/d cd.** w/ schedule in 101 ds. (Humenyk-ONT). This via **Irkutsk.**

AUSTRALIA: Australian Armed Forces Radio 19037.5 via Harold E. Holt site in 3 1/2 mo. w/ f/d prepared cd. v/s Hugh McKenzie, Manager. (Kusalik-ALB)

* 12070.5 and 23678.5 via **Belconnen** site w/ 2 f/d QSL sheets w/ 2 f/d prepared cds. (Kusalik). 12070.5 f/d form ltr. in 71 ds. for 3 IRCs (returned). (Wilkins-MS). f/d ltr. in 2 mo. They were extremely surprised when I sent them a copy of the **AAFR** station QSL they sent to me while I was in Vietnam. It was for **Yung Tao** on 1030khz. (Barto-CT).

AUSTRIA: ORF 13730 large special QSL for the GM DX program "DX Telegram" 750th program. This was in 1 mo. (Berg-MA). same in 1 mo. for 2 IRCs. (Kusalik). **Radio Austria International 9870 f/d** "Descent from the Pastures" in 17 ds. (Poston-IA). **Radio Canada International 9505 via Moogbrunn f/d cd.** in 11 ds. (Trummel).

BELGIUM: Radio Vlaanderen International 9930 f/d cd. in 2 mo. (Trummel).

BHUTAN: UN Radio 5025 via BBS f/d cd. in 3 wks. after a f/up rpt. w/ ms. (Carter-WA)



RADIO SOFIA

Radio Educaci3n

via Clar

Distintivo	XELP	XELPM
Frecuencia	1060 KHz.	6185 KHz.
Banda	A.M.	C. C. 49 metros
Potencia	50,000 watts	5,000 watts
Antena	Circonfrencial de $\lambda/2$	Depalo horizontal de $\lambda/2$
Horario de transmisi3n	Las 24 horas	00:00 a 12:00 hrs. UTC
Paas	México, D.F.	México, D.F.

BOLIVIA: Radio Juan 23 4965

* f/d blue cd. w/ station seal in 135 ds. for a SP rpt. and \$1.00. v/s Elias Cortezon PBRO, Director. (Durden-GA).

BONAIRE: Trans World Radio

11930 f/d "Flamingoes" cd. w/ sticker, personal note and other goodies. in 40 ds. for 1 IRC. v/s Sally Rork. (Poston-IA).

BOTSWANA: Radio Botswana 4830

f/d "Daily Chores for Young Girls at Setshengo Lands" in 56 ds. for \$1.00. (Durden)

BOTSWANA: VOA 13710 and 15445 f/d "Map" cd. in 25 ds. (Humenyk-ONT)

BRASIL: Radio Aparecida 11855 f/d "Studio Complex" cd. w/ decal and personal note in 156 ds. for a PT rpt. and \$1.00 v/s Cassiano A. Macedo, Editor DX. He would appreciate any DX related info. from USA DX Clubs. (Durden-GA). Radio Inconfidencia ZYR521 6010 f/d "Studio" cd. w/ postcard in 2 mo. for a PT rpt. Stickers were rcvd. (Barto-CT). RadioBras 15445 f/d cd. in 2 mo. w/ schedule and sticker for a PT rpt. and 2 IRCs.

BULGARIA: Radio Bulgaria 11720, (Boulden) 6220 and 15330 2 different f/d cds. in 3 mo. (Harto-CT).

CANADA: Radio Canada International 6120 f/d cd. w/ pennant, sticker and schedule in 24 ds. (Trummel). Radio Austria International 6015 f/d "Pastures" folder QSL w/ sticker in 40 ds. (Poston-IA).

CHILE: Radio Esperanza

6088.5 f/d cd. w/ personal ltr. and decals in 116 ds. after a f/up rpt. w/ \$1.00. v/s Alberto Higuera Martinez, Locutor. (Durden-GA). 6090 f/d cd. in 19 ds. for a SP rpt. and \$1.00. v/s Eleazar H. Jara, Jefe Depto. Programacion.

CLANDESTINE: The Voice (D'Angelo).

* of National Salvation rcvd. the "Kuguk Chonson" The National Salvation Front newspaper w/ shortwave freq's circled but no definite QSL statement in 3 mo. for a

PLEASE NOTE: I recently received a letter from a NASNA member that was sent to him by Mr. Takayuki Inoue Nozaki in Japan. For quite some time in the pages of the NASNA QSL Column, I have been using his pennant illustrations which were printed in PLAY-DX without giving proper credit to Mr. Nozaki. For this I apologize. The illustration to the immediate left is probably one of his. Mr. Nozaki is well know to the DX community and has one of the best pennant collections in existence....For other individuals, if you wish to use any of the information contained in

this Column such as verification signers, etc. I do not require nor do I seek credit for anything contained herein.....Sam.

rpt. to the Japanese address. A few days later I rcvd. a different newsletter. I guess I'm on someones list! I keep getting the papers. (Barto-CT)

COLOMBIA: La Voz del Guaviare 6035 long p/d 2 page personal ltr. in 357 ds. on my 4th try. v/s Luis Fernando Roman Robayo, Director. He requests

that we use the SINPO code in future rpts. (Durden-GA). Ecos del Combeima 4785.6 n/d 2 page personal ltr. in 576 ds. after 7 rpts. FM stickers were rcvd. v/s German Acosta Ramos, Locutor Control. (Durden-GA). Radio Macarena 5975 p/d ltr. in 1 mo. for a SP rpt. and ms. v/s Carlos Alberto Pimienta, Gerente. (Rausch-NJ).

CERTIFICADO DE ESCUCHA
NOSOTROS LE DAMOS GRACIAS POR SU INFORME DE RECEPCION Y HEMOS VERIFICADO QUE ES CORRECTO.

EMISSION: Radio "VISION 2000" - via Barrera
FRECUENCIA: 5131 Yhz. POTENCIA: 500 W.
FECHA: 11-07-74 HORA de 12:10 a 21 H. 30a.

RADIO VISION 03 2000 00
Empresa Individual de Responsabilidad Limitada
1130 Ko. Onda Corta 92.0 F.M.
Ay. Ricardo Palma N°
BAMBAMARCA-PERU

LE SALUDAMOS MUY ATENTAMENTE.

SELLO DE LA EMISSIONA FIRMA *[Signature]*

Radio Nacional de HUANUNI
 Voz Sindicalista del Minero Boliviano

33 (PROGRESO)

1959
1992

24 de Junio

Al Sr. ml

5965 Khz. 49 Mts. ONDA CORTA
 C.P. 177

Huanuni Bolivia

NOTES: Paul Friend of 235 East 95th Street, Apt. 33F in NYC 10128 sent along a very nice looking ORU station sticker from 1973. He has a few others so if you contact him you may just get one!...Sam. Thanks Paul! Ed Rausch sent me a very nice set of 2 cassette tapes of interval signals. It is very pleasant listening. If you are interested (on a first come basis) contact me and I'll send you the tapes. Thanks Ed....Sam.

COLOMBIA: Radio Bucaramanga 4845 f/d prepared cd. w/ ltr. in 30 ds. w/ personal ltr. for a SP rpt. and \$1.00. v/s German Gomez Vahos, Gerente. (D'Angelo-PA).

COSTA RICA: Radio For Peace International 7375 f/d cd. in 1 mo. for ms. (Pappas-SD). 15030 f/d "Logo" cd. in 31 ds. for \$1.00. v/s James Latham, Station Manager. (McClure-CA). Adventist World Radio 11870 f/d cd. w/ schedule, sticker and pennant in 7 wks. v/s David Gregory, Programming Dept. (Humeny-ONT). U.N. Radio 15030 f/d cd. in 3 wks. for ms. (Carter-WA). f/d ltr. w/ schedule in 38 ds. for \$1.00. (Lane-ONT).

CUBA: Radio Habana Cuba 6010 f/d cd. in 113 ds. (Dukes-SC).

CZECH REP: Radio Prague

11900 f/d "St. Nicholas" cd. w/ sticker in 43 ds. (Poston-IA). 9810 and 7345 f/d "St. George Basilica Structure" cd. in 34 ds. for \$1.00. (Comeau-MA). Radio Ropa Info 5980 f/d cd. in GM in 52 ds. for \$1.00. Stickers were rcvd. (Wilkins-CO). f/d cd. w/

VERIFICATION SIGNERS: Radio Gaucha 11915 Alexandre Aguiar Amaral, International Editor. Radio Cima Cien 4961 Roberto Vargas. He collects stamps and postcards. Radio Georgia 11910 Mrs. Natia Datuaschwili, Secretary. Radio Ropa Info 5980 Sabine K. Thome. via PLAY-DX...Sam.

RADIO DIFUSION
 C.P. 106
 "PAITITI"



• 4865 KHz Banda de 60MHz
 Onda - corta • tropical
 F.M. 100.1
 LA EMISORA DEL BOGAR
 GUAYARAMICRIN-DEMI-BOLIVIA

1993-1994

2 different stickers w/ p/d ltr. and station booklet in 3 mo. (Barto). **CZECH AND SLOVAK REP:** Radio Prague 5930, 7345 and 9810 f/d cd. in 1 mo. **DOMINICAN REP:** Radio Quisqueya 6205.5 p/d ltr. in 2½ mo. (Trummel). * for a SP rpt. and \$1.00. v/s Gregory Castellanos Ruano. (Rausch-NJ). **ECUADOR:** Radio Nacional Progreso 5060.5 p/d personal ltr. w/ small pennant from "HCEH3" in 161 ds. for a SP rpt. and \$1.00. This was after a f/up rpt. v/s Jose A. Guaman Guajala. (Durden-GA).

EGYPT: Radio Cairo 9475 f/d cd. w/ schedule, newspaper and postcards in 113 ds. for 2 IRCs. v/s Mrs. Sahar Khalil. (McClure-CA).

ENGLAND: Radio Japan 7230 via Skelton f/d cd. in 3 wks. for 2 IRCs. (Carter-WA). Radio Canada International 9670 via Skelton f/d cd. in 11 ds. (Trummel).

FRANCE: Radio France International 15365 f/d cd. w/ schedule in 91 ds. (Dukes-SC).

FRENCH GUIANA: China Radio International 11680 f/d cd. w/ stickers. (Poston-IA).

QSL CARD

Ghana Broadcasting Corporation
 P. O. Box 1633,
 Accra, Ghana




Dear Sir/Madam,

Thank you for your reception report of our transmission(s)
 on 3366 kc/s heard at 22.34 - 22.41
 G.M.T. on 4 to 5 P.M. 1993

We have pleasure in verifying your report which is much appreciated.

Shamir
 for Director-General

4.10.1993
PE/MN93/3262

free radio

RADIO 101

VERIFICATION CARD / QSL 101 MHz FM STEREO
7350 KHz / 41m

Dear KEVIN, via Trummel
we are glad to receive your SWL report of:
date: 30/12/85 time: 9:02 g4 (C) CET/MEZ
CEST/MESZ

on VHF 101.0 MHz FM STEREO
VHF 101.6 MHz FM STEREO
VHF _____ MHz FM
shortwave 41m 7350 KHz AM
shortwave _____ m _____ KHz/MHz AM/FM

SINPO: 41334 RS:
TX output: 125 Watts RF
E.R. Power: 360 Watts RF

Tx in Qth: 1 MHz, 3 MHz, 4.5 MHz



19. AUG. 1982

Radio 101 Int.
Boite Postale 2
B-4880 Gemmenich, Belgique
101 MHz FM Stereo 41m
CHRIS

FRENCH GUIANA: RFO 5055 f/d cd. in 33 ds. after a f/up rpt. for a FR rpt. and ms.(D'Angelo-PA).

GABON: Radio Japan 11925 f/d cd. of "Summer Festival in Fukagawa, Tokyo" in 32 ds. w/ schedule.(Humenyk-ONT).

GEORGIA: Radio Tbilisi 11760 f/d cd. in 32B ds. after a f/up rpt. for \$1.00 and 1 IRC. v/s Helen Apkhasbre, Editor. Also rcvd. schedule.(Comeau-MA).

GERMANY: Deutsche Welle n/d cd. (Lane). p/d "Map" cd. in 15 ds. w/ schedule and stickers. (McClure-CA). RFE/RL 9540 via Holzkirchen p/d cd. in 20 ds. (Trummel). Sudwestfunk 7265 f/d cd. in 32 ds. for 1 IRC. * (Anderson-MI). Radio Ropa Info 5980 via Daun f/d "Logo" cd. w/ schedule and stickers in 35 ds. v/s Sabine K. Thome.(Humenyk-ONT)....Is this from Germany or Czech or both? I've seen it listed both ways..Sam.

GREECE: VOA Kavala 7205 f/d cd. in 34 ds.(Humenyk-ONT).

VERIFICATION SIGNERS: Radio Itatiaia 4805 Luccia Araujo Bessa, Assistente da Diretoria. Radio 8 de Setembro 2490 Adonias Gomes. Radio Educadora de Cariri 3255 Padre Concalo Farias Filho, Director Geral. Radio Pioneira 5015 Tony Batista, Director. Radio Capilaba 4935 Sofrage do Benil. Radio Gaucha 6020 Alexander Aguilar Amaral, International Editor. Radio Difusora Maranhao 4753 Fernando Souza, Gerente. Radio Vale do Rio Madeira 3205 Jaime Silva. Addr: Av. Rio Madeira 1940, Humaita' 69800-000 Amazonas. Radio Educadora de Limeira 2380 Vitorio Bortolan Filho, Director Geral...via PLAY DX..Sam.

GREECE: Voice of Greece 9395, 9420 and 11645 p/d cd. in 197 ds. w/ schedule.(Lane).

HAWAII: HWVH 10000 f/d cd. in 29 ds. w/ ltr. v/s Dean T. Okayama, Engineer in Charge.(McClure-CA).

HOLLAND: Radio Nederland 17610 f/d cd. in 20 ds. C/V #100:!!(Trummel). 6020 f/d cd. in 32 ds.(Poston-IA).

HUNGARY: Radio Budapest 5970 via Diod f/d cd. in 52 ds.(Humenyk-ONT).

INDIA: All India Radio 3223 via Simla f/d "Temple" cd. in 1 yr. after several f/up rpt.s.(Kusalik). 7460 (4760?) via Leh w/ f/d "Musicians and Dancers" cd. in 143 ds. for 2 IRCs.(Kusalik). 11620 f/d cd. w/ schedule in 81 ds.(Lane).

