



The
Journal
of the
North
American
Shortwave
Association

Volume XXXI, Number 7
July, 1991

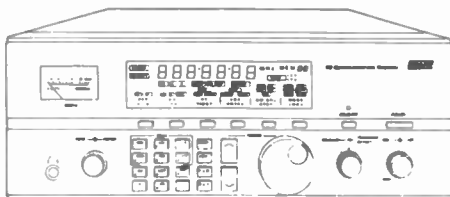
Drake R-8 Communications Receivers

DRAKE

R-8

SPECIFICATIONS

Dimensions	13.2"W x 5.25"H x 13"D																
Weight	13 Lbs. (16 Lbs. ship)																
Frequency Range	100 - 30000 kHz																
AC Power	100/120/220/240 VAC 50 or 60 Hz 42 Watts																
DC Power	11 - 16 VDC @ 2A																
Antenna 1, Converter	50 ohms unbalanced																
Antenna 2	50 or 500 ohms unbal																
Selectivity	<table border="0" style="display: inline-table; vertical-align: top;"> <tr> <td style="text-align: center;">@ -5dB</td> <td style="text-align: center;">@ -50dB</td> </tr> <tr> <td>All modes except FM</td> <td></td> </tr> <tr> <td>6.0 kHz</td> <td><12.0 kHz</td> </tr> <tr> <td>4.0 kHz</td> <td><8.0 kHz</td> </tr> <tr> <td>2.3 kHz</td> <td><4.5 kHz</td> </tr> <tr> <td>1.8 kHz</td> <td><3.6 kHz</td> </tr> <tr> <td>.5 kHz</td> <td><1.5 kHz</td> </tr> <tr> <td>FM mode only</td> <td>12.0 kHz <25.0 kHz</td> </tr> </table>	@ -5dB	@ -50dB	All modes except FM		6.0 kHz	<12.0 kHz	4.0 kHz	<8.0 kHz	2.3 kHz	<4.5 kHz	1.8 kHz	<3.6 kHz	.5 kHz	<1.5 kHz	FM mode only	12.0 kHz <25.0 kHz
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Intercept Point	>5dBm 20 kHz spacing >-20dBm 5 kHz spacing																
Notch Filter Atn.	40 dB min Depth (500-5000 Hz)																
Sensitivity	10 dB S/N/N																
SSB/CW	<table border="0" style="display: inline-table; vertical-align: top;"> <tr> <td style="text-align: center;"><1.0µV</td> <td style="text-align: center;">1-1.5 MHz</td> </tr> <tr> <td style="text-align: center;"><0.5µV</td> <td style="text-align: center;">1.5-30 MHz</td> </tr> <tr> <td style="text-align: center;"><0.5µV</td> <td style="text-align: center;">5-30 MHz</td> </tr> <tr> <td></td> <td style="text-align: center;"><i>with preamp</i></td> </tr> </table>	<1.0µV	1-1.5 MHz	<0.5µV	1.5-30 MHz	<0.5µV	5-30 MHz		<i>with preamp</i>								
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FM (120B mod)	<0.5µV 1.5-30 MHz																
Freq Stability	±10 ppm -10° to 50° C																
Freq Accuracy	±100 Hz -10° to 50° C																
Intermediate Freqs ...	1st IF = 45 MHz 2nd IF = 50 kHz																
Ext. Speaker Output ...	2.5 Watts, 4 Ohms <10% distortion																
Recorder Output	300 mV, 4.7K Ohms																
Demodulator Output ...	300 mV, 4.7K Ohms																
Operating Temp	-10° to 50° C																



The R.L. Drake Company has been a leading name in American electronic communications since 1943. The new Drake R-8 is a microprocessor controlled, synthesized, all mode, world band receiver offering excellent sensitivity, high dynamic range and other features for the most demanding listener. It has been designed as a "complete package." You get many items as standard equipment, that would be extra on other receivers. Multi-mode reception (AM, FM, USB, LSB, RTTY and CW) is featured throughout the range of the receiver (100 kHz to 30 MHz). A high-Q, 8-pole, electronically switched IF filter provides a range of five bandwidths. These bandwidths are automatically selected by mode, but can also be manually selected. The front panel liquid crystal display provides visual feedback to the operator of the current status of the receiver. In the AM mode, a selectable synchronous detector (SYNCHRO) allows for enhanced reception by eliminating or reducing distortion due to fading signals. A Passband Offset control also aids in reducing or eliminating interfering signals by electronically shifting the receiver's IF frequencies without disturbing the operating frequency. This action allows the operator to electronically move interfering signals out of the receiver's passband thus utilizing the degree of selectivity provided by the high-Q, 8-pole IF filter. The Passband Offset is also coupled to the synchronous detector (SYNCHRO) allowing the passband to be altered while the detector is in use. Other reception aids include selectable AGC, wide/narrow noise blanker, RF preamplifier for enhancing weak signals, RF attenuator for further improvement of strong signal handling capabilities and an adjustable RF gain. A Notch filter is also supplied as an effective tool to eliminate offending tones (heterodynes).

Two VFOs (tuners) called A and B, are provided on the R-8. Selection is made with the VFO function key. Frequencies can be directly entered through the keypad. A programmable memory area allows for 100 non-volatile memories segmented into blocks of ten. The following may be stored in any memory location: frequency, mode, bandwidth, AGC setting, RF setting, antenna, notch on/off, noise blanker setting and synchronous detector on/off. As a result of three scan methods and three scan modes, nine distinct scan functions are supported in the R-8. The three methods are: Stop at carrier detect, Pause 5 seconds on carrier and Pause at carrier until carrier drops for 5 seconds, then resume scan. The three modes are: Scan all memories, Scan all unlocked memories of user-selected list and Scan from VFO A to VFO B.

A built-in 24 hour clock-timer allows the R-8 to turn on and off at preset times. In addition, the rear panel Timer connection (5 pin DIN), allows control of small recorders, etc. to record a favorite program. The R-8 rear panel provides a common DB-9 connector for standard RS232C data communications with a terminal or personal computer (9600, 1,7, 1, even). This interface provides complete control and programming capability of the R-8. Only the analog controls such as volume, RF gain, etc. are not controllable. In terms of performance and features, the American-made R-8 is absolutely state-of-the-art!

OPTIONS

- ◆ Drake VHF Internal Converter
Internally mounted covers from 35 to 54 MHz and 108 to 174 MHz in all modes
- ◆ Drake MS-8 Speaker
Matching speaker for improved fidelity
- ◆ Drake Control Software for PC
Run the R-8 from your terminal or PC

PRICING

Drake R-8 List Price	\$979.00
Drake R-8 Discount Price Order #0008	\$859.95
Shipping/Handling/Insurance	\$10.00

☛ R-8 Availability: We are currently accepting orders for this receiver. We will begin shipping before June 1, 1991.

◆ HUGE NEW CATALOG ◆

Universal offers a huge 92 page communications catalog covering all types of shortwave, amateur and scanner equipment. Radioteletype and facsimile gear is also shown. An unbeatable selection of books, parts and accessories is also featured. Very Informative FREE in the U.S.A. by 4th class mail, or \$1 by first class mail.

Universal Radio
1280 Aida Drive Dept. FREN
Reynoldsburg, OH 43068
Toll Free: 800 431-3939
In Ohio: 614 866-4267

NASWA Notes

Bob Brown
238 Cricklewood Circle
Lansdale, PA 19446
Compuserve 74756,1557



If you've been tuning the bands over the last couple of weeks I think you'll agree that we've been experiencing some of the most disturbed conditions in some time. Sometimes, however, these disturbed conditions produce some opportunities to hear DX that you would not normally hear. Pay particular attention to the southern regions of Latin America and Africa. In the latest issue of Fine Tuning dated 6/18 there was an impressive list of DX catches despite the heavy flares during the period. Malawi, Burundi, Rwanda, Angola, and a bunch of Bolivians and Peruvians were reported, many with excellent signals! If you are interested in this type of DXing you should be getting Fine Tuning as a supplement to *The Journal*. For a sample, send a business size SASE to Mitch Sams, 779 Galilea Court, Blue Springs, MO 64014.

Chapter Notes

As mentioned last month, the Philadelphia Chapter will be having a picnic on Saturday July 27 at Ridley Creek State Park in Media, PA. All SWL's and their families are invited. The area reserved for us is picnic area #8. The main park entrance is located on PA Route 3, 2.5 miles west of Newtown Square. The park may also be entered from Gradyville Road east of PA Route 352 or west of PA Route 252. The park has over 2,606 acres of woodlands and meadows and has a variety of recreational opportunities. Public use areas are open from 8 a.m. until sunset. So, why not pack up the family, food, and beverage and join us for a fun day. Additional information from Dan Cashin (215)446-7831.

Mike Fanderys of the NE Ohio SWLs sent a letter outlining what has been happening at their meetings over the last couple of months. In April, Cody and Virginia Williams gave a presentation on their trip/vacation to Ecuador and specifically HCJB. The gave a slide show, showed souvenirs from HCJB along with some taped music from Ecuador. At the May meeting, Mike ran a videotape of a program format carried locally on cable called SCOLA. SCOLA rebroadcasts news and advertisements from countries around

Calendar Of Events

- July 12** - Minn DX Club. Hennepin Co. Gov't Center, between 5th-6th St., 3rd-4th Ave. S., Minneapolis. 7-10 PM. Downstairs through doors to right, room A. Contact George Sherman (612)432-7975
- July 16** - N.E. Ohio SWLs. Cuyahoga County Library, 9089 Brecksville Rd., Brecksville, OH (Rt. 21, just South of Rt. 82). 7:00 PM. Mike Fanderys (216) 661-2443
- July 19** - Meeting of the Boston Area NASWA Chapter, GTE Labs, Waltham, Mass. Please contact Paul Graveline (508) 470-1971 for additional information.
- July 20** - N.E. Ohio SWLs "Summerfest - DX/Picnic" For info send SASE to Mike Fanderys, 2802 North Ave., Parma, OH 44134 or call (216) 661-2443
- July 27** - Washington DC Chapter meeting at EEB in Vienna, VA 1:00 PM. Contact Mike Stone (703)534-0342 or Sally Ward (703)960-4140
- July 27** - Philadelphia Chapter Picnic. Ridley Creek State Park, Media, PA. Details next month. Contact Dan Cashin (215)446-7831
- August 10** - Minn DX Club. Annual Picnic, Kodiak Park in Columbia Heights, 49th Ave NE, E from Central Ave. (Hwy 65) Contact George Sherman (612)432-7975

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

the world. These are satellite feeds to the SCOLA network, transferred to NTSC from PAL or SECAM and then fed to the local cable operator. Some of the countries shown are India, Latvia, Israel, Egypt, Jordan, Taiwan, Japan, USSR, and even Papua New Guinea. The idea Mike used was to show these forms of media and talk about comparisons to SW. This prompted discussion as to why the members of the group listen to SW and what is the attraction for each, as well as how different forms of mass media may affect the future of SW. Mike also mentioned the upcoming NE Ohio SWL picnic scheduled for July 20th. Check the Calendar of Events for more info.

Sally Ward of the Washington DC chapter dropped me a card indicating that at their next meeting members will get a close up look at the Drake R8 and NRD535 receivers. There will also be a discussion and look at different Amateur Radio license plates. Sally is working on a pen-pal exchange with SWLs in the USSR and hopes to have a list of names and addresses in time for the July 27th meeting.

SW For Hams

"Rediscovering Shortwave Listening" was the title of an article on SWLing that appeared in the May issue of QST, the publication of The American Radio Relay League. The author, Robert J. Halprin K1XA, opened with "If, like many hams, you left SWLing behind as you grew into Amateur Radio, maybe it's time you took a second look at the hobby that brought you here in the first place. Shortwave listening has grown up, too!" The 4 page article was an excellent overview of SWLing and the SW hobby today. Check your local library for the May QST or send me a business size SASE for a copy.

International Postal Guide

Dan Cashin sent along a booklet produced by the US Postal Service called "International Postal Rates and Fees." The publication (Pub # 51) is a condensed reference of general mailing information and current postal rates and fees for postal services from the US to foreign countries. Dan says that this is available free at the post office. He does have a quantity of these booklets available and will provide them to members for a business

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 and Dave Kirby N8JQX host an always lively gang of DX monitors. (Best heard in the eastern half of NAM)

size envelope and 75 cents worth of postage. Thanks Dan!

In Memoriam

This notice appeared in the June edition of "Radio Magazine" which is published in Germany. "Bernhard Gründl is dead. He died in a car accident on Tuesday, June 11th 1991, one day after we've met last in Denmark at the Danish Shortwave Clubs International's Annual General Meeting and DX-Camp near Copenhagen. Bernard had been editor for the famous TROPICAL BANDS SURVEY for some years till 1989, when he decided to start traveling through Latin America. He created DX-WINDOW as a supplement to DSWCI's SHORTWAVE NEWS and his interesting tips and most accurate loggings on both clandestine and regular broadcasting stations were most welcomed at numerous DX magazines and programs for shortwave listeners around the world during the past years. On his trips he always tried to understand different cultures, to meet with people in the streets and to live among them. We enjoyed his kindness and modesty and it always was a pleasure to listen to him when he told us about his experiences he'd made during his journeys. He was just preparing for starting a long trip around the world. Now he's dead and we just can't believe it. We've lost a good friend. The DX-community has lost one of its most accurate and experienced members. We'll miss you, Bernhard."

As far as I can tell, the above piece was written by Harald Kuhl as it appeared at the end of the Clandestine Calling column which Harald edits. We join the DX world in mourning the passing of Bernhard Gründl

and extend our condolences to his family. His contributions to the hobby will indeed be missed.

National Radio Club Convention

The NRC will hold its convention on Labor Day weekend, Aug. 30-Sept 2, 1991 at the Holiday Inn, Bridgeport, WV. There will be lectures on beverage and loop antennas as

well as a banquet on Saturday night and breakfast on Sunday morning. They hope to have a DX-pedition on Sunday night utilizing beverage antennas. Room reservations at the Holiday Inn are a \$58 pernight flat rate and must be made by July 31. You must mention the NRC to get that rate. Call direct to the motel at (304)842-5411, or for more info call Bill Swiger at (304)842-4635.

Welcome to the following new NASWA members -

Thomas L. Andrews Jr., Boulder, CO
Mr. Fred Baines, Toronto, ONT.
David Baranoski, South Deerfield, MA
Malcolm J. Barrett, San Antonio, TX
Robert Bell, Toronto, ONT.
Ronald Blake, Peoria, IL
James P. Borchardt, San Pedro, CA
Ivan D. Cagle, Rogers, AR
George H. Camillo, Rochester, NY
Allen Carlson, Chicago, IL
Mark Carmena, Irving, TX
Scott Cassada, Winchester, VA
Bob Chernow, River Hills, WI
John F. Coughlin III, Saginaw, MI
T. A. Dadisam Jr., Columbia, MD
Samuel E. Day Jr., Riverside, CA
Stephen Dittlinger, San Antonio, TX
Alejandro M. Elizondo, Laredo, TX
Jurg Fehr, Jean, NV
Maurizio Fontana, Arlington, VA
Michael A. Foster, Rye, NY
Richard A. Fox, Wichita, KS
Larry French, Omaha, NE
John Garrity, Port Jervis, NY
William Guzman, San Diego, CA
James Hanan, Oklahoma City, OK
Len Helsing, Madison, TN
Keith Hill, Corning, NY
Dennis J. Hobin, Lafayette, NJ
Robert W. Howard, Grand Blanc, MI
Kenneth W. Hunt, Anchorage, AK
Rosemary Johl, Red Bank, NJ
James E. Jordan, Arlington Hgts, IL
Jim Kauppila, Tampa, FL
Stephen Kelley, Portersville, CA
Terry Kelly WDX6TJK, Bodega Bay, CA

David M. Klinger, Leavenworth, WA
David Knauer, Phoenix, AZ
Stuart Koretz, Palo Alto, CA
Richard E. Langdoc, Pearland, TX
Kevin Larkin, Montoursville, PA
David C. Lyons, Sycamore, IL
Donald Y. Mar, St. Louis, MO
Daniel B. Marsh, Ashland, OR
John McFarland, Keizer, OR
C. Montgomery, Needham, MA
Ward Neeley, Hampton, VA
Vince James Porto, Chicago, IL
Gary Pupurs, Rockford, IL
L.F. Quaedvlieg, Cranston, RI
David Rippy, Wichita Falls, TX
Stu J. Robinson, Princeton, IL
Carl Rudd, Toledo, OH
Gordon C. Rusk, Clovis, CA
John R. Sarno, Ashland, MA
C. R. Staub, Spokane, WA
John Stites, Crossville, TN
Carol Strong-Turner, Oklahoma City, OK
Frank Styron, Raleigh, NC
Robert Surabian, New York, NY
David J. Sutcliffe, FPO New York
Mr. Jeffrey D. Swango, Tucson, AZ
J. B. Taylor, APO New York
Lloyd E. Thompson, Lafayette, LA
James Timper, Rockville, MD
Jerry Wachter, Riverside, IL
Daniel E. Wallace, Cincinnati, OH
John A. Wallendar, Chicago, IL
Henry Weissborn, Houston, TX
Peter Wohlsen, Emmaus, PA
A. Lewis Worthem Jr., Kentwood, MO
Philip R. Yant, Zottegem, BELGIUM

DXer's Forum

Kevin Atkins
6165 Lakeside Drive
Pinson, AL 35126
CompuServe 71021.3212



Welcome to the July edition of DXer's Forum. Before we open the floor, please accept my sincere apologies for the lack of a June edition. My wife of twelve years chose a rather inopportune time of the month to inform me that there wouldn't be a thirteenth year, and the ensuing chaos made it impossible for me to fulfill my editorial obligations. Perhaps I shouldn't be quite so hard on her; she did, after all, wait until after the spring equinox.

While my own situation has prevented me from cashing in, a number of DXers have reported outstanding reception from Latin America thanks to the recent turbulence on the sun. It's a rare treat to hear bonafide DX in June, and I hope everyone snagged that rare Peruvian they've been after for years. Unfortunately, it won't last forever—the DX doldrums of summer are upon us. With that in mind, here's an antenna experimentation idea that will help pass the time...

The Half-Pint Beverage Antenna

By Kevin Atkins

Technical antenna articles and related topics rightly belong in Ted Benson's column. Fortunately, I'm not exactly the technical sort—the half-pint beverage is nothing I arrived at as a result of theory or research, but rather pure accident. Thus, I won't attempt to explain *why* this thing works, but rather point out that it *does* work, and work quite well. It made the difference between a tentative and an ID in several difficult logs at my QTH during the fall-winter DX season.

The beverage, or wave, antenna has justifiably commanded a great deal of space in the DX press over the years. I've used a traditional beverage antenna many times on DXpeditions, yet I never cease to be amazed at what it's capable of pulling in. For those who haven't read about it, I offer the following extremely-oversimplified explanation (which is, I'm afraid, all that I understand about it...): the beverage antenna is a lo-o-ong wire, from one to several wavelengths of the desired signal in length, and pointed toward the origin of

that signal. It is usually erected from three to five feet off the ground, although many have reported success with heights of ten feet, and others simply lay the wire on the ground. It is quite directional off the ends of the wire, but is usually terminated on one end to make it unidirectional. It has an impedance around 600 ohms, so a matching transformer is necessary to connect it to the 50-ohm antenna inputs found on most communications receivers.

After returning home from a DXpedition last fall where I used a 1200-foot-long beverage pointed at Southeast Asia and enjoyed some really fine reception, I connected my receiver to my trusty 90-foot longwire and attempted to resume a normal life. But I couldn't stop daydreaming about buying a hundred acres or so and running beverages in every direction. I wandered into the back yard and surveyed the terrain, and found that my longest unobstructed potential antenna path ran south-southeast—just right for South America, and for Southeast Asia off the back end of a beverage if I didn't terminate it. Unfortunately, the path was only

220 feet long—over a single wavelength at sixty meters, but nowhere near a wavelength on my usual stomping grounds of 90 and 120 meters.

It might have stopped there, but my reel of beverage wire was still lying in a pile of DXpedition supplies in the basement floor, awaiting reshelving. I decided to erect a temporary wire, in the hope that it would at least be useful for nulling 49-meter Europeans at night. Fifteen minutes later, the job was done, and I decided to run another wire at approximately 60 degrees (roughly toward the Mediterranean from my QTH) just to have something besides the longwire to compare it to. The second half-pint beverage was even shorter—about 180 feet. Both were four feet off the ground, more or less, depending on the availability of suitable tree limbs, and neither was terminated. I used the same matching transformers that worked well for my 1200-foot DXpedition beverage (see “Impedance-Matching a Beverage Antenna to a Receiver” by Nick Hall-Patch and John Bryant, *fine tuning’s Proceedings 1988*).

I connected the two half-pints to my antenna switch along with my longwire/tuner combination and spent the next hour attempting to convince my now-ex-wife that the yellow wire draped across the back yard and into the woods wasn't *that* much of a blight on the neighborhood. After about an hour of that, sunset was approaching—time to try it out before forces beyond my control made me take it all down!

I tried the 130° antenna first. Ecos del Torbes was just fading in. I switched to the 60° antenna, and Ecos del Torbes disappeared without a trace—completely nulled. I could barely detect a het in SSB, and no modulation at all in AM. The real surprise came when I switched to the longwire that had served me well for years. The het was fairly strong in SSB, and I could—barely—detect modulation in AM, but it was nowhere near the level captured by the 130° half-pint beverage. I repeated the A-B-C comparison with a number of 60-meter Latins as darkness

came, with the same results. Feeling rather smug and self-satisfied, I decided to try 90 meters for an ego adjustment. But the results were identical—in every case, the Latin half-pint significantly outperformed the longwire, while the 60° half-pint put a whopping null on the same signals. The handful of European broadcasters on 75 meters were similarly enhanced by the 60° half-pint, and nulled on the 130° antenna.

I continued playing with my new toys, making notes as I went, and came to the following conclusions:

1) These baby beverages were more directional than I had dreamed; in that regard, they rivaled the 1200-footers I used on DXpeditions. Anything within ± 20 degrees of the antenna orientation, front or back, was invariably better than the longwire; the longwire had a slight edge elsewhere.

2) The improvement was not always evident on the S-meter. On a strong, steady signal like Radio Rebelde-5025, the S-meter readings between the half-pint and the longwire were almost indistinguishable. But on weaker signals, the *signal-to-noise ratio* was vastly improved. Even though the S-meter needle might remain unchanged or even dip noticeably with the half-pint, the *useable* signal was far greater.

3) The half-pints worked as well on 90 meters, where they were under a wavelength in length, as they did on 60 meters, where they exceeded one wavelength.

By this time, sleep was out of the question. I continued to make A-B-C comparisons on 60 and 90 meter Latins, but as the evening wore on and they began to fade, I noticed that the sunrise terminator was over Europe. When I find myself up at such odd hours, I try to do a quick mediumwave scan for Trans-Atlantic hets. I switched to the longwire and ran down the band, observing, as usual, nothing. Then, just for grins, I tried the 60° half-pint. At 180 feet, it was only a fraction of a wavelength on mediumwave, and I didn't expect much. But suddenly the MW bands were *alive* with split-channel hets, and even some audio from the jillion-watt

transmitters in Germany, Norway and the like. Sleep began to look unlikely for the next several nights.

As the evening turned to early morning, I couldn't help but wonder how well the 130° half-pint was going to work off its backside. If the rear lobe of the antenna was as pronounced as the front, my dream of a real Southeast Asian Signal Sucker at my home QTH was going to be reality. At around 0900 UTC, I got my rather resounding answer. 6070 kilohertz was covered by the 1 kW Canadian CFRX on both the longwire and the 60° half-pint, with a slight het detectable on the low side from what I presumed to be RRI Jayapura, but it was a presumption based on previous loggings alone—there was no audio from which to draw that conclusion on this occasion. But on the 130° antenna, the lagu pops, Indonesian announcements, and eventually, a nice ID left no doubt. The Canadian station was by no means nulled completely, but it was reduced to no more than an unfortunate nuisance.

After the performance of the 60° wire on mediumwave, I was pleased, but not surprised, to find that the handful of Indonesian RPD stations audible here in the 2 MHz range were much better on the appropriate half-pint than on the longwire. In the past, using the longwire, these stations had averaged making appearances three or four times in the course of a season, but thanks to this amazing antenna, they're audible here now roughly one day out of every three.

Obviously, the properties of the beverage antenna that make it such a valuable DX tool are not attributable to length alone. Perhaps there is some critical length at which the antenna begins to behave in this fashion, and it is shorter than we previously believed. Or perhaps these characteristics are a function of the length of the antenna relative to its height above the ground. These are questions best left for those with more technical expertise than I profess. It would be interesting to compare a half-pint beverage to one of the 1200-foot variety, but this would require some real estate to ensure adequate separation

between the antennas, and a lot more coax than my budget will allow. My untested opinion is that longer may well be better in this case, but in the meantime, suffice it to say that a 180-220 foot wire about four feet off the ground will absolutely run rings around a 90-foot tuned longwire 25 feet off the ground. If you'd like to try one of these things yourself, here's a start:

Components

The wire itself can be of almost any variety; my preference is insulated #18 stranded wire (stranded for easier handling, and insulated because every tree limb you can use is an artificial support you don't have to contrive). The impedance transformers I use are built from the model in the previously-cited *Proceedings 1988* article, using a ferrite toroidal core (Amidon FT 50-43), with a primary winding of 35 turns and a secondary winding of 11 turns. One end of the primary connects to the antenna, and the other to ground. The secondary ends connect to the coax which goes to the receiver; one to the center conductor, and one to the shield. The end that connects to the shield should also be connected to a separate ground (Fig. 1). The core & windings are enclosed in a small plastic project box, with binding posts for quick connects and disconnects on DXpeditions. The total cost of materials for two transformers was

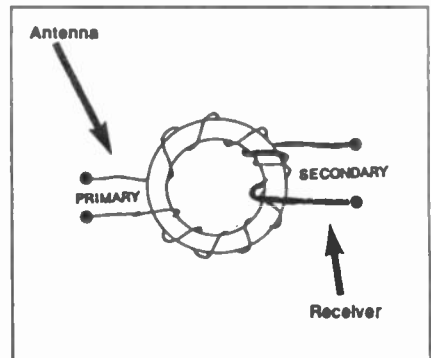


Figure 1. Ferrite toroidal core wound as a step-down transformer. Hall-Patch & Bryant, "Impedance Matching a Beverage Antenna to a Receiver, *Proceedings 1988*.

under \$10.00.