ITALY: RAI 11800 f/d "Statue at Lucca" cd. in 61 ds.(Humenyk-ONT). f/d "Painting" cd. in 52 ds. for 2 IRCs.(McClure-CA).

KIRIBATI: Radio Kiribati 9825 f/d "Fishing" cd. in 38 ds. for \$1.00.(Comeau-MA).

KOREA, REP. OF: BBC 9640 via Kimje f/d "Deutsch BBC" cd. w/ site for a rpt. to the GM service in 10 ds. v/s

H.A. Staiger, Deputy Head of the German Service.(Kusalik-ALB).

Radio Canada International 7260 via Kimje f/d cd. in 11 ds.(Trummel).

KUWAIT: Radio Kuwait 13620 via Safat f/d "Logo" cd. w/ schedule in 101 ds.(Humenyk). 3 f/d infosheets in 1 mo. for 2 IRCs. (Rausch-NJ).



BENGUELA
R. N. A.



VERIFICATION SIGNERS: Radio Dada Gorquid 9840 Taman Bayatly-Oner. Radio Bangladesh 13620 Md. Romissuddin Bhuiya, Senior Engineer. Radio 9 de Abril 3198.1 Antonio Lafuente Azurduy, Director and Presidente and Bruno Condori Sinani, Secretario de Relaciones and David Bustillos Arevalo, Secretario. Radio Metropolitana 6195 Rodolfo Beltran Rosales, Jefe de Prensa de "El Metropolitico". Radio Tropical de Barra do Garcas 4855 Jose Coelho sa Silva, Coordinator General. Radio Esperanza 6088 Alberto Higuera Martinez, Locutor. Radio Nueva Vida 5567 Christian Caicedo Aguiar, Locutor and Antonio Caicedo, Director. Radio Bucaramanga 4845 German Gomez Vahos, Gerencia de Caracol...via PLAY DX.....Sa,

LIBERIA: ELWA 4760 p/d ltr. for \$1.00 for a rpt. to SIM, P.O. Box 7900, Charlotte, NC 28241. v/s Stan Bruning, Radio Coordinator.(Lawrence-NY).
LITHUANIA: Radio Centras 9710 QSL was rcvd. direct * for NORDX Special broadcast from 2 yrs. ago. This was a f/d cd. (Berg-MA). Radio Vilnius 12040 f/d cd. w/ schedule in 38 ds.(Lane)
MALI: China Radio International 9690 f/d "Cloth Ornament" cd. w/ stickers and newsletter in 22 ds.(Poston-IA).
MEXICO: Radio Educacion 6185 f/d cd. w/ brochure and stickers in 3 mo. for a SP rpt.

and \$1.00.(Anderson-MI). Tnx for the info. on this station. It was very interesting...Betsy Robinson...Sam.

MONGOLIA: Radio Ulan Bator 12015 f/d cd. in 1 mo. after a f/w rpt. for \$1.00.(Gaharan).
MONACO: Trans World Radio 9480 f/d "Map" cd. in 20 ds. v/s Jeanne Olsen.(Poston-IA)...Sorry this was out of order...Sam.
MOROCCO: VOA 15410 f/d cd. in 58 ds.(D'Angelo-PA). same in 32 ds. v/s Dan Ferguson.(Wilkins-CO). 15410 and 17785 f/d cds. in 7 ds.(Trummel).
NEW IRELAND: Radio New Ireland 3905 f/d ltr. in 45 ds. for \$1.00. v/s Ruben Bale, Provincial Programme Manager.(Trummel)
NEW ZEALAND: Radio New Zealand International 9700 p/d cd. w/ schedule and decal in 56 ds. for 3 ms. (Dukes-SC). 15120 via Rangitaiiki f/d "Lake Matheson" cd. in 61 ds. w/ schedule and good luck charm.(Humenyk-ONT).
OHAN: BBC 15310 f/d "Map" cd. in 3 wks. for 2 IRCs. v/s Tim Mullins, Senior Transmitter Engineer.(Rausch-NJ).
PAPUA NEW GUINEA: Radio Northern 3345 f/d personal ltr. in 22 ds. for ms. v/s Misael Pendaia, Provincial Station Manager.(D'Angelo-PA).



from the D'Angelo collection.

in 56 ds. for 3 ms.
PARAGUAY: Radio Nacional 9735 p/d ltr. in SP in 240 ds. for \$1.00. v/s Fillemon Arguello.(Gaharan).
PERU: Radio Naylamp 4300 p/d cd. w/ f/d prepared cd. and a personal ltr. in 24 ds. for SASE(used) and \$1.00. v/s Juan Jose Grandez Vargas, Director-Gerente. (Trummel)...more to follow...Sam.

FALCON RADIO
P.O. Box 99 HAMPTON U.K.
via Trummel

WE QSL THE WORLD 100%

PERU: Radio Oriente

6190 f/d ltr. in 90 ds. for a SP rpt. and ms. v/s Pedro Capo Moraes, Gerente Tecnico. (Rausch).

* **Radio Universal** 5095 f/d prepared cd. w/ ltr. in 27 ds. for a SP rpt. and \$1.00. Sticker rcvd. v/s Luis Villasante Colpaert, Director Gerente. (D'Angelo)

PHILIPPINES: Radyo Pilipinas 17670 and 17840 f/d cd. w/ sticker

KIRIBATI

Fishing — an everyday work. The skipper dries a fish and coconut and there is a great variety of fish around the coral reef. Photo: Billy Schurz

Dear Ross

This is to verify your reception report of Radio Kiribati (Station T381) from 0644.000 until 0738.000 on 22 August 1993 on our regular frequency 9.825 KHz

Date: 15/9/93

(Signature)
Engineer-in-Charge
Radio Kiribati

QSL CARD



ROSS COMEAU
16 LINWOOD STREET
ANDOVER, MA. 01810
USA

Published by the Broadcasting and Publications Authority, P.O. Box 76, Berek, Tarawa, Kiribati
Printed by the Singapore-based Press Printing Press, Singapore

NOTES: The Rev. Ed Poston is making final preparations for a new antenna. However, he thinks it won't be a good idea to drill through the outside walls in the parsonage. In your position Ed, can't you get any assistance from your superiors? Kirk Trummel asks if anyone knows for sure the location of the new Voice of America transmitter in Morocco? Kirk lives in Springfield, MO. and he says that the recent rains have done wonders for his ground system! Kirk needs addresses for Russian time stations RTM, RTA, RCH and RID. Any help? His address is 1122 West University, Springfield, MO 65807.

and schedule in 20 ds. for \$1.00. v/s Evelyn S. Agato, Producer Office of the Press Secretary. (McClure).

RADIO SCORPIO QSL

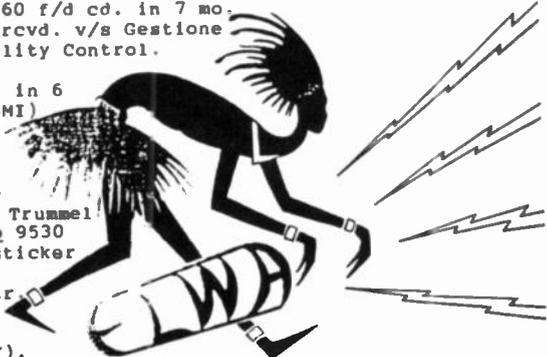


To: Kevin K Trummel
In: Meisau / West Germany
Date: 24.11.85
Time: 12.24 - 12.46 UTC
Frequency: 6205 kHz
SINPO: 44434

73's,
(Signature)

THANK YOU FOR YOUR REPORT.

- 11805 f/d cds. in 94 ds. (Lane).
- SAUDI ARABIA: BSKSA** 9720 and 1521(BCB) p/d ltr. in 3 mo. after a f/up rpt.
- SAIPAN: KHBI** 9425 f/d "Dipole Array" cd. in 48 ds. (Humenyk). **KFBS** 11650 f/d cd. in 45 ds. for \$1.00. (Trummel).
- SEYCHELLES: BBC** 15420 f/d ltr. in 1 mo. for \$1.00. (Trummel).
- SICILY: RAI Caltanissetta** 6060 f/d cd. in 7 mo. for 2 IRCs. Schedule was rcvd. v/s Gestione Risorse, Transmission Quality Control. (Kusalik).
- SINGAPORE: BBC** 11750 f/d cd. in 6 wks. for 1 IRC. (Anderson-MI)
- SOLOMON ISLANDS: SIBC** 5020 and 9545 f/d "Logo" cd. in 6 1/2 mo. for a taped rpt. and \$1.00. v/s Cornelius Teasi. (Lamb). via Trummel
- SPAIN: Spanish Foreign Radio** 9530 f/d cd. w/ schedule and sticker in 86 ds. (Lane-ONT).
- SUDAN: SNRC** 9190 f/d form ltr. in 390 ds. for a taped rpt. and \$1.00. v/s Mohd. Elmahdi Khalil. (Klinck-NY).



SWITZERLAND: Swiss Radio International 6135, 9885 and 17730 f/d cd. w/ schedule in 36 ds. (Lane-ONT).

TAHITI: RFO Tahiti 11827 f/d cd. in 2 mo. for \$1.00. (Trummel). 15170 f/d cd. w/ schedule in 3 mo. for ms. (Rausch-NJ).

TAJIKISTAN: Tadzhik Radio 7245 p/d ltr. w/ postcard and schedule in 138 ds. v/s G. Makhmudov, Vice-Chairman of the State TV - Radio Broadcasting Company of the Tajik Republic. C/V #100!!! (Schwartz).

THAILAND: VOA 11820 f/d "Map" cd. in 2 mo. v/s John Vodenik. (Rausch-NJ).

TIBET: Xizang PBS 7110 f/d "Painting" cd. in 20 ds. for \$1.00. QSL via CRI (Millard-TX).

USA: KCBI 15725 f/d "Two-If-By-Sea" cd. in 174 ds. (Wilkins-MS). same in 29 ds. (Humenyk-ONT). in 307 ds. after 2 f/up rpts. (Hardester-NC).

Texas A&M University Network 15420 via WRNO f/d "Special Edition" cd. in 10 ds. for SASE. (Trummel). WVW 20000 f/d cd. in 10 ds. (Trummel).

NOTES: Ross Comeau says that it was especially rewarding to QSL Kiribati and Paraguay within a few days of each other. It makes up for those times when you get nothing at all. Ernie Lawrence is back at the dials again after a very pleasant summer. He has put up a new antenna but most of his best receptions are in the late afternoon with the Africans. Ed Poston was very lucky and escaped most of the midwest flooding. After QSLing for about two years, he has decided to get serious about obtaining some of the DX Awards that we offer. Good luck!...Sam.

USA: Radio Miami International 7355 via WRNO f/d cd. in 2 wks. for ms. v/s Jeff White. (Trummel). Radio Marti 11930 via Greenville f/d cd. w/ ltr. and schedule in 49 ds. (Trummel).

WSHB 15665 f/d "Dipole" cd. in 29 ds. v/s Judy P. Cooke. (Humenyk-ONT). 5850 f/d cd. in 27 ds. for ms. (McClure-CA).

VOA Greenville 5995 f/d "Sunrise" cd. w/ schedule and sticker in 114 ds. (Humenyk-ONT).

USA (Pirates): WEED 7465 p/d sheet in 77 ds. for 3 ms. via the Huntsville, AL drop. Also rcvd. politically and humorously orientated collages and ads for freedom fighters. (Comeau-MA). Voice of the Stench 7414 f/d "Anti-NAFTA" sheet for 3 ms. from the BRS drop in 3 1/2 mo. (Lobdell-MA). Mrs. Beasley's Radio Show 7413 f/d photo copy of "Naked Babe" in 3 1/2 mo. for a rpt. in the ACE bulletin. (Lobdell).... Maybe we should say "Clothing Optional Feminist" cd. to be more correct. Hi!...Sam. WBZA 25500 f/d "Old Photo of WBZs Staff" cd. in 1 mo. for \$1.00. Said my rpt. was the farthest! v/s G. Westinghouse. (Kusalik-ALB)...By the way, my oldest daughter is now working for Interp Radio in advertising. This is part of the Group W network in Boston. I can get free sport tickets. Hi!...Sam. Just kidding on the latter.

Omega Radio 7414 f/d "Greek Symbol" cd. in 3 mo. for a rpt. to the Wellsville drop (Lobdell). Solid Rock Radio 7465 f/d cd. signed by Dr. Love in 15 ds. (Arey-NJ). Voice of Bono 7418 f/d cd. w/ personal ltr. in 52 ds. (Arey-NJ).

ROSS COMEAU THIS CONFIRM RECEPTION



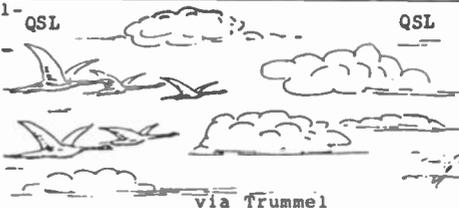
RADIO NA GAEL

MUSIC OF THE NATION

Broadcasting on 92.2 FM 1350 AM

6340 Short wave

USA (Pirates): WLIS 7415 f/d SS Milwaukee Clipper cd. in 43 ds. (Arey-NJ). f/d "Ian as Elvis" sheet in 23 ds. for 3 ms. (Comeau-MA). CRSM 7468 f/d cd. in 37 ds. (Arey-NJ). KMCR sent along a "sample" pretty pirate lady cd. listing freqs. (Arey) Down East Radio 7465 f/d "Maine Wild Blueberries" cd. in 23 ds. for 3 ms. Also rcvd. WAAF sticker and an ACE ad. (Comeau-MA). Wire-line Radio 7435 and 7415 they must of cleaned out their files as they sent me QSLs #68, 74 and 101. The first two were the "Scrotum Self-Repair" sheets while the other was the "No Metal. No Rap, No Crap" style. (Arey). 7425 and 7461 f/d sheet in 3 1/2 mo. (Kusalik-ALB). 7415 f/d folder of "Average Listener" in 39 ds. for 3 ms. to the BRS drop. (Comeau). **VATICAN:** Radio Vatican 9605 f/d cd. in 82 ds. for 2 IRCs. (McClure).



TRANSATLANTIC FREE RADIO (TFR)

I am pleased to verify your report concerning our one-off broadcast December 29th, 1986
1125 - 1130 & 1201 - 1204hrs UTC
6233kHz 48mb (West German relay)
Thanks a lot for your enquiry;
TFR is an organisation formed to link European & US free radio by relay & exchange of information.

NOTES: Bill Wilkins says that he is not having too much luck getting QSLs out of the VOA for Thailand, Morocco or Botswana. He wishes the VOA and the rest of the broadcasters verified like they did 20 yrs. ago! So do I. He also missed out on Radio Saint Helena but there is always next year. Maybe! Adie Durden has been having a difficult time trying to QSL Radio Andina. He even called the station and talked with someone named Raul Cox who assured him that his next report would be QSLed. Needless to say, Adie's 12th report via registered mail has been ignored...but somebody got his dollar! Hi! Adie also received a request from a young lady in Boa Vista who use to work at Rdf. Roraima. She wants me to visit her and spend the weekend at Pedra Pintada! She wanted to send a few photos but didn't know if I was married...Good thing your wife doesn't speak Portuguese...Sam.

VIETNAM, NORTH: Voice of Vietnam 5031.7 and 6160.7 f/d cd. w/ new style station pennant and sticker in 4 mo. (Barto-CT). 4893.8 f/d cd. in 2 1/2 mo. for 2 IRCs. This was after 3 f/up rpts. (Kusalik-ALB). Ha Tuyen Broadcasting Station 4816 f/d "VOV" cd. via Hanoi in 2 1/2 mo. after 3 f/up rpts. for 2 IRCs. (Kusalik)



VIETNAM, SOUTH: Gia-Lai-Kon Tum Broadcasting Station 4788 f/d "VOV" cd. in 2 1/2 mo. after 3 f/up rpts. for 2 IRCs. (Kusalik-ALB).



I see we are at the end of yet another QSL Column. I can only hope that they are informative and assist our members.
Keep the reports coming in...Sam

Sam

NASWA Scoreboard

Jerry Lineback
6361 Shore Drive
Douglasville, GA 30135



Welcome to the SCOREBOARD once again. This quarter the Spotlight is on Europe. C/H = Countries Heard and C/V = Countries Verified. Country counts are according to the NASWA official Radio Counties List. Be sure to update your lists with the new countries. Thanks to all who participate. Remember to update all totals at least once a year to remain listed on the SCOREBOARD.

Name, State	Total		Europe		Best European QSL
	C/H	C/V	C/H	C/V	
James Young, CA	242	227			
Edward Kusalik, Alberta	238	235	42	42	Andorra 6230
Gordon Darling, P/NG	238	233	44	44	V. of the Leak
Jerry Berg, MA	233	232	44	43	Polish Pathfind
Marlin Field, MI	233	230	42	42	EMR 6235
William Flynn, OR	232	214	40	38	R. Dublin Int.
Steven Lare, MI	226	203	43	43	Karelo-Finnish
Ed Shaw, KY	225	208	38	37	Austrian Army R
Mitch Sams, MO	225	189			
Nobuaki Takahashi, Japan	224	198	39	36	R. Andorra
Donald Hosmer, MI	223	194	44	41	Croatian R.
John Sgrulletta, NY	219	219	38	38	R. Dublin Int.
Al Miller, Jr., OH	217	209	38	38	Andorra
Richard Davis, NM	215	205	38	37	RIAS Berlin
Larry Abraham, MI	215	200	39	37	R. Andorra
Ron Howard, CA	215	199	34	34	RIAS Berlin
Sheryl Paszkiewicz, WI	213	205	40	40	WMR Scotland
Frank Orcutt, NY	213	182	38	35	R. Fax
Del Fye, FL	212	198	40	40	Petrozavodsk
Paul Buer, FL	211	201	40	39	R. Dublin
Rick Krzemien, CA	211	200	36	35	R. Dublin
Mike Hardester, NC	209	194	43	38	Karelo-Finish
Fred Kohlbrenner, PA	209	184	43	42	R. Andorra
Jerry Lineback, GA	206	108	38	29	Andorra
Dino Bloisse, Dominican Rep.	205	80	35	30	R. Vaticano
Jerry Klinck, NY	201	172	34	33	R. Fax
Tom Daly, NY	200	46	39	21	WMR Scotland
Charlie Washburn, ME	198	153	40	37	R. Andorra
Larry Kramer, CO	194	135	36	32	R. Riga
Walter Kunz, PA	183	108	38	34	RIAS Berlin
Rev. John Eckert, PA	174	159	36	36	WMR Scotland
Ichiro Maruo, Japan	174	113	32	28	ICR
Stephen Price, PA	171	138	35	34	R. Minsk
Daniel McCarthy, GA	169	144	37	37	R. Dublin
Pasquale Di Biase, ME	169	121			
Andy Rugg, Que.	167	152	39	39	NIRS 6273
Nick Grace, DC	157	114	37	32	R. Arkhangelsk
Carl Radtke, WA	153	153	31	31	Monacc
Thomas Ross, IL	152	131	33	33	VoA Munich 8kW
Bill Taylor, PA	152	115	37	37	R. Dublin
Mark Humenyk, Ont.	152	109			
Ross Comeau, MA	151	108	35	32	WMR Scotland
Elliot Straus, NJ	151	79	33	27	R. Riga
Richard Hankison, KS	150	124	33	31	Iceland
Scott Helm, KS	149	104	32	30	YLE Finland
Kirk Trummel, MO	147	106	34	28	R. Andorra
Chris Sweitzer, FL	142	88	33	30	R. Luxembourg
Richard Wallace, CT	137	85	32	30	R. Yugoslavia
Steve Bagozzi, CA	135	105	33	30	R. Tirana

Name, State	Total		Europe		Best European QSL
	C/B	C/v	C/B	C/v	
Joe Kremer, IN	134	87	32	30	R. Denmark
Barry Schwartz, NY	125	100	35	34	Slovak R.
Jason Moore, KY	120	68	31	26	R. Luxembourg
Greg Martin, MI	118	91	34	33	Iceland
Chris Tyle, CA	116		35		
Lowell Pankake, MN	112	59	29	22	R. Luxembourg
Robert Carlsen, OH	110	87	33	32	
Kevin Murray, OR	103	80	27	25	Poland
Bruce Orenstein, NY	102	72	28	28	VoMed. Malta
Brian Boulden, CA	98	86	29	28	R. Tirana
Mark Anderson, MI	86	64	31	26	R. Berlin Int.
Andreas Scheurell, PA	84	53	27	19	RIAS Berlin

Thanks again to all our contributors. Next quarter the Spotlight will be on North America. The next deadline will be February 15, 1994, for the March issue. 73s to all.



NEW FROM GROVE!

PRESS RELEASE

Bob Grove's

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GROVE



GROVE

Contributors' Page

Vernon Hyson
5410 Camp Stewart Road
Charlotte, NC 28215
CornpuServe 76516,1531



LOGGINGS CONTRIBUTORS - Oct/November 1993 - DEADLINE 10th of MONTH

The following members contributed loggings:

Brian ALEXANDER, Mechanicsburg, PA NRD525 Vs Longwires
Mark ANDERSON, Prescott, MI NRD525 DX440 Eavesdropper 180' Random
Jerry BERG, Lexington, MA R8 R390A HQ180A 150' LW
Julianna BICKUS, Herndon VA R8 ATS803A Transoceanic Eavesdropper
Michael BILEC, Port Vue, PA DX380 DX342 DX350 Amplified Ant, Port Ant
William BROWN, Independence, MO R8
Jim CLAR, Rochester, NY R8 FRG8800 Eavesdropper, 110' LW
David M. CLARK, Newmarket, ONT 2-R8 2-R7 HQ180A Mucho Antena
Russell CLEVELLEY, Wilson, NY Icom 725 R1000
Richard D'ANGELO, Wyomissing, PA R8 FL3 AD Sloper Farley Loop
William DAVENPORT, Nashville, TN DX380 ICF7601 ANI
Jim DUCCHARME, Hadley, MA SX100 SX110 S76 65' Trap Dipole
Adie DURDEN, Albany, GA NRD515 SE3 Inverted V
Marlin FIELD, Hillsdale, MI NRD535D SPR4 Eavesdropper
William FLYNN, Cave Junction, OR R8 R2000 Sony 2010 R7A TUN3 90' Random
Harold FRODGE, Midland, MI R71A DX302 Sony 2002 AP4 MFJ 956 Trap Dipole RW
Michael HARDESTER, Jacksonville, NC R70 Sony 2010 RWest Loop 25' Random
Carson HENSLEY, Elkton, VA DX440 RS Preamp 350' Random
Stephen JARVIS, Long Beach, CA Sony 2010 ANI LW
Hans JOHNSON, Columbia, MD R8 FL3 AD370 AD Sloper 50' LW
Rufus JORDAN, Pittsburgh, PA DX302 Transoceanic 33' LW
Jim KILGALLEN, Fort Ord, CA NRD525 R7 MFJ959 AD Sloper Inv V
Jerry KLINCK, West Seneca, NY R8 HQ180A Sony 2010 2-60m Dipoles 80' LW
Marie LAMB, Brewerton, NY R600 ATS803A MFJ16010 20m 60m 90m LW
Jim LANE, Toronto, ONT R5000 20m Dipole
Kevin LARKIN, Montoursville, PA Sony 2818 HQ180 ATS803A Long Wires
Ernest LAWRENCE, Perry, NY NRD525 DX440 Dipole, LW
Harold LEVISON, Philadelphia, PA R8 R70 D2999 Indoor LW
William McGUIRE, Cheverly, MD DX380
Ed NEWBURY, Bridgeport, NE R8 R5000 70' Windom 66' Dipole 45' Segmented
Tony ORR, Reston, VA HF150 Sony 2010 MFJ6010 70' LW 50' LW
Marina PAPPAS, Huron, SD DX400 Indoor Random
Sheryl PASZKIEWICZ, Manitowoc, WI NRD515 NRD525 Eavesdropper 150' LW
Ed RAUSCH, Cedar Grove, NJ R5000 Sony 2010 MFJ959 Eavesdropper 150' LW
Christos RIGAS, Chicago, IL R2000 ANI Sony 2010 AD Sloper
Chuck RIPPEL, Virginia Beach, VA R8 R390A SP600 HQ180AC HQ145A JX1 Inv V DX Sloper
Doug ROBERTSON, Oxnard, CA DX302 FRG8800 FRA7700 ATS808 LW
Betsy K. ROBINSON, Clinton, TN R8
Mark SEIDEN, Miami, FL NRD93 102' G5RV Dipole 114' Random
Giovanni SERRA, Rome, IT NRD525 AD Sloper
Todd SMITH, Norwalk, CT SW60
Wallace TREIBEL, Seattle, WA NRD525
Robert TUCKER, Savannah, GA ATS803A

From Gifford Pinchot State Park, PA the fearsome fivesome of Rich D'Angelo, Fred Kohlbrenner, Hans Johnson, Kris Field & Dave Valko kept native animals awake with their DXpedition using 3-NRD525 2-R8 a Collins 51S & 400' Beverages. Kevin Larkin logged in from Western New York. As you can see, the DX Season is here!

Enjoyable listening & good DX -

Tropical Band Loggings

2000-5900 kHz

Sheryl Paszkiewicz
1015 Green Street
Manitowoc, WI 54220



- UPDATE: The new Ecuadorian on 4779 is correctly ID'd as Radio Oriental.
- 1620 PIRATE RFM 10/17 IDs, novelty ads, mx, Wellsville addr (Berg-MA)
 - 2310 AUSTRALIA VL8A 10/22 1042 back to back US pops, //2325 (Rippel-VA) 10/6 1100 EG pops //2325 (Lawrence-NY) 10/16 1210 EZL mx //others (Frodge-MI2)
 - 2325 AUSTRALIA VL8T 10/22 1050 more readable audio (Rippel-VA) 10/10 1054 EG 2 DJs, Aussie pops (Lawrence-NY)
 - 2390t GUATEMALA LV de Atitlan 10/15 0215 mx, IDs (Lawrence-NY)
 - 3200 SWAZILAND TWR 10/29 0259 IS, Ndebele rel, no //s (Klinck-NY)
 - 3220 ECUADOR HCJB 11/11 0435 SP class mx, IDs, rel (Lamb-NY)
 - 3230 SOUTH AFRICA R Oranje 10/29 0250 AK, Western mx (Klinck-NY) 11/6 0337 AK/US pops, IDs, ads (Orr-VA) 11/8 0339 C&W mx, Aqua Fresh toothpaste ad, mooing cow sfx (Lamb-NY)
 - 3262.2 GUATEMALA LV de Nahuala 11/6 0246 poor-fair (ODX-PA)
 - 3277 KASHMIR R Kashmir 10/24 subcont mx, choral vcl, this to flip freq w/Kohima 3268 (Clark-ON)
 - 3285.4 ECUADOR LV del Rio Tarqui 11/13 1134 SP ballads, echo IDs TCs, ute QRM (Orr-VA)
 - 3289.9 ECUADOR R Centro 11/8 0648 SP ballads, 0700 IDs, ment Ambato ute QRM (Orr-VA) 10/24 1031 campo mx, echo IDs, greetings to US listeners (Lamb-NY) 10/15 1046 tlk, IDs (Klinck-NY)
 - 3290 NAMIBIA NBC 10/29 0307 AK lite pops //3270 (Klinck-NY)
 - 3305 NEW GUINEA R Western 10/6 0828 EG tlk, ID (Kilgallen-SPAIN)
 - 3316 SIERRA LEONE SLBS 11/7 0557 EG ID, anthem (ODX-PA) 10/24 2155 EG pops "This is the SLBS in Freetown," drums, into nx (Lamb-NY) 10/16 2212 lotsa reggae, close anmts (Frodge-MI2)
 - 3320 SOUTH AFRICA SABC 10/16 0825 EG/AK (Kilgallen-SPAIN)
 - 3324.9 KALIMANTAN RRI Palangkaraya 10/24 1158 SCI, hint of PNG or other carrier (Clark-ON)
 - 3329.6 PERU Ondas del Huallaga 11/10 1033 huayños 1036 ID, kids vcls CHU & Maya QRM (Orr-VA)
 - 3339 PERU R Altura 11/10 1027 echo fiesta ads, IDs, huayños (Orr-VA) 10/11 1028 shouted ID, huayños (Johnson-MD)
 - 3355 INDIA AIR Kurseong fair 11/7 1209 covering PNG (Clark-ON)
 - 3360 GUATEMALA LV de Nahuala 10/31 1130 IDs, marimbas, dog barks, cow moos (Robinson-TN)
 - 3366 GHANA GBC 10/15 2219 EG pops, rap, ID (Frodge-MI2) 9/25 2330 exc sig w/mx, evening devotions, nx (Field-MI)
 - 3375 BRAZIL RN 10/13 0949 Brasopops, yelled Nacional, 0959 full ID freq anmt (D'Angelo-PA)
 - 3380 GUATEMALA R Chortis 10/19 1119 SP rel, CW QRM (Klinck-NY) 10/31 1130 IDs, accordion solos (Robinson-TN)
 - 3380.8 MALAWI, MBC 11/7 0354 EG ID, bassy sig (ODX-PA)
 - 3384.9 SUNDAS RRI Kupang 10/24 1155 IN pops, SCI, nx (Clark-ON)
 - 3385 BRAZIL R Educ Rural 11/13 0950 Brasopops, full ID, TC, rel pgm, piano ballads (Orr-VA)
 - 3385 NEW BRITAIN RENG 10/5 1115 PD tlk, mx, fair (Lawrence-NY)
 - 3397.4 PERU R Internacional 11/4 2351 campo mx (Johnson-PA)
 - 3444.9 KALIMANTAN RRI Pontianek 10/17 1135 peak w/vcls (Clark-ON)
 - 3501.3 COLOMBIA LV del Guainia 11/10 *1011-1026* NA, bird/flute theme, ID, campo ballads (Orr-VA) 11/5 1042 tent w/mx & tlk (Johnson-PA)
 - 3810p ECUADOR HD2IOA 9/23 0833 pips & time anmt (Lamb-NY)
 - 3905 IRIAN JAYA RRI Merauke 10/17 1200 no Jak nx, lagu pops (Clark)
 - 3905 NEW IRELAND RNI 10/16 0834 EG nx, weak (Kilgallen-SPAIN)
 - 3955 KAZAKHSTAN Kazakh R 10/17 1148 class //5035, 5260 (Clark-ON)
 - 3975 ENGLAND BBC 10/21 0449 GM ID, nx (Lamb-NY)
 - 4095 CLAND Vo People of Kurdistan 11/5 0337 mx, AR tlk, ID (Johnson)