Orientation

Since these antennas seem to be sensitive to about a 40° slice of the horizon, it is important to know the Great Circle bearings from your QTH to your chosen targets. Great Circle maps centered on your location can be produced using computer software such as DXAid, featured in the Bryant/Clark propagation series in DXer's Forum earlier this year. There are other programs that simply compute the bear-

ings without drawing a map. If you live in the central part of the U.S., the American Radio Relay League sells such a map centered on the geographic center of the U.S. If your location is more than two or three hundred miles from this center, you probably shouldn't rely on this map. But 40° is a pretty big slice, and a 200-foot wire that doesn't require any tree climbing to erect is easy to play around with—if all else fails, a little trial and error can substitute for mathematical precision.

Middle East Radio News

by Hans Johnson

Voice of the Iraqi Opposition

Recent *New York Times* articles (April 6th and 16th) have featured interviews with personnel who claimed to have worked for the station "Voice of the Iraqi Opposition" (formerly the Voice of Free Iraq). Both articles mention the station being located in Jidda, Saudi Arabia. However, the same articles mentioned that the station uses transmitter facilities in Egypt, Saudi Arabia, Bahrain and the United Arab Emirates.

Mistakes by the station have confined at least one of these sites and possibly two. David Alpert, in a fine speech at the 4th Annual Winterfest, said he believed that the station was broadcasting from Egypt because he had heard them mistakenly playing Radio Cairo's news theme. As part of its deception ploy the Voice of Free Iraq (as it was known at the time) usually played Radio Baghdad's news theme. I also heard this same mistake in the latter part of January.

More recently on May 5th, I heard Saudi Arabia put its Home Service on 15600 covering co-channel Voice of the Iraqi Opposition before leaving the air suddenly half an hour later. The Voice of the Iraqi Opposition operates four shortwave and two mediumwave transmitters. Bahrain is not known to have a shortwave

service so I believe that both mediumwave transmitters are located there.

The station's studios and at least some of its shortwave transmitters are located in Jidda with the remaining transmitters being located in Egypt and the UAE. The station puts quite a good signal into North America. Try 17590, 15600-15605 or 9570 kHz around 2200 UTC. The station's ID is *Ithaat al-Jumhuriya al-Iraqia min Baghdad, Sowl al-Muahrada al-Iraqia*.

Voice of Iraq

This Syrian-based station has been referred to in the past as a clandestine. I believe that while the programming of this station is hostile to the present government in Iraq, this is simply a program and not a station. Syria now signs on at 0230 on 7500 kHz. After half an hour of light programming I have heard the station announce in Arabic that the Voice of Iraq program is about to start. Syrian Broadcasting is doing nothing to disguise the fact that it is behind the station. In fact, giving particular Arabic services their own ID is a characteristic that occurs throughout the Arab World. For instance, Egypt's Arabic Service directed to North America is called the Voice of Egypt. We all remember the Radio Baghdad service called the Voice of Peace. That certainly was considered just a program and not a clandestine, and the Voice of Iraq belongs in the same category.

The T2FD—A Thang of Beauty

by *Vernon Hyson*
NASWA Distributing Editor

After reading Guy Atkins's excellent article on the T2FD antenna in *Fine Tuning's Proceedings 1990*, I just knew I needed one in my back yard. Luckily I was planning to go to the ANARC convention, so I got all the materials except spacers there. Between the commercial exhibitors & flea market booths you should also be able to pick up all you need at such a source. For the spacers, I used white PVC pipe, drilling the holes for a snug fit for the #12 wire & then used epoxy cement to hold in place. I also used a 3" PVC section for the housing of the resistor placing all the strain on the PVC. I cut it per the specs so it was cut for 3300khz up. The antenna when completed looks like a rectangle 100' x 3' x 100' x 3', center-fed with coax.

I have only had three surprises since building it. First, my XYL allowed this piece of sky plumbing in the air after making sure the PVC pipe really had nothing to do with our plumbing dispersion system. The second was after completion the resistance at the receiver end was exactly 50 ohms, but after it rained it dropped to 5 ohms. The third was a 10db gain over all signals under 17000 khz & under 3000 khz compared to my 80' Inverted L!

Part of the spectrum gain might have been that I could not erect it in a sloper pattern, but had to have it at the same level at both ends. While I am enjoying the increased signal strength, I am not experiencing the reduction in noise levels indicated in Guy's article. This too, I attribute to a non-sloping installation. There is noise reduction however and on comparison it has meant the difference between an audible signal or junk. My compared antenna is a 75' Inverted L running close to the same direction as the T2FD.

A sampling of responses:

kHz	Inverted L	T2FD
3330	S9	S9+10
4755	S5	S7
4865	S8	S9+5
5000	S7	S9
5995	S9+10	S9+20
7220	S7	S9
9435	S9+10	S9+20
11940	S9+10	S9+15
13675	S4	S6
15000	S8	S9+5
17690	S7	S7

If I had it to do over, I would have used clear plastic rods to separate the wires just for camouflage. It would be installed as a sloper with a definite Indonesian slant. When it warms up, I will be double checking the waterproofing of the Balun, as I think water got in it & caused the difference in resistance. Other than that it is a work of art, a thang of beauty & a joy to behold & use forever!

Thanks, Vernon... being a native Alabamian, I understand what a "thang" is. Kind of like "abode"—you know, a wooden thing about 6" x 1" x 8 feet, hi!

I hope everyone enjoyed our mini-feature on antennas this month. Now's the time to tend to such things; you don't want a droopy wire in September when the conditions pick up again.

A few other suggestions to ease the heartbreak of summer static:

- *Follow up unanswered reception reports*

- *Organize a "most wanted list" of stations for the fall season*

- *And, finally, if you just can't avoid that trip to the beach, remember to take along a portable receiver. Even in the summer, the effects of an all-water path on mediumwave must be heard to be believed!*

73z,
Kevin

Easy Listening

Richard D. Cuff
213 Parkview Avenue
Allentown, PA 18104-5323
GENie R.CUFF
MCI Mail 375-4854
CompuServe 71207,1604
Prodigy NCH70A

Radio Moscow

NASWAN Louis Pennisi of Lodi, NJ dropped me a note in April asking why I hadn't included anything on Radio Moscow or the Voice of America - Louis correctly states both stations are certainly "Easy Listening" stations - probably anywhere in the world!

I finally received Radio Moscow's May - September schedule for the "North American Service." As many of you may know, Radio Moscow has been consolidating most of their "targeted" services into the World Service. Both Tom Sundstrom and Dan Ferguson have documented this in their columns.

One new program appearing on Radio Moscow's schedule is *Straight from the Horse's Mouth*, a weekly review of two to four stories from various Soviet newspapers. Glasnost has spawned many new independent newspapers, often with contrarian views. All appear to be fair game for *Straight from the Horse's Mouth*. For instance, one recent program dwelt on the size of the "Military-Industrial Complex" in the Soviet Union and questioned the Soviet Union's weapons selling policies over recent years.

The East Coast releases of *Straight from the Horse's Mouth* are UTC Tuesdays, 2345 and UTC Wednesdays, 0245. The West Coast release is UTC Wednesdays 0445 and 0645.

HCJB - The Voice of the Andes

Many thanks to Ken MacHarg of HCJB for his correspondence. Ken has highlighted several HCJB and Trans World Radio Bonaire programs that address specific listener questions from recent months.

First, HCJB has a 90-minute block of children's programming every Saturday and Sunday 1200-1330 UTC on 15115 and 17890 kHz. 11925 kHz is also used until 1300. Ken specifically recommends *Odyssey*, on HCJB at UTC 1300 on Saturday.

Second, Ken reminded me of two HCJB programs with a strong listener contact emphasis: *Saludos Amigos*, 0030, 0230, and 0500 UTC Mondays, and *Musical Mailbag*, at 0130, 0330, and 0600 UTC Sundays. *Saludos Amigos* is HCJB's international friendship program, with special features including "Your Question, Please" with studio guests answering listeners' questions, and "Write On" with pen pal information. Both of these could be added to the "letterbox" programs discussed earlier this year.

Ken also sent a copy of HCJB's July/August Program Notes my way along with a program schedule. Most of HCJB's home-produced programming is in a one hour block called *Studio 9*. The North American-beamed releases are at 0030, 0230, and 0500 UTC Tuesday through Saturday. Eight minutes of Latin American and world news is followed by 20 minutes of in-depth programming focusing on Latin America. On Tuesdays, medicine is featured; Wednesdays, sports; Thursdays, history, and Fridays, nature, science, or ecology. The second half hour consists of a feature program: Tuesday it's *Dateline 90*, an extended topical discussion; Wednesday and Friday, *Happiness Is*, a geographical feature on an Ecuadorian locale or other location (August 6 features New Zealand); Thursdays, *Ham Radio Today*, and Saturday, *Musica Del Ecuador*.

The Sunday *Studio 9* time slot is taken up by DX Partyline; Rich McVicar will be reporting on Ecuadorian radio stations, DX tips, country profiles, club reports, and shortwave reception during a solar eclipse.

HCJB acknowledges reception reports with new QSL cards every two months; HCJB requests the program name, time, date, frequency, program details, and comments. Their mailing address: HCJB, Casilla 17-01-00691, Quito, Ecuador. Mint USA/Canada stamps preferred; IRCs from other areas.

Thanks again, Ken, for the letter. Broadcasters (and listeners) are always invited

to send schedule and program notes my way!

Trans World Radio Bonaire

Within 10 days of Ken MacHarg's correspondence, I received a letter from Chuck Roswell, Frequency Coordinator of TWR-Bonaire. Both Chuck and HCJB's Ken MacHarg suggested *Odyssey* as a program for young people; TWR broadcasts it Sundays at 1230 on 11815 and 15345 kHz. Chuck also suggested *Character Spotlight*, Sundays at 1200 on 11815 and 15345 kHz; Mondays at 0400 UTC on 9535 and 11930 kHz.

Chuck also reminded me of his weekly SWL/DX program *Bonaire Wavelengths* on TWR-Bonaire, Saturdays at 1130 UTC on 11815//15345; Sundays at 0330 on 9535//11930.

Radio Canada International

With the termination of most of RCI's English language programming, the airwaves are now filled with domestic CBC programs. One of the more interesting programs is *Our House*, focusing on issues affecting families. A recent edition profiled Canadian Muslims on their pilgrimage to Mecca, and skinheads and a new anti-racism group of ex-skinheads. UTC 0000 Mondays on 5960/9755 kHz.

Just as I was finishing this column, I received a letter from Perrin Beatty of Canada's Ministry of Communications acknowledging a telefax I sent to Prime Minister Mulroney when Ian MacFarland had requested listener support late last year. While Mr. Beatty offered no specific hope for RCI-produced English language programming, he did state funding has been provided to modernize RCI's transmission facilities "...to ensure that RCI's voice remains vital and reliable in the years to come."

Radio New Zealand International

One of the reasons I find Radio New Zealand International particularly interesting is the amount of domestic National Radio programming relayed on Shortwave. From 0730 to 1210 daily on 9700 kHz, RNZI relays National Radio programming with news on the hour. Sundays the National Radio Relay begins at 0800.

National Radio programming also airs as

follows: 2207 UTC through 0200 Sundays through Thursdays (UTC days at program start) 2000 UTC Fridays through 0100 Saturdays 2200 UTC Saturdays through 0100 Sundays

While these relays aren't likely to propagate to much of North America, the frequency schedule for these is 13785 kHz until 2206 UTC, then 17770 kHz until 0730.

Here are some RNZI programs of possible interest, in addition to those in previous months' Journals: 0700 Monday/Friday - Pacific Islands News Magazine; 0600 Sunday - *Totally Kiwi Music Show*; 0430 Monday - *Mallbox/Travel Pacific* (alternate weeks).

July on the Beeb

While music doesn't always propagate well over shortwave, many "Easy Listeners" I know cite music programs as their favorite reason for listening to shortwave. The BBC World service obliges in July with several programs geared to diverse musical tastes.

Riders on the Storm, July 9th and 16th at 0630, repeated the next day at 1615 and 2200, profiles Jim Morrison and the Doors on the 20th anniversary of Morrison's death.

A Mystical Music, a five-part series beginning on Saturday, July 27th at 0745, with repeats on Mondays at 0145 and Tuesdays at 1445 explores the rich tradition of Indian music. Vajahat Khan hosts.

The Musician's Musician is an eight-part series hosted by well-known classical music performers discussing and playing recordings of other musicians who have greatly influenced them. Performers featured in July include conductor Vernon Handley, violinist Sir Yehudi Menuhin, pianist Richard Goode, and clarinetist Jack Brymer. Respectively, they reflect on Sir Adrian Boult, Georges Enesco, Artur Schnabel, and Sir Thomas Beecham. Fridays, beginning July 5th at 0030, repeated at 1030 and 1715.

All Time Swing, hosted by Malcolm Laycock, picks out the hits of the swing era weekly beginning Tuesday, July 23rd at 0630, repeated the next day at 1615 and 2200.

The "Proms", or, more formally, the Henry Wood Promenade Concerts, are a fixture of the London summer. The repertoire ranges from established classics through contemporary music, and the audience is

much more casual than the more formal "Proper Season" running from September to June. **Proms 91** begins with a 2 1/2-hour program Friday, July 19th at 1830 with Elgar's *The Dream of Gerontius*. The concerts continue at 1830 on July 20, 24, and 27.

In other July features, **From a Bruised Shore** is a four-part poetry series with Northern Ireland as the subject. Wednesdays beginning July 3rd at 0130, repeated at 0930 and 1715.

Great Newspapers is a six-part series beginning July 31st profiling six of the world's leading and most influential newspapers: *The Times of India*, *The Washington Post*, *Pravda*, *The Jerusalem Post*, *Le Monde*, and *The Guardian*. Wednesdays, 0130 repeated at 0930 and 1715.

Everybody's Wearing Blue Jeans looks at the 150-year history of what started as humble work clothes, exploring, among other things, where you should wear jeans now, and where you should not. Saturday, June 29th, at 1901, repeated the next Monday at 0101 and 1515.

Seeing Stars is a two part series on the total solar eclipse occurring on July 11th.

This eclipse is the longest until 2132 (the year, not UTC!), and passes over the Mauna Kea observatory in Hawaii, considered the world's leading observatory. A preview will air Saturday, July 6th at 0130, repeated at 2205 and 0915 the next day; live coverage will be aired at 1615 and 1905 on the 11th.

Perhaps my favorite regular BBC feature is **Worldbrief**, Fridays at 2315, repeated Saturdays at 0445 and 0915. **Worldbrief** is a 15-minute roundup of the week's news headlines, with a bit of sport, finance, and irreverence thrown in. With so much news programming, it's quite a feat to distill an entire week's news into 15 minutes. Since my hectic schedule causes gaps in my radio listening, I find **Worldbrief** a good way to catch up on news I might have missed.

What's your favorite BBC feature? Drop me a line with your comments; I'll summarize the replies in the September or October Journal.

Until next month,

73 DE Richard

SPEEDX

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DuBois, PA 15801-0196
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SPEEDX is proud to distribute for North America the classic reference to the shortwave stations of Latin America,

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This volume lists every active or recently active shortwave station in Latin America, giving power, frequency, schedule (when known), and address. For QSL hunters, the names of people to write to, and a register of stations which are known to have QSL'd in the past 18 months, are also given.

The editors are known and respected throughout the DXing community for the vast amount of information and goodwill they have brought to friends of Latin American radio. Monitoring shortwave from the Argentine Republic, they are able to produce the most immediate and vital reference work on the world's most fascinating local shortwave radio.

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The cost is \$5.00, check or money order (in \$US only, please) payable to SPEEDX. Add \$.75 postage in the USA, \$1.00 in Canada.

Asian Destinations

Mitch Sams
P.O. Box 780075
Wichita, KS 67278



Well, it's been difficult to put this column together this month since I am in the middle of a move. Over the last two or so years it seems as if there is always something going on to disrupt my routine. I've taken a radar job with a company called Wilcox Electric in Kansas City. Looks like there will be some travel to Europe, so that will be interesting.

ANOTHER ASIAN DX SUMMER SURVIVAL KIT

This column, ASIAN DESTINATIONS, requires a bit of improvisation this time of year. For North American (and northern hemisphere) listeners these are the dog days of asian dx. The northern polar or nearly-polar route to asia is in constant sunlight during the summer months, blanking tropical band (basically below 6 MHz) reception to that area. Chinese and Soviet regionals, Indonesians and subcontinental stations are nearly impossible to log at this time, causing asian dx fans to abandon the lower frequency range until about September or so. This problem is, however, not as bad on the west coast of North America, as John Bryant, Guy Atkins and others have discovered during DXpeditions in the Seattle area during the middle of the summer.

But, for the asian dxer there is a way to survive the summer doldrums - move up the dial and try one of the international bands, you might be surprised at what asian signals lurk there during the summer heat wave. For the past two-to-three months I have spot checked the 19 meter band for asian stations. This band has propagated well this year from asia, often staying open 24 hours a day.

I will summarize my findings in three different time periods - morning, afternoon and evening. This represents a sampling of reception and is not intended to be all inclusive.

MORNING : 0900 - 1700 UTC

A solid performer during the entire morning on 19 meters is Vietnam, broadcasting on 15009 kHz. Several different languages are used, including English. India suddenly showed up on the out-of-band frequency 15020 (variable) earlier this year, producing big signals when it is on. English was heard around 1300, although the schedule does seem to vary sometimes. You can hear two separate English services from Radio Beijing, China on 15135 and 15450 kHz after 1200. Exotic Tashkent can be heard in English at 1200 on 15470, it makes for some interesting listening. Radio Australia can be heard on 15465 around 1300 in English. You can tune the VOA-Phillippines outlets on 15155, 15410 and 15425. Or, how about a CPBS outlet from Beijing heard in Chinese on 15710 at 1230.

AFTERNOON : 1700 - 0000 UTC

During this time of the day you will find several Radio Australia outlets audible on 19 meters. Such as: 15160, 15240, 15320 all around 2100 or later. Even a Radio Australia Chinese service signs-on at 2200 on 15170. 15084 is where you will find the strongest and most reliable outlet from Iran, audible nearly all day. You won't find English broadcast here, though. Radio Korea's outlet on 15575 is heard with poor signals during this time frame, or how about Saipan via the WCSN station located there. English was religious programming was heard on 15610 at 1730. You can hear the

United Arab Emirates on 15400 around 1730 and later. And, finally, try Israel's home service on 15617 or Kol Israel on 15640 at 1730, both with good signal levels.

EVENING : 0000 - 0900 UTC

Surprisingly, this is a good time to DX Asia on 19 meters from North America. I'll count the Pacific nation of Kiribati as Asia and it's broadcast frequency of 14917 as 19 meters, heard in English at 0615 with fair signals. Saudi Arabia is heard signing on at 0400 on 15060 in Turkish. An interesting outlet from the Soviet Union is 15180 which carries Radio Yerevan, Armenia in English at 0255 until 0259, advertised as a broadcast "...for Armenians in the US and abroad". Radio Peace and Progress is heard on 15180 at 0130 in English, with the rest of the evening time slot filled by Radio Moscow. A couple of Radio Moscow sites heard are Irkutsk on 15285 at 0300 in Arabic, and Petropavlovsk on 15425 at 0155 with Radio Moscow World Service. English from the United Arab Emirates can be heard at 0330 on 15400, which is parallel to 15435. Another Pacific station I'll count here is Tahiti, on 15171 during most of the evening. They play great music. The FEBC, Philippines broadcasts in English at 0000 on 15480, reception is difficult. And, last, a couple of interesting clandestine broadcasts directed to the middle east but probably originating from Egypt. Voice of Unity, pro-Afghan rebel clandestine is strong on 15685 at 0130, and Radio Iran on 15565 parallel to 15650 at 0240 in Farsi.

Well, that's a small sampling of what can be heard on 19 meters from Asia. 25 and 16 meters also can provide good Asian reception during the summer, so give it a try. You'll hear at least 20 NASWA radio countries from Asia up here at this time

Mikell Samis

Popular Communications Magazine said it best. . . .

"A hip, concise, astute, accurate and honest guide to what's going on, and how to get the most enjoyment from a receiver. Very highly recommended."

. . . . or did John Bryant in the NASWA Journal?

"Those of you who are enjoying those first thrilling years of shortwave enjoyment—BUY THIS BOOK!"

Take your pick. Both PopComm and John know what they're talking about! *Shortwave Listening Guidebook* (ISBN # 1-878707-02-7) by Harry Helms is the definitive guide to the shortwave listening hobby. In 320 professionally-printed pages, Harry covers SWLing from A to Z. Selecting a receiver, antennas and accessories, propagation, profiles of major stations, when and where to listen for DX, QSLs. . . . it's all here! It's a working tool you'll keep next to your shortwave radio. Only \$16.95 from leading SWL book and equipment dealers, or order direct from HighText Publications, 7128 Miramar #15, San Diego, CA, 92121. Add \$3.00 for shipping and handling to the U.S., \$4.00 to Canada, and \$5.00 for overseas airmail. California residents add sales tax.

Listener's Library

John Bryant, AIA
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Stillwater, OK 74704
Compuserve 74730,2145



Howdy, and welcome to Listener's Library. The format of the column is changing slightly for the summer months. This month I'll carry the ball with the first of a two-part look at Nostalgia Radio. In Sept. I'll feature books and software on antennas. However, the Library is a column based on contributions from throughout NASWA, so please keep up the good work...in the Fall we will shift back to the rich mixture reviews by YOU ALL.

from QST 1924



NOSTALGIA RADIO: PART I

Nostalgia Radio is my own term for a whole collection of "hobbies within the hobby" which have developed over the last decade. Some of these hobbies are: Antique Radio Collecting & Restoration, Hollow State Communications Receiver Collecting & Restoration, and Radio Ephemera Collecting (actually a group of sub-sub bobbies!).

Most of you are probably aware of the Antique Radio hobby from the column in Popular Electronics or isolated articles in the commercial hobby press. When I began to look into this hobby, I was stunned at the large number of folks involved--at least several times the number of us in NASWA!

This hobby originally focused on collecting and restoration of radios from the 1920's and '30's. The names Atwater Kent, Zenith and McMurdo-Silver, ring in my ears, as they probably do in many of yours. In recent years, Antique Radio has broadened to include plastic cased table model radios of the 1950's and collectible "novelty" radios of all years. (Where is your Hopalong Cassidy table model today, Dr. Cones?).

If you are intrigued by this branch of the radio hobby and are yet to take the plunge, here are some recommended entry portals:

ANTIQUE ELECTRONIC SUPPLY

As far as I can tell, Antique Electronic Supply is the major "getting place" for parts. They carry reasonably priced tubes galore, filament transformers, large capacitors, tuning capacitors, tube sockets, old style headphones, etc. They also have several types of crystal sets and parts for other people's crystal sets. Further, they carry the most extensive array of restoration supplies (polishers, cleaners, etc.) and tools that I have found. Most importantly of all, they have the widest collection of in-print books on Antique Electronics imaginable! Their 1991 catalogue lists 19 titles under "Radio Collecting Books," 4 titles in "Tube Audio Books," 10 books of "Vacuum Tube Information" (did ya know there was even a hobby of collecting vacuum tubes?), there are six books--all winners--in the category "Instructional Books," four titles on "Early Television" and eight on "Phonograph Books." There are many more listed including a large group of reprinted books and manuals from the 1920's and '30's.

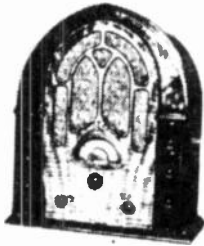
Antique Electronic Supply's beautiful 1991 catalogue is available free (!) by writing to them at 6221 Maple Ave., Tempe, AZ 85283 or calling 602-820-5411.



ANTIQUE RADIO CLASSIFIED

Antique Radio Classified produces a very professional looking monthly bulletin the size of the NASWA Journal. Each issue contains several authoritative articles, a "Photo Review" of subscribers' restored radios, a periodic column called "Restoration Topics" and reports from several auctions. These reports list the radio gear offered by model and general quality and the final selling price...very handy information. The magazine also usually "Spotlights" one of the many very active state or regional clubs--my favorite by name alone, is SCARS (Southern California Antique Radio Society). The latter 60 pages is given over to classified ads highlighting things on sale and

things wanted by other collectors (parts, special models, etc.). This rear section of the bulletin also contains many advertisements from commercial concerns catering to Antique Radio and notices of swapmeets, conventions, auctions and the like. Subscription rates are, I believe, \$20/yr by Second Class mail and \$30/yr First Class (staggered mailing). Foreign subscriptions are welcomed at special rates. Contact Antique Radio Classified, 498 Cross St. or PO Box 2, Carlisle, MA 01741 or phone 508-371-0512, 9 AM - 5 PM ELT. By the way, all subscribers may place one 20-word ad free per month. Although Antique Radio Classified does not focus much on communications gear, communications receivers are advertised from time to time. I find ARC a valuable and educational window on a sister hobby.