4238 PERU R Cajamarca 11/5 0920 campo mx, IDs (Johnson-PA)
 4299.8 PERU R Naylamp 11/1 1014 ID, TC, tlks (Klinck-NY)
 4409.3 BOLIVIA R Eco 10/10 0150 mx, ID 0200 (Johnson-MD)
 4441.3 BOLIVIA R Santa Rosa 11/5 0936 flutes, tlk (Johnson-PA)
 4485 PERU LV de Celendin 10/23 1015 ID air raid sirens cmtry re
 neo Nazi groups (Rausch-NJ)
 4500v PERU R Tayabamba 10/31 1013 IDs, drifting (Johnson-MD)
 4510.2 PERU R Paucartambo 11/8 0929 huayños, ballads, TCs, IDs (Orr)
 10/29 0958 OA mx, IDs (Klinck-NY) 10/12 0959 campo mx, ID
 (Johnson-MD) 10/29 1004 musica nacional, TCs, ads (D'Angelo)
 11/6 2322 ID (Johnson-PA)
 4600t BOLIVIA R Perla del Acre 10/29 1007 lcl mx (Klinck-NY)
 4610 ASIATIC RUSSIA Khabarovsk 10/17 1430 drums, ID //4485
 (Robertson-CA)
 4705.5t PERU Estacion Laser 10/29 1032 tlk, OA bridges (Klinck-NY)
 4709.3 USA WEHN 10/28 0955 half of 9418, ID & left air (Johnson-MD)
 4712 BOLIVIA R Abaroa 11/6 0935 ballads, anmts (ODX-PA)
 4725 MYANMAR Vo Myanmar 11/7 1223 lcl vcels, new xmtr? (Clark-ON)
 4735 CHINA Xinjiang PBS 10/15 1125 CH/Uighur ID, singing (Klinck-NY)
 4735 UNID 11/6 1035 SP comedy pgm, EG T40 mx (Rausch-NJ)
 4747 PERU R Huanta 2000 10/20 1017 SP tlks, lcl mx (Klinck-NY)
 11/8 1025 huayños, TC, anmts, ID (Orr-VA)
 4753.4 SULAWESI RRI Ujung Pandang 11/13 1547 mx, ID (Robertson-CA)
 4754.4 BRAZIL Rdf Maranhao 9/25 0000 rel pgm, ID, PT C&W (Field-MI)
 4755.4 PERU R Huanta 2000 10/11 1010 Quechua vcels, ID (Johnson-MD)
 4760p INDIA AIR Imphal 10/10 1128 mx/tlk, 1133 peak (Johnson-MD)
 10/10 1110 EG tlk, mixing badly w/Kunming (Klinck-NY) 10/19
 1122 Hindi vcels, tlk, nx 1130 (D'Angelo-PA) 11/7 1156 SC mx
 no sign of China till 1220 when it dominated (Clark-ON)
 4760 LIBERIA ELWA 0630, 2200 rel, IDs, choirs, gospel, ment Liberia
 some ute QRM (Berg, ODX, Lamb, Cler, Lawrence)
 4765 BRAZIL R Integracao 10/29 0933 ID, ad string, baby crying,
 accordion mx (Johnson-MD)
 4765.8 SUMATRA RRI Medan 11/4 2206 //U-P w/Jak nx (Johnson-PA)
 4770 NIGERIA R Nigeria 10/21 0430 drums, EG ID, nx (Davenport-TN)
 10/29 0436 ID, tlk, mx bridges (Klinck-NY) 11/13 0556 ballads
 TP, ID (Robertson-CA) 10/15 2213 pops, chat-chat (Frodge-MI2)
 4770.3 ECUADOR Centinela del Sur 10/10 0105 futbol, ads, ment Loja
 0200 full ID (Rausch-NJ)
 4775 SIKKIM AIR Gangtok 10/31 1145 chants, rel, ID, anmts, lcl instls
 perhaps still in test phase (Clark-ON) totally missing on 11/7
 4777 GABON RTV Gabonaise 10/22 0500 FR IS, ID, nx (Klinck-NY) 10/27
 0540 FR tag team annrcs, Afr mx, IDs, nx (Lamb-NY)
 4779.5 DOM REP Onda Musical 0130, 2330 HIAS as 1150 kHz, full IDs,
 Radio Sport pgm, Coke, Cutty Sark ads, tnx Johnson, Valko,
 D'Angelo (Rausch, Berg, Lamb, Orr, Alexander, Johnson) Now on
 4780.7
 4779t ECUADOR Centinela del Sur 10/20 0245 pops nx, ads (Davenport)
 4780t ECUADOR R Oriental 11/4 0140 ballad, tent ID, QTH (Jordan-PA)
 4780.1 NORTH KOREA Pyongyang 11/7 1221 tlks (Clark-ON)
 4789.7 IRIAN JAYA RRI Fak Fak 11/7 1308 Jak nx, anthem, pops (Clark-ON)
 4790.5 INDIA AIR Shillong 10/23 1130 Hindi nx, EG nx 1135 (Clark-ON)
 11/7 1138 pres, tnx Clark, not //4860 (Johnson-PA) //4860 at
 1232 w/EG nx (Clark-ON)
 4795 UKRAINE R Moscow 11/5 2248 EG ID, sked, RTTY QRM (ODX-PA)
 4799.5 DOM REP Onda Musical 10/19 0112 nx, ad strings, IDs, TCs
 (D'Angelo-PA) Rich, did you mean 4779.5--sp
 4800 ECUADOR R Popular 11/4 0220 campo mx, anthem, ID, poor (Jordan)
 4800 GUATEMALA R Buenas Nuevas 10/12 0235 gospel pgm (Newbury-NE)
 10/23 1100 rel tlk, inspirational mx (Rausch-NJ)
 4800 INDIA AIR Hyderabad 10/24 1232 EG nx //4860 (Clark-ON)

4810 SOUTH AFRICA R 2000 0050-0300, Afrikaans Stereo 0310, canned IDs
Lionel Richie, class mx, big band mx, GM choral mx, animal
sounds (Lamb, Frodge, Davenport, Jordan, Newbury, Klinck)

4810.2 PERU R San Martin 10/23 1040 IDs, slogans, campo mx (Rausch-NJ)

4820 HONDURAS HRVC 11/11 0402 SP Bible tlk, "La Musica con Dios,"
(Lamb-NY) 11/12 0443 rel, mx bridges, addr (Robertson-CA) 9/30
1205 call in pgm, marimbas (Newbury-NE)

4824.3t PERU LV de la Selva 10/7 1024 loud DJ, SP rap, salsa (Newbury)

4825 BRAZIL R Educ Braganca 11/10 0834 mixing w/Cancao, rel, ID (Orr)

4825 UKRAINE RU 10/6 0003 GM nx, "Blick in die Ukraine" (Lamb-NY)

4830 BOTSWANA RB 10/21 0421 lang tlk, EG ID, pops (Davenport-TN)
10/17 to 2201* pops, ID, choral NA (D'Angelo-PA)

4834.9 PERU R Marañon 11/13 1001 anmts, Chariots of Fire, IDs, Beatles
(Johnson-MD) 11/13 1030 huayños, rooster, TC, ID (Orr-VA)

4835 GUATEMALA R Tezulutlan 0100, 1148 marimbas, ID, promos, steel
drum, ment Coban, Hammond organ (Jordan, Frodge, Kilgallen,
Lamb, Newbury)

4836 COLOMBIA R Buenaventura 10/22 0428 IDs, mx bridges (Klinck-NY)

4840 VENEZUELA R Valera 10/30 1000 IDs, vcls (Robinson-TN)

4845v MAURITANIA ORTM 11/4 to 0059* AR tlks, prayer, ID, NA (Jordan)

4850.6 ECUADOR R Luz y Vida 10/25 *1032 lite instls, ID, rel (D'Angelo)
11/8 *1030 flutes, anmts, ID over mx (Orr-VA)

4854.9v MOZAMBIQUE RN 11/5 0313 //3210, 6111.3, 7242.3 (Johnson-PA)

4860 INDIA AIR Delhi 10/23 1222 EG nx 1230, Hindi nx (Clark-ON)

4860 PERU R Lider 0925 in progress nx, campo mx, IDs (Johnson-MD)
11/13 0945 ID, wild huayños, ment Cusco (Orr-VA) 11/5 2313 too
(Johnson-PA)

4860 ASIATIC RUSSIA Chita R 10/16 0841 RS nx, mx, addr (Kilgallen)

4865 BRAZIL R Alvorada 10/23 0538 Brasopops, IDs, PSAs (Orr-VA)

4865 COLOMBIA LV del Cinaruco 11/13 0605 full IDs, ads (Robertson)

4870 BENIN ORTB 10/21 2141 Afr mx, ID, drums (Lamb-NY) 11/5 2159
FR mx, ID (ODX-PA) 10/9 2229 FR ID, anmts (Klinck-NY)

4875 CHINA Vo Jinling 11/6 *1200 IS, anmts (Rausch-NJ) 10/16 1241
tlk, lcl mx (Frodge-MI2)

4879.2 BANGLADESH R Bangladesh 10/17 at 1212, poor (Clark-ON)

4883 CHINA China R 11/13 1524 RS tlk, Creole mx, chorals (Robertson)

4885 COLOMBIA Ondas del Meta 11/6 1C26 echo IDs, mx (ODX-PA)

4E90 GABON RFI Relay 10/21 0445 FR sports, good (Davenport-TN)

4890.2 PERU R Chota 11/6 to 0257* huayños, ID, NA (Orr-VA)

4E95 BRAZIL R IPB AM 10/28 0622 ID, rel, EZL mx (Lamb-NY)

4E95 VIETNAM Vo Vietnam 10/17 1410 guitar ballads, C&W, ID, 1415
long discourse (Robertson-CA)

4900 PERU R La Hora 11/8 *0957 salsa, vcls, ID, TP, drums (Orr-VA)
10/14 1006 OA mx, ad strings, 1034 ID (D'Angelo-PA)

4904 BRAZIL R Relogio Federal 10/10 0058 TP each min (Johnson-MD)

4904.5 CHAD RNT 10/21 0436 FR OM, weak (Davenport-TN)

4909.8 ZAMBIA ZNBC 11/6 0348 lang, Afr pops, ID, tlks (Orr-VA)

4910 INDIA AIR Jaipur 10/23 1145 SC vcls, 1230 //4860 (Clark-ON)
11/6 to 1230* SC mx, ment Jaipur (Rausch-NJ) 11/7 1210 best
SC on band vcls, nx, good (Clark-ON)

4914.5 PERU R Cora 10/22 0422 lcl mx, IDs, anmts (Klinck-NY)

4915 CHINA Guangxi PBS 10/17 1403 CH mx, ID (Robertson-CA)

4915 GHANA GBC-1 10/9 0044 tribal mx, EG nx, ID (Davenport-TN) 10/29
2130 ID, nx, 2215 into lang (Robinson-TN) 10/9 2245 Afropops,
anmts, EG ID (Klinck-NY)

4920 ECUADOR R Quito 10/27 0130 ID, slogan, ads (Davenport-TN)
10/21 0330 interview, ID (Newbury-NE)

4925t SUMATRA RRI Jambi 10/6 1145 IN nx, mx (Field-MI)

4930 DOM REP R Barahona 10/27 0954 vcls, ad string, IDs, loud xmtr
hum (D'Angelo-PA) 10/29 0954 nx, IDs (Johnson-MD)

4935t KENYA KBC 10/10 to 2300* EG interview, NA (Rausch-NJ)
 4935 PERU R Tropical 10/23 *0945 NA, ID, nx, rooster (Rausch-NJ)
 4940 TAJIKISTAN RM 11/2 0105 EG nx, ID (Bickus-VA)
 4953 PERU R Madre de Dios 10/26 0001 ID, flutes, oldies (Johnson-MD)
 4955 PERU R Cultural Amauta 10/20 *0955 NA, ID, SP/Quechua, Andean mx
 (D'Angelo-PA)
 4959.7 VIETNAM Vo Vietnam 10/23 1120 //10058.9 (Clark-ON) 11/10 drama,
 VT ballads, 1155 ad string! 1200 ID, nx //10059 (Orr-VA) 11/4
 2157 great lvl, tnx Foster (Johnson-PA)
 4960 CHINA China R 10/17 1359 JP tlks, TP, ID (Robertson-CA)
 4961 ECUADOR R Federacion 1103 SP IDs, brief mx (Klinck-NY)
 4965 BOLIVIA R Juan 23 10/27 0930 anmts, IDs (Johnson-MD)
 4970 VENEZUELA R Rumbos 10/16 1350 LA mx, ID & 11/13 0612 dance mx
 cha cha mx, full ID, QTH (Robertson-CA)
 4976 UGANDA R-Uganda 10/26 2045 EG/lang tkl, pops (Lawrence-NY)
 4980 VENEZUELA Ecos del Torbes 10/26 0035 bank & restaurant ad
 (Bickus-VA) 10/8 0100 ID, slogans, ads (Davenport-TN) 10/11
 0315 Tchaikovsky, SP anmt, more class (Newbury-NE)
 4990 INDIA AIR Madras 11/5 *2357 Tamil IS, SC, nx, fair (Orr-VA)
 4990 NIGERIA R Nigeria 9/20 2241 EG soul mx, ID (Lamb-NY)
 4990.9 SURINAM R Apintie 11/5 0007 salsa, few anmts (Johnson-PA) 10/29
 0245 DT IDs, continuous mx to 0400* (Lawrence-NY)
 5003.7 RIO MUNI RN Bata 11/7 to 2200* mx, ID, anmt, NA (Rausch-NJ)
 10/12 2150 tkl, hilife, ute GRM, NA (Lawrence-NY)
 5015.9 Dave "Dxpedition" Valko informs me that it is Estacion Tarapoto
 here, not my presumed R Hispania (Johnson-MD) 11/5 0033 Stones mx
 canned ID, 1st time hrd in evening (Johnson-PA)
 5025 BRAZIL R Transamazonica 11/13 0931 TC, ads, zap sfx, ID (Orr-VA)
 5025 CUBA R Rebelde 10/29 2230 IDs, "musica de Cubana" (Orr-VA)
 5025 PERU R Quillabamba 11/13 1022 duet huayños, full ID (Orr-VA)
 10/13 1032 romantic vcsls, tkl, no Rebelde (D'Angelo-PA)
 5025 UNID 10/7 1130 not Rebelde, w/mx (Field-MI)
 5030 BHUTAN BBS 10/23 1045 carrier, 1135 fair audio w/vcsls, chants
 theme, nx (Clark-ON) 11/8 tnx Valko, Clark w/instl anthem,
 ment Thimphu, 1211 CH style mx (Orr-VA)
 5033.7 CENT AFR REP RTV 11/5 2141 FR tkl, mx (ODX-PA)
 5035 KAZAKHSTAN Kazakh R 11/8 1155 lang //5260 w/martial mx, piano
 instl, slow pips, tkl (Orr-VA)
 5039.2 PERU R Libertad 11/8 *0940 flutes, ID, TC, huayños (Orr-VA)
 10/29 1000 echo anmts, ID (Johnson-MD)
 5040 GEORGIA Georgian R 11/5 2145 discuss, IDs, anthem, nx (Orr-VA)
 5040 SUMATRA RRI Pekanbaru 11/7 1150 dialog, SCI, nx (Clark-ON)
 5040 UNID 10/17 1145 fair carrier but no audio, maybe Pekanbaru
 as noted by Foster (Clark-ON)
 5044.9 BOLIVIA R Altiplano 10/11 *0957 ID, CP mx, tkl, best in LSB
 to avoid Brazil, tnx Johnson (D'Angelo-PA)
 5045 BRAZIL R Cultura do Para 10/9 0206 lcl mx, tkl (Klinck-NY)
 5049.8 ECUADOR R Jesus del Gran Poder 10/15 1058 rel, ID (Klinck-NY)
 5050 TANZANIA RT 11/6 2053 SH ID, chorus, ment Dar es Salaam (HJ)
 5055 FRENCH GUIANA RFO Cayenne 10/27 0448 FR IDs, mx (Klinck-NY)
 5055 SWAZILAND TWR 10/11 0425 class, GM tkl, good (Newbury-NE)
 5060.5 ECUADOR RN Progreso 10/28 1102 echo IDs, mx bridge (Klinck-NY)
 5068.7t PERU R Ondas del Sur Oriente 11/13 1012 huayños, ment Peru (Orr)
 5075 COLOMBIA Caracol Bogota 11/13 0618 spirited mx, ID, (Robertson)
 5131 PERU R Vision 2000 11/6 to 0408* echo anmts, ID, NA (Orr-VA)
 5240 TIBET Xizang PBS 11/8 1200 5+1 TP, ID, mx (Rausch-NJ)
 5770 NICARAGUA R Miskut 10/7 2345 tkl, ID, anthem, ute (Lawrence-NY)
 5810 USA WACR 9/27 0037 call in show, ads, rel (Lamb-NY) 11/7
 0504 C&W mx, interview with singer (Robertson-CA)
 5825 USA WEWN 9/15 0224 rosary, Ave Maria, IS, into BG C300 (Lamb)

5880 CHINA CPBS Beijing 11/13 1430 quiz, mx, TP, ID (Robertson-CA)
 5889.5 BULGARIA RB 10/17 to 0359* lang ID, folk mx //6210 (Alexander)

Thanks to our contributors. Can't believe it but it's time to say Merry
 Christmas! 10 states, 1 province & 1 country represented this month.
 Next deadline December 17. By the way, loggings marked ODX-PA were done
 by the Ontario DX gang of Kevin Larkin, Jim Renfrew, Daryl Rocker, Harry
 Riddell and Roger Chambers. Thanks!

International Band Loggings

5901-30000 kHz

Wallace C. Treibel
357 N.E. 149th Street
Seattle, WA 98155



- 5910 BELGIUM R Vlaanderen Int in FR/DT 0823, CX pgm, song, ID, tlk (Serra ITALY 11/1)
- 5920 CROATIA Croatian R in CR 0835, interview, ID, mx, rel pgm (Serra 11/1, Lamb NY)
- 5930 CZECH REPUB R Prague in CZ 0859, mx, pipe on hr, ID, nx, cmntry, ad (Serra 11/1)
- 5966 MONACO R Monte Carlo in AR 0313-0320*, extensive nx pgm, ID (Kilgallen CA 10/15)
- 59647 BOLIVIA R Rac de Huanuni in SP 0935, vocals, horns/drums after songs, rooster crow 1001, canned ID at 1003 (Johnson MD 10/11)
- 59729 MYANMAR Myawadi BC Stn in lang 1247, nice vocals, p w/QRM (Clark ONT 11/7)
- 5975 ANTIGUA BBC relay in EG 0517, "Newshour", ID, exc (Robertson CA 11/8)
- 5975 COLOMBIA R Macarena in SP 1030, gospel mx, ID's, ballads, g (Robinson TN 10/23)
- 5980 CZECH REPUB R Ropa via Litomysl in GM 1154, tlk, promo, ID, ads (Serra 10/24)
- 5981 GUATEMALA AMR LV de Esperanza in SP 0005, relig mx/tlks, ID, p (Jordan PA 10/25)
- 6015 CANADA R Austria relay in GM 0522, nx, ID in EG, fqy, feature (Robertson 11/8)
- 6020 AUSTRALIA RA in Tok Pisin 1130, tlk, mx, ID, into EG 1200 (Ducharme MA 10/29)
- 6025 UNITED KINGDOM R Japan relay in EG 0534, tourism promo, class mx (Robertson 11/8)
- 6025nf? UZBEKISTAN R Tashkent in EG 1228*, tlk, ME style mx, ID, IS (Orr VA 11/8)
- 6025 HUNGARY R Kossuth in HG 0628, dance mx, pipe, tlk, ID, US pops (Orr VA 11/8)
- 6025 DOMINICAN REP R Amanecer in SP 2221, rel pgm, choirs, IDs, QTH (Lamb NY 10/28)
- 602*6 CHILE R Santa Maria in SP 2340, live mx pgm, ID's (Johnson PA 11/6)
- 6050 BRAZIL R Guarani in PT 0722, lite US pop ballads, jingles, IDs, TCs (Orr 11/8)
- 6055 CZECH REPUB R Prague in EG 0706-0726*, nx, ID, QTH, mx, DX pgm (Serra 10/31)
- 60553 PERU R Continental in SP 1002, instrmls, ID (D'Angelo PA, Johnson MD, Orr VA)
- 6060 AUSTRALIA RA in Cantones 1404, nx, ID, "English for Overseas.." (Lamb NY 11/6)
- 60612 BRAZIL R Universo in PT 0945, loud tlk, mx interludes, //9565 (Johnson MD 10/27)
- 6095nf? PERU R Nacional Tacna in SP 0434, ID's after NA, mx, req rpts (Berg MA, Orr VA)
- 6100 YUGOSLAVIA RY in FR/EG 2133, IDs, nx, classic/jazz mx, IS, //6185 (Lamb 10/31)
- 6105 MEXICO XEQM Merida in SP 1134, Mexican Top 40 ballads, ads, IDs (Orr VA 11/13)
- 6110 UNITED KINGDOM BBC London in SP 0032, pop mx, ID, //1765 (Tucker GA 10/31)
- 6116 COLOMBIA LV del Llano in SP 1048, ads, ment Villavicencio, nx, ID (Lamb 11/9)
- 61299 LAOS Lao Nat R in lang 1200, tlk to 1235, domestic vocal, big bells, ID, NA, in clear with CHNK up on 61303 (Clark ONT 11/7, Rippl VA 10/22, Johnson PA 11/5)
- 6130 RUSSIA Advent World R in FR? 2250, hrd QTH of V of Hope, bad QRM (Field MI 10/22)
- 6130 GHANA GBC Accra in EG 0618, nx, ID, long ad string (Orr VA 11/8)
- 6135 SWITZERLAND SRI in EG 0120, nx, features, cmntry, ID (Bickus VA, McGuire MD)
- 6140nf? UNITED ARAB EMIRATES UAE Radio in AR 2115, Koran recitals, ID, NA (Orr VA 11/8)
- 61413 PERU R Concordia in SP 0948, nx?, ID, nice sig & modul (Johnson MD, Orr VA)
- 6150 KENYA KBC Koma Rock in SH 2034, Afro pops, IDs, pipe, choral mx (Orr VA 11/3)
- 6210 BULGARIA RB in lang *2328-0015*, IS, ID, tlk, mx (Alexander PA, Paskiewicz WI)
- 62817 PERU R Huancabamba in SP 0220, annts, huaynos, campo mx, IDs (Alexander 10/10)
- 62933nf? SLOVAKIA R Slovakia Int in GM/FR 2015, IS, gone 2117 at recheck (Berg MA 10/9)
- 65*6 NO KOREA R Pyongyang in EG 1125, tlk on KR guerillas in WWII (Newbury NE 10/22)
- 66272 PERU LV de San Antonio in SP 0220, annts, variety mx incl huaynos (Alexander PA)
- 6628v VIETNAM Bac Thai in lang 1248, hill tribe plaintive vocals, p/audio (Clark ONT)
- 6790 CHINA CPBS Beijing Taiwan 2 in CH 1115, CH vocals, piano theme, ID (Orr 11/8)
- 7105nf ARMENIA Yerevan via R Moscow? in EG 0344, ID, nx, sci in Armenia, lcl folk mx, fqys, QTH, NA at 0357, into R Moscow World Service 0359, g (Flexander PA 10/3)
- 7125 GUINEA RTV Guineene in FR/lang 0615, Afr native mx w/drums, vocals, marimbas, DJ, full ID 0702, fqy, f (Robertson CA 11/8) Rare catch on W Coast Nam!
- 7125 CYPRUS Cyprus BC in GK *2213-2244*, IS, ID, theme, drama, pops, //9770 (Orr 11/6)
- 7140 ITALY R Italia Int Spoleto in IT 1123, ads, lcl pop mx, DJ (Serra ITALY 10/31)
- 71494 SO AFRICA Capital R in EG 0328, "Music Power" half hour, ID (Johnson PA 11/7)
- 7150 LITHUANIA R Vilnius in EG 0000, nx, cmntry, Lith opera mx (Alexander PA 10/23, Bickus VA 10/19) ED: PWBR lists this xmsn at 1000 kw via Armavir, Russia.
- 71902v EQUATORIAL GUINEA R Africa in EG 2210-2327*, relig pgm w/Bible readings, gospel mx, ID 2326, req QSLs for \$1 or 2 IRCs, f-g w/QRM (Alexander PA 10/29)
- 7195 UKRAINE R Ukraine Int in EG *0100, IS, ID, nx, lcl mx, //7240 (Alexander 10/31)
- 7200 YUGOSLAVIA R Beograd in Serb 0818, classic mx, ID, tlk (Serra ITALY 11/1)
- 7245 ANGOLA R Nacional in PT 0502, lcl mx, IDs, highlife mx (Lawrence NY, Klinck NY)

7250 UNITED KINGDOM R Canada relay in EG 2328, pgm re high school (Lane ONT 10/23)

7250 VATICAN STATE VR in FR 0539, IS, ID, nx re Bosnia, f (Lamb NY 10/28)

7255 NIGERIA VON in EG 1940, mailbag, feature, ID (Ducharme MA, Hensley VA 11/6)

7275 ITALY RAI in EG 1935, nx, mx, ID, fqys at 1955*, bird chirp IS (Ducharme 11/3)

7335 VATICAN STATE VR in EG 0159*, nx, ID, f but mixing with CHU (Alexander PA 10/24)

7375usub COSTA RICA RPPI in EG 0615, cmntry, ad for T shirt, relig tlk, mx, ID, fqy drift (Bickus VA 10/20, Robertson CA 11/9, Cleveley NY 10/20)