ATWATER KENT
MODEL 558
8 TUBES
1933

ANTIQUE RADIO CLUB OF AMERICA

ARCA publishes a quarterly bulletin for their 1000+ members, hosts annual conventions and maintains a chapter bookstore with extensive holdings. Membership is \$10 per year. I am not a member and hope that some NASWAN who is will review the ARCA "GAZETTE" for a future Listener's Library. For more information contact Bill and Jane Denk, ARCA, 81 Steeple Chase Rd., Devon, PA 19333 (SASE please).

ANTIQUE WIRELESS ASSOCIATION

The AWA is one of the world's largest and oldest historical radio collector organizations, sponsoring national and international "meets," conferences and markets. It also maintains a unique radio and television museum and publishes a quarterly journal featuring columns on battery and AC receiver restoration, loudspeaker operation, commercial receivers, OT amateur gear, vacuum tubes, early television receivers, current radio book and magazine reviews, free want-sell-swap ads, radio obituaries, reports on public radio museums and information on collector clubs in the US and elsewhere. The subscription rate is \$10/yr. Contact Antique Wireless Association, Inc., Box 2-E, Breesport, NY 14816. Again, I am not a member and hope that an AWA/NASWAN will kindly review their publication.



NEW WIRELESS PIONEERS

This commercial establishment buys and sells books, catalogues, magazines and other literature from the 1800's to the 1950's that deal with early radio, wireless and electricity. Their catalogues list a selection of specialties include pre-1900 electricity, pre-1925 radio, pre-1900 telegraphy and pre-1940 television. Other subjects include radio-related novelties, advertising and early vacuum tubes. Several catalogues featuring items for sale are published each year. Contact Jim and Felicia Greuzer, New Wireless Pioneers, PO Box 398, Elma, NY 14059, 716-681-3186.



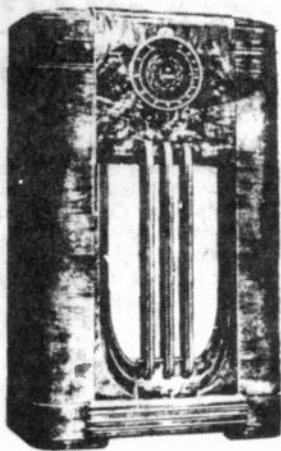
I am not personally involved in this hobby yet. I am involved in our next featured (August) sub-hobby: Tube Communications Receiver Collecting & Restoration. However, I would like to review several books which have come out of the Antique Radio hobby that I have found particularly useful.

SOME RESOURCES

The twin paperbacks titled *Vintage Radio 1887-1929, A Pictorial History of Wireless and Radio* and *A Flick of the Switch, 1930-1950*, are introductions to and standard references for both radio history and antique radio collecting. Both were written by Morgan E. McMahon, a long-time hobby authority. NASWANs will be particularly interested to note that the second book contains good coverage of pre-1950 amateur and SWL gear. They are each currently in print and are listed at \$11.95 each in Antique Electronics' 1991 catalogue. They are each extensively illustrated 300-page "bundles of joy" for any

person interested in the history and developing technology of radio. Each book is about 80% photos of receivers, other gear, personalities of the era, ads, etc. These books are well-organized and written and are very highly recommended by the Librarian.

Guide to Old Radios, Pointers, Pictures and Prices is another standard reference book for anyone interested in radio history or antique radios. It is written by David and Betty Johnson, two of the leaders in the hobby. This reference book covers from early crystal sets through the development of vacuum tube triodes to the advanced super hets of the 1950's. The authors explore changes in radio technology, as well as cabinet and speaker styles. There are over 350 photos and illustrations which document the evolution of radio from infancy to heyday. The book is an excellent reference to help you over the difficulties of identifying and dating radios. It also provides pointers on where to find the best buys, and how to check them for value and safe operation. The latter half of the *Guide* is a price guide which includes 3300 collectible radios and related items, with model names and numbers, descriptions, and price ranges for each. Besides receivers, the Johnsons include amplifiers, speakers and repair manuals in the price guide.



ARVIN PHANTOM PRINCE 1037

Frankly, even though my hobby is DXing, I join most NASWAn in being in love with radio in all its forms. I can't imagine life without the two McMahon books discussed above, or *The Guide To Old Radios* by the Johnsons. Give yourself a treat, buy all three. They are all available at Antique Electronic Supply, or you may also find one or more at our normal shortwave book sources.

HOW DO I FIX THEM?

It is NOT mandatory that you become a repairman if you embark on the Antique Radio hobby. Some AR hobbyists could not troubleshoot the most rudimentary three-tube receiver for they prefer to concentrate on acquisition and/or cabinet restoration. They often pay fellow hobbyists to restore the electronics for them. Some other folks concentrate on the electronics and leave the cabinetry to others. The AR hobby has grown large enough now that there are also numerous ads in the collecting publications for professional repairmen. I'd guess that you can find professional hollow state repair services in every large city. Many of these professional shops have "business card" ads in *Antique Radio Classified*.

However, if you are like me and want to begin to gingerly educate yourself in the care and feeding of antique hollow state gear, next month I will review three excellent resource books on radio trouble shooting and repair.

A VERY SPECIAL TREAT

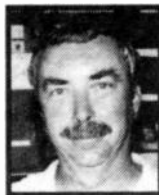
We cannot leave our brief review of the Antique Radio hobby without discussing the wonderful video tape titled "The Radio Collector." This 128-minute tape, available from Antique Electronics for \$29.95, was originally broadcast in 1985 as a 5-part PBS series on the history, collection and restoration of antique radios. The program, written, produced and hosted by Mike Adams features hundreds of radios, follows the repair/restoration of one receiver from basket case to prize winner and visits several radio museums. There are also interviews with radio actors of the past and discussions of radio show production, special effects, etc. The final 25 minute segment is devoted to communications receivers! The Perham Foundation sponsors the sale of this video tape in support of their Electronics Museum in Los Altos Hills, CA.

SCOTT
RADIO PHONOGRAPH

A SPECIAL NOTE

In structuring this special feature, I have been limited to my own knowledge and personal library. There are several other fine standard references on Antique Radio which I have not reviewed here. In general, they are more specialized or larger and therefore more expensive. Any NASWAn who is familiar with Antique Radio books, particularly if they contain features on "All Wave" or shortwave receivers, is invited to review them for *Listener's Library*.

NASWA Portraits



Jerry Kilnck
43 Lein Road
West Seneca, NY 14224

Welcome to another Portraits column where we find out a little more about our fellow NASWAns. This month our visit takes us to the Quaker state of Pennsylvania where we find M. Harlan Bye....

"Unlike many of today's DXers, my interest in SW didn't begin when I was a teenager but rather, when I reached the ripe old (?) age of 50, although I was interested in listening to long distance broadcasts on the MW band. I hadn't heard of terms like DX or SWL. I remember well trying to tune in stations through earphones on a crystal set with its delicate and frustrating 'cats whisker'.

"That era was succeeded by listening to an Atwater-Kent radio and then roaming the bands of a 'magnificent Sears Silvertone' console radio. It had SW capabilities and the dimly lit, translucent dial was imprinted with the dial location of foreign countries. Most of my interest was still trying for KSL in Salt Lake City, WGN in Chicago, WBT in Charlotte, N.C., WCKY in Covington, KY and KDKA in Pittsburgh. Receiving those stations then was a big a thrill as receiving SW transmissions from worldwide sites in later years. Time marched on and between getting an education, getting married, etc., my interest in radio waned until about 1965.

"I don't remember what induced me at the time to buy a Zenith Transoceanic R-7000-1 but I certainly never have regretted it. Its' worst shortcoming is its' narrow bandwidth which prevents knowing exactly what frequency is being tuned. The actual width on the dial of that portion of the 19 meter band normally used for SWBC is only 1/4 inches, obviously a major obstacle to accurate DXing. Despite this, I spent many hours listening to SWBC but soon realizing a receiver with accurate frequency determination was essential, so I bought a Drake SPR-4 which I still use.

"It was during my Zenith days that I first heard (probably on HCJB) of a SW club. Realizing the benefit of club membership, I joined the International SW Club in London. They issued a monthly multi-page

mimeographed bulletin listing schedules, loggings and other useful SW information. Their principle objective seemed to be denouncing any country that engaged in jamming, and it was considered unthinkable to listen to or (perish the thought) to QSL USSR or an jammer. I stuck with this club until they ceased operation and then joined the ASWLC in California. Later, when I joined SPEEDX and NASA, I dropped out of ASWLC.

"Around 1971 I got together with some DXers in the Philadelphia area and formed the 'SPADES' (Suburban Philadelphia DXers). Does anyone remember the BAD guys from Boston or the MAD guys from Milwaukee? SPADES ultimately had 20 members and we had a lot of fun sharing information, staying together for 6 or 7 years.

"My greatest period of DXing was between 1965 and 1973 when I was able to have a longwire antenna. During this time I did a lot of QSLing and remember well the thrill of receiving my first 'Ayers Rock' QSL from R. Australia. Other memorable QSLs came from New Zealand, Papua New Guinea, Ivory Coast, Radio Noordzee Int. and a lot of Europeans. Countries heard during that period totaled about 100 with QSLs from over half of them.

"I am rather dismayed today by the proliferation of megawatt transmitters all over the dial, and by the increasing use of high-powered relays. It takes the luster off the 'thrill' of hearing a program from Taiwan when you find out it came 'all the way' from Sackville.

"Now my DXing activity is limited but I still roam the bands from time to time with my SPR-4, a Listener 7 RAK Active antenna (a 32" whip on the window sill) and a Gilfer PM II CS Preselector. I enjoy looking back and relishing the enjoyment that I had in the SW hobby and wish more young people as well as senior citizens were aware of the pleasure, relaxation, education and just plain fun afforded by this fine hobby."

Well said my friend, and thanks ever so much for sharing your story with all of us. I'll pass along the cross-referencing idea, it sounds good to me! Till next time...73.

Technical Topics

Ted Benson, WA6BEJ
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It's All Free From WWV

It is impossible to spend much time on the shortwave bands without knowing about station WWV. This sentinel is on the air 24 hours a day, broadcasting the time on several different frequencies. And for most people it stops here. But did you know that you can derive much more information from these transmissions, if you know where and when to listen? Even if you are a seasoned shortwave listener you might be surprised at the free and valuable information available from WWV.

A Little Background

Many years ago the National Bureau of Standards (NBS) and the National Oceanic and Atmospheric Administration (NOAA) of the United States Government assembled station WWV in Fort Collins, Colorado, for the purpose of maintaining a time and frequency standard, and for disseminating information about the earth, the atmosphere, and the sun. The NBS is responsible for maintaining all kinds of primary standards - from the mundane (weight, distance, and time) to the sublime (color, radioactivity, and reflectivity). Recently the name of the Bureau was changed to reflect its expanded mission: The National Institute of Standards and Technology.

When is WWV Not WWV?

When it's WWVH or WWVB! I'll explain. WWV is the original time and frequency station at Fort Collins, Colorado. It broadcasts on 2.5, 5, 10, 15, and 20 Mhz (it used to broadcast on 25 Mhz as well, but that was discontinued some time ago). To extend coverage further west, WWVH was commissioned in Honolulu, Hawaii (the "H" in WWVH). This station also broadcasts on 2.5, 5, 10, and 15 Mhz in a coordinated fashion with WWV. In many areas both stations are clearly audible, so to differentiate the two stations announcements made by WWV are in a male voice, and those made by WWVH are in a female voice (listen for the "aloha"). Announcements are also made at different times for each station - WWV on the hour and WWVH on the half hour.

WWVB?

This station is usually known only to researchers, navigators, and LF enthusiasts. WWVB broadcasts the time on a frequency of 60 KHz. That's right, 60 kilohertz! Because of modulation restrictions in this part of the spectrum, no voice is heard. The time code information is sent in a pulse code format. Since WWVB is a different beast, we won't deal with it here.

Geophysical Alerts

These are the meat of the WWV broadcasts. Sure, if you just want the time accurate to one second in three thousand years, you need read no further. You get that every minute from WWV and WWVH. But if you want to know what has happened, and what is about to happen to your shortwave listening, read on!

Everything we hear on the shortwave bands depends upon the effects of the Earth's upper atmosphere - primarily the ionosphere. It always strikes me with awe when I realize that events on the Sun, some 93,000,000 miles away, can have profound results upon our shortwave bands. Indeed, the Sun itself created our ionosphere. Electromagnetic radiation from the Sun causes air particles to ionize (gain or lose electrons) high in our atmosphere. Changes in the ionosphere can, in turn, react with the Earth's own magnetic field, causing the thickness and density of layers in the ionosphere to change. When some layers become more dense they absorb more energy from radio signals travelling through them. The result can be a radio blackout even over relatively short distances. You can see, then, why advanced information about the Earth/Sun interaction (also known as the Solar-Terrestrial condition) can be valuable to the serious listener.

How much is all this going to cost, you ask? Well, assuming that you are paying your taxes, not a penny more!

To receive the Geophysical Alert Broadcasts, simply listen to WWV at 18 minutes past each hour, or WWVH at 45 minutes past each hour.

Alert!

Normally the Geophysical Alerts are limited to 45 seconds or less (to fit between time announcements). Under unusual circumstances an alert will be broken into several contiguous segments with the announcement "more to follow." If you really have a urge to hear an alert at other times, you can call a recording of updated information at (303) 497-3235.

In each alert you will hear reports on three kinds of Solar-Terrestrial activity: Geomagnetic Activity, Electromagnetic Radiation, and Solar Particles. The reports reflect information that is never more than three hours old, and the information is gathered from hundreds of sensing stations worldwide.

Geomagnetic Activity

The Earth generates its own magnetic field. Just how it does this is not known for certain, but its intensity and direction do vary over time. Particles from the Solar Wind blow past the Earth, and in doing so react with the Earth's magnetic field. The magnetic field is able to resist much change, but during extreme Solar Winds the field can become badly deformed. When this occurs, radio disturbances are a certainty, because the same thing that caused the magnetic field to deform will also pack the ionosphere very densely, thus absorbing most of the energy of radio signals trying to get through. The "D" layer, in particular, absorbs signals in the lower shortwave frequencies during these periods.

Geomagnetic Storms

When the magnetic field remains disturbed for days at a time, a magnetic storm is said to exist. If the storm is severe enough, the ionosphere can be disturbed all around the Earth. This constitutes an ionospheric storm, and can cripple HF radio signals.

Electromagnetic Radiation

The Sun emits intense radiation from DC to daylight and beyond. Of the greatest concern to us on the Earth are the Ultraviolet (UV) and X-Ray radiation. UV radiation contributes to the ionosphere, and it is the now-famous ozone layer that protects us from much of that UV. Of greater concern, however, are the X-rays the Sun emits. During large solar flare activity, X-ray emission can become intense. This, in turn can cause the lower parts of the ionosphere to become quite dense. The dense layers gobble-up HF signals for hours at a time in what are called short wave fades.

Solar Particles

The Earth's magnetic field normally forms a shield against many solar particles. Near the Earth's poles, however, the field converges into the Earth, leaving a hole at each pole. During solar events like flares, huge numbers of free electrons and protons manage to get through to the D layer of the Earth. When they do, they impart their energy to the layer, causing it to become quite dense. This Polar Cap Absorption can stretch from days to weeks, and while it does it can play havoc with HF radio signals.

Magic Numbers

An X-ray flare producing 5×10^{-4} Watts/sq. cm. might cause significant problems with world radio, but trying to communicate the significance of such a figure with someone other than Einstein might be a little difficult. A better solution is to design simple "indices" to indicate the relative levels of Solar Flux and magnetic activity. These indices provide a quick rule of thumb on present and future conditions.

Solar Flux

The Sun emits radio waves at many frequencies, but at 2800 Mhz the amount of radio energy emitted corresponds to the number of sunspots, the amount of UV radiation, the character of the ionosphere, and, therefore, the affects on the upper shortwave frequencies.

A and K Indices

The Earth's magnetic field varies continuously, and measurements are averaged every three hours to form the "K" index. This is a good short-term measure of the magnetic field, but perhaps a more useful number is the "A" index. All eight of the K indices are averaged together to form the A index, which then serves as a good daily average.

The Alert Format

Each Geophysical Alert Broadcast is divided into four sections. Section I is the most current information (less than three hours old).

Section 2 is a summary of conditions for the previous 24 hours (often what has happened is a good indicator of what is going to happen). Section 3 is reserved for special events, like major solar flares, and is not always present in the alert. Section 4 is perhaps the most important to the shortwave listener. It is a *prediction* of conditions for the next 24 hour period. A check of this section can be a valuable aid in planning your listening activities.

A Typical Report

Let's assume that you have waited patiently for the WWV report on July 24th at 21:18 (too cheap for the long-distance phone call, eh?). Here is what you might hear:

Solar terrestrial indices for 24 July follow.

Solar flux 150 and estimated Boulder A index 15, repeat, solar flux one-five-zero and estimated Boulder A index one-five.

The Boulder K index at 2000 UT on 24 July was three, repeat, three.

Solar terrestrial conditions for the last 24 hours follow.

Solar activity was unsettled.

Geomagnetic field was unsettled to active.

A major flare of class M-5 occurred at 1500 on 24 July. Intense X-ray activity is expected.

A polar cap absorption event began at 0400 hours 23 July and is in progress.

The forecast for the next 24 hours follows.

Solar activity will be moderate to high.

The geomagnetic field will be active.

A complete description of the information available from WWV and WWVH, as well as how it reflects propagation, is beyond the scope of this column. More detailed information is available by writing to:

Space Environment Svcs. Cntr.
NOAA/ERL/SEL - R/E/SE
325 Broadway
Boulder, CO 80303 (USA)

In addition, very timely information can be obtained from the free bulletin board run by NOAA (what a country!). You can phone the board at (303) 497-5000. You pay only for the toll call. The B.B.S. can support 300 and 1200 baud modems, with 8 bit words, 1 stop bit, and no parity. The board features a very friendly menu-driven format, and has a very complete "help" feature. So give them a call, and enjoy firsthand one of the few worthwhile things your taxes support.

Until next month, then -

7/3 '85

Ted Benson

Special Feature

To submit feature articles, contact
Dr. Harold Cones, Editor-In-Chief
2 Whits Court, Newport News, VA 23606

Honey - Look What I Bought!

by: *Alan Johnson*

It's the dark side of 5:30 on a Sunday morning. I crawl out of bed, shower and then stumble around in the dark trying to get dressed without disturbing my wife. Then, a quick cup of coffee while I go over the check list one last time - antenna wire, headphones, tools. Yes, it's all there - now I'm ready.

What could possibly inspire such demented behavior on a day of rest? Is it a rare DX opening or perhaps a contest? No, it's the lure of a new piece of gear; a chance to rearrange my shack to accommodate one more "indispensable" box. You guessed it - there's a hamfest somewhere.

Why would anyone in their right mind want to spend their day off trying to buy a used receiver from a total stranger? Admittedly, one person's junk may be another's treasure, but without attention to details, it can be a matter of the junk just changing hands. This article is intended to point out those details.

How can older receivers possibly compare to today's radios with keypad tuning, 10 Hertz digital readout and unwavering stability? Quite well, thank you, as long as you don't try to compare Sky Buddys to NRD-525's. There is not much difference in the primary specifications of sensitivity and selectivity among radios of the past forty years.

The basic communications receiver circuit is still the multiple conversion superheterodyne - only now the oscillators are digitally controlled and stabilized by phase-locked loops. One possible shortcoming (depending on application) is the lack of continuous tuning from .15 to 30 MHz. In short, the user of an older radio primarily sacrifices operating convenience and not basic performance.

Pay attention now, here's the first detail -

you have to do some homework. You may be slightly unhappy to bring home that mint Hammarlund HQ-170 which was only \$50.00 to find that it only covers the ham bands. A great reference guide is "Shortwave Receivers - Past and Present" by Fred Osterman of Universal Shortwave. It gives capsule summaries of frequency coverage, selectivity and operating controls for over 200 radios along with new list price and approximate used value. It reproduces the manufacturer's specs for almost 90 radios. This book goes with me to every hamfest. More in-depth info on fewer radios can be found in Rainer Lichtie's "Radio Receiver - Chance or Choice" and "More Radio Receivers".

The next step is to locate these old radios. Hamfests and fleamarkets are by far the most fun and often the most economical way to obtain used gear. The negative aspect is buying from a stranger. I must admit, however, that I have never been cheated at a hamfest. There are numerous alternative sources to hamfests, such as antiques fleamarkets and garage sales, which can occasionally turn up real bargains. Don't overlook the classified ads in amateur and SW magazines. There are several biweekly newsletters which consist solely of radio-related want ads (subscription information can be found in all major ham magazines). Computer bulletin boards often have "swap shop" sections. Following these want ads can be a good way to determine what the going price for a used radio is. Don't forget that want ads can work in reverse; you can advertise for what you want and comparison-shop among the responses. Probably the safest way to buy used gear is from a dealer that takes used equipment in trade. A 30-day warranty is usually offered, although prices are higher. Finally, why not use your present radio to buy another one? There are several on-the-air

ham swap nets - try 3,898 kHz LSB on Monday and Friday nights.

Let's concentrate now on hamfests, since it's that time of the year. Unfortunately, it's homework time again, the first assignment being to find the date and location of the next hamfest in your area. The "Convention Calendar" in MT is a good source. If the fest is at an unfamiliar location, figure out a route beforehand to avoid getting lost and losing valuable shopping time. Make a list of the odds and ends you need such as coax and connectors, as these are usually much cheaper at hamfests than at Radio Shack. For checking out my purchases on-site, I carry headphones, screwdrivers, pliers and about 20 feet of hook-up wire for an antenna. I've attached a banana plug to one end of the wire as this will fit both coax (SO-239) and phono jack antenna connectors. I also carry an alligator clip that

The cardinal rule is to arrive early

slides onto the banana plug to connect to screw terminal antenna inputs. Don't forget a hat and sunscreen, since major hamfests can mean several hours in the broiling sun. The least enjoyable preparatory step is determining how much you can afford to spend. It's wise to carry a major portion of your allotted budget as cash, as some sellers may refuse checks.

At last the day of the hamfest dawns (literally)! The cardinal rule is to arrive early - the real bargains don't last long. Secondly, go directly to the fleamarket area. Most hamfests consist of two areas, the indoor vendor tables which are primarily for new equipment dealers and the outdoor tailgating area, where the used stuff is. Circulate quickly around the fleamarket area, making notes of where the interesting goodies are located and what the asking price is. I usually go through several times as new sellers are arriving and setting up before doing any serious dealing, unless I see something that I know is a "real deal".

So, you've spotted a Drake SPR-4 that looks nice. What's the next question after "How much"? Assuming the answer is near your price range, the key question is "Does it work OK?". If so, next ask about

documentation, such as schematics, owner's or service manuals, as these may be out of print and may be essential for future service. Also ask about accessories, such as filters and external speakers, since they increase the resale value and may be hard to find. Ask about modifications, since circuit mods may make servicing difficult and control and front panel mods may reduce the resale value. A subtle point is whether the seller is the original owner - an affirmative answer decreases the chances that the radio has been kicked around from one hamfest to another. Also, ask if the seller is a smoker, as tobacco smoke coats every surface, including internal switch contacts, with a yellow film of tar. This is not a reason to reject the rig, but it will make clean-up harder.

These questions can be asked while "kicking the tires". This is one advantage of fleamarkets over classified ads, as it allows seeing and touching the radio. Even without power, a lot can be learned about the rig. Turn all the controls. Switches should click into position without binding or mushiness. Tuning controls should spin smoothly over their entire range. Variable resistors should turn without sticking. Look at the case and front panel for scratches, dents, rub marks and rust. I personally am willing to accept a few scratches on the cabinet, as long as the front panel is good. If everything seems to be satisfactory, ask if the seller will refund your money if the rig doesn't work. If not, walk on, unless you know you can fix the rig yourself and the price is right.

Only then is it time to get to the "bottom line". Don't be afraid to haggle; it's part of the fun. If you've done some research, you'll know if his price is too high. If you can't get the price down to what you are reasonably willing to pay, be patient - there will be other radios and other hamfests. On the other hand, if you know the rig is somewhat rare, and the price and condition are reasonable, don't nickel and dime the seller to death. Be sure to get the seller's name, address and phone number. Expect to give the same if you're paying with a check.

Once the money and radio change hands, try to find an outlet to plug the radio into. Hookup the antenna wire, plug in the headphones and flip the power switch. Do all the pilot lamps light? Is there audio output

without hum? Tune in stations on several bands and check all reception modes. Try out any accessory functions, such as a crystal calibrator. If everything works, smile and lug it to the car; if not, take it back for a refund. Then it's on to the next bargain; don't forget that list of odds and ends!

For me, the real fun starts when I get the radio home. I take off the case, knobs and front panel (if possible). I use diluted window cleaner to get the grime off the outside and brush and blow the dust out of the interior. I

liberally spray all the controls and switch contacts with tuner cleaner and rotate them through their full range several times. After reassembly, I've got a new toy to play with - if only I can squeeze it into the shack! Now with static wiping out the tropical bands, it's time to get out and hunt for bargains. So, have some fun, get some sun, and if you don't find some new knobs to twiddle, at least get the wire for that new antenna you've been meaning to put up. Happy hamfesting!

Review of the Heath SB-310/SB-313

by Alan Johnson

My first SW radio was a Heathkit GR-64, a four-tube, four-band single conversion receiver, with all the inherent faults of that design. The only thing I remember about it was the plume of thick, greasy white smoke it emitted when I first turned it on, due to a mis-wired filter capacitor. About two years later, I became the proud owner of a Heath SB-310, having convinced my parents that I couldn't live without it. This time I had a local TV serviceman check it out before turning it on.

Relative to the other receivers of its day (late 1960's), this is a real radio. It was the SWL version of the popular SB-301 ham receiver. It has ten tubes and covers the 80, 40 and 20 meter ham bands, the 49, 31, 25, 19 and 16 meter broadcast bands and the CB band, in 500 kHz segments. An optional crystal and coil set was available to convert the CB range to partial coverage of the 15 meter ham and 13 meter broadcast bands. The design is dual-conversion with crystal-controlled first oscillator and a crystal lattice filter in the second IF with a bandwidth of 5/15 kHz at -6/-60 dB. A 2.1 kHz SSB and a 400 Hz CW filter were available as options. A product detector is used for SSB/CW reception, but the optional SSB filter and a second BFO crystal is required for true LSB/USB selectable sideband reception. The analog dial reads out to one kHz and a 100 kHz crystal calibrator is standard. A manual presclector must be peaked for best reception. There is no notch filter, but the AGC is switchable - Off, Fast and Slow and there is a minimally effective ANL.

Shortly after I built my SB-310, the SB-313 all solid-state version was introduced. The basic lay-out is the same, but in a smaller cabinet. ARF attenuator was added to protect the MOSFET front end from overloading and the CB coverage was dropped in favor of 21.3 - 21.8 mHz. Standard and optional IF filtering remained the same as the SB-310.

Having recently acquired another SB-310 (the original was sold to buy stereo equipment long ago), I can say that this is not a bad radio. The audio quality is pleasant, stability is good after only a brief warm-up period, sensitivity on 10 feet of indoor wire is good and it's nice to have the glow of tubes in the shack again. The open chassis layout and the usual Heathkit clarity of the manual should make servicing easy. This radio is probably best suited for the newcomer or the casual SW broadcast listener, due to the limited frequency coverage and lack of interference-fighting controls. When new, the SB-310 sold for \$260 and the SB-313 went for \$340, as kits. The other available option was the SB-600 external speaker. These units are now found in the \$100-\$150 price range, although there don't seem to be too many of them around.

Company Store

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



Haven't seen one of those neat pictures featuring NASWA clothing in this column for some time now, eh? Dozens of T Shirts, Sweatshirts, Jackets and Hats have been delivered to members in our 18 months of operation. How about sending the Company Store a "shack shot" attired in your NASWA best?

SHORTWAVE RADIOGUIDE

NASWA member John Figliozzi's Shortwave RadioGuide has proven to be a popular item in a very short period of time. Introduced last month in Big Signals "NASWA Notes" column, the Guide contains daily listings of regular English language programs broadcast to North America. There are 24 hour schedules for major broadcasters such as the BBC, VOA, Christian Science Monitor, etc. Although the Guide has been prepared for a North American audience, much of the material is useful to club members worldwide. The Shortwave RadioGuide is published twice per year and costs only US\$13.75 worldwide. Order the Summer/Fall edition from the Company Store while supplies last.

REPRINT SERVICE

We have had many requests for Edition #2 of the Reprint Service Catalog. Prepared by Don Moore, Edition #2 of the Reprint Service Catalog now contains 169 titles that are now available through the Company Store Reprint Service. Almost 800 pages of information. The following areas are covered: Antennas (15); Broadcasting Stations (20); Computers (1); General DXing (36); Humor (6); History (12); Latin America (14); Miscellaneous (14); Propagation (4); Other Equipment and Miscellaneous Technical (11); and Receivers (36). Remember, your copy of Edition #2 of the Reprint Service Catalog is available from the Company Store for only US\$1.00 worldwide.

Dave Turnick reports that orders are slowly being filled. We are very sorry for any delays but the thirst members have for information has strained the Company Store publication facilities. Our meager staff has been working their fingers to the bone. Will we ever catch up with the backlog? Stay tuned.

THE NASWA CLOTHING LINE

It's time to begin preparations for the upcoming DX season by purchasing your official NASWA T Shirt, Sweatshirt, Lined Windbreaker Jacket or Poplin Golf Hat. Yes once again, the best dressed DXers are wearing NASWA Royal Blue while tuning the dials. Although we can't promise rare stations will be heard or that QSL returns will multiply, we can state that you will look like a DXer when properly attired! Here's the complete story:

T Shirt (S, M, L and XL) - US\$12.00
Sweatshirt (S, M, L and XL) - US\$21.00
Poplin Cap with Leather Strap - US\$8.50
Nylon Windbreaker Jacket with Lining (S, M, L and XL) - US\$26.00

Each garment is available in extra, extra large (XXL) for an additional charge: the T Shirt for US\$1.00; the Sweatshirt for US\$3.00; and the Nylon Windbreaker Jacket with Lining for US\$4.00. The Lined Windbreaker Jacket is also available in XXXL and XXXXL for the same additional US\$4.00 charge.

The Company Store can pass along a US\$1.50 savings per garment on multiple orders. For example, if you order a T Shirt and Sweatshirt which normally costs US\$33.00, if purchased individually, you can now purchase those items together for only US\$31.50. That helps take the sting out of higher prices. In fact, if you order the entire clothing line, in the standard sizes of S through XL, the total tab comes to the same US\$63.00 with the new prices as it did with 1989's prices. Orders to metropolitan areas in Canada still require an additional US\$4.00 per order for shipping.

73 - RAD

Make checks payable to either Richard D'Angelo or The NASWA Company Store

NASWA Awards

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



Plenty of activity this month.

NEW COUNTRY LIST AND AWARDS PROGRAM BOOKLET

As mentioned last month, the 1991 edition of the NASWA Country List and Awards Program booklet introduces four new awards. However, I neglected to mention that Australia is now known as the "Lost Continent" around the D'Angelo household. It seems some production gremlins deleted Australia from the country list. No, this isn't a club policy statement, hi! Seriously, pencil in Australia under the Oceania section of the new booklet. While you have your pencil out, add Antarctica and the Antarctica DXer award to the booklet. Oops!

Among the new awards is NASWA's first award that doesn't require collecting verifications. Development of future "heard" awards are dependent upon the support shown for this award. Once again, here is a brief rundown of the four new awards:

Round The Clock Continental DXer: For verification of at least one shortwave broadcast station in each continent, excluding Antarctica, within a 24 hour period. [Who will be the first member to earn this award!]

All American DXer: For verification of at least 15 different licensed shortwave broadcast stations located in the United States of America, including Alaska and Hawaii. [Thanks to Tom Ross for this one.]

Pirate DXer: For verification of at least 10 unlicensed hobby pirate shortwave broadcast stations. Endorsement stickers are available for 25, 50, 75, and 100 stations.

International DX Listener: For having heard at least 50, 100, 150 or 200 countries within the international shortwave broadcast bands.

And now...this month's parade of awards.

All American DXer (15 Different Licensed Shortwave Broadcast Stations in the United States, Including Alaska and Hawaii)

Thomas V. Ross, Lyons, IL
William H. Taylor, Unionville, PA
Steven R. Lars, Holland, MI
Jerry Johnston, Lexington, KY

All Continent QRP DXer (Lowest Powered Shortwave Station From Each Continent)

Donald M. Hosmer, Dearborn, MI 5 KW Endorsement
Daniel J. Prisco, Scranton, PA 25 KW Endorsement
Jerry Johnston, Lexington, KY 25 KW Endorsement

All Voice of America DXer (12 Different VOA Shortwave Transmitter Sites)

Daniel J. Prisco, Scranton, PA

Antarctica DXer (One Shortwave Broadcast Station from the Continent of Antarctica)

Terry Palmershiem, Puyallup, WA
Frank F. Orcutt, Buffalo, NY
Jerry Johnston, Lexington, KY

DXer de Pacifica (10 Different Oceania Broadcast Radio Countries)

Cris Hazzard, New Hope, PA
Jerry Johnston, Lexington, KY

European Senior DXer (25 Different European Broadcast Radio Countries)

Brian W. Lawrence, Martinez, CA Richard Wallace, Danbury, CT
Anthony Wermuth, Shelburne Falls, MA Jerry Johnston, Lexington, KY

DX Centurion (100 Different Shortwave Broadcast Radio Countries)

Jerry Johnston, Lexington, KY

Maple Leaf DXer (8 Canadian Shortwave Broadcast Stations)

Jerry Johnston, Lexington, KY

Master European DXer (35 Different European Broadcast Radio Countries)

Guy Connor, Philadelphia, PA

International DX Listener (Heard 50-100-150-200 Shortwave Radio Countries)

Jack F. Nibecker, Guadalajara, Mexico 50 Country Endorsement

Master British Commonwealth DXer (40 Shortwave Radio Countries

That Are Or Belong To The British Commonwealth)

Donald M. Hosmer, Dearborn, MI 60 Station Endorsement

Master European DXer (35 Different European Broadcast Radio Countries)

Daniel J. Prisco, Scranton, PA

Master Pacifica DXer (17 Different Oceania Shortwave Radio Countries)

Donald M. Hosmer, Dearborn, MI

Pirate DXer (10 Unlicensed Hobby Pirate Shortwave Broadcast Stations)

George Zeller, Cleveland, OH 110 Station Endorsement!!!
William H. Taylor, Unionville, PA 25 Station Endorsement

Senior China DXer (One Station In 5 Different Provinces and Autonomous Regions)

Brian W. Lawrence, Martinez, CA

Senior DX Centurion (150 Different Shortwave Broadcast Radio Countries)

Donald M. Hosmer, Dearborn, MI 170 Country Endorsement

Senior Ecclesiastic DXer (25 Religious Oriented Shortwave Broadcast Stations)

Daniel J. Prisco, Scranton, PA
Jerry Johnston, Lexington, KY

Senior Time Station DXer (10 Different Time Stations With One From Each Continent)

Jerry Johnston, Lexington, KY

South American Continental DXer (10 South American Broadcast Radio Countries)

Pat Wood, Syracuse, NY
Jerry Johnston, Lexington, KY

World Wide DXer (50 Different Shortwave Broadcast Radio Countries)

Randy Doyle, Winslow, AK Royal E. Berglee, Grand Forks, ND
Jack F. Nibecker, Guadalajara, Mexico Michael Fanderys, Parma, OH

Awards Tidbits

Welcome to first time award program participants Randy Doyle, Jack Nibecker, Anthony Wermuth, Jerry Johnston and ace DXer George Zeller. Jack notes it took eleven years and one week to earn his first award. He has two more awards almost completed. This month, Jerry walks away with "big haul" honors by earning 10 different awards. Don Hosmer notes a poor reply rate for reports sent out the last quarter of 1990; he speculates that the middle east situation may have messed up mail service. Anyone else notice a trend? Don's "pictorial" QSL's are very interesting. It's nice to see Frank Orcutt among the award recipients after a five year absence. Dan Prisco checks in after an 11 year break from awards collecting and wonders with the trend in international broadcasting when will a "Mega-Ecclesiastic DXer" award for 50 stations be issued? Bill Taylor's Pirate DXer application had the infamous Voice of Lumpfish with only .005 watts. Ah, the good old days (1980)! Guy Connor reports that the QSL bug has bitten him again. Rich Wallace mentions he uses the awards program as a good yardstick to measure his progress in the hobby. Mike Fanderys sent along a photo of yours truly hosting the Awards Forum at the Winter SWL Festival - thanks Mike!

Remember, each award costs only US\$2.00 in North America and US\$3.00 overseas (additional overseas awards applied for at the same time cost only US\$2.00 each). Endorsement stickers are available for US\$0.50. International Reply Coupons (IRC's) at a rate of US\$0.50 are also acceptable.

73 - RAD

NASWA Awards Program: Have you sent in an application lately?

Feature Article

To submit feature articles, contact
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2 Whits Court, Newport News, VA 23606

Clandestine-Contest
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Press-Release

Results of the 6th Clandestine-Contest have been published

As expected, the competition was extremely tough this year. Finally, Leif H. Johansen (Norway) finished first, followed by Roberto de Cecco (Italy) and Valery N. Ostroverkh (USSR). Ostroverkh also won the Asian category and Claes Olsson won the American category from his holiday QTH in Florida. The African and Oceanian categories remained without an entry. Best newcomer was Johann Ruff (FRG).

The stations that were heard by the most participants in this year's event are the Voice of Free Iraq and Radio Iran - both were successfully logged by 95% of all participants

6th CLANDESTINE-CONTEST

The results

Despite the rather negative development of the participation there were still 22 participants in this year's event, which is the second best result in the history of this contest. Contrary to the two previous years, the reception conditions the contest weekend were not too bad and also the number of unexpected schedule changes was rather low. Many stations were heard with much better signals than in previous contests. Despite the decreasing participation and the reduction from 20 to 15 contest stations, the number of logs was down only by one from 247 last year to 246. The number of logs which had to be deleted was 27 %, which is decrease from last year's 33 %.

12 of the 15 stations in the contest schedule were finally heard. Both the number of station points and also the number of total points this time were at the lowest level of all contests, which is yet another indication that this year's contest was not too difficult.

Propagation conditions: Once again, March was a very stormy month regarding the geomagnetic activity, but things did calm down just in time for the contest weekend. The most important propagation indices for the period March 29 to March 31 were: Solar Flux 191, 199, 192; A-Index 6, 27, 10.

Although the publicity for this event had rather decreased from last year's level, our thanks to the following publications, programmes and magazines: EAWRC, ADDX, WWDXC, RHCI, Funk and WWH (all FRG), NASWA and ACE (both USA), Play-DX and Radiorama (both Italy), Kurzwellen-Panorama (Austria), Freewave (Netherlands), DSWCI (Denmark), R Budapest SW Club (Hungary), APARC (Bangladesh), WDXC (UK) and Radio Listeners Club Indonesia.

Now, on to the results in the same order as in the contest schedule:

Voice of the June 4th

11905

In fact, there was a Chinese programme on this frequency, but this appeared to be a BCC programme rather than the Vb the June 4th. The clandestine programme, which was until recently active via the BCC transmitters announced the discontinuation of the programmes just a few weeks previous to the contest weekend. There were 17 logs for this station, but of course non of them could be confirmed. -- * 0 station points *

Voice of Palestine via RTA

6160, 7145, 11715, 15205

This happened to be yet another surprise, as the Vo Palestine programme was rescheduled to 1600-1700 just a few days before the contest started. So, there was the usual RTA domestic programme on this frequency at the time of the contest listening period. The same thing did already happen last year. However, many participants didn't even notice that this wasn't the Vo Palestine programme, so there were still 19 logs entered, which of course had to be deleted. Let's hope that this kind of thing won't happen again next year... --- * 0 station points *

Voice of Free Iraq

9579,9995,15600,17960

When the contest schedule was compiled we were rather skeptical about all these latest developments on the clandestine scene that were associated with the Gulf war/crisis. Many stations seemed to be rather short-lived operations, but after all we decided to give the Vo Free Iraq a chance and this was successful. It was heard with very good signals on all four channels (15600 was moved to 15605 kHz) Especially on 17960 kHz (19 logs) the station was audible almost everywhere, while reception was somewhat worse on 9570 kHz (2 logs). Also, 9995 kHz was audible under the usual time-signal QRM. Together with Radio Iran (cfr below) this is the most-heard station in this year's contest. --- * 5 station points *

Radio Iran

9400,15650

This station was heard very well despite the jamming. The best channel for reception was 15650 kHz (18 logs), while on 9400 kHz (3 logs) there was some additional interference by a utility station. All 21 logs were confirmed. Together with the Voice of Free Iraq, this is the most-heard station in this year's contest. The address of Radio Iran is as follows: 17, Bd Raspail, F-75007 Paris, France. --- * 5 station points *

V. 0. the Resistance of the Black Cockerel

7100

This station was heard very well at the time the contest schedule was compiled, but it became a very difficult catch on the contest weekend. Only 10 participants claimed to have heard this station and only 3 logs were finally confirmed, the rest had to be deleted due to the lack of sufficient details. The signal strength was only around 1-2 everywhere, so it was very difficult to get some useful programme details. In the past, this station did occasionally reception reports to the following address: Mr Jardo Muekalia, 1850 K St, NW, Suite 370, Washington, DC 20006-2202, USA. --- * 86 station points *

Voice of Lebanon

6550

This station was heard much better than in previous years, and the signal level was everywhere around S=3-4. There were 19 logs for this station and only one of them had to be deleted due to the lack of sufficient programme details. The address is: P.O. Box 165271, Al-Ashrafiyah, Beirut, Lebanon. However, this station has not replied to reception reports for many years. --- * 18 station points *

Voice of the Free Sahara

9640,15215

There was very good reception of this programme on both 9640 kHz (6 logs) and 15215 kHz (13 logs). It was also audible on unlisted 15205 kHz. All 19 logs were confirmed. Apparently, this station has just again started to reply to some reception reports, so probably now is a good chance to get this confirmed. The address: B.P. 10. El-Mouradia, Alger, Algeria. --- * 14 station points *

Radio Marti

11930

Although one might think that this station should be a rather easy task, this is always one of the most difficult stations in the contest - even if the frequency is incidentally not blocked by QRM. This year, there was Radio Habana Cuba on 11930 kHz (among others with the "DXers Unlimited" programme) and a very strong chinese jammer was on 11925 kHz. There were 11 logs for Radio Marti, but only three of them could finally be confirmed. All confirmed logs were made outside of Central Europe. --- * 86 station points *

This station was yet another difficult catch, but it was still audible with signal strengths around 1-2 in Central Europe and even around S=3-4 in Scandinavia and Asia. Altogether there were 15 logs for this station, but five of them had to be deleted due to the lack of details. This station answers reception reports very often and also includes a lot of political material in its letters. Try one of the following addresses: c/o KPNLF Office, P.O. Box 22-25, Ramindra Post Office, Bangkok, Thailand or c/o FUNCINPEC Office, P.O. Box 12-1014, Suan Phlue, Bangkok Thailand. --- * 55 station points

Radio Caiman

9965

As expected, this station was heard very well despite some more or less strong interference by a RTTY station. There were 14 logs for this station which were all confirmed. All the research and investigations about this mysterious station still didn't have positive results, so for example there is still no address as to my knowledge. --- * 36 station points *

La Voz del CID

7340, 9940

On 7340 kHz, this station was not audible, but the signal on 9940 kHz was very strong almost everywhere. There were 17 logs received for this station and only one had to be deleted due to the lack of details. La Voz del CID has always answered reception reports and has almost half a dozen addresses which are more or less reliable. Most commonly used are: Apartado 8130, San Jose 1000, Costa Rica and Apartado 6019, 08080 Barcelona, Spain (when writing to the Barcelona address, don't mention the station name on the envelope!). --- * 27 station points *

Radio Free Afghanistan

15445,17780,17835,21510

RF Afghanistan was heard with a much better signal than previous years. The reception was possible on all four frequencies, although on 17780 kHz there was strong QRM by RMWS on the same channel. On the other outlets, there was very good reception with 7 logs on 17835 kHz, 5 logs on 15445 kHz and again 7 logs on 17835 kHz. All 19 logs were confirmed. This station is confirming reception reports with its own QSL cards, send reception reports to the well-known RI: E/RL address. --- * 14 station points *

Voice of Unity

12230,15685,17540

There was some interference on all three channels, but still the reception of this station was a rather easy task. All 19 logs that were received for Vo Unity were finally confirmed. There were 12 logs on 17540 kHz, 6 on 15685 kHz and one log on 12230 kHz. The Voice of Unity is answering reception reports very reliably. Send your reports to following address: Postfach 2605, D-2000 Hamburg, FRG --- * 14 station points *

Radio Iran Toolers

4775,6230,10870

As most participants did already know at the time of the contest, this station ceased its operations a few days before the contest weekend. However, there were still seven logs received for this station and three of them did really claim that R Iran Toolers had been heard... Of course, all logs were deleted. --- * 0 station points *

Iran's Flag of Freedom Radio

15100,15565

Altogether, there were 18 logs received for this station only one of them on 15100, the rest on 15565 kHz. Two logs had to be deleted due to the lack of programme details. The reception of this station was made difficult by the bubble jamming and especially on 15100 kHz there was even more QRM caused by other stations on the same channel. Iran's FoF Radio has occasionally answered reception reports. Try the following address: Derafsh, 20, rue de Condorcet, F-75009 Paris. --- * 27 station points *

Listener's Notebook

Dan Ferguson
P.O. Box 2604
Date City, VA 22193
CompuServe 76702,771

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All times, dates, and days of the week are UTC (GMT), dates are MM/DD or MM/DD/YY.

AFGHANISTAN - *R. Afghanistan* sked: 0130-0430 Baluchi/Pashto on 4940, 9635; 0730-0930 Pashto/Dari on 9635, 17655, 21600; 0930-1030 EE on 9635, 17655, 21600; 1230-1330 Urdu on 4940, 9635, 17655; 1330-1430 Baluchi/Pashto on 4940, 9635, 17655; 1430-1700 Pashto/Dari on 4940, 9635; 1600-1630 Arabic to ME on 17580; 1630-1730 Pashto/Dari to Eur on 9635, 15510, 17580; 1730-1800 German to Eur on 9635, 11845, 17580; 1800-1900 English to Eur on 9635, 11845, 17580; 1900-1930 French to Eur on 9635, 11845, 17580. (WBI 5/24) But noted in EE to Eur 1830-1930 on 15540, 11830 and 9635 kHz; 15540 and 11830 are probably Soviet relays, 9635 probably inside Afghanistan. (Ivan Cholikov, Plovdiv, Bulgaria, on DXPL 5/18 via Mike Fern) Kabul has been using some new frequencies since 5/5. Domestic svc at 0125-1500 on 17655; 0500-1230 on 21600; 1300-1600 on 15255. Overseas Svc at 1630-1930 on 11845 and 15510; English from 0930-1030 on 17655 and 21600; 1800-1900 on 11845 and 15510. (Shigenori Aoki/RJDXC 6/16 via Mike Fern)

ALBANIA - *R. Tirana*, 9760, at 0130 folk music. (KM/QLB/DXPL 5/25 via Mike Fern)

ALGERIA - *R. Algiers International Service*, sked: 0200-0230 SS (V.Chilean Resistance pgm) 9640a, 15215?, 17745a; 1100-1200 SS to Eur/ME on 9509, 9535, 9640, 9685, 15160-?; 1703-1800 AA (V of Palestine pgm) to ME on 6145, 7145, 11715, 15205; 1900-2000 AA to Eur/ME on 7145, 11715, 15205; 1900-2000 EE to Eur/ME on 9509, 9535, 9685; 2000-2100 SS to Eur/ME on 9509, 9535, 9685; 2200-2400 SS/AA (V.Free Sahara) to Af on 9640, 15215. (WBI 5/24)

ALASKA - Complete sked of KNLS, Anchor Point: 0700-0800 RR 11860; 0800-0900 EE 11715; 0900-1000 RR 11820; 1000-1100 CC 11820; 1100-1200 CC 9870; 1200-1300 RR 7365; 1300-1400 CC 9840; 1400-1500 CC 7365; 1500-1600 EE 9615; 1600-1700 CC 9615; 1700-1800 RR 12025; 1800-1900 EE 11945; 1900-2000 RR 11910; 2000-2100 EE 11910; 2100-2200 RR 11965. (WBI 5/17)

ANGOLA - *Emissora Provincial de Benguela*, Malanje (tent), 5041, at 0517 w/Afr mix, drums; TC by nian in PP as 6:15; pops, high life mix, more TCs. (RMV/QLB/DXPL 6/15 via Mike Fern)

AUSTRALIA - *R. Australia's Navy Message Service* on 15530 kHz at 1430 Thursday UTC only; // 21730 and 25750. (David Foster in OZ-DX on DXPL 5/25 via Mike Fern)

VNG, Llandilo, on 16000 kHz NF at 0633 with time pips. (RMV/QLB/DXPL 5/25 via Mike Fern) [It's on, and it can be heard between *0600-1500*, but I find 5000 kHz around 1300 more reliable because of ionospheric cut-ups!-mf] VNG received a license for 12984 kHz, a frequency on loan from the Royal Australian Navy. Cannot send voice here, so will ID with letters "VNG" in Morse, probably 400 Hz. Operation expected to start 7/3. Till then the 5 & 10 MHz bcsts will continue as before & 16 MHz at 2200-1100. (Letter from Dr. Marion Leiba, VNG Users Consortium, to Ben Krepp) Not clear if 12984 will replace an existing frequency or supplement them. (Ben Krepp)

VLMJ, Brisbane, 4920 kHz, heard at 0958 with Australian folk music; fair signals. (QLB/DXPL 6/1 via Mike Fern)

R. Australia's General English Service sked:
25750 kHz at 0800-1100; 21775 0100-1000; 21740 0030-0730, 2100-2400; 21525 0100-0730, 1100-1430; 17795 2000-0600; 17750 0000-0400; 17715 2200-0600; 17630 0100-1000, 1300-1800; 15530 0400-0600; 15320 2030-1200; 15240 2200-0930; 15170 0900-1000, 1100-1200; 15160 2130-0600, 0800-1200; 13745 1430-2030; 13705 2100-2300; 13605 1000-1200, 1600-2130; 12000 1530-2100; 11930 1100-1300, 2000-0730; 11910 1330-2030; 11880 2100-0730; 11800 1000-1230; 9860 1300 1400, 1800-2100; 9770 1230 1330; 9760 0900-0930; 9710 0800-0930, 1100-1330; 9580 0830 1930; 7240 1530-1600; 7175 1100-1200; 6080 1100-2030; 6060 1500-2130; 5995 1200-2100. (WBI 5/17)

BOLIVIA - *R. Illimani*, La Paz, 6025 kHz, at 2352 with pop music; announcement for La Paz event. (RMV/QLB/DXPL 5/25, via Mike Fern)

R. Mamore La Voz de la Frontera, Guayamerin, 4740, hrd 1001 in SS, folk mx, full ID by man beginning day's broadcast w/ "Amanecer Folklorico" pgm. Very good signals. (QLB/DXPL 6/1 via Mike Fern) [WRTH 91 says 2200-2400v; no mw outlet.--mf]

Rdif La Voz del Altiplano, La Paz, 5045, reactivated; heard in Italy 2246-2359 w/IDs & ads. Covered by a Brazilian station at 2359. (Dario Monferini in Play-DX via DXPL 6/1 via Mike Fern) [WRTH says the m.w. sked is 0950-0400, Sundays 1050-0300 on 820 kHz.--mf]

Rdif Libertad, Santa Fe, 4810, at 1010 with s/on & anthem. (Daniel Camporini, Argentina, Radio Panorama, on DXPL 6/1 via Mike Fern) [Rich McVicar says Camporini is editor of TWR Bonaire's Spanish-language DX program, "Monitor DX". WRTH 91 says 1000-0230; no nw outlet--mf]

R. Galaxia, Guayamerin, *0956 on new 5157 w/full ID. (Daniel Camporini, Argentina, Radio Panorama, on DXPL 6/1 via Mike Fern) [WRTH 91 says 1000-0300* on 5159.8; no mw outlet--mf]

R. Juan XXIII, San Ignacio de Velasco, 4965, 2335-0002*; fair signals in Quito; romantic music and lots of IDs; no anthem at signoff. (RMV/QLB/DXPL 6/15 via MF)

BRAZIL - *R. Novas de Paz*, Curitiba, a Christian station on 9515 kHz at 2335 with country-style hymn, ID, and instrumental music. (KMH/QLB/DXPL 5/25 via Mike Fern) [WRTH 91 says 0800-0300. Don't confuse this one with TWR Bonaire's Portuguese programs at 0700-0930. Some TWR programs are sponsored by Brazilian evangelists and announce Brazilian mailing addresses. TWR's own announcements are brief and easily missed.--mf]

BURMA - (Clandestine) - *The Voice of the People of Wa State* continues active at 1130-1330 on 5110. On the surface, at least, it wouldn't appear that this station should be all that difficult to pick up in North America, at least in the western areas of the continent. However, we've never seen a North American logging of this one in the two or three years it's been active. (Gerry Dexter, in Clandestine Confidential, 6/91 issue)

CAMBODIA (Clandestine) - *R. Democratic Kampuchea*, via China, 1828 5/15 on new 11795 in Cambodian by W, music; very poor signal; 1856*. Don't confuse w/ *Voice of Democratic Kampuchea* which also originates in China. (Bruce MacGibbon/RJDXC 5/19 via Mike Fern)

CHILE - *Radio Nacional de Chile*, Santiago, hrd 0230-0250 6/6 on 15140 with SS sports. Weak to fair signals, fighting for the channel with Radio Habana Cuba in English. (Mike Fern--CA)

CHINA - *Central People's Broadcasting Station* (CPBS) made major changes in its frequencies and schedule in May.