7385 COSTA RICA RPPI in EG 1140, promo for RPPI, 800# for pledging, f-g (Newbury NE)

7440 ARMENIA R Yerevan in EG 2244, nx, cmntry, ID, p (Alexander 10/22) via Russia?

7445 TAIWAN V of Asia in EG 1115, pop mx, IDs, QRN a problem (Johnson MD 10/10)

7455nf BULGARIA R Bulgaria in EG 2300, nx, cmntry, "Time Out for Music", ex-7355 fqy, //9700 (Alexander PA, Frodge MI, Lamb NY) in BG 0250 w/tlk & mx (Field MI)

7465 ISRAEL Kol Israel in EG 1811, nx, wx, fqys, TC (Serra ITALY, Frodge MI, Lamb NY)

7935 CHINA CPBS-1 Beijing in CH 1730*, CH mx, tlk, NA, ID (Serra ITALY 10/30)

9165 SUDAN Rep of Sudan R in AR 2056, instrlm mx, pips 2100, ID, "Huna Omdurman", nx, tlk, vocals (D'Angelo PA 10/30) in AR 0320, nx, ID, ezl mx, f (Lamb NY 10/20)

91935usub AUSTRALIA Aus Armed Forces R in EG 1155-1259*, nx, pop mx, IDs, played "Tie Me Kangaroo Down" (Alexander PA 10/31, Rippel VA 10/22, Rigas IL 10/9)

9280 TAIWAN WYFR relay in CH 1332, organ mx, rel tlk, IS, ID (Lamb 10/31, Serra 11/1)

9345 NO KOREA R Pyongyang in FR 1449*, tlks, songs, ID, martial mx (Serra ITALY 11/1)

9388 ISRAEL Raashuth Hashidur in HB 0137, ezl vocals, CWGRM, f (Frodge MI 10/17)

9400LSB LITHUANIA R Centras in EG/lang 1925, 5 kw test bcst, US pop mx (Alexander 10/17)

9405nf CZECH REPUB R Prague in EG/FR *0000, nx, cmntry, jazz mx (Alexander PA 10/3)

9445 TURKEY VOT in EG 2300, nx, g (McGuire MD) in TK 0248, TK mx, ID (Tucker GA 11/1)

9475 EGYPT R Cairo in EG 0200, Koran reading, nx, mx, ID (McGuire MD, Cleveley NY)

9480 MONACO TWR in EG 0705, relig tlk, interview, prayer, exc (Bickus VA 10/20)

9510 ROMANIA RRI Bucharest in EG 0200, QTH, ID, lcl musicians, mail (Cleveley 10/20)

9510 CUBA RHC in EG 0642, "Time Out", tlk on parachuting, ID (Robertson CA 11/9)

9510 NEW ZEALAND RNZI in EG 1245, mx from NZ, nx, election returns (Tucker GA 11/6)

9515 SOUTH AFRICA BBC relay in PT *0519, IS, ID, Big Ben, nx (Orr VA 11/6)

9515 BRAZIL R Novas de Paz in PT 2305, nx w/sax bridges, ID, TC, ads (Paszkievicz WI)

9530 NO MARIANAS KHBI Saipan in EG 1417, IDs, "Christian Science Sentinel" (Lamb NY)

95349 ANGOLA R Nec Luanda in PT 0450, lcl mx, ID, 0500 (Johnson PA 11/7)

9540nf SPAIN REE in SP 0232, IS, ID, nx re Lat Amer (Lamb NY 11/3, Tucker GA 11/4)

9540 UZBEKISTAN R Tashkent in EG 1216, Uzbekistan songs, ID (Rigas IL 10/11)

9555nf? SAUDI ARABIA BSKSA in AR 2131, AR pop mx, ID, tlks, //9870 (Orr VA 11/6)

9575 MOROCCO R Mediterranee Int in AR 1030, ezl songs, AR mx (Serra ITALY 10/24)

9580 ALBANIA R Tirana in EG 0230-0245*, ID, nx, mx bridges (Newbury NE 10/19)

9580 YUGOSLAVIA RY Beograd in EG 0205, classic mx, ID, nx, cmntry (Cleveley NY 10/20)

9585 BRAZIL CBN Sao Paulo in PT 0840, nx, jingles, promos, ID, theme (Orr VA 11/8)

9590 NETHERLAND ANTILLES RN relay in EG 0411, expose on film producer (Hensley VA)

9600 ASCENSION IS BBC relay in EG 0625, Afr service, "Network Africa" (Bickus VA)

9605 MADAGASCAR R Nedrer relay in EG *1730-1930*, interview (Ducharme MA, Frodge MI)

9605 VATICAN STATE VR in SP 0230, IS bells, ID, prayer, relig mx (Cleveley NY)

9610nf RWANDA R Rwanda in lang *0257, IS drums, NA, ID, fqy, vocals, nx, string/percsn mx, group vocals (D'Angelo PA 10/2, Jordan PA 10/19) Jordan rpts in FR on 10/19

9615 SO AFRICA BBC relay in EG 0245, EG lang lesson, into SH 0300 (Newbury NE 10/19)

9630 SEYCHELLES IS BBC relay in EG 2011, "Words of Faith" relig pgm (Lane ONT 10/24)

9640 ANTIGUA BBC relay in EG 0647, "Making America", show mx, nx (Robertson CA 11/9)

9645 BRAZIL R Bandeirantes in PT 0310, futbol, TP, jingles, //6090 (Paakiewicz WI)

9655 THAILAND HSK9 R Thailand in EG/lang 1219, nx, TCS, NA 1230, gongs & into lang after end of EG xmsn (Orr VA 11/8, Frodge MI, Clark ONT 10/17)

9660 VENEZUELA R Rumbos in SP 1130, IDs, tlks, baseball nx, exc (Robinson TN 10/4)

9660 AUSTRALIA VLQ9 Brisbane in EG 1301, world nx, QRN (Clark ONT 10/31) Clark rpts that VLQ9 intends to leave air 12/31 perhaps signaling end of all Dom SW Service

9680 INDONESIA RRI Jakarta in IN 1302, Jak nx, ID in EG, vocals (Orr VA, Larkin NY)

9700 BULGARIA RB in EG 2320, ID, features, cmntry (Hensley VA, McGuire MD, Lane ONT)

9705 PORTUGAL RDPI Lisbon in EG 0230, nx, cmntry, wx, ID, mx (Cleveley NY) in PT 0000 tlk & laughter, Fado selections, ID "Aqui Lisboa" (Robinson TN 10/23)

97248 COSTA RICA AWR in SP/EG 1500, ex-13750, relig pgm, EG at 1502 (Alexander PA)

9725nf ITALY RAI in EG 0109, nx re Fellini's widow, ID, IS, pops, g (Lamb NY 11/10)

97309 VIETNAM VOV in EG 1105, nx, ID, listed in PBR at 15 kw (Johnson PA 11/7)

9735 PARAGUAY RN del Paraguay in SP 2300, IDs, "musica de Paraguay" (Robinson 10/23)

9750 OMAN BBC relay in lang 2025, nx, cmntry, ments of BBC & London (Orr VA 11/5)

9760 ALBANIA R Tirana in AL 0353, lcl mx, tlk, ID, NA? at 0424 (Tucker GA 11/2)

9770 UNITED ARAB EMIRATES Abu Dhabi in EG 2300, world nx, cmntry, ID, tlk on Somalia, US mx, //11710 (Cleveley NY 10/20, Berg MA 10/30)

97793v YEMEN Rep Yemen R Sana in EG 2104-2141*, nx, tlk re inflation in Yemen, mx, IDs, Koran, closing anmnts in AR, NA, AR pgm before 2104 (Alexander PA, D'Angelo PA, Anderson MI, Ducharme MA, Rausch NJ, Berg MA, Jordan PA)

9810 RUSSIA AWR Novosibirsk in EG/CH? 1059, IS, ID in EG, instr mx, f-p (Lamb 10/23)

9810nf? RUSSIA R Nederlands relay Irkutak in EG 0940, "Newslines" (Frodge MI, Lane ONT)

9810 SLOVAKIA RSI in EG 0100, sked, nx, features, IS, QRM R Moscow (Frodge MI 10/17)

9825nf? KIRIBATI RK in EG 0600, BBC nx, hymns, vocals (Lawrence NY, Frodge MI 10/17)

9835 RUSSIA AWR Novosibirsk in EG 0230, IDs, fanfare, IS (Paszkiewicz WI 10/5)

9835 HUNGARY R Budapest in HG 2030, IDs, rap & traditional mx, f (Robinson TN 10/23)

9840 NETHERLAND ANTIILLES RN relay in EG 0053, ID, documentary (Tucker GA 11/4)

9840 KUWAIT R Kuwait in AR 2300, ID "Huna Kuwait" 2335, cmntry on Iraq (Cleveland NY)

9855nf? UZBEKISTAN R Nederland relay in IN 2148, old DT/US pops rx, ID (Orr VA 11/6)

987C AUSTRIA RAI in EG 2330, nx, ID, interview Albania Pres (Cleveland MA, Lane ONT)

990C EGYPT R Cairo in EG 2230, Eur service, vocal w/chorus, reed mx (Bickus VA 10/10)

9977 NO KOREA R Pyongyang in EG 1143, ID, lcl mx, fqys, NA 1148* (Ducharme MA 10/30)

11092 ST HELENA R St Helena in EG *2000-2304*, 1 day special xmen, phone calls, pop mx contest info, songs, lcl wx, QTH, ID jingles, Governor message, NA (Alexander PA, Pappas SD, Berg MA, Frodge MI, Rippel VA, Ducharme MA, Hardester NC--all 10/15)

11402 ICELAND INBS in IC 2305, nx?, IDs, speech excerpt, rpts, f (Clar NY 10/6)

11530 LEBANON Wings of Hope in EG 2300, Dr Gene Scott req \$\$ (Hardester NC, Frodge MI)

11570 PAKISTAN RP in EG 1707, nx, press review, p modul (Larkin NY 11/6, Ducharme MA)

11620 INDIA AIR in EG 2230*, tlks re India, ID, pol tlk, percuss mx (Jordan PA 11/3)

11625 VATICAN STATE VR in EG 2017, African mx, ID, Bible passages, f-g (Lamb NY 10/23)

11650 PHILIPPINES FBBC in EG/lang 2257, IS, ID, native mx (Clar NY, Paszkiewicz WI)

11655 MADAGASCAR R Nederland relay in EG 0029, fqys, nx, "Media Network", //9840, f (Lamb NY 11/12, Hardester NC 11/1) in FR *1930, IS, ID, fqys, nx (Ducharme MA)

11663nf AUSTRALIA RA in EG 1610-1940, nx, race calls, ID, //11695 (Frodge MI, Rausch NJ, Ducharme MA 10/20) in Cantonese 1405, nx, ID, f-g, //9560 (Lamb NY 10/31)

11700 NO KOREA R Pyongyang in EG 2329, ID, cmntry, f-g, //13650 (Larkin NY 11/5)

117046v BRAZIL R Transamerica in PT 0947, relig mx, multi-lang IDs (Johnson MD 10/31)

11710 ARGENTINA RAE in SP 1000, IDs, sports, mx(Robinson TN) in EG 0250 (Newbury NE)

11715 MALI R China Int relay in EG *2000, ID, nx, feature (Ducharme MA, Hensley VA)

11715 INDIA AIR in EG 2127, science & technology pgm, g (Lane ONT 10/10)

11735 NEW ZEALAND RNZI in EG 1935, nx, IDs, tlk in Maori, mx, TP (Serra ITALY 11/1)

11750 ASCENSION IS BBC relay in EG 2318, "On Screen", ID, "Multitrack I" (Lamb NY)

11750 SOUTH AFRICA Channel Africa in PT 0525, ID by child, nx, mx, g (Lamb NY)

117654nf BRAZIL R Universo in PT 2025, impassioned speech, ID, ex-11905? (Johnson PA)

11760 BRAZIL RN da Amazonia in PT 0811, echo IDs, BeeGees mx, //6180, f (Lamb NY 11/6)

117649nf? BRAZIL R Quaba in PT 0943, instrml mx, ID, TP, B Goodman mx (Johnson MD 10/31)

118004 SRI LANKA SLBC in Tamil 1225, lcl mx, 5 pips 1230 (Johnson PA 11/7)

11820 HONGKONG BBC relay in EG 1400, tlk on human rights in Burma, ID (Anderson MI)

11835 YUGOSLAVIA RY Beograd in EG 1356, s/off in EG w/ID, into lang 1400 (Ducharme MA)

11860 NORWAY RN in EG 1800, nx, cmntry, IDs, NO mx, EG on Suns only (Alexander PA)

11865 JAPAN RJ Tokyo in JP 2200*, tlks, piano interludes, ID, mx (Orr VA 11/5)

11870v COSTA RICA AWR in EG 2300, ID, "The Quiet Hour", relig pgming (Anderson 10/29)

11870 PHILIPPINES VOA relay in EG 2128, "VOA world Report", IDs (Orr VA 11/5)

11920 ARMENIA R Yerevan in EG 2245, profiles of Armenian authors (Bickus VA 10/10)

11925 NORWAY RNI in NO *2159, IS, ID in EG, nx re lcl politics, g (Lamb NY 11/7)

11925 MALTA VO Mediterranean in EG 1413, cultural/informational pgm, ID (Serra 10/21)

11925 GABON R Japan relay in EG 2132, "Media Roundup", ID, "Viewpoint" (Lamb NY 11/7)

11990 KUWAIT RK in AR 1712, nx, polit cmntry, QRM from Prague 1730 (Klinck NY 10/17)

12010nf ARMENIA Yerevan-Araxis R Agency in EG 2343, nx, cmntry, wx, ID, closing anmts at 2357 w/fqys & QTH, weak, //9685, 11920 (Alexander PA 10/22)

12020v VIETNAM VOV in EG *1000, s/on w/fqy info, f (Larkin NY 11/6)

12085nf BULGARIA R Bulgaria in EG *1514, IS, ID, sked, nx, cmntry, p (Alexander PA 10/3)