Apparently CPBS has dropped 7516 kHz which has carried CPBS-2, but which was listed under CPBS-1 in WRTH 91, as nothing was heard at 1435. [date not given]. However, 11630, 9775 & 7770 were heard 5/15. 7516 was strong in Oregon. So I did some checking of CPBS frequencies using WRTH 91 as a guide. I monitored them around 1425 on May 15.

For CPBS 1: 5880, 6125, 6750, 6840, 7504, all active; 7525 not heard; 9735, 9800, 11330 all active. For CPBS 2: 5075 not heard; 5163 not heard; 6890 active; 7235 not heard; 7440 not heard; 7440 listed in WRTH 91 as CPBS-1 but had been heard recently as CPBS-2. 7516 not heard; 7770 active; 9064 not heard; 9080 not heard; 9390 not heard; 9775 active; 11630 active.

On 5/16 at 1617 CPBS-1 heard operating between 9690 and 9694 with Chinese pop vocals, causing deliberate interference to the Taiwan Central Broadcasting System Fifth Network (listed in WRTH 91 as 9690 kHz). [These jammers use narrow-band fm and quite high power.--mf]

CPBS-1 heard on 11330 kHz at 1858 s/on 5/14, national anthem "March of the Volunteers", news; taking summer time into account this is more than two hours earlier than WRTH 91 sked. Clear with a fair signal; good enough to tape. (Bruce MacGibbon/RJDXC 5/19 via Mike Fern).

R. Beijing on 15125 kHz, possible NF, at *2030-2136* 5/7; program in French. Presume via the USSR. (Bruce MacGibbon/RJDXC 5/19 via Mike Fern)

- **CHINA** (Clandestine) - *The Voice of June 4* stopped broadcasting to China 5/7. The final broadcasts were prepared and shipped at the end of April. The Chinese Alliance for Democracy sent three staff members to Chicago for training with the Voice of June 4 studio equipment. The studios will be moved, probably to Toronto, Canada, or to New Jersey. If all goes well, the new service may begin in early June. The new name for the station has not been chosen. When the new "Voice of China" appeared on 15280 kHz this was done without consulting either the Voice of June 4 or the Chinese Alliance for Democracy. The two U.S.-based groups say simply that they are now discussing the matter with the transmitting station. Tetsuya Kondo doubts that the early June date will be met. (Tetsuya Kondo/RJDXC 5/19 via Mike Fern)

COLOMBIA - *Rdif Nacional Colombia* is on the move again. Heard 5/16 on 17912v, ex 17902v, w/LA music and a woman announcer. The //11822v not heard in Oregon in mid-May. (Bruce MacGibbon, RJDXC 5/26 via Mike Fern)

CARACOL, Bogota, on 6150 and 6226 (probably a parasitic or mixer product with 6075) at 0556 in Spanish with love ballads, lottery ad, time check and ID. (RMV/QLB/DXPL 5/25 via Mike Fern)

- (*Clandestine*) cf LN 5/91, p32; No sooner did we advance speculation as to reasons behind the "demise" of *R. Patria Libre*, than it returns. In his A*C*E clandestine column George Zeller says he noted the station active again 5/7. During 5/7-18 he found activity on 6260, 6270, & 6280 in the 0030-0115 period, times variable. There is apparently a morning broadcast, too, at about 1130-1220. The station changes frequency every few minutes to avoid jamming. Still not the slightest clue as to an address for this station run by the National Liberation Army (ELN). (Gerry Dexter, *Clandestine Confidential*, 6/91)

COSTA RICA - *TIFC*, Faro del Caribe, San Jose, 5055, heard at 1015 with gospel programming in Spanish; an old reliable in New Zealand (AC on RNZI 5/26 via Mike Fern)

CUBA - *R. Habana Cuba* on new 17705, ex 17835, at 2014 5/9 in English; woman reading sports. 0600-0800 in EE on 11760. (Bruce MacGibbon via RJDXC 5/26 via Mike Fern) [Because 11835 is crushed under Greenville VOA transmission to Africa--mf]

Spanish to the Americas at 0900-1100 on 11950, 15300; 1100-1700 on 9505 (to 1630), 11760, 11875, 15230, 15415, 17750, 17795; 2300-2400 on 9620, 11760, 11875, 15140, 15230, 17835; 0000-0200 on 9550, 9620, 11760, 11875, 15140 (to 0140), 15230, 17835; 0200-0400 on 9550, 9620, 11875, 15230, 17835; 0400-0600 on 9620, 11875, 15230, 17835. (WBI 5/24)

Other programs: To the Americas at 0000-0200 in EE on 11820; 0000-0100 Quechua, 0100-0245 PP on 15340; 0200-0300 Creole, 0300-0400 FF on 5965U, 11760; 0200-0400 EE on 11820, 15140; 0400-0600 EE on 5965U, 11760, 11820, 15140 (to 0450); 0600-0800 EE on 11760; 0800-0820 Su Esperanto on 11760; 0900-1100 PP on 17795; 1000-1050 Quechua on 15400; 1700-1720 Su Esperanto on 11760, 11875, 15230, 15415, 17750, 17795; 2100-2200 Creole on 9620; 2200-2300 AA on 11875, 15230; 2200-2300 PP on 11875, 15340; 2240-2300 Su Esperanto on 9620, 11950, 15385, 17835; 2300-2400 Guarani on 15340. (WBI 5/24)

To Eur/ME/Afr at 0630-0730 SS, 0730-0830 PP on 15105; 1800-1900 AA on 17835U; 1800-2000 SS, 2000-2100 PP on 15330, 15350U, 17710U; 1840-1900 Su Esperanto on 15435, 17705, 17770; 1900-2000 AA, 2000-2200 SS on 15425, 17770; 1900-2100 EE on 17705; 1900-2000 FF, 2000-2100 EE on 17835U; 2100-2200 FF on 11930U, 17890U; 2100-2240 FF on 17705; 2200-2220 Su Esperanto on 15425, 17770; 2200-2300 EE on 11930U. (WBI 5/24)

CYPRUS - *Cyprus Broadcasting Corp* has Greek to the UK from BBC xmtrs at Limassol, at 2215-2245 Fri-Sun on 7205, 9735, 11795. (WBI 5/24)

ECUADOR - *R. Nacional Progreso*, Loja, has been jumping around a bit in mid-May; 5065 and then 5055 on the same day, rather than regular frequency of 5059 kHz. (RMV/QLB/DXPL 5/18 via Mike Fern)

Radio Nacional del Ecuador, the government network, celebrated its 30th birthday May 24. Its history is marked by ups and downs depending on the attitudes of the regimes then in power. The incumbent Ecuadorian president, Rodrigo Borja, has moved to put the station's operations and terms of reference on a more stable basis. Its target audience has shifted from the elite to the common citizen, according to its director, Gustavo Ceballos. When Ceballos came on board, a pro-government viewpoint was dominant. Now, anyone with a good idea may ask for time, and often gets it. WRTH 91 says Radio Nacional has licenses for three 50-kw mw stations, at Quito, Guayaquil, and Loja. Ceballos says some transmitters are undergoing repairs, but he hopes to have all three transmitters working at full power soon. He plans to add more cultural programs, as well as cholera prevention, human rights issues, etc. Radio Nacional used to operate on 4940 kHz, but that transmitter is "uno carapacho," an old shell, Ceballos said. However, the Secretary of Communications is determined to get R. Nacional back on shortwave. When a new transmitter arrives it will use 4940 kHz again.

R. Nacional has a daily SS pgm on HCJB, "Carta por los Ecuatorianos Ausentes" (Letter to Absent Ecuadorians). This pgm was broadcast on 60m for many years. The agreement with HCJB gives it a world-wide audience. The program includes news and features from all parts of Ecuador as well as Ecuadorian music. It is scheduled from 1730-1800 UTC on 15220 kHz. Listeners to "Carta por los Ecuatorianos Ausentes" can write [the DX Party Line](#) to get a special QSL card under a long-standing agreement with Radio Nacional. The card will be signed by Sr. Ceballos. (DXPL 5/25 via Mike Fern)

HCJB is planning at least one special DX program on 690 mw in 1991; no date or time set yet; the program will be in both English and Spanish at a time when 690 is normally silent. 690 has been heard in New Zealand on its regular schedule by Arthur Cushen and Steven Grenier. (Rich McVicar on DXPL 5/25 via Mike Fern)

HCJB has modified the rules of its 60th Birthday contest somewhat. Listeners are now asked to include a self-addressed postcard with the greeting "Happy Sixtieth Birthday" or "Happy 60th Anniversary HCJB" on it in their letters to the station. The cards will be used as tickets in a drawing. The first prize is a free trip for two to Quito, with a week's stay in Quito as HCJB's guests. Second and third prizes are Sony 2010 receivers. Fourth through eighth prizes are hand-made Ecuadorian weavings; ten other listeners will receive cassettes of Ecuadorian music. The cutoff date is sometime in December; I missed it. (Mike Fern--CA)

HCJB's English-language program schedule is now available on CompuServe in the U.S. and Canada, and the ICVAS bulletin board in the U.K. The ICVAS bulletin board may be reached at (0734) 461 466. where it is in the Christian Files area. On CompuServe, it is in Library 3, the shortwave listening section of the HamNet forum, or "GO HAMNET." Just search using the keyword HCJB. (DXPL 6/1 via Mike Fern)

ESTONIA - Radio Hope (Russian: Radio Nadezhda), the Estonia anti-separatist Inter-Movement station, broadcasts in Russian on 12056 (low power) and 747 kHz at 0330-0500, 0930-1000, 1530-1700. Address is: ul.Karl Marx 64, Room 5, Tallinn 200003. (WBI 5/24)

ETHIOPIA - The Voice of the Broad Masses of Eritrea, which supports the Eritrean People's Liberation Front (EPLF), was heard on 14338 & 7490 5/24 at 1400 with a scheduled xmsn in AA. But the Tigrigna bcst at 1500 was replaced by a mx pgm. Stn went off air at 1607. Sked bcsts in Afar/Kunama and Amharic at 1600-1700 were not heard. On 5/25 stn heard on same freqs at 0400-0615 only, instead of 0400-0700. Pgm were in Tigrigna, Tigre, Arabic, Kunama, Amharic. Bcsts at 1400-1700 were heard as sked. ... On 5/27 stn stayed on after 1700 in order to bcst a statement on the decision of the EPRDF to enter Addis Ababa. It closed at 1730. 5/28, stn came on at 0330, 30 minutes ahead of sked. (WBI 5/31)

On 5/27 the *Voice of the Tigray Revolution*, controlled by the Tigray People's Liberation Front, and associated with the EPRDF, did not go off air as sked at 1600, but stayed on the air on 7820 & 7315 kHz, saying: "our programme will continue indefinitely". Carried mx & repeats of an EPRDF statement to residents and soldiers in Addis Ababa. Station became untraced at 1752 gmt. (WBI 5/31)

During the sked 0500-0600 Amharic bcst on 9335, 5/28, the *Voice of the Ethiopian People for Peace, Democracy and Freedom*, a station controlled by the EPRDF, was hrd to bcst a message in English for foreign nationals residing in Addis Ababa. It stayed on the air till 0530, 30 minutes later than normal. At 1500 ancd would be on 1500-1800 & 1900-2200. Said *Voice of Tigray Revolution* Tigrigna pgm would be at 1600-1700. Normally at 1500 a bcst in Oromifa by the *Voice of the Broad Oromo Masses* is heard on 9315. *Voice of the Tigray Revolution* was heard on its usual frequency of 7820 kHz as announced at 1600, one hour later than normal. (WBI 5/31)

The sw xmtrs of *Voice of Ethiopia* appear to have come under the control of the EPRDF. (WBI 5/31) The *Voice of Ethiopia's* External Service returned to the air 6/3. The English broadcast from 1300-1400 is heard well in Australia on 9560; 7165 and 990 kHz also announced. (Tom Myers, Australia, and Friday Okoloise, Nigeria, on RNMN 6/6 via Mike Fern) [Major change from WRTH 91 sked, which had English 1500-1600 on 9560 only--mf]

GERMANY - The future of RIAS [Rundfunk im Amerikanischen Sektor, Berlin, 6005 kHz, 100 kw, 24H] and Deutschlandfunk [broadcasting to Germany's immediate neighbors on mw] is expected to be determined in the course of [the] next [few] months. (JM on RNMN 5/23 via Mike Fern)

GHANA - Ghana BC Corp. Accra, 4915, heard at 0644 w/M in local language; fair to good signals. (QLB/DXPL 6/1 via Mike Fern)

FRENCH GUIANA - RFI noted on 15200 at 2335 with English talk. (KMH/QLB/DXPL 5/25 via Mike Fern)

R.Japan relay via Montsinery on 15325 at 0302 in English, with Ian MacFarland reading the news. (RMV/QLB/DXPL 5/25 via Mike Fern) [Ian and Rich are longtime friends--mf]

Radio France d'Outre-mer, Cayenne, 5055.8 kHz, from 0115-0505 in French; good signals. (Dario Monferini in Play DX on DXPL 6/1) Heard in Quito overnight, at least on weekends with excellent signals. (QLB/DXPL 6/1 via Mike Fern) [WRTH 91 says 24H on mw; shortwave sked is weekdays 0900-0100; to 0300 Sat, 0200 Sun; Sun s/on at 1000--mf]

GUAM - This is the Z91 English-language schedule of KTWR: Fri only, 0800- 0912, 15200 kHz to Asia; 0800-0927 Sat thru Thurs, 15200 kHz to Asia; 0827-0957 on 11805 kHz to Australia; Mon thru Sa 1458-1636 on 11650 kHz to South Asia; Sun 1458-1701 on 11650 kHz to South Asia. The mailing address is: KTWR, Box CC, Agana, Guam 96910. (KTWR direct on DXPL 5/18 via Mike Fern)

HONDURAS - *R. Luz y Vida*, San Luis, 3250, at 0345 with "Unshackled" program in EE from Pacific Garden Mission, full ID and signoff in EE by Don Moore at 0400; EE programming at 0300-0400 weekends. (RMV/QLB/DXPL 6/15 via MF) [WRTH says 1230-1630, 2200-0400; does not mention English--mf]

HUNGARY - *R. Budapest Int'l* has EE to FE Mo-Fr on 9585, 9835, 11910, 11925, 15160 and 15220 at 0930-0945. 0900-0915 Mo-Fr on 6110 & other freqs w/DX Show. (AC on DXPL 6/15 via Mike Fern)

ICELAND - Reykjavik on new 9240, 0700. (Simon Hamer, Wales, via AC/RNZI 5/26 via Mike Fern)

INDIA - The *AIR* English news at 0245 is now 17875 kHz. The 1000-1100 English transmission to Australia and New Zealand is now heard on 15050, 15335, 17387, 17895 NF, and 21735 kHz. The morning transmission (2045-2230 UTC) is on 7412, 9910, 9950 NF, 11720 and 15265 kHz. (AC on RNZI 5/26 via Mike Fern)

All India Radio GOS in English: 1000-1100 to Asia/ANZ on 15050, 15335, 17387, 17895, 21735; 1330-1500 to Asia on 9565, 11760, 15420; 1800-1845 to Afr on 9950 (fm 1830), 11860 (fm 1830), 11935, 15360; 1845-1945 to Eur/ME/Afr on 7412, 9665, 9950 (to 1930), 11620, 11860 (to 1930), 11935; 1945-2000 to Afr on 11935, 15360; 2045-2230 to Eur/ANZ on 7412, 9910, 9950, 11620, 11715, 15265; 2315-0115 to Asia on 11715, 11745, 15110, 15135, 17830. (WBI 5/31)

AIR services in other languages: 0000-0045 Tamil 4990, 9910, 11815, 11880, 15165; 0015-0130 Urdu 6155; 0130-0430 Urdu 6155, 9610; 0045-0115 Burmese 9550, 9910, 11880; 0130-0228 Nepalese 3945, 6045, 7210, 9550; 0130-0200 Tibetan 7412, 9575; 0215-0300 Pashto 7225, 9630, 11910; 0300-0345 Dari 7225, 9630, 11910; 0315-0415 Hindi to Afr 15165, 17805; 0400-0430 Persian 15135, 17785; 0415-0430 Gujarati to Afr 15165, 17805; 0430-0530 Arabic 15135 17785; 0430-0530 Swahili 15165, 17805; 0700-0800 Nepalese 7110, 9610, 11735, 15165; 0830-1130 Urdu 9675, 11770; 0845-0945 Indonesian 15175, 17875; 1100-1500 Tamil 15275, 15335, 17387, 17850; 1115-1200 Thai 15365, 17830, 21735; 1145-1315 Chinese 11705, 15120; 1215-1315 Burmese 11715, 15420; 1230-1500 Sindhi 6170, 11620; 1300-1500 Sinhala 9700, 15020; 1330-1430 Dari 7140 11960; 1345-1545 Pashto 7140 11960; 1430-1930 Urdu 4860, 6045; 1500-1600 Baluchi 6170, 11620; 1515-1615 Swahili 11830, 15120; 1615-1700 Hindi 11830, 15120; 1615-1730 Persian 7265, 9910, 11620; 1615-1715 Russian to Eur 11935, 15140; 1700-1745 Gujarati 11830, 15120; 1730-1945 Arabic 9910, 15185; 1745-1830 Hindi to ME 7412, 9950, 11620; 1945-2030 French to Afr 9910, 11850, 15185; 1945-2045 Hindi 7412, 9665, 9950, 11620; 2245-2315 Telugu 11745, 15110, 17830; 2300-2400 Hindi 9910, 11880, 15165. (WBI 5/31)

IRELAND - A new shortwave station is operating apparently around the clock. *Radio Merlin* is on 6240 kHz. [No location or address given]. (Wim Steemstra on RNMN 5/30 via Mike Fern)

IRAN - Two 500 kW sw transmitters at Zahedan were officially inaugurated 5/15. They will carry external programs and the Arabic Voice (as heard) in the morning; and English, Urdu & Pashto programs in the afternoon. (WBI 5/17)

The May-September schedule of *Islamic Republic of Iran Broadcasting* in English is: 1030-1130 to East Asia on 9575, 9705 and 11790 kHz; 1030-1130 to the Middle East on 11715 and 11940 kHz; 1830-1930 to Europe on 9022 and 6035 kHz. A handwritten note on the printed schedule said that Iran would use summer time in 1991; the above schedule is corrected for this change. The morning transmission in Spanish to Europe is at 0500-0600 followed by French at 0600-0700; both transmissions used to start on the half-hour. (Andy Senniitt, RNMN 5/23 via Mike Fern)

BBCM reports that *IRIB's* domestic service is being relayed on 5995 NF from 2300-2030 UTC. The transmitter seems to be near Tehran. (Andy Senniitt on RNMN 5/23 via Mike Fern) - (Clandestine) - From 5/7 the *Voice of Iranian Kordestan* retimed broadcasts to 0800-0900 Kurdish; 0900-0930 Persian. Repeated at 1630. Kurdish segment also repeated 0230-0330 next day. (WBI 5/17)

R. Iran (believed from xmters in Egypt) operates 0230-0330 (unconfirmed) and 1830-1930 in Persian to ME on 9400. Frequencies used in the past include 7075, 9400, 15100, 15650. Announces address as R.Iran, c/o C.B., 17 Boulevard Raspail 75007 Paris, France. (WBI 5/17)

Voice of the Mojahed (Voice of the Crusader - Persian: "Sedaye Mojahed") Sked at 1630-1830 in Persian on 3558v, 4237v, 5630v, 6150v. Freqs vary constantly. There may also be a morning transmission, possibly at 0330 GMT. In the past some broadcasts were carried on 1539 and 1431 kHz - frequencies which also carried the Persian Service of Radio Baghdad. (WBI 5/17) Sked is 0127-0330 on 4750, 6150; 1627-1830 on 3558v, 4237v, 4750, 5630v, 6150 kHz. Transmissions via Baghdad believed to have been discontinued in 1990. (WBI/5/31)

IRAQ - Baghdad's domestic Arabic observed on 3980, 4600, 15605 kHz. The Kurdish service continues on 7350 & 1197 kHz. (WBI 5/17)

Since 5/17, *Radio of the Iraqi Republic* from Baghdad has been observed with its domestic service in Arabic on 17960, 1/3980, 4600, 8350.4. *Voice of the Iraqi Opposition*, which used 17960 until 1300 5/17, has now changed to 17950 kHz. (WBI 5/24)

- *Clandestine* - Several listeners in Germany have sent Media Network copies of their QSLs from the *Voice of Free Iraq*. The cards are signed by the head of engineering for the Broadcasting System of the Kingdom of Saudi Arabia. (RNMN 5/23 via Mike Fern)

ISRAEL - BBCM reports that the cuts in Israel's External Service will take effect as of June 1. Broadcasts in English are expected to drop back to just one transmission a day. (Piet Meyers, RNMN 5/23 via Mike Fern) *Kol Israel* reported at 2130 6/3 that "despite lack of subsidies the first of June has come and gone, and Israel Radio is still on the airwaves to our thousands--dozens, even--of devoted listeners in India, Singapore, Hong Kong..." Seems Israel Radio's had a reprieve after all. (Tony Barrett, England, on RNMN 6/6 via Mike Fern) [But the saga continues--df]: *Kol Israel* is facing its own real-life cliffhanger. Cuts are possible on 6/30. All broadcasts to the Americas after 2200 UTC in EE, SS and PP, plus Yiddish and Hebrew, have been targeted. The use of the shortwave transmitters is very costly. [in terms of oil as well as manpower and shekels--mf] The English staff thinks the cuts are very shortsighted and regrets the cuts very much. There is a shortfall in the budget and this is what is decided. The English department is still trying to appeal the measure, and hopes that it will be delayed so that the schedule can be reorganized to permit continued coverage of the North and South American continents. Cuts were scheduled to take effect 6/30 but the staff has had word that they may be postponed for another month while other possibilities are explored. A new domestic service for recent immigrants began a short while ago; if it is upgraded to a network, funds will have to be found. Broadcasting to new arrivals (e.g. Soviet and Ethiopian immigrants) is a primary task for *Kol Israel*. Shortwave relays of the home service EE at 0400, 1000 and 1700 will be dropped also. EE for Europe at 1900 and 2130 will remain. Portuguese will be dropped, French and Russian will be reduced, and Ladino for Sephardic Jews on shortwave will end. (Sara Manoba, *Kol Israel*, and Eric Beauchemin on RNMN 6/20 via Mike Fern)

ITALY - *Italian Radio Relay Service*, 9815 kHz, s/on 0457 with Grand March; EE ID & addr by man; fair signals. (QLB/DXPL 6/1 via Mike Fern)

JAPAN - *RCI*, via Yamata; EE to Asia at 1330-1357 on 6150; 1930-1958 on 9650; 2200-2230 on 11705 kHz. (AC on RNZ1 5/26 via Mike Fern) [6150 and 11705 in NASWA English section, 9650 is not--mf]

The Motorola AM stereo system has been adopted by the Japanese equivalent of the FCC. Cost of a changeover for one station may be between 100 and 300 million yen. (RJDXC 5/26 via Mike Fern)

Radio Japan marked its 56th anniversary with special programs on Saturday, June 1 between 0400 and 0700. A continuous program in English was broadcast from 0400-0700 on 17810 // 21610 from 0500-0600, and 17890 from 0500-0700; via Sackville, Canada, on 6045 at 0400-0700. A continuous program in Japanese was broadcast from 0400-0700 on 15195, 17765 and 17825; via Montsinery, French Guiana from 0400-0700 on 15350 and 0500-0700 on 15325; and via Ekala, Sri Lanka from 0400-0700 on 11840 and 17820. (RJDXC 5/26 via Mike Fern)

R. Japan General Svc in Japanese & English is sked [g=Moyabi, Gabob; c=Sackville, Canada; f=Montsinery, French Guiana; s=Ekala, Sri Lanka]: 0000-0030 JJ to As/Am on 21635g, 17845, 17910, 15230, 15195, 11815; 0100-0200 EE to As/Am on 17845, 17835, 17810, 15195, 11840s, 5960c; 0200-0300 JJ to As/Am on 17845, 17835, 17810, 15350f, 15325f, 15195, 5960c; 0300-0400 EE to As/Am on 17810, 15195; 0400-0500 JJ to ME/AF/As/Am on 17825, 17820s, 17810, 17765, 15195, 7125g(to 0430); 0500-0600 EE to As/ANZ/Am on 21610, 17890, 17825, 17810, 17765, 15195; 0600-0700 JJ to As/ANZ/Am on 17890, 17825, 17810, 17765, 15195; 0700-0800 EE to Eu/ME/AF/As/ANZ on 21575g, 17890, 17810, 17765, 15325; 0800-0900 JJ to Eu/ME/AF/As/ANZ/Am on 21640g, 21610, 21575g(to 0830), 17890, 17810, 17765, 15325, 11875, 9675f; 0900-1000 EE to As on 21610, 11840; 1000-1100 JJ to As/Am on 15350f, 11840, 11815, 6120c; 1100-1200 EE to As/Am on 11840, 11815, 6120c; 1200-1300 JJ to As on 11865, 11815; 1300-1400 JJ to As/Am on 11865, 11815, 9580, 9535s, 7210; 1400-1500 EE to As/Am on 11865, 11815, 9535s; 1500-1600 EE to Am on 11865; 1600-1700 JJ to Eu/ME/AF/As/Am on 21700g, 15230, 11865, 11815, 9580, 7210, 7140; 1700-1800 EE to ME/As/Am on 15345s, 15195, 11865, 11815, 7140; 1800-1900 JJ to ME/ANZ/Am on 15345s, 15195, 11865, 11850, 9640, 9535; 1900-1930 EE to AF/ANZ/Am on 11865, 11850, 9640, 7140g; 2000-2100 JJ to As/ANZ/Am on 17890, 17825, 15280, 11815; 2100-2200 EE to As/ANZ on 17890, 17810, 15340, 11840, 11815; 2200-2300 JJ to Eu/ME/AF/As/Am on 17810, 15340, 15195, 11815, 11735g, 9685f; 2300-2400 EE to Eu/ME/AF/As on 17810, 15340, 15195, 11815, 11735g.

R. Japan Regional Service: 0200-0230 Bengali 11840s; 0200-0300 JJ (Am) 17825 21610; 0230-0300 Hindi 11840s; 0300-0330 EE (Am) 15325f, 17825, 21610; 0300-0330 Urdu 11840s; 0300-0400 Chinese 17765, 17835; 0330-0400 AA (ME) 17820s; 0330-0400 SS (Am) 15325f.

15350f, 17825, 21610; 0430-0500 RR (Eu) 15325, 15355g, 0530-0545 Swedish, 0545-0600 Italian, 0600-0630 GG, 0630-0700 FF, all on 15325, 21690g. 0900-0930 PP (Am) 9675f, 11875; 0900-1000 EE (ANZ) 15270, 17890; 0930-1000 SS (Am) 9675f, 11875; 1015-1115 Indo on 15300, 17820; 1030-1130 Korean, 1130-1230 Chinese, 1230-1300 RR, 1400-1500 Korean, all on 7210, 9580. 1115-1145 Burmese 15300, 17820; 1145-1215 Malay 15300, 17820; 1215-1245 Thai 11875, 15300, 17820; 1245-1345 CC 15300; 1345-1415 Viet 11875, 15300; 1500-1600 CC 7210, 9580, 11840; 1530-1600 Bengali, 1600-1630 Hindi, 1630-1700 Urdu, all on 9535s, 11900. 1715-1745 Swahili 7180g, 9535; 1830-1900 FF (ME) 9610; 1900-1930 Persian 9610, 15210; 1930-2000 AA (ME) 9610 15210s. 1930-2000 RR, 2000-2030 GG, 2030-2100 FF, 2100-2115 Swedish, 2115-2130 Italian, 2130-2200 SS (Eu), all on 15355g, 2230-2300 Viet, 2300-2400 Indo, both on 11840, 17785. (WBI 5/17)

R. Tanpa (NSB) is to convert to a satellite service in about six years. It is being required [by competition or by the Japanese FCC?--mf] to improve its reception conditions and the quality of its sound. The new service will use pulse-code-modulated sound and a broadcast satellite, BS4, which is scheduled for launching in 1997. The shortwave and satellite services will run side by side for a while, according to the president of NSB, Kinya Sekiguchi. (RJDXC 6/2 via Mike Fern)

R. Tanpa, Tokyo, 0954 on 3925 (fair) & 9595 (v.gd); W in JJ. (QLB/DXPL 6/1 via Mike Fern)

JORDAN - *R. Amman*, EE 1100-1200 & 1400-1500 on 9560 per sked. (AC on RNZI 6/9 via Mike Fern)

KASHMIR (Clandestine) - *Azad Kashmir Radio* is more active; new high-power transmitter on 4790 kHz from 0045-0405, 1100-1810; programs in Urdu, Kashmiri and Gojri. Completely separate from existing channels, which are scheduled as follows: 0045-0405 and 1188-1810 on 792 mw and 3663; transmitters thought to be in Muzaffarabad, Pakistan; also relayed by 10-kw. transmitters on 6068 and 7267 in Rawalpindi, Pakistan. Some Indian listeners think 4790 is the same transmitter which carries the clandestine "Sadai Uryate-Kashmir" on 5000 kHz. Programming, power, and modulation quality appear similar. Transmissions on 5000 kHz are now 30 min. only, at 0230-0300, 0700-0730, 1100-1130, and 1630-1700. (Manosij Guha, DX Grapevine on DXPL 5/25 via Mike Fern) [The 5000 kHz interval signal is faintly like belly-dance music--mf]

KOREA (South) - The summer English-language schedule for *R. Korea* is as follows: 0000-0100 to NA on 15575; 0600-0700 to NA on 11810 and 15170; non-directional for Asia on 7275. [11810 under DW Antigua, 15170 usually buried under Tahiti--mf] 0800-0900 to Eur on 7550 and 13670; 1030-1100 to NA (Sackville) on 11715; 1100-1200 to Afr/ME on 15575; 1215-1315 to NA 9750; 1400-1500 SEA 9570 [it's back, and a more sensible shot for Pacific Coast listeners--mf] 1600-1700 to Afr/ME 9870; non-directional on 5975. 1800-1900 to Eur 15575; 1945-2000 non-directional 6135; 2030-2130 to Eur 6480, 7550, 15575. (DXPL 5/25 via Mike Fern)

KOREA (North) - *R. Pyongyang* in English at 1500 on 11705 NF ex 11760; // 9977, 9640, 9325 kHz. Also at 1700 on 11705 NF. Both heard 5/13. (Bruce MacGibbon, RJDXC 5/26, via Mike Fern)

LIBYA - R. Libya heard in Russian 1800-1920 on 17725 kHz; several other frequencies are announced. (Ivan Cholikov, Plovdiv, Bulgaria, on DXPL 5/18 via Mike Fern)

LITHUANIA - *R. Vilnius* foreign svcs current sked is Lithuanian at 2100-2130 & English at 2130-2200 to Europe on 666, 1557, 9675, 9710 kHz. Repeated at 2300 & 0100 in Lithuanian to NA/SA on 13645, 15180, 15455 by transmitter in the Soviet Far East; to Europe, ENA & ANZ via transmitters in European USSR and possibly Bulgaria on 11790 & 15485 kHz; to Europe on 666, 9710 & occasionally 1557 kHz via Lithuanian transmitters. (WBI 5/17) *Radio Vilnius* sked: To Eur/Am in English at 2300-2330, Lithuanian at 0100-0130, on 666, 1557, 9710, 11790, 13645, 15180, 15455, 15485. To Europe in Lithuanian at 2100-2130, English 2130-2200 on 666, 1557, 9675, 9710. All programs one hour earlier in winter. (WBI 5/24)

LUXEMBOURG - *R. Luxembourg*, 15350, at 0636 in English with band, a DJ; very good signals. (QLB/DXPL 6/1 via Mike Fern)

MALTA - *Voice of the Mediterranean*, 9765, at 0643 in English; man talking about a directory. Poor to fair signals. (QLB/DXPL 6/1 via Mike Fern)

MADAGASCAR - *R. Madagascar*, 5009.3, at 1730 in ?Malgache with talk on folklore; good signals; has been drifting lately. (Leigh Morris, OZ-DX, on DXPL 5/25 via Mike Fern)

MALI - *RTV du Mall*, Bamako, 7285, heard in Australia at 0655 sign-on (Steve Perkins, OZ-DX, on DXPL 5/25 via Mike Fern) Also heard often in Quito (Rich McVicar, ditto)

MAURITANIA - *Mauritanian Radio*, Nouakchott, sked:
0000-0630 on 4845 (Ramadan only); 0630-0800 on 4845; 0800-0900 on 4845 (not Fri), 9610 (Fri only); 0900-1200 Fri on 9610; 1200-1700 9610; 1700-2400 4845. (WBI 5/31)

MEXICO - *R. Educacion*, Mexico City, 6185, at 0601; upbeat National Anthem, instrumental music, very complete ID; tropical music, including some English; very good signals. (RMV/QLB/DXPL 5/25 via Mike Fern) [Normally 24H; probably the easiest Mexican to log and verify--mf]

MONACO - *Trans World Radio* has announced that it will begin Hebrew-language broadcasts to Israel, 30 minutes a day on shortwave from Monte Carlo. Fund-raising campaigns have started in several European countries including Holland. (Piet Meyers, RNMN 5/23 via Mike Fern)

TWR Monte Carlo, 9480; 0639 with IS; EE ID; Hour of Revival program. The IS uses the opening bars of the Monegasque NA, played on a music box. (QLB/DXPL 6/1 via Mike Fern)

MONGOLIA - *Ulan Bator*, 4850, *2100 w/IS, anthem, lcl ID in MONG, then regional songs. Now on air one hour earlier due summer time; audible till around 2200 f/o. No other 60 meter //s audible. (Bob Padula, Surrey Hills, Victoria, Australia) Ulan Bator English programs have followed this sked since 5/5: 0910-0940, 1200-1230(except Tu/Fr), on 11851 and 12015; 1445-1515 on 7261 and 13780; and 1940-2010 on 11791 and 11850. (Yoshinori Kato/RJDXC 6/16 via Mike Fern)

NAMIBIA - *Namibia BC Corp*, Windhoek, 3270, noted w/African folk and pop mx at 0410. (RMV/QLB/DXPL 6/15 via MF)

NETHERLANDS ANTILLES - Reception reports for Trans-World Radio Bonaire and Radio Nederland have been received in quantity at TWR's world headquarters in Cary, NC. This is the result of mixups in the address section of Passport to World Band Radio 1991. Radio Nederland is listed under Holland, without a cross-reference from Netherlands. RN's Bonaire relay is not listed under Netherlands Antilles. TWR Bonaire is listed under Netherlands Antilles but only with a cross reference to TWR HQ in North Carolina. Other TWR locations in Swaziland, Monaco and Guam are similarly cross-referenced. Reports for TWR Bonaire should be sent direct to the station at Bonaire, Neth. Antilles, Caribbean. No box or street address is required. (Chuck Roswell, Bonaire Wavelength 5/18 via Mike Fern)

The summer English-language schedule of TWR, Bonaire is 1100-1130 on 11815 and 15345; 0300-0430 on 9535 and 11930 kHz. (DXPL 5/25 via Mike Fern)

NIGER - *La Voix du Sahel*, Niamey, 5020, at 0528 in FF with man giving anmts, African folk music, TC on the half-hour, ID after TC as "Radio Sahel"; fair to good sigs. (QLB/DXPL 6/1 via Mike Fern)

NIGERIA - *R. Nigeria, Kaduna*; 9570, reactivated for bcsts in lcl languages, as well as EE. (WBI 5/17) Kaduna on 9570 super strong sig w/EE nx 0520, ID 0530, into EE rel feature. Fade out by 0800. Obviously using their 250 kw xmtr here. (Bob Padula, Surrey Hills, Victoria, Australia) Kaduna on 4770, at 0501 with excellent signals; nx in EE with lots of IDs in correspondents' dispatches. (RMV/QLB/DXPL 6/15 via Mike Fern)

Lagos, 7255, at 0629 with ID, fqy in EE; good sigs. (QLB/DXPL 6/1 via Mike Fern)

NETHERLANDS - *R. Nederland* - made some frequency adjustments on Sunday, June 9. In the 0730 English transmission for the Pacific, 11895 replaces 9715 kHz. (RNMN 5/30 via Mike Fern)

Attempts to get Fidonet's Shortwave Echo on a BBS in the Netherlands have run into a snag, because the Dutch telephone system is currently running at maximum capacity, and there is no room for any new traffic at the moment. (Andy Sennitt, RNMN 5/30 via Mike Fern) [Oh, irony. The Dutch PTT had the first two working vacuum-tube computers in the Netherlands in 1951-55. One machine was home-brewed with parts from a larger, permanent computer whose construction took two years. The big machine's intended tasks included the prediction of telephone usage, particularly long-distance traffic. Was more recent computer modeling overtaken by events in real time??--mf]

NEW ZEALAND - Listeners who have bought *Radio New Zealand International* T-shirts are invited to send photographs of themselves wearing the T-shirts to RNZI. RNZI will respond with

pictures of the RNZI staff and the transmitters [sic] at Rangataki. (Tom King, RNZI Mailbag 5/26, via Mike Fern)

The current RNZI Mailbag schedule is (every other) Monday at 0430, Thursday at 0830, and Friday at 1930 (new). (Tom King, RNZI Mailbag 5/26, via Mike Fern)

The YC program, which formerly carried concert music on mw, has moved to FM. Since the remaining programs (EZL, sports, jazz) do not produce enough commercial revenue, RNZI is taking them off the air. However, the stations will carry parliamentary broadcasts 0200-1030 Tu/Wed/Th UTC. The frequencies are 657, 882, 900 and 963 kHz. (AC on RNMN 6/6 via Mike Fern)

RNZI announced at 0458 6/4 that Radio New Zealand has budget cuts. Already 50 staff have been sacked. [Those are home-service jobs. RNZI itself has only 11 employees.--mf] (Tony Barrett, England, on RNMN 6/6 via Mike Fern)

OMAN - The correct address for the BBC Relay at Masirah is P.O. Box 6898, Ruwi, Sultanate of Oman, according to Paddy O'Reilly, Senior Transmitter Engineer. The box number in WRTH 91 is a typo. The station verifies reports with a full data QSL letter. Address reports to the transmitter manager. (Andy Sennitt on RNMN 6/20 via Mike Fern)

PAPUA NEW GUINEA - *R.North Solomons*, using a 10 kw xmtr at Rabaul, will resume its regular schedule June 4 on 3325 kHz. The rebuilt transmitter was under full-power test from 0730-1030 the week of May 19-26. (Gordon Darling on RNMN 5/30 via Mike Fern)
BBC MS lists the following stations in the Kundu Service (provincial stations). Programs are in English, Tok Pisin (aka Pidgin or Neo-Melanesian), Motu and local languages. Most stations broadcast 1900-2200 & 0700-1400 UTC.

R.Central, Port Moresby, 3290; R.East Highlands, Goroka, 3395; R.East New Britain, Rabaul, 3385; R.East Sepik, Wewak, 3335; R.Enga, Wabag, 2410; R.Gulf, Kerema, 3245; R.Madang, Madang, 3260; R.Manus, Lorengau, 3315; R.Milne Bay, Alotau, 3365; R.Morobe, Lae, 3220; R.New Ireland, Kavieng, 3905; R.Nurthern, Popondetta, 3345; R.No.Solomons, Kieta/Rabaul, 3325 (inactive); R.Simbu, Kundiawa, 3355; R.Southern Highlands, Mendi, 3275; R.Western, Daru, 3305; R.Western Highlands, Mount Hagen, 3375; R.West New Britain, Kimbe, 3235; R.West Sepik, Vanimo, 3205.

The Karai Service, from Port Moresby, is scheduled:
0000-0630 multilingual on 4890, 5965, 5985, 6040, 6080, 6140; 0630-1400 4890; 1915-2110 4890.

R.New Ireland, Kavieng, 3905 kHz, heard 0910-0940 6/6; fair, steadily improving signals; news in English, news in Pidgin, C&W and local choral music, two clear ID's. (Mike Fern--CA)

PERU - *R.La Hora* (Time Radio), Cuzco, on 4860, at 0023 with romantic music. (Daniel Camporini, Argentina, R.Panorama on DXPL 6/1 via Mike Fern) [WRTH 91 says mw sked 1000-0300 on 1400-mf]

R.Nuevo Mundo, Pucallpa, 4882, heard at 0138 with cumbia (tropical music), Latin American pops, and full ID. (Daniel Camporini, Argentina, Radio Panorama on DXPL 6/1 via Mike Fern)

R.Concordia, Arequipa, [freq not given; WRTH says 6140] at 0945 with local news, time check and ID. (Daniel Camporini, Argentina, Radio Panorama on DXPL 6/1 via Mike Fern)

R.Estacion Tarapoto, Tarapoto, 5016, heard at 1125 with news of Departamento San Martin, target of several guerrilla attacks in mid-May. March music, time check and ID; good signals in Quito. (RMV/QLB/DXPL 5/18, via Mike Fern)

R.Imagen, also Tarapoto, on 4970, heard in Quito mornings with very good signals; at 1130 with full ID, news, titled "El Diario de Imagen." (RMV/QLB/DXPL 5/18 via Mike Fern)

And from 2232 with rock plus music in EE and a TC. (KMH/QLB/DXPL 5/25 via Mike Fern)

R.Melodia, Arequipa, on 5996 at 0615; normally 24H; with ballads and taped IDs. (RMV/QLB/DXPL 5/25 via Mike Fern)

PHILIPPINES - *FEBC*, 9780; new freq for INDO *2230-2300*, ex 9710; good level 5/31. Also opening 15480, NF for English at 0000, for Burma. 6/2 (Bob Padula, Surrey Hills, Victoria, Australia)

FEBC, Manila, EE 0900-1100 to ANZ on 9800 and 11685 NF; vg in NZL 0900. (AC on RNZI 5/26 via Mike Fern) In English from 0000-0230 on 15480 kHz; English to Asia 1300-1600 on 11685 kHz. (AC on RNMN 6/6 via Mike Fern) *FEBC*, possibly at Baco, Mindoro, on 3330 kHz at 1055 with religious program and relay of *FEBC* Manila at 1100. (David Foster, Australia, in OZ-DX via DXPL 5/25 via Mike Fern) *FEBC* Manila does not seem to have been affected by the eruption or by power outages. (Victor Goonetilleke on RNMN 6/20 via Mike Fern)

VOA transmitter sites in the Philippines were hit over the weekend 6/14 to 6/17 by ash from Mt. Pinatubo as well as rain and wind. VOA lost its satellite feed which ran through Clark Air Force Base, which was abandoned as the eruption built up. VOA used telephone lines for several days, then hired a Philippine firm to put up a temporary satellite dish at its big transmitter site at Tinang. The dish is now operating with two studio-quality feeds to the Philippines. Telephone

backup circuits are serving the other VOA site at Poro. Almost all scheduled broadcasts are on the air. Tinang was off for two 12-hour periods at the weekend when it lost commercial power. VOA does have generators at Tinang, but not enough for all 12 x 250 kw. transmitters. The generators were full of ash, and would have sucked ash into the cylinders once started, which would have torn the engines apart in seconds. The emergency gave VOA the opportunity to put in an independent direct satellite receiver at the site, which has been needed all along. (Bill Whitacre, VOA, on RNMN 6/16 via Mike Fern)

R. Veritas Asia has been having serious problems with its (commercial?) power supply. The station announced 6/14 that one 250 kw transmitter was silent. Any language which is scheduled in the morning and the evening Asian time has been cut back to one transmission a day. *R. Veritas* has a five-minute English newscast at 1530 in its Tagalog program 1505-1545 on 15140 kHz. for Filipinos in the Middle East. (Victor Goonetilleke on RNMN 6/20 via Mike Fern)

ROMANIA - *R. Romania Intl* at 1736 in EE on 17825, apparent NF, news by woman; ID 1745; QRM from 17820 kHz on 5/16. Best Romania heard in Gresham in a long time. (Bruce MacGibbon/RJDXC 5/26 via Mike Fern)

RWANDA - *R. Rwanda*, Kigali, hrd in Australia on 3330 at 2040 with English pop music and announcements in ?Swahili. (Steve Perkins, OZ-DX, on DXPL 5/25 via Mike Fern)

Excerpt from report on *R. Rwanda*, in FF, 5/19: Officials of the so-called Rwandan Patriotic Front [RPF], in their latest strategy, would like to spread [information] everywhere in western countries that our country is not respecting the cease-fire agreement. Various sources inform us, in fact, that the RPF recently acquired a mobile radio station meant to broadcast propaganda towards Rwanda and foreign countries ... (WBI 5/24)

SEYCHELLES - *FEBA*, 11820, *0315, co-channel interference from BBC and Radio Habana Cuba. Also on 15200 with IS and opening at 0258. (AC on DXPL 6/15 via Mike Fern)

SOUTH AFRICA - Fanus Venter, head of *Radio RSA* announced at the EDXC conference that he is leaving the external service direct a new journalistic service of RSA that will provide facilities to overseas radio and TV stations. He said *Radio RSA* is looking at adding programs in Arabic. In April *Radio RSA* added about nine hours' transmission time in English, French and Portuguese, and increased coverage in black languages.

Connie (Coetzer) of *Radio RSA Engineering* said the stn has idle xmtrs which it would be willing to rent to any interested shortwave broadcaster. (Jeff White and friends on RNMN 5/23 via Mike Fern)

SOMALIA - *R. Somalia*, Hargeisa, added an additional xmsn on 7121.9 kHz at 1000-1230. (WBI 5/24)

SPAIN - *R. Nacional Espana*, in Spanish to Eur: 0500-0700 on 7105, 11920 (fm 0600), 12035 0700-0900 on 11790, 11920, 15395; 0900-1000 on 11790, 11920, 15395 (also to ME/Afr); 1000-1400 on 11790, 11920, 12035, 15240, 15395, 1500-1600 on 11790, 11920, 12035, 15240, 15395, 17890, 21475; 12035, 15240, 15395; 1500-1600 on 11790, 11920, 12035, 15240, 15395, 17890, 21475; 1600-1700 on 9685, 11920, 15240, 17890; 1700-1715 on 9685, 11920, 15240; 1715-1730 on 9685, 11920; 1730-1800 on 9620, 9685, 11920; 1800-1900 on 9620, 9685, 11920, 21475; 1900-2000 on 7105, 9620, 11920, 21475; 2000-2145 on 7105, 9620, 11920. (WBI 5/31)

RNE in SS & LA langs to LA: 0000-0200 on 11815, 15365, 17715, 21495; 0200-0500 on 9360, 11815, 11880, 15365; 0900-1900 on 17815 (Su), 21555, 21570; 1930-2245 on 15110, 17845, 17870; 2245-2330 on 15110; 2200-2300 on 11815; 2300-2400 on 11815, 15365, 17715, 21495. (WBI 5/31)

RNE in other languages: 0000-0100 EE to Am on 9630, 11880; 0100-0200 EE to Am on 9630, 11880; 0200-0215 Fri in Ladino to Am on 17715; 0415-0430 Fri in Ladino to Am on 9690; 0455-0552 EE to Am on 9630; 0500-0700 SS to ME/ANZ on 9650, 11730, 21595; 1000-1100 SS to Asia on 9620 via China; 1100-1200 SS to Asia on 11910 via China; 1200-1300 SS to Asia on 9620 via China; 1300-1400 SS to Asia on 11910 via China; 1600-1800 SS to Af on 21475 (for Equatorial Guinea); 1700-1730 Mo-Fr in RR to Eur on 9875, 11790, 12035; 1700-1900 AA to ME on 11890, 15395; 1730-1800 Mo-Fr G to Eur on 9875, 11790, 12035; 1800-1830 Tue in Ladino to ME on 12035; 1800-1900 FF to Eur on 9875, 11790; 1900-2000 EE to Eu/ME/Afr on 9875, 11790, 15375, 15395; 2000-2100 FF to Eur/Afr on 9875, 15375; 2015-2215 AA to ME on 6130, 9580, 11790; 2100-2200 EE to Eur on 9875; 2300-2400 FF to Americas on 9630. (WBI 5/31)

SRI LANKA - *SLBC* home service, commercial, heard at 1245 on 4940 with news. (Leigh Morris, Australia, via AC on RNZI 5/26 via Mike Fern)

SURINAM - *R. Surinam Intl*, via Radio Bras, Brasilia, at 1730 on 17750; EE news 1725-1742; closing annts in Dutch. (AC on RNZI 5/26 via Mike Fern) [WRTH 91 says 17755 kHz.-- mf]

SWAZILAND - *TWR*, 11740, s/on w/EE ID 0530, rel tlk; 5/8. (Bruce MacGibbon/RJDXC 5/26 via Mike Fern) *TWR*, Manzini, 4760, hrd in Australia at 1700 with English hymns, talk in ?Shona; fair signals. (Leigh Morris in OZ-DX on DXPL 5/25 via Mike Fern)

TUNIS - *RTV Tunisienne*, 21535 NF, hrd s/on 0800; continues until 1600 s/off, // 17500 NF. (Craig Tyson in OZ-DX on DXPL 5/25 via Mike Fern)