13605 AUSTRALIA RA in EG 1158, ID, fqys, into CH pgming 1200 (Ducharme MA 10/29)

13625 NO MARIANAS KIBI Saipan in EG 1300, CSN pgm, nx, cmntry (Serra ITALY, Ducharme)

13635 SWITZERLAND SRI in EG *1100, nx, "Dateline", f (Ducharme MA 10/28)

13650 CANADA RCI in EG 2153, C&W mx, CBC nx, mailbag, //13690 (Tucker GA 11/7)

13675 UNITED ARAB EMIRATES Dubai in EG 1330, history of Turkish baths (Ducharme MA)

13700 NETHERLANDS RN in EG 1328, IS, IDs, fqys, QTH, pips, mx, chats (Serra 10/24)

137498 ISRAEL Reshet Bet in Yiddish 1415, lcl mx, jingles, //15615 (Alexander PA 10/3)

13755 AUSTRALIA RA in EG 1330, Australian love songs, lullabies, ID (Anderson MI 10/8)

13760 NO KOREA R Pyongyang in SP 2349*, song, tlk re KR mx, nx, ID, NA (Lamb NY 10/22)

15009 VIETNAM VOV in EG *1230-1300*, NA, ID, TC, fqys, nx, f (Ducharme MA 10/8)

15020 INDIA AIR in lang 1258, IS, ID, tlk, mx, f/o 1330 (Ducharme 10/26)

15050 INDIA AIR in EG 0959, fqys, nx, ID, cmntry, //17387, 17895 (Serra ITALY 10/31)

- 15120 NEW ZEALAND RNZI in EG 0500, nx, cricket match (Hensley VA 11/3, Newbury NE)
 15240 SWEDEN RS in EG 1540, interview, wx in Stockholm, other nx (Newbury NE 10/13)
 15240 SOUTH AFRICA Channel Africa in EG 1700-1754*, nx, features, Afr pop mx, "reggae and rap", IDs, listener's mailbox (Alexander PA 10/30, Anderson MI 10/3)
 15260 ASCENSION IS BBC relay in EG 0207, IDs, "Newsdesk" re UNITA, f (Lamb NY 10/20)
 152681 BRAZIL R Mac da Brasilia in EG *1755-1918*, IS, IDs, BR folk mx, nx, off for 4 mins, back at 1922 into GM pgming, f (Alexander PA 10/17)
 15290 PHILIPPINES VOA relay in EG 0026, "VOA Business Report", ID, nx (Lamb NY 11/1)
 15325 FRENCH GUIANA R Japan relay in EG 0300, nx, econ rpt, ID, f (Anderson MI 10/31)
 15340nf RWANDA Radiodif Nat Rwandaise in FR *1800-2102*, nx, US pop mx, "Radio Theater" Afro pops, relig spot, ID, xylo drum bridges, orch NA (Paszkiwicz WI, Frodge MI Jordan PA, Rausch NJ, D'Angelo PA, Ducharme MA, Klinck NY)
 15340 ITALY RTV Italiana in AR *1911-1930*, nx, mx, ID, QRM Rwanda (Ducharme 10/21)
 15340 ROMANIA RRI Bucharest in EG *1730-1756*, ID, fcy, nx, QTH, f (Ducharme 10/21)
 15345 ARGENTINA RAE in SP 2300, IDs, tangos, tlks (Tucker GA 10/27, Robinson TN 10/21)
 15355 GABON R Japan relay in EG *1500, nx, ID, fqys, "Magazine Hour" (Ducharme 10/18)
 15400 ASCENSION IS BBC relay in EG 1950, "Postmark Africa" mailbg, ID (Tucker GA 11/7)
 15425 RWANDA Deut Welle relay in EG 2150*, fqys, site ID, IS (Lamb NY, Tucker GA)
 15425 SRI LANKA SLBC in EG 1512, lite mx, US produced relig pgm w/tlk & gospel mx, IDs 1530 & 1545, US pop mx, poor audio & QRM splatter (Alexander PA 10/30)
 15435 LIBYA R Jamahiriya in AR 2050, AR mx, tlk, ID //15235 (Anderson MI, Tucker GA)
 15475 GABON Africa #1 in FR 1655-1857*, Afro hi-life, IDs, nx, ads, jingles, nx in EG 1851-1855, //9580 (Alexander PA 10/16, Jordan PA 11/3, Serra ITALY 10/30)
 15505 SWITZERLAND SRI in GM/FR 1355, ezl mx, ID in both langs, //13635 (Tucker 10/31)
 15570 PHILIPPINES R Veritas in EG *1530, IS, ID, fcy, into Urdu 1535 (Ducharme MA)
 15640 ISRAEL Kol Israel in EG *1358, IS, pips, ID, nx, wx, cmntry (Serra ITALY 10/21)
 15675 HONDURAS R Copan Int in SP 2125-2300, lively LA mx, IDs, QTH, tlk, vocals, mail, (D'Angelo PA 10/30, Tucker GA 10/26, Larkin NY 11/6, Paszkiwicz WI, Field MI)
 17500 TUNISIA RIV Tunisienne in AR (sounded more like FR) 1344, many mentions Tunis, signal better on USB to avoid HCJB on 17490 (Larkin NY 11/6)
 17515 BELGIUM R Vlaanderen Int in FR/DT 1001, phone calls, ID, //9925 (Serra 10/24)
 17515 GREECE PTH Athens in GK 1300-1450, IS, ID, nx, //15630 (Rigas IL 10/16)
 17710 YUGOSLAVIA RY in EG 1943, nx re Milosevic, IDs, fqys, song, f (Lamb NY 10/22)
 17710nf? SOUTH AFRICA Channel Africa in EG 0655*, nx, IDs, sport nx, QTH (Serra 10/31)
 17785 MOROCCO VOA relay in FR 1930, ID, TC, nx re Burundi coup attempt, f (Lamb 10/22)
 17805 ROMANIA RRI Bucharest in EG 1751, tlk re Balkan history (Lane QNT 10/11)
 17810 JAPAN RJ Tokyo in EG 2318, IDs, "RJ Magazine Hour", "Japan Diary" (Lamb 10/20)
 17815 BRAZIL R Cultura Sao Paulo in PT 2241, M & W discussion (Paszkiwicz WI 10/8)
 17820 PHILIPPINES VOA relay in EG 2259, ID, "Newslines", //15185, 17735 (Lamb 10/20)
 21455usb ECUADOR HCJB Quito in EG 1327, nx, ID, fqys, pips, tlk (Serra ITALY 10/21)
 21515 NETHERLAND ANTIILLES RN relay in EG 1914, interview, songs, ID, fqys (Lamb 10/22)
 21740 AUSTRALIA RA in EG 2230, interview re Hong Kong's future, f (Bickus VA 10/15)
 21745 AUSTRALIA RA in EG 1009, nx, ID, mx, "Studies in Australia" (Serra ITALY 10/24)

CLANDESTINE STATIONS

- 59101 R Patria Libre-Colombia in SP 0045-0057*, tlk, LAm mx, ID (Alexander 10/17)
 62701 R Patria Libre-Colombia in SP 1157*, tlk, ID, weak (Alexander PA 10/16)
 6305 La Voz del Cid-Guatemala in SP 0603, tlk re Cuba, Castro & Havana, full ID, SP mx bridge, f-g (Robertson CA 11/7)
 8840v V of the Mojahed-Middle East hrd at 0235 in Farsi? 0235, weak, lost after one minute, relocated 0237 on 8844, gone at 0240 (Field MI 9/27)
 9942 La Voz del Cid-Guatemala in SP 0230, interviews, features, mx, tlk on Castro and Cuba, mx, g (Cleveland NY 10/20)
 13670 V of the Iraqi People-Middle East in lang? 1910-1935, AR mx, some classical mx, //9569, 15135, tentative ID, weak sig (Alexander PA 10/10)
 15620 V of Human Rights-Egypt in Persian 1744-1820, polemics, vocals, dramatic mx and loud tlks, many ments of Iran, ID? 15 min intervals, jammed (Jordan PA 11/3)

 As I noted in the May 1993 NASWA Journal, I wish I had the time, space, and energy to include the material on Pirate stations. However, completing the "conventional" SW column is just about my limit. Most of the Pirate loggings come from a handful of members who apparently contribute a great deal of listening time to Pirate activity. My recommendation is that someone volunteer to edit a special column on this area if there is increased interest shown for Pirate reportings. Best holiday wishes to all the NASWA membership!

English Schedules

Tom Sundstrom
P.O. Box 2275
Vincentown, NJ 08088-2275
MCI Mail 244-6376
Fax 609-859-3226
PICS Online RBBS 609-753-1549
Genie T.SUNDSTROM



Prepared 11/25/93 at 12:04 PM.

This month, thanks to John Carson (OK), Ed Evans (Christian Science Monitor stations), Dan Ferguson (VOA), Mike Fern (CA), Nigel Holmes (R Australia), Adam Lock (WWCR), Hans Johnson (MD), Jon Klinedinst (PA), Jonathan Marks (R Netherlands), Richard McVicar (HCJB), Andy Sennitt (WRTH) and Jeff White (WRMI).

New

WRMI made it on the air, using a 400 watt auxiliary transmitter, late in the week of November 7. On 9955 kHz, I heard it conducting antenna tests on the afternoons of the 15th and 16th c.1900-2000 UT. Announcements in English and Spanish, and test tones were aired. Here in NJ there was cochannel interference from the Voice of Free China, but that will disappear once the regular transmitter is fired up sometime in the latter half of December.



Notes

Australia: The ABC Domestic SW service will close down December 17, per a report on the November 25th edition of *Media Network*

China: China Radio International changed the Canadian relay upon our return to EST and the rest on (apparently) November 7. The listed frequencies are those observed here; the announcements were not updated.

France: Radio France International English is now an hour 12-13 (ex-1230 start).

Ukraine: At 22 UT I found 6010 and 6055 in use, not included in last month's listing. Announcements are still wrong.

USA: *World of Radio* adds times on WWCR tx#3: Sa 2130 on 15685, Mo 0600 on 5810. Also there is a change of time on tx#1: Su 0415 (ex-0405) on 7435. The 60-minute *Spectrum* now airs Su 0300 on 5810. VOA's *Communications World* airs Sa 1210 eAs/seAs/Pac Sa 1610 ME/nAd/Eu; Sa 1610 sAs; Sa 2110 Af; Su 0110 Am/Carib; Su 2110 Pac. WINB is still working on its antenna and has not yet expanded its hours of broadcasting, according to Bob Mundis (via Klinedinst).

Yugoslavia. Radio Yugoslavia made its shift to 6190, a new and better frequency for NAm, on (apparently) November 7.

Computer Stuff

Recently noted new or corrected Internet and CompuServe electronic mail addresses:

HCJB · John Beck & Rich McVicar
jbeck@mhs.hejb.com.ec
rmcivicar@mhs.hejb.com.ec
Radio for Peace International, Costa Rica
rfpicr@nicarao.apc.org
Radio New Zealand International
(do not use for reception reports/QSL.s)
Adrain Sainsbury, Frequency Manager
ajsainsbury@swell.actrix.gen.nz
WRMI: Jeff White: 71163,1735

... and more



As you read this the 1994 *World Radio TV Handbook*, 48th edition, is in production.

It should arrive on the SWL mail order dealer shelves around January 1, probably before you'll find it on the shelves of your nearest chain bookstore. It's an international industry standard that is a *must* addition to your library.

♠ Seasons Greetings ♠

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SCHEDULES BY SUBSTRON

START	END	COUNTRY	STATION	FREQUENCIES					TARGET AREA	NOTES	LAST UPDATE
0000	2400	Costa Rica	R for Peace Int'l	214650	15030	136300	73850	7375	LAm/NAm	#3 not activated	11/14/93
	0030	Norway	R Norway Int'l	9675	9590				NAm/SAm	Mo only	10/31/93
	0100	Russia	R Moscow Int'l	9805	9685	9620	9480	7295 7165 7110	World Service	obs limited by low M	11/11/93
	0200	USA	WSHB/2	9430					cAm/SAm		11/04/93
	0900	USA	WWCR	7435					Eu/ME/nA/	tx #1	11/05/93
	0800	USA	WWCR	5810					Eu/ME/nA/	tx #3	11/05/93
0100	0200	Australia	R Australia	17880	17750	17715	15510	15240 11800 11720	As/Pac/PapNG		11/01/93
	0200	Australia	R Australia	21740	17795	15510	15365	15320 15240	As/Pac/PapNG		11/01/93
	0200	Russia	R Moscow Int'l	9620	7295	7180	7165	7110 5940	World Service	obs limited by low M	11/11/93
	1400	USA	WWCR	5935					Eu/ME/nA/	tx #2	11/05/93
	0130	Yugoslavia	R Yugoslavia	6190					eNAm		11/14/93
0200	0400	Australia	R Australia	21595	21525	17880	17750	17715 11800 11720	As/Pac/PapNG		11/01/93
	0400	Australia	R Australia	21740	17795	15510	15365	15320 15240	As/Pac/PapNG		11/01/93
	0400	Cuba	R Havana	9510	6010				cNAm/nNAm		11/09/93
	0230	Norway	R Norway Int'l	7165	6115				sAs/NAm/CAm	Mo only	10/31/93
	0300	Russia	R Moscow Int'l	9620	7295	7180	7165	7130 5940	World Service	obs limited by low M	11/11/93
	0300	USA	WSHB/2	9430					Mex		11/04/93
	0230	Yugoslavia	R Yugoslavia	6190					wNAm		11/14/93
0300	0400	Canada	R Canada Int'l	9755	6000				NAm		10/29/93
	0400	Canada	R Canada Int'l	9725	6000				LAm		10/29/93
	0400	Canada	R Canada Int'l	9725	6000				Carib		10/29/93
	0500	Honduras	HRVC	4820					Am	Mo	11/07/93
	1100	Lebanon	Wings of Hope	11530					ME	Mo-Fr[Univ Network -	11/24/93
	0700	Lebanon	Wings of Hope	11530					ME	Sa	11/24/93
	0700	Lebanon	Wings of Hope	11530					ME	Su	11/24/93
	0400	Russia	R Moscow Int'l	7295	7180	7165	7130	5940	World Service	obs limited by low M	11/11/93
0400	0530	Australia	R Australia	21595	21525	17880	17715	11800 11720	As/Pac/PapNG	#2&3 Eng SaSu 04-05	11/01/93
	0530	Australia	R Australia	21740	17795	15510	15365	15320 15240	As/Pac/PapNG		11/01/93
	0455	China	China R Int'l	11680					wNAm		11/01/93
	0500	Cuba	R Havana	9510	6180	6010			cNAm/nNAm	#1 -0430	11/09/93
	0500	Russia	R Moscow Int'l	9580	7330	7295	7180	7165 7130 7105 5940	World Service	R Aum 0430-05[obs li	11/12/93
0500	0555	China	China R Int'l	11840					wNAm		11/01/93
	0600	Russia	R Moscow Int'l	7330	7295	7180	7165	7130 5940	World Service	obs limited by low M	11/12/93
0530	0600	Australia	R Australia	21595	21525	17715	11800	11720	As/Pac/PapNG		11/01/93
	0600	Australia	R Australia	21740	17795	15510	15365	15320 15240	As/Pac/PapNG		11/01/93
	0555	Romania	R Romania Int'l	17790	17745	17720	15380	15250	AI		11/24/93
0600	0700	Australia	R Australia	21595	21525	17880	17715	17670 11800 11720	As/Pac/PapNG		11/01/93
	0700	Australia	R Australia	21740	15510	15365	15320	15240 9710	As/Pac/PapNG	#6 0630-	11/01/93