TAIWAN - The *Voice of Free Asia* has changed part of its schedule. Its programs are produced by the Taiwan Central B/c System and Radio Korea. The Chinese and Korean programs produced by R. Korea are broadcast from Taiwan, and the Chinese programs produced by CBS are broadcast by R. Korea. (The tape swap helps overcome propagation difficulties.) The Taiwan schedule was found to be as follows in early May: Korean 1530-1615; Chinese, 1615-1630 on 11905. Opening and closing announcements mentioning the Voice of Free Asia have been dropped; Radio Korea is mentioned frequently now. The Voice of Free Asia's Chinese broadcast, produced by CBS and transmitted by Radio Korea, are unchanged, from 1500-1600 on 5975 kHz. (Tooru Yamashita, RJDXC 5/26 via Mike Fern)

UNITED ARAB EMIRATES - *UAE Radio*, Abu Dhabi, has resumed its English programs at 2200-2400 on 15305, 15605 and 17855. (Bill Matthews, R.Korea SW Feedback 5/26, via Mike Fern) *UAE Radio*, Abu Dhabi, sked: English to NA 0200-0400 on 13605, 15305, 17855. Arabic to NA 0400-0600 on 13605, 15305, 17855; to NA 0600-0800 on 17855, 21515; to Europe 1000-1600 on 17855, 21515, 21735, 25690; 1600-1800 on 17855, 21735; 1800-2300 on 11980, 17855; 2300-0135 on 11980, 13605; to ANZ/Far East 0800-1000 on 17855, 21735. (via Gordon Darling)

UNITED KINGDOM - *BFBS* halted sw bcsts to the Gulf in February. It is still operating three FM outlets in the Middle East, in Saudi Arabia at Riyadh and Al-Jubail, and in Kuwait. A fourth transmitter may be installed to serve British troops in the Kurdish part of Iraq. Money is available to operate through Dec. 31. The shortwave broadcasts brought BFBS "an unbelievable response", according to BFBS Manager Richard Asprey. Mail came from Argentina, Ecuador, Siberia, New Zealand, Japan, Hong Kong, Sweden, Denmark Italy, Spain. "You would not believe the amount of mail we got. We had to ask for a special budget for posting, although a lot of (the listeners) were very good in sending us (IRCs). The telephone was going constantly" with press inquiries. "I suppose you [he means JM] could say that BFBS had a pretty good Gulf war." (RNMN 5/30 via Mike Fern)

The *BBC* has been testing a new approach to saving power and boosting signal quality. Carrier power is boosted during quiet passages to improve signal-to-noise ratio, and dropped during periods of peak modulation (because the automatic gain control in the user's receiver will try to compensate for the greater audio signal anyway). Tests were first run on mw, then at the Daventry shortwave transmitting site early in 1991. The power savings are close to those realized with the opposite system, which cuts the carrier during weak passages and raises the carrier during loud passages. The system can be used with current Marconi swbc transmitters. (Trevor Brooke, Surrey Electronics, on RNMN 5/30 via Mike Fern)

USA - Senator Joseph Biden has introduced a bill to study the need for a Radio Marti-style broadcast service to the People's Republic of China. The bill would set up a commission to make a feasibility study. His plan will also be studied by the same eleven-member panel formed to review the operations of VOA, and Radio Free Europe/Radio Liberty. The panel's recommendations on consolidating (or not consolidating) VOA and RFE/RL are due about Oct. 15. (RNMN 5/23 via Mike Fern)

A mystery station on 9815 from 2045-2100 s/off; carried an old program from KSAN San Francisco. Transmission was AM, so IRRS Milano, which uses USB with partial carrier, was ruled out. Possibly KJES, New Mexico? (L. Bottofiore, Rapallo, Italy, In Play-DX on DXPL 6/1 via Mike Fern)

USSR - *R. Tikhyy Okean* (R. Pacific Ocean, for mariners) s/on 0815 on 15425 in RR // 17605, 15180, 13605, 12070, 12050, 11915, 11815 and 4485, 5/8. (Bruce MacGibbon/RJDXC 5/26 via Mike Fern)

- *Radio Station Peace & Progress* is no more. It suddenly announced that it would go off the air around 1200 5/31. BBCM monitored a farewell broadcast to Africa in which the announcers said goodbye. There was no 2200 broadcast in English to Europe. Former employees won't discuss exactly what happened; RNMN is still trying. (JM on RNMN 6/6 via Mike Fern)

- *Radio Peace & Progress* announced the end of its Hebrew language broadcasts to Israël 5/20 & stated that from 6/1 R.Moscow would carry Hebrew broadcasts to Israel. (WBI 5/24)

- Summary of "DX Club" report on R.Moscow 5/19: The local Mari bc stn at Yoshkar la is on 6125 at 0300-0600. R.Ufa is on 4485. R.Kazan can be heard via the Samara xmtr on 6115 & via Perm on 7285; the Moscow xmtr relays R.Kazan on 11945 in the morning and afternoon,

and on 17890 during the evening. Evening xmsns, from RM xmtrs, of R.Armenia will be on 15100 instead of 15110. Transmission of Uzbek Radio, from Moscow xmtrs has moved from 5945 to 5900 kHz. (WBI 5/24)

- *R.Moscow* carried an ad 5/16, selling ads on R.Tashkent. Contact Radio Tashkent, 49 Khorezm Street, GFP, Tashkent 700 000. Telephone 331 098 399 682 390 661. Teletype 116062 Efir. (WBI 5/24)

- From 'Pravda' 5/21, report from Volgograd: In October 1990 Larisa Ulyanenko, the USSR State Committee for Television and Radio Broadcasting's own correspondent for Volgograd and Astrakhan Oblasts, raised in our newspaper the problem that powerful transmitters once used to jam foreign radio voices were standing idle.

After brief discussions, enterprising people - V. Lavrov, chief of the oblast communications administration, and A. Yermakov, chairman of the oblast journalist's organization - set up the Radiostantsiya Vedo joint venture. As of today (presumably 5/20) starting at 1900 Moscow time (1600 gmt) you can hear Larisa and her colleagues (incidentally, Andrey Bogdanov has worked at a US radio commercial radio station) for 20 hours a day between 21.8 and 25.5 metres shortwave (13760 and 11765 kHz). Those who had previously been the targets of the local jammers - Deutsche Welle and Voice of America - have expressed willingness to cooperate with the new commercial radio station. Radio Vedo and Larisa guarantee to provide music, advertising, independent news and comment, and replies to listeners' topical questions (several thousand letters had already arrived by broadcasting day). (WBI 5/24)

- Wisconsin broadcast entrepreneur Ben Dowd says his company, Video Communications and Radio Inc., will hire shortwave transmission time from Gosteleradio on July 1. More details to follow. (JM on RNMN 6/6 via Mike Fern)

- *R.Minsk*, is on sw to Eur in Belorussian 1830-1900 Mo/Tu/Th/Fr, and in German 1830-1900 Su/We/Sa on 7330, 9600, 11860, 11960; in Belorussian at 2130-2200 to Eur on 6185, 7205, 7300, to the Americas at 2330-2400 on 11790, 13645, 15180, 15455, 15485. (WBI 5/24)

- **TATAR RADIO**, Kazan: all in Tatar/Russian: 0200-0330 on 6120; 0330-1600 on 6120, 11945; 1600-1900 on 6120, 17890. Tatar Radio is also reportedly relayed via a transmitter in Perm Oblast on 7185 or 7285 kHz (day) and 15200 kHz (evening). (WBI 5/31)

- **ARMENIAN SSR** - *R.Yerevan*, has been broadcasting part of its Overseas Service on 4810, normally a HS fax, since April. These transmissions are: to the Middle East, at 1530; to Europe, at 2100. Both programs are // 6065, 12065 and 15180 kHz. (Yoshinori Kato/RJDXC 5/26 via Mike Fern)

- **KAZAKHISTAN** - *R.Alma Ata's* new daily external service in English at 2130-2200 appears to be carried within Kazakh Radio's Second Program - "Shalkar". So far it's been noted on 17730, 17715, 17605, 15385, 15315, 15215, 9505, 5970, 5960, 5260, 5035, 4400 & 3955 kHz. At 2200 the frequencies revert to Shalkar programming in Kazakh. (WBI 5/17)

R.Alma Ata 9690 kHz, relay Domestic Svc Net 2, for Moscow region; regional songs, Kazakh annts 0140-0200. Clear till 0200, when terrible mess w/co-channel Deutsche Welle & Beijing (via Spain). Different program from that on 9780 at same time, also in Kazakh. 6/2. (Bob Padula, Surrey Hills, Victoria, Australia) Alma Ata in EE on 5915 at 1630; news at 1633, feature about Kazakhstan at 1640. (David Foster, Australia, in OZ-DX on DXPL 5/25 via Mike Fern)

- **RUSSIA** - *R.Rosii* expects to have its own 24-hour network operating some time this summer, according to its director, Sergei Davydov. In an interview with the Union Edition of Izvestia 4/12 he said in part: "In the summer Radio Rosii is to get its own channel of 24-hour b/c throughout the country, as Mayak [the no. 3 USSR network] has. The problem is one of 'getting access to the button', as we say---to the transmission network, which is difficult today." (FBIS-SOV-91-076, 19 Apr 91, via Mike Fern).

Moscow rly of *R.Ashkhabad* (Turkmenia) heard in Australia on 17635 at 1825 with Turkmen mx // Ashkhabad HS, 4825; 16m clear after 1830. (David Foster in OZ-DX on DXPL 5/25 via Mike Fern)

- Richard Measham of WBI says a new Soviet commercial shortwave station has started up, but it hasn't been traced. It's in the city of Volgograd, and takes its name, Radio VeDon, from the Volga and Don rivers which are linked by a canal there. It transmits 20 hours a day and apparently makes use of idle shortwave jamming transmitters. (Pravda) reported the station was broadcasting between 13760 and 11765 kHz, which is helpful. (RNMN 6/6 via Mike Fern)

- **UKRAINIAN SSR** - *R.Kiev* sked: To the Americas in Ukrainian at 2200-2300 and 0300-0330 on 11790, 13645, 15180, 15455, 15485; 0000-0100 EE & 0200-0230 Ukrainian on 11790, 13645, 15180, 15455, 15485, 15525. To Europe in Moldavian at 1700-1730 & 2100-2130 on 657, 891, 1467, 13795; in German at 1700-1800 on 5960, 7330, 9600, 15350, 2000-2100 on 5960, 9865; English at 2100-2200 on 5960, 9865; Ukrainian at 1800-1830 on 5960, 7330, 9600, 1900-2000 on 5960, 7330, 9865, 2200-2330 on 5960, 9865. (WBI 5/24)

VATICAN - *Vatican Radio* on 11625 NF ex 11620 at 0453-0459; M&W in French; IS & Afr svc in EE 0500 // 17730 on 5/14; heard later at 0629 on 11625 NF ex 11620; IS followed by drums at 0630 in English; 0630 very poor due to static. (Bruce MacGibbon/RJDXC 5/26 via Mike Fern)

Vatican Radio expanded Asian svcs in early April. Monitoring in April and May confirmed this schedule: 1230-1455 on 15090 and 17880: Chinese 1230-1310, Japanese 1315-1340, English 1345-1410, Viet 1415-1455. At 2130-2355 on 11830 and 15105: Japanese 2130-2155, Chinese 2200-2245, English 2245-2310, Viet 2315-2355. (Yoshiaki Hayashi/RJDXC 6/2 via Mike Fern)

VENEZUELA - *R.Mil Cuarenta*, 6011, Merida, relaying 1040 mw, 0611 with ID "El Madrugada MilCuarenta" (1040 at dawn) and disco music. (RMV/QLB/DXPL 5/25 via Mike Fern)

R.Frontera, San Antonio, reactivated on 4761, heard in Spain 2330-2345. (M. Molano, Madrid, Spain, in Play-DX on DXPL 6/1 via Mike Fern) (WRTH lists a mw outlet on 730 with 10 kw., but no sked--mf)

R.Nacional de Venez., Int'l Svc has regular bcsts in EE, FF and Creole; plans to add Italian, GG, PP & AA. One hour bcsts sked on 9540 at 1100, 1400, 1800, 2100, 0000 and 0400. EE news at H+40 lasts 10 or 15 minutes; then FF. Sundays H+40 to signoff is in (Haitian) Creole. Marty Delfin, producer of the EE pgms, is from Texas. SW xmtr is 10 kW. Only one of the two 500 kW MW units on 1240 is working. Operation at full power would cause co-channel interference to stations in Haiti and the Dominican Republic, etc. The head of Radio Nacional and a former head of the Central Information Office (parent of Radio Nacional) believe shortwave would have more bang for the buck. Reception reports on 9540 are wanted, to: International Service, Radio Nacional de Venezuela, Casilla 3979, Caracas 1050 [as heard], Venezuela. (Jeff White and friends, RNMN 6/6, via Mike Fern)

VIETNAM - *R.Lai Chau* was heard in Japan from 1200-1330 on new 6430. Local languages were used 1200-1300, Vietnamese 1300-1330. Lai Chao had not been heard on its old frequency of 6376 since early March. (Isao Uguza, RJDXC 5/19, via Mike Fern)

PUBLICATIONS The 19th edition of the *Tropical Bands Survey*, from the Danish Shortwave Clubs International, is available from the Ontario DX Association for \$8 Canadian, plus shipping. Write ODXA, Box 161, Station A, Willowdale, Ontario M2N 5S8, Canada.

SOLAR ACTIVITY In case you missed WWV 0000-0600 June 6, the Boulder A Index 6/5 was nearly 60 per cent of the Solar Flux (151 vs 252). At 0245 6/6 both WWV and WWVH on 15 MHz were wiped out at my QTH. (Mike Fern--CA)

The following comments on the activity from region 6659, which produced the widely observed HF disturbances during the first part of June, are extracted from a report by Cary Oler on Usenet:

The intensity of the solar flaring as was observed from Region 6659 is only rarely seen. Great Flares (as they are called) have saturated the GOES x-ray sensors before (for example, during the flare storm period of March 1989). However, never before in this solar cycle have the GOES x-ray sensors been saturated so many times in such a short period of time. Even the region which spawned the large flares in 1989 could not match the stability and power unleashed by Region 6659.

A severe geomagnetic storm was observed on 05 June. The activity began on 04 June at approximately 16:00 UT. Minor storming was observed until near 06:00 UT on 05 June, when major to severe geomagnetic storming began to be observed over all latitudes. This event produced planetary magnetic A-indices higher than anything observed since the very severe geomagnetic storm of March 1989. The planetary A-index for 05 June was 150 (compared to 246 for 13 March 1989). K-indices between 6 and 9 were consistently observed throughout the UT day of 05 June. Minor to major geomagnetic storming was the dominant feature over the last two weeks. Minor to severe storming occurred from 04 to 07 June, 09 to 13 June, and the last minor geomagnetic storm was observed on 17 June. Conditions since then have been generally unsettled to active.

CREDITS: *AC* - Arthur Cushen; *DXPL* - DX Party Line on HCJB; *JM* - Jonathan Marks; *MF* - Mike Fern, Covine, CA; *QLB* - Quito Log Book by Rich McVicar & Ken MacHarg on DXPL (HCJB); *RJDXC* - R. Japan DX Corner; *RNMN* - Radio Nederland Media Network; *SCDX* - Sweden Calling DXers. *WBI* - World Broadcasting Information (copyright BBC Monitoring Service - may not be reproduced absent permission of BBCMS)

Your help in providing information to the NASWA membership through LN is appreciated, and there are several ways I can receive mail. Material for LN may be submitted either on paper or as an MS-DOS text file on any size MS-DOS diskette to the masthead address; or by EMAIL on CompuServe (ID 76702,771), or through the gateways to CompuServe from Internet and MCI Mail. Prodigy mail address is JDBM33A. GENie mail address is D.FERGUSON14. I check CompuServe daily, the SWL Echo & Prodigy almost daily, & GENie less often. ... Any opinions I may express here are mine, not those of VOA, where I work, but which I here in no way represent. (df)

QSL Reports



Sam Barto
47 Prospect Place
Bristol, CT 06010



- ABU DHABI: UAE Radio** 1785 f/d ltr. in 46 ds. w/ schedule. v/s Ahmed A. Saouly, Director. My 200th station QSLed. (Turnick-PA).
- ADMIRALTY ISLANDS: Radio Manus** 3315 f/d cd. in 35 ds. for \$1.00. v/s Eliun Sereman, Acting Station Manager. (Lawrence-CA). f/d cd. in 96 ds. for postcard. (Blumstein).
- ALASKA: NELS** 7365 f/d "Map" cd. w/ ltr. in 3 wks. v/s Beverly Jones. (Howard-CA). 11880 f/d cd. in 28 ds. for ms. Pennant rcvd. (Doyle-AR). cd. in 37 ds. (Blumstein).
- ANTIGUA: Deutsche Welle** 6040 cd. w/ site in 35 ds. (Turnick). f/d "Unified" cd. in 67 ds. (Fanderys-OH). 9545 f/d cd. w/ schedule and booklet in 49 ds. (Name?) f/d cd. in 150 ds. v/s * Peter Senger. (Nibecker). **HBC Action Radio** 17760 "Special 50th Anniversary" cd. of the GM program in 3 mo. Also rcvd. special sticker, calendar and pen. (Kusalik-ALB).
- ARGENTINA: RAE** 11710 f/d cd. in 76 ds. for 1 IRC. v/s Marcela G.R. Campos, Directora and Silvana Licciardi. (Doyle-AR).
- ASIATIC RUSSIA: Radio Moscow** 17700 via **Khabarovsk** f/d cd. w/ pennant in 55 ds. for \$1.00. (Doyle). 9795 via **Vladivostok** f/d cd. in 4 mo. (Palmerheim-WA). 21690 f/d cd. in 1 mo. (Turnick). 17590 via **Kenga** f/d cd. w/ schedule and sticker in 30 ds. (Turnick-PA).
- AUSTRALIA: Royal Australian Naval Communications Time Station** 12984 p/d cd. w/ f/d prepared cd. in 3½ mo. for ms. (Krepp). **VLM4** 4920 via **Brisbane** f/d cd. in 24 ds. for 3 IRCs. (Doyle). **Radio Australia** 17630 via **Carnavan** f/d ltr. in 23 ds. for \$1.00. (Wallace-CT). 13605 f/d ltr. w/ schedule in 1 mo. (Grenier-NV). 11930 f/d ltr. in 2 mo. (Boulden). 11800 f/d ltr. in 42 ds. (Blumstein). 21775 f/d ltr. w/ cd. and schedule in 83 ds. (Mayberry-TX).
- AUSTRIA: Radio Austria International** 9870 f/d ltr. in 3 mo. (Boulden). 13730 f/d ltr. in 76 ds. w/ schedule. (Blumstein).
- AZERBAIJAN: Radio Baku** 4785 f/d paper cd. in 168 ds. w/ 2 postcards. (MacHarg).
- BELGIUM: BRT** 13720 f/d "Art" cd. in 1½ mo. (Millard-TX). 13675 f/d cd. in 65 ds. w/ schedule and reception report forms. (Mayberry-TX).
- BENIN: Radio Parakou** 5025 n/d short personal ltr. in 49 ds. for a FR rpt. and \$1.00. v/s J. da Matha, Le Chef de la Station. (D'Angelo-PA).
- BONAIRES: Trans World Radio** 9535 f/d "Market" cd. in 1 mo. for 3 IRCs. Rcvd. a very nice package of goodies from Mr. and Mrs. Roswell. (Comau-MA). same cd. in 5 wks.
- BOTSWANA: Radio Botswana** 4820 f/d cd. in 104 ds. for \$1.00. (Doyle). f/d (Boulden-CA). "Herdeboy" cd. in 192 ds. for \$1.00. (Fanderys). 7255 f/d cd. in 83 ds. (Blumstein).
- BRAZIL: Radio Aparecida** 6135 f/d cd. in 209 ds. for a PT rpt. v/s Cassiand Macedo. (Yamada-JPN). **Radio Record** 9505 p/d cd. in Pt in 12 wks. for a PT rpt., cassette and \$1.00 v/s Mario Luiz Catto. (Lobdell-MA). **Radio Brasil Tropical** 5015 f/d prepared cd. w/ postcard in 64 ds. for a PT rpt. and \$1.00. v/s Klecius Santos. Sticker rcvd. (Turnick-PA).
- BULGARIA: Radio Sofia** 11765 f/d cd. w/ pennant in 96 ds. (Doyle-AR). 9700 f/d cd. in 71 ds. w/ personal ltr., sticker, pennant and schedule. (Mayberry-TX).
- BYELORUSSIA: Radio Minsk** 6080 f/d cd. in 102 ds. (Blumstein).
- CANADA: CHU** 3330 p/d cd. in 9 wks. for \$1.00. (Wallace-CT). same in 35 ds. for 1 IRC. (Doyle-AR). 7335 f/d cd. in 41 ds. (Blumstein). **CFPX** 6070 f/d cd. w/ schedule in 127 ds. (Mayberry-TX).
- * **Association for International Cultural Exchange** 9755 via **RCI** special "Leningrad" cd. in 1 mo. w/ promo materials. (Kusalik-ALB).
- CZECHOSLOVAKIA: MRI Gorontalo** 3264.7 f/d personal ltr. in 35 ds. for an IN rpt. and 3 f/up rpt. in IN. v/s Saleh S. Thalib. (Palmerheim-WA).
- CHINA, PEOPLES REP OF: Qinghai PBS** 3950 f/d "Red Horse Ornament" cd. via Beijing in 64 ds. v/s Zhang Yanling. (Kusalik-ALB).

QSL ~ CONFIRMATION OF RECEPTION

IRELAND NORTH

91

1991 RELAY SERVICE

SIGNED BY ENGINEER

AGBC RADIO THE RELAY SERVICE



CHINA, PEOPLES REP. OF: Guizhou PBS 7271 f/d "Red Horse" cd. in 64 ds. via Beijing. (Kusalik-ALB).
Xinjiang PBS 5800 same cd. via Beijing in 64 ds. (Kusalik).
Guangxi PBS 5049.8 f/d "Silk Figurine" cd. in 64 ds. (Kusalik).
Radio Beijing 7405 f/d cd. w/ their "last silk pennant" in 16 ds. (Doyle-AR).
Hubei PBS 3940 p/d cd. in 39 ds. (Lawrence-CA).
Voice of Jining 4875 f/d cd. in 82 ds. (Lawrence). f/d cd. w/ schedule in 16 mo. (Terrance-NY).

CLANDESTINE: Voice of the Khmer 6325 p/d folding cd. in 90 ds. (D'Angelo-PA).
Radio June the 4th 11905 f/d ltr. in 40 ds. after an initial rpt. for a tape of their transmission. Sent \$1.00 w/ rpt. v/s Sanyuan Li, Director. (Kusalik-ALB).

VERIFICATION OF RECEPTION

This is hereby to verify that
Mr. Richard A. D'Angelo
 has correctly monitored the signals of
 The Central Broadcasting System of
 The Republic of China
 at Vyoslatang, U.S.A.
 on 6087 KHZ
 from 1150 to 1220 UTC
 on December 3, 1990

VERIFICATION SIGNERS/ADDRESSES: Radio Bangladesh Mohammed Abdur Rashid, Senior Engineer and M.A. Hoquebhuiya, Station Engineer. RTHF Radio 4 International 9925 Andre Moens, Chief of the Centre. Radiodifusora Caceres 5055 Senora Maridalva Amaral Vignardi..... C.P. 297, Caceres 78700. Radio Progreso 4945 Bairro Nacional, C.P. 005, 78900 Porto Velho, Roraima. Voice of Free Sahara 9640 (RTVA) B.P. 10, El Mouraida, Algiers. Movimiento Misionario Mundial 5055 (TIFC) P.O. Box 620 485, Orlando, FL 32862. v/s Lim Ortiz. Misionera Gran Colombia 4911 Cesar Farah, Licenciando-Director General. La Voz de los Caras 4795 Eduardo Rodrigues Coll, Director de Programacion. Radio Marconi International 11390 Manila Candelli. Voice of the Mediterranean 11925 Richard Vella Laurent, P.O. Box 143, La Valletta. Radio Brnlace 9855 (Radio Nederland) Alfonso Montealegre, Speaker. PRON Lagos 4990 Babatunde Olalekan Raji, Monitoring Unit. Radio Tacna 6570 Alfonso Caceres I.....Casilla 370, Tacna.....via PLAY/DX....Sam.

CLANDESTINE: La Voix du Sahara Libre 15215 via RTVA f/d cd. in 2 mo. for a SP/FR rpt. * Addr: B.P. 10, El Mouradia, Algiers, Algeria. (Field-MI).

COLOMBIA: HJOR Caracol Colombia n/d cd. in 67 ds. for a SP rpt. (Blumstein).
COSTA RICA: Radio For Peace International 13630 f/d cd. in 67 ds. (Mayberry-TX). f/d cd. in 46 ds. (Blumstein). Radio Lira-AMR 9725 f/d cd. w/ sticker in 66 ds. for \$1.00. v/s David Gregory. (Nibecker-MEX). 2 different cds. in 112 and 132 ds. each w/ different C.R. "Coat of Arms". (Blumstein). f/d cd. w/ schedule and calendar in 1 mo. for local postcards. (Grenier-NV). Pete says that this station is offering a set of seven * different Coat of Arms QSL cards. United Nations Radio 7375 via RFPPI f/d cd. in 72 ds. for a rpt. to NYC. (Blumstein). Radio Neloj 6006 f/d cd. in 21 ds. for \$1.00. (Blumstein).
CUBA: Radio Moscow 9720 via Habana f/d "Moscow River" cd. in 3 mo. (Field-MI). stein).
CZECHOSLOVAKIA: Radio Praha International 5930 and 7345 f/d cd. in 47 ds. (Doyle-AR). f/d cd. in 7 wks. (Boulden). 6055 and 7345 f/d "National Theatre" cd. w/ schedule, sticker, and calendar in 25 ds. (Dieterich-GER).