SCHEDULES OF STATIONS

Start	End	Country	Station	Frequencies	Target Area	Notes	Last Update
0600	0700	Russia	R Moscow Int'l	9890 7165 5940	World Service	obs limited by low M	11/12/93
0632	0642	Romania	R Romania Int'l	11840 11775 9690 9665 7105	Eu	news	11/21/93
0645	0715	Romania	R Romania Int'l	17805 17720 15335 15250	Pac		11/24/93
0700	0730	Australia	R Australia	21740 15510 15365 15320 15240 9710	As/Pac/PapNG		11/01/93
0800	0830	Russia	HCLB Ecuador	21455U 11835 6205	Eu	obs limited by low M	11/06/93
0800	0900	Russia	R Moscow Int'l	7165	World Service	obs limited by low M	11/14/93
0900	1000	Russia	R Moscow Int'l	15550 15540 15510 15435 15350 15345 15280 15175 15150 15140	World Service	19m obs limited by I 25m obs limited by I 31m obs limited by I	11/14/93 11/14/93 11/14/93
0940	1000	Russia	R Moscow Int'l	17525 15650	Aus	News/Eng	11/24/93
1000	1100	Russia	R Moscow Int'l	17760 15435 15380 15345 12070 12015 11975 11675 9780 7205	World Service	obs limited by low M	11/14/93
1100	1200	Australia	R Australia	15565 15170 13605 9580 9560	As/Pac/PapNG		11/24/93
1200	1200	Russia	R Moscow Int'l	21515 17880 17805 17780 17760 17725 17690 17660 17605 15150	World Service		11/12/93 11/14/93 11/14/93 11/14/93 11/12/93 11/14/93 11/12/93 11/14/93 11/12/93 11/14/93
1200	1200	Russia	R Moscow Int'l	15550 15525 15480 15465 15435 15380 15345 15320 15210 15150	World Service		11/14/93 11/12/93 11/14/93 11/12/93 11/14/93 11/12/93 11/14/93 11/12/93 11/14/93 11/12/93
1200	2400	USA	WWCR	15685	EW/EM/NA	tx #1	11/05/93
1200	1300	Australia	R Australia	15565 9710 9580 7240 6080 6020	As/Pac/PapNG		11/24/93
1255	1300	France	China R Int'l	9655	NAm/CAm/SAm		11/14/93
1300	1300	France	R France Int'l	21645 15365	NAm/CAm/SAm		11/06/93
1300	1300	Norway	R Norway Int'l	21705 17830	Aus/As	Su only	11/06/93
1300	1300	Norway	R Norway Int'l	15425 15180 9805	Eu		11/06/93
1300	1300	Russia	R Moscow Int'l	7205	World Service		10/21/93
1300	1300	Russia	R Moscow Int'l	21785 21515 21450	World Service		11/12/93
1300	1300	Russia	R Moscow Int'l	17880 17805 17780 17760 17725 17190 17690 17605	World Service		11/11/93 11/11/93 11/11/93 11/11/93 11/11/93 11/11/93
1300	1300	Russia	R Moscow Int'l	15380 15345 15320 15280 15205 15190 15175 15120	World Service	19m < 15.4 MHz	11/14/93 11/14/93 11/14/93 11/14/93 11/14/93 11/14/93
1300	1300	Russia	R Moscow Int'l	13680 12070 12055 12015 11980 11675	World Service		11/14/93 11/14/93 11/14/93
1650	1650	New Zealand	R New Zealand Int'l	9830	World Service		11/12/93

SCHEDULES BY SUBSTRAM

START END	COUNTRY	STATION	FREQUENCIES							TARGET AREA	NOTES	LAST UPDATE		
1230	Australia	R Australia	15565	9580	7240	6080	6020			As/Pac/PapNG		11/24/93		
1300	China	China R Int'l	15440	11795						sPac		11/14/93		
1630	Lebanon	Wings of Hope	11530							ME	Mo-Sa (Su -15)	11/24/93		
1400	Romania	R Romania Int'l	17775	17720	15365	11940				Eu		11/21/93		
1400	Russia	R Moscow Int'l	15540	15495	15480	15440	15380	15345	15320	World Service	19m	11/11/93		
1400	China	China R Int'l	7405							wNAM		11/14/93		
1500	France	R France Int'l	17650							Eu/ME		11/06/93		
1500	France	R France Int'l	12035							As/Oc/India		11/06/93		
1500	Russia	R Moscow Int'l	17780	17760	15540	15465	15440	15380	15345	World Service		11/11/93		
0100	USA	WWCR	13845							Eu/ME/hAf	tx #2	11/05/93		
1430	Australia	R Australia	11800	11660	9770	9580	9510	7260	7240	6080	6060	As/Pac/PapNG	11/01/93	
1500	China	China R Int'l	7405									wNAM	11/14/93	
1600	Russia	R Moscow Int'l	17780	17760	15550	15540	15465	15440	15380	15345	15320	World Service	11/11/93	
1515	Bulgaria	R Bulgaria	12085									CIS	10/30/93	
1540	Greece	V of Greece	17525	15650	15630							NAM/Eu	News/Eng	11/24/93
1627	Iran	V of Islamic Rep of Iran	11790									"subcontinent"		11/13/93
1630	Australia	R Australia	11695	9770	9580	9510	7260	7240				As/Pac/PapNG	11/01/93	
1700	France	R France Int'l	6175									Eu	11/06/93	
1700	France	R France Int'l	17795	11975								ME/Af	11/06/93	
1700	France	R France Int'l	17850	17620	12015	11705						Af	11/06/93	
1700	Russia	R Moscow Int'l	15380	12045	9550							World Service	11/11/93	
2200	USA	WWCR	15610									Eu/ME/hAf	tx #3	11/05/93
1630	Australia	R Australia	11880	11695	9770	9580	7260	7240	6080	6060	5890	As/Pac/PapNG	11/01/93	
2135	New Zealand	R New Zealand Int'l	9655									Pacific	Mo-Fr	11/12/93
1700	Russia	R Moscow Int'l	9550	7180								World Service		11/12/93
1800	Australia	R Australia	11880	11695	11660	9580	7260	7240	6080	6060	5980	As/Pac/PapNG	11/01/93	
1900	Russia	R Moscow Int'l	12055	9890	9550	9540	7180					World Service	11/12/93	
2000	USA	WHRI	13760	9485								eNAM/Eu/Carib	11/20/93	
1815	Bangladesh	R Bangladesh	9700									Eu/ME		11/04/93
1840	Greece	V of Greece	17525	15650	15639							sAf	News/Eng	11/24/93
1850	New Zealand	R New Zealand Int'l	11735									Pacific	Sa-Su	11/12/93

START End 1900	COUNTRY	STATION	FREQUENCIES		SCHEDULES BY SUBSTREAM								TARGET AREA	NOTES	LAST Update
2100	Australia	R Australia	11880	11720	11695	11660	9580	7260	7240	6080	6060	5980	As/Pac/Pap/NG		11/01/93
2000	Romania	R Romania Int'l	11940	9690	6105	5955							Eu		11/21/93
2000	Russia	R Moscow Int'l	12055	9875	9550	9540	9470	7205	7180				World Service		11/12/93
2000	Spain	Spanish National Radio	11775										AF		11/07/93
2000															
2055	China	China R Int'l	9920	6950									Eu		11/13/93
2100	Russia	R Moscow Int'l	12055										World Service		11/12/93
2100	Russia	R Moscow Int'l	9890	9565	9550	9470	9450						World Service	25m R Aum 2030-21	11/12/93
2100	Russia	R Moscow Int'l	7380	7250	7205	7180	7170						World Service	41m R Aum 2030-21	11/12/93
2100															
2155	China	China R Int'l	9920	6950									Eu		11/13/93
2200	Cuba	R Havana	15165										Eu/AS/ME		11/11/93
2200	Romania	R Romania Int'l	9690	7195	7105	6105	5990						Eu		11/21/93
2200	Russia	R Moscow Int'l	9890	9845	9565	9550	9470						World Service	31m	11/12/93
2200	Russia	R Moscow Int'l	7390	7330	7205	7180	7170	7150					World Service	41m	11/11/93
2135															
0700	New Zealand	R New Zealand Int'l	15115										Pacific		11/12/93
2200															
2300	Russia	R Moscow Int'l	17655	17605									World Service	17m	11/11/93
2300	Russia	R Moscow Int'l	7390	7380	7295	7245	7180	7150	7115				World Service	41m	11/12/93
2300	Ukraine	R Ukraine Int'l	9860	9745	9505	7240	7195						Eu	> 7 Mhz	10/31/93
2300	Ukraine	R Ukraine Int'l	6055	6020	6010	5985	5960	4825					Eu	< 7 MHz	10/31/93
2400	USA	WWCR	12160										Eu/ME/nA/	tx #3	11/05/93
2230															
2245	China	CPBS 2	5163	4905	4800								Regional		11/09/93
2240															
2250	Greece	V of Greece	11645										AusNZ	News/Eng ex Sa	11/24/93
2300															
2400	Russia	R Moscow Int'l	17570	15425	12050	11860	9750	9620	9550	7170	7110		World Service		11/12/93

LATE BREAKING NEWS

Radio France International to the Americas at 1200-1300 UTC has added 13.640 kHz replacing 15.365 kHz.

Vatican Radio transmissions in English to the Australian/New Zealand and Asian areas at 0145 and 1545 UTC has been extended. Both now begin five minutes earlier at twenty minutes to the hour.

**7TH
Annual**

Winter SWL Festival

March 11-13, 1994

Holiday Inn

Sunneystown Pike

Kulpsville, Pennsylvania

For the seventh year in a row, we are pleased to announce the Annual Winter SWL Festival! Due to last year's success, we will officially open the Forums on Friday morning and continue all day Saturday. Meet with friends from past SWL Fests, exchange tips and techniques of the hobby, and enjoy a weekend of fun and festivity. There will be door prizes, station freebies, a silent auction, and a banquet on Saturday night.

The usual high quality Forums to include:

- ⊗ Inside Your Receiver
- ⊗ A SW tour of Germany
- ⊗ Utility Listening
- ⊗ Medium Wave DXing
- ⊗ Beginners Forum
- ⊗ Scanners

And More To Be Announced...

Registration Options:

FULL — Includes forums, hospitality room, lunch and banquet — \$32

PARTIAL — Includes forums, hospitality room but NO meals — \$15

SPOUSE — Includes hospitality room and meals — \$17

Past raffle Grand Prizes include JRC HRD-535 and Kenwood R5000 radios!

Special Register early and win a SW portable! Your registration received by midnight February 11, 1994 will allow you one FREE entry towards this early bird registration door prize.

Please bring items for the Silent Auction. Proceeds are donated to charity.

Checks should be made payable to WINTER SWL FEST. Registration for hotel rooms should be made directly to the Holiday Inn at (215) 368-3800—As soon as possible! Special rates - \$59 single, \$64 double. Our function code with the hotel is WINTER SWL FEST. Please refer to this to get the special room rates. Listen to the ANARC SWL NET on 7.240 LSB at 10 AM Sundays for up to the minute info.

The Holiday Inn is located at EXIT 31 of the PA Turnpike Northeast Extension—Lansdale Interchange. improved access from the south with the Blue Route—ask for details. Limo service is available from Phila. Intl Airport directly to the Holiday Inn.

Please submit the following form with your registration amount or send for more information to:

**Winter SWL Festival
PO Box 591
Colmar, PA 18915**

Name _____

Address _____

City _____ State _____ ZIP _____ Phone _____

Circle: **FULL** **PARTIAL** **SPOUSE** (Spouse Name: _____)

Banquet — Check: Roast Beef _____ Chicken _____ Registration Fee Enclosed: \$ _____

I wish to purchase _____ raffle tickets Tickets Fee Enclosed: \$ _____

(\$1 ea./ 6 for \$5/ Special 13 for \$10)

Total check/money order enclosed: \$ _____

Registration cancellations after 2/28/94 cannot be refunded, however we will refund raffle ticket money if you have to cancel.

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— *World Radio TV Handbook 1992*

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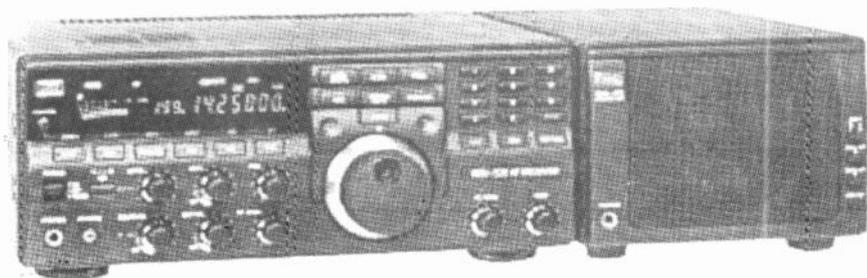
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Executive Council: Jerry Berg, Bob Brown,
Dr. Harold Cones, Gerry Dexter, Glean Hauser,
Don Jensen, Bill Oliver

EDITORIAL STAFF

Managing Editor: Bob Brown, KW3F
238 Cricklewood Circle, Lansdale, PA 19446
DXer's Forum: Send All Inputs to - 238 Cricklewood
Circle, Lansdale, PA 19446

Easy Listening: Richard Cuff, 213 Parkview Ave.,
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Technical Topics: Joe Buch, N2JB, 2008 Mozart
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QSL Report: Sam Barto, 47 Prospect Place, Bristol,
CT 06010

Distributing Editor: Vernon Hyson, 5410 Camp
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