DENMARK: Radio Denmark 15165 rcvd. form ltr. explaining their non-QSL policy and their Danish program schedule in 15 ds. (Mayberry-TX).

DUBAI: URE Radio 13675 f/d "Globe" cd. in 3 mo. (Palmerheim-WA). same cd. in 54 ds. for \$1.00. (Barr-IL). same in 46 ds. w/ pennant. (MacHarg-ECU). (Palmerheim-WA).

DOMINICAN REP: HICV Radio Barahona p/d ltr. in 2 mo. for a SP rpt. v/s Ing. Roberto Lama.

ECUADOR: Radio Zaracay 3395 p/d ltr. w/ station pennant in 30 ds. for a SP rpt. and ms. (Turnick-PA). HICJB 9745 "Special DX Party Line 30th Anniversary" cd. (MacHarg). HCPV6 Radio Centro 3289.9 f/d prepared cd. w/ personal ltr. and stickers in 32 ds. for a SP rpt. and ms. v/s Luis A. Gamboa T., Director. (Palmerheim-WA). Radio Federacion de Centros Shuar-Achuar 4975 p/d personal ltr. in 58 ds. for a SP rpt. v/s Professor Albino M. Utilitaj, Director. (MacHarg). HD210A 3810 f/d cd. w/ ltr., brochure, sticker and pennant in 87 ds. for a SP rpt. (MacHarg). 7600 same in 128 ds. for a SP rpt. (Blumstein).

ENGLAND: British Forces Broadcasting Service 17695 p/d "Mideast Map" cd. in 3 wks. for 3 IRCs. v/s Richard Astbury, Station Manager. (Comeau-MA). VOA Woolferton 6140 f/d cd. in 14 ds. (Blumstein).

ESTONIA: Radio Tallinn 5925 f/d cd. w/ schedule in 4 * mo. VIC #200!!! (Allen-OK)....Great!



VERIFICATION OF RECEPTION

This is hereby to verify that
Mr. Jerry Blumck
 has correctly monitored the signals of
 The Central Broadcasting System of
 The Republic of China
 at Vent Sona, E. T. U.S.A.
 on 7103 KHZ
 from 0955 to 1005 UTC
 on December 25, 1990

NOTES: Roland Dieterich from Germany reports that he is 23 years old and a computer student at Koblenz University. He uses a Sony ICF 2001D as his receiver. His primary interest is in program content. Louis Pennisi, a new contributor and member, is concentrating his efforts on QSLing the US shortwave stations till he gets the hang of it. Keep the reports coming in. Gerry Bishop reports that DXing in a foxhole is not all its cracked up to be. HI! Lots of line noise from the planes...Gerry, ever try DXing in a one-man tent with snakes, foot-long centipedes and mosquitoes big enough they can pick up your radio?...Sam. Ron Howard sent along a very nice photo of himself in the Radio RICA T-Shirt. Thanks Ron...Sam. Don Howser is looking around in the hopes of building a permanent DX shack with antennas. Sounds like a great idea. Too bad property is so expensive here in Connecticut...Sam.

EUROPIRATES: Radio Tower 15050 f/d cd. w/ ltr. and questionnaire in 6 wks. for \$1.00. v/s Peter de Jung.(Lobdell-MA)...Holland site. Live Wire Radio 15050 f/d cd. in 15 ds. for ms. v/s Bill Lewis.(Turnick-PA)...England site. Radio Delta 6200 f/d cd. in 22 ds. for 1 IRC. Also rcvd. personal ltr., sticker and promo material.(Dieterich-GER). Radio Mi Amigo 6233.5 nice verite ltr. filled out by hand. 25 watts. Station is on every other Saturday 1000-1300UTC. Also rcvd. stickers and promo material.(Berg-MA)...England site. Pirate Freaks Broadcasting Service 15050 f/d "Mobile Van" cd. w/ form ltr. in 5 mo. for a 90 XMAS transmission. Letter was postmarked in Berlin but mailed to Utrecht, Holland addr. Addr: P.B. 41, 7700 AA Dedemsvaart, Holland.(Lobdell-MA).

EUROPEAN RUSSIA: Radio Moscow 13705 via Serpukhov f/d cd. in 4 mo.(Palmerheim-MA).4895 f/d cd. w/ personal ltr. in 3 mo. QSL read from "a communications transmitter at Moscow" for site location.(Field-MI).

FRANCE: RFI 15195 f/d cd. in 48 ds. for 1 IRC.(Doyle-AR).

GABON: RFI 12015 via Moyabi f/d cd. in 30 ds.(Doyle). 4890 f/d cd. in 53 ds.(Blumstein).

Africa NO. One 15475 f/d ltr. w/ n/d cd. in 196 ds. for a taped rpt.(Fanderys-OH).

GEORGIA: Radio Tbilisi QSL direct from station via registered mail in 7 wks. after a f/up rpt. This was on their own QSL cd. marked "TV-Radio Tbilisi". v/s Helena Apkhadze, Foreign Editor. Addr: Roetava str. 68, Tbilisi, Georgia 380015, Holland.(Berg-MA).

GERMANY (West): VOA Westfalia 9530 f/d cd. in 21 ds.(Lawrence-CA). Radio Liberty p/d cd. in 32 ds.(Doyle-AR).

GERMANY (East): Deutsche Welle 13610 via Leipzig f/d cd. in 16 ds.(Blumstein). f/d "Reunification" cd. in 35 ds.(Turnick-PA). f/d cd. in 1 mo. w/ schedule.(Palmerheim-MA). 15425 via Konigs Musterhausen same cd. in 35 ds.(Turnick). 13770 f/d cd. in 1 mo. w/ schedule.(Palmerheim). 11890 via Nauen f/d cd. in 1 mo.(Palmerheim).

GHANA: Ghana Broadcasting Corporation - Radio Two 3366 f/d "Golden Jubilee" cd. in 41 ds. w/ schedule.(D'Angelo-PA). GBC - Radio One 4915 f/d cd. in 1 1/2 mo. for \$1.00.(Millard-TX). f/d cd. in 56 ds.(Blumstein).

GUAM: STNR 11805 f/d cd. w/ sticker in 29 ds. v/s Beth Chick.(Doyle-AR). f/d cd. in 1 mo. v/s Mrs. Shelly Frost.(Boulden). ISDA 13720 f/d "Sticker Type" cd. in 64 ds. for \$1.00. Schedule was rcvd.(Millard-TX). same in 63 ds. w/ schedule and sticker.(Mayberry-TX).

HAWAII: WWVH 15000 f/d cd. in 15 ds.(Doyle). 10000 f/d cd. w/ brochure in 20 ds. for \$1.00 ms. were returned by station.(Wallace-CT).

HOLLAND: Radio Nederland 6020 f/d cd. in 36 ds.(Blumstein).

HONDURAS: HRYC 4820 f/d "Antenna/Map" cd. in 2 mo. for \$1.00. Also rcvd. sticker and pennant. (Millard-TX).

HONG KONG: VPS22 Time Signal Station 22536 f/d ltr. in 21 ds. w/ schedule for ms.(Turnick)

HUNGARY: Radio Budapest 11910 f/d cd. w/ stickers, station history and club info. in 76 ds.(Mayberry-TX).

ICELAND: IMBS 3295 f/d "Reykjavik" cd. in 23 ds. for 1 IRC.(Dieterich). 9286 f/d cd. in 32 ds. for \$1.00 and shack photo.(Barr-IL). 15770 f/d cd. in 44 ds. for a taped rpt. & \$1.00.(Doyle-AR).

INDIA: AIR 11620 f/d cd. in 60 ds. for 2 IRCs.(Doyle-AR).

IRAN: Voice of the Islamic Revolution 15084 schedule, magazine, postcards...everything but a QSL for \$1.00. Guess I'll try again.(Millard-TX).

IRELAND: Radio Stella International 6320 f/d "Musical Notes" cd. in 42 ds. for 3 IRCs. v/s Jock Wilson. (Comeau-MA)...If you are wondering why I list some of these under EuroPirates and others under countries...keep wondering because I don't have the answer. HI!

ISRAEL: Kol Israel 7465 f/d cd. w/ schedule in 6 wks. for 1 IRC.(Datz-IL).

ITALY: AMR Europe 7230 via Forli f/d cd. in 77 ds. for 1 IRC.(Doyle-AR). f/d cd. in 90 ds.(Rigas-IL). RAI 9815 f/d cd. in 60 ds. for a taped rpt.(Terrence).



Confirmation

Frequency: 15.050 kHz

Date: 16 March 1991

Time: 02.53-04.00 UTC

Signal: S-3 I-4 R-4 P-3 O-3

via Chris Lobdell

Our Address:

Radio Tower • P.O. Box 12070

St. Louis 63032 • The Netherlands



JAPAN: Radio Japan 11865 f/d cd. from K. Hishikawa.

This was in reply to a Sri Lanka rpt.(Doyle-AR).

Radio Tampa 6055 f/d cd. in 3 wks. for \$1.00.

* (Loudell-DE). **NRK Shobu-Kuku Saitama** 3607.5 f/d
JOAK "Transmitter/Antenna" cd. in 29 ds. after
2 f/up rpts. v/s Hirso Kakminia.(Kusalik-ALB).

KATANGA: OZRT La Voix du Zaïre 7205 via **Lubumbashi**

* f/d prepared cd. w/ ltr. in 2 mo. for a FR rpt.
and ms. v/s Mulenga Kanso, Le Chef de Service
Logistique and Kashinda Tshongo, Le Directeur
Regional OZRT. C/V #215: (Sgrulletta-NY).

KIRGHIZ: Radio Moscow 21635 f/d cd. w/ sticker in
30 ds.(Turnick-PA)...Site was **Frunze**.

KOREA, REPUBLIC OF: Radio Korea 15575 f/d "Mask Dance"
cd. w/ schedule in 36 ds.(Livingston-CA). 9750 n/d
cd. w/ schedule and a Korean book in 67 ds.(May-
berry-TX). 7550 f/d cd. in 2 mo. w/ stickers and
schedule.(Boulden).

LATVIA: Radio Riga 5935 f/d "Rabbits" cd. in 182 ds.
(MacHarg). f/d cd. w/ decal and schedule in 43 ds.
for \$1.00.(Wallace-CT).

LESSER SUNDAS: RKPDT2 Bima 3422 f/d prepared cd. w/
* personal ltr. in 6 wks. after a f/up rpt. in IN for
SASE (used). Stickers were rcvd. (Allen-OK).

LIBYA: Radio Jamahiriya 15415 f/d cd. in 2 mo. for \$1.00.(Wallace).

LITHUANIA: Radio Vilnius 7400 and 15180 f/d cd. in 6 mo. w/ stickers, schedule and a per-
sonal ltr. from Ederinus Butkus.(Boulden).

LUXEMBOURG: Radio Luxembourg 15350 f/d cd. in 27 ds. w/ stickers.(Livingston-CA). 6090
same cd. in 32 ds. for \$1.00.(Lawrence-CA).

NOTES: Al Quaglieri sent along a very cordial letter with lots of comments about the QSL
Column. Thank you for your very kind words. It was appreciated very much...Sam. **Randy
Doyle** was very pleased when his Botswana QSL arrived; however, he is very puzzled about
the lack of response from very detailed reports to the VOA. They use to be reliable!
Terry Millard is a new member and a newspaper photographer. He has been a DXer, on and
off, since 1975, spent 6 years traveling on 4 continents and returned to the hobby in
1989. Welcome back to the hobby and best of Dxing...Sam.

MALAGASY REPUBLIC: Radio Nederland 17575 f/d cd. w/ schedule in 16 ds. for \$1.00.(Wallace-
CT). 15570 f/d "Voices" cd. in 6 wks. for 3 IRCs.(Comeau). f/d cd. in 1 mo.(Doyle-AR).

MALI REPUBLIC: Radio Beijing 11715 f/d cd. in 1 mo. w/o site.(Millard-TX)...RB and CPBS
do list their transmitter sites on cds. from time to time...Sam. **Radio TV Mali** 4835
f/d cd. in 165 ds. after a f/up rpt. in FR for a taped rpt. and \$1.00.(Fanderys). p/d
cd. in 78 ds.(Blumstein).

MALTA: Voice of the Mediterranean 9765 f/d cd. in 6 wks. for ms.(Klinck-NY). f/d cd. in
4 mo.(Blumstein). **Deutsche Welle** 11865 f/d "Unification" cd. in 35 ds.(Turnick-PA).
9565 f/d cd. in 16 ds. for 2 IRCs.(Blumstein).

MEXICO: XBO p/d cd. w/ XEM pennant and a magazine in 6 wks. after 4 f/up rpts. in SP for
a 1987 reception. Station is part of the XEW network in Mexico.(Berg-MA).

NAMIBIA: NEC 7165 f/d cd. in 64 ds. for 1 IRC.(Blumstein).

NEW BRITAIN: Radio East New Britain 3385 f/d cd. in 1 mo. for ms. v/s Esekia Mael, Station
Manager.(Turnick-PA). f/d cd. in 35 ds. for \$1.00.(Lawrence-CA). f/d prepared cd. col-
lected personally for engineering tests.(Darling-PNG).

NEW CALEDONIA: RPO Nouvelle Caledonie 7170 f/d cd. in 17 ds. for a FR rpt. for an 85 recep-
* tion. Personal ltr. was also rcvd.(Lawrence-CA).

NEW GUINEA TERRITORY: Radio Eastern Highlands 3395 f/d cd. w/ personal ltr. in 32 ds. for
\$1.00. v/s Paia Otawa, Technician.(Lawrence-CA).

NEW IRELAND: Radio New Ireland 3905 f/d ltr. in 17 ds. for \$1.00. v/s Otto A. Malatana,
Station Manager.(Lawrence). p/d personal ltr. in 27 ds. for \$1.00. (D'Angelo-PA). f/d
ltr. in 32 ds. for ms.(Turnick-PA).

NEW ZEALAND: Radio New Zealand International 17770 f/d "Sheep" cd. w/ Tiki souvenir and
schedule in 25 ds.(Livingston).

NORTHERN IRELAND: Northern Ireland Shortwave Relay Service 6272.4 f/d cd. w/ station infor-
mation in 3 wks. for \$1.00. v/s Andy Craig. (Bolitho-ONT). 6273 f/d ltr. in 43 ds. for
\$1.00. (Turnick-PA). f/d postcard w/ personal note.(Lobdell-MA).

NORWAY: Radio Norway International 15165 f/d cd. w/ sticker, schedule and station history
in 33 ds.(Mayberry-TX). 11865 f/d "Glass Designs" cd. w/ schedule and sticker in 32 ds.

OMAN: Radio Sultanate of Oman 17735 f/d folder cd. in 36 ds. for 3 IRCs. (Livingston).
(Comeau). 11890 via **Salalah** same cd. in 16 mo. for \$1.00. v/s Rashid Haroon.(Wallace-MA)

PLEASE NOTE: Anyone who may be seriously interested in purchasing a US and Worldwide stamp collection containing somewhere between one to two or three million stamps please contact your QSL Column Editor. All stamps are arranged by country and are in over 400 albums.....Sam.

OMAN: BEC 15310 f/d cd. w/ site indicated in 40 ds.(Rigas-IL).

PAPUA NEW GUINEA: Radio Enga 2410 f/d 2 page personal ltr. in 7 wks. v/s Felix Tuman.

Now have all PNG stations QSLed: (Field-MI).

PERU: Radio Cora 4915 ltr. w/ red and black QSL cd., two stickers in 6 mo. for a SP rpt. v/s Juan Ramirez Lazo, Director Gerente.(Berg-MA).

PHILIPPINES: PEPC Radio International 9800 f/d cd. in 50 ds.(Blumstein). VOA 17820 f/d cd. w/ schedule in 60 ds.(Kurrasch-NY). 17735 f/d cd. in 18 ds.(Blumstein).

PORTUGAL: Radio Portugal International 9705 f/d cd. in 90 ds. for 1 IRC.(Doyle). f/d cd. w/ schedule in 30 ds. (Nagengast-MN). f/d cd. in 63 ds. w/ sticker and schedule.(Mayberry-TX). Radio Renascenca 9680 f/d EG/PT cd. in 60 ds. (Bishop-FL). 9600 f/d blue "Logo" cd. in 3 wks.(Wallace-MA). IHRA Radio 11700 via Radio Trans Europe f/d cd. in 1 mo. w/ pennant and sticker.(Field-MI).

RIO MUNI: Radio Africa 7190 f/d cd. in 2 mo. for 2 IRCs. (Comeau-MA).

RWANDA: Deutsche Welle 7225 via Kigali f/d "Reunification" cd. in 60 ds.(Kurrasch-NY). f/d cd. in 47 ds. for \$1.00.(Barr-IL). 15270 same cd. w/ sticker and pennant in 2½ mo.(Millard-TX). f/d cd. in 150 ds.(Nibecker). 17860 f/d cd. in 33 ds. (Fanderys-OH).

SAINT HELENA: Radio Saint Helena 11092.5 f/d cd. w/ station info. in 4½ mo. for 3 IRCs.

* v/s Tony Leo.(Bolitho-ONT). f/d cd. w/ ltr. in 150 ds.(Rigas-IL).

SAIPAN: RHBI 13625 f/d cd. in 27 ds.(Prisco-PA). f/d "Antenna" cd. in 39 ds. for 3 IRCs.

(Comeau). same w/ sticker in 50 ds.(Millard). in 2 mo. for ms.(Grenier-NV). f/d cd. in 45 ds.(Blumstein). (Klinck-NY).

SENEGAL: ORTS 4890 p/d cd. w/ 7 page schedule in 9 wks. for a FR rpt., tape and 3 IRCs.

SEYCHELLES: FEBA 15200 f/d cd. in 59 ds. for \$1.00. v/s M. Asba.(Millard-TX).

SICILY: RAI Caltanissetta 7175 f/d "RAI Electronic Test" cd. in 3 wks.(Wakisaka-JPN).

SOLOMON ISLANDS: SIBC 5020 f/d cd. in 78 ds. for 3 IRCs.(Doyle). same in 71 ds. for a taped rpt. and \$1.00.(Washburn-ME). 9545 f/d cd. in 1½ mo. for IRCs and \$1.00.(Loudell)

SOUTH AFRICA: Radio Orange 3215 f/d cd. w/ very detailed ltr., staff photos and stickers in 3 mo. for 2 IRCs. v/s Hennie Klopper, Announcer.(Klinck-NY). f/d cd. w/ ltr. and stickers in 91 ds. for 3 IRCs.(Doyle). Radio RSA 7270 f/d "Table Mountain" cd. w/ schedule in 32 ds.(Mayberry). f/d "Golden Gates National Park" cd. w/ schedule in 37 ds.(Nagengast). 15210 f/d "Durban" cd. in 1 mo. for 1 IRC.(Boulden). Radio Orion 4810 f/d cd. in 31 ds.(Blumstein). ZSC Time Signal Station 17018 f/d cd. in 9½ mo. for ms.

SPAIN: Radio Exterior de Espana 11880 f/d cd. w/ schedule in 32 ds. for 1 IRC (Krepp). (returned). (Datz-IL). f/d cd. in 1 mo. w/ schedule and pennant.(Mayberry-TX). f/d cd. in 42 ds. w/ pennant.(Lare-MI). 9630 f/d cd. in 60 ds.(Nagengast-MN). Radio Beijing

* 9690 f/d cd. w/o site in 1 mo.(Rigas-IL). BEC Time Signal Station 12008 f/d "Observatorio de la Armada" cd. in 24 ds. for a SP rpt. and ms.(returned).(Stephens-AL).

SPANISH MOROCCO: Radio Mediterraneo International 9575 f/d cd. in 109 ds.(Blumstein).

SRI LANKA: VOA Colombo f/d cd. in 70 ds. for ms.(returned).(Kurrasch-NY). Radio Japan

9535 via Kala f/d "Swans on Lake" cd. w/ stickers and schedule in 29 ds. v/s Kunitoshi Hishikawa.(Kusalik-ALB). n/d "Ears of Barley" cd. in 1 mo. w/ schedule.(Field-MI). f/d cd. w/ site in 30 ds.(Rigas-IL). 11840 f/d "Wooden Doll in Kimono" cd. in 35 ds. w/ schedule.(D'Angelo-PA). Deutsche Welle 21650 f/d cd. w/ site in 30 ds.(Rigas-IL). SIBC 15425 p/d cd. in 2 mo. for \$1.00. This took over 10 years and so many rpts. that I lost count!(Bolitho-ONT).

SUMATRA: ERI Sibolga 5256 f/d prepared cd. in 320 ds. for a f/up rpt. in IN and SASE (used).(Hardester).

SWAZILAND: Trans World Radio 3200 f/d cd. w/ ltr. and schedule in 6 mo. for a taped rpt., ms. and \$1.00. (Klinck). 9600 f/d folder cd. in 40 ds. for 1 IRC. Schedule was rcvd.(Dieterich-GER).

SWEDEN: Radio Sweden International 6065 f/d cd. in 7 ds. Sticker rcvd.(Dieterich-GER). 9695 f/d cd. w/ schedule in 20 ds.(Livingston). 11705 f/d "Feeding Reindeer" cd. w/ sticker in 1 mo.(Loudell-DE). cd. in 1 mo.(Wallace-MA). 17875 f/d cd. w/ schedule and stickers in 13 ds. for 1 IRC.(Datz-IL).

SWITZERLAND: Swiss Radio International 3985 via Lenk f/d cd. w/ site in 32 ds.(Rigas-IL). 12035 and 9885 f/d "Covered Bridge over River Reuss" cd. in 47 ds. for 2 IRCs.(Carson).



Mongolian
radio

VERIFICATION SIGNERS/ADDRESSES: Radio Monte Carlo 11685 Bernard Poizat, Technical Service. NBC 3290 P. Schachtscheneder, Manager Transmitter Maintenance, Box 321, Windhoek 9000, Namibia. Radio RICA 4919 Digna Bendana B., Directora. Radio Oriente 6188 Juan Antonio Lopez-Manza Nares Mascunana, Director de Redaccion y Programacion. HFC Caribbean Relay 5975 Victor Price. Radio Box 4409 Carlos Espinoza Cortes, Director. Radio La Voz del Tropico 4747 Oscar Ustariz Arandia, Director. Radio La Cruz del Sur 4875 Pastor Rodolfo Moya. Radiodifusora Macapa 4915 Francisco de Paula Silva Santos, Gerente. Radio Cultura do Para 5045 Augusto Proenca, Director. Radio Novas de Paz 6080 Matheus Lensen, Director Superintendente, P.O. Box 22, Curitiba, PR 80001. Radio Cancua Nova 9675 Tadeus Rodrigues Machado. La Voz del Rio Arica 4895 Miss Gloria J. Silvia R. Radio Amanecer 6025 Socrates Dominguez..... via PLAY/DX.....Sam.

SWITZERLAND: SRI 9650 f/d cd. w/ schedule in 20 ds.(Livingston). f/d cd. in 16 ds. for 2 IRCs.(Blumstein). 12035 f/d cd. w/ schedule in 25 ds.(Datz-IL).

SYRIA: Syrian Arab Republic Broadcasting Service 15095 f/d cd. via registered mail in 1 mo.(Blumstein). (Lare-MI).

TADZHIK: Radio Moscow 15140 via Dushanbe f/d cd. in 45 ds.(Lare). 15295 cd. in 45 ds.

TAHITI: RFO Tahiti 11826 f/d cd. in 1 mo. for 2 IRCs.(Loudell-DE).

TAIWAN: Voice of Free China 11745 f/d "Artwork" cd. w/ stickers and newspaper in 24 ds. (Millard). Voice of Asia 7445 f/d cd. in 42 ds. w/ sticker.(MacHarg). Central Broadcasting System 3335 f/d cd. w/ ltr. and sticker in 77 ds. v/s Lee Ming, Deputy Director.(Yamada-JPN).

THAILAND: Radio Thailand 9655 f/d cd. in 40 ds. v/s Bulpja Laemluand, Chief of External Services.(Rigas-IL).

TIBET: Tibet PBS 4750 n/d personal ltr. w/ cd. in 5 wks. for \$1.00. v/s Lob Sang Chon Phel, Broadcasting Department Announcer.(Loudell-DE). f/d ltr. in 45 ds.(Rigas-IL).

TOGO: Radiodiffusion TV Togolaise 5047 f/d cd. in 31 ds. for a FR rpt.(Yamada). f/d cd. w/ schedule in 1 mo. for a taped rpt.(Kurrasch-NY).

TURKEY: Voice of Turkey 9445 f/d cd. w/ stickers and schedule in 29 ds.(Livingston).

UKRAINE: Radio Kiev 12000 f/d cd. in 228 ds.(Levison-PA). 15180 f/d cd. w/ calendars in 106 ds. for 1 IRC.(Doyle-AR). same in 146 ds. w/ stickers.(Fanderys-OH). 7400 f/d cd. w/ stamps and stickers in 154 ds.(Levison-PA). 17720 and 17690 f/d cds. in 128 ds.(Levison-PA). Radio Moscow 7310 via Lvov f/d "Kosmos Hotel" cd. in 3 mo.(Field-MI). 7115 f/d cd. in 66 ds.(Carson). f/d "Arbat Square" cd. in 55 ds.(Kurrasch). 11735 and 11950 f/d cds. in 45 ds.(Lare-MI). 9685 via Vinnitza f/d cd. in 45 ds.(Lare). cd. w/ schedule in 40 ds. for \$1.00. v/s Eugenia Stepanova.(Wallace-CT). 17810, 17840 and 15475 f/d "Lenin Mausoleum" cds. in 54 ds.(Lare). 12010 f/d cd. in 5 mo.(Hosmer-MI). 4795 via Khar-kov f/d "Friendship Fountain" cd. in 42 ds. w/ sticker.(Kurrasch). 9685 and 9860 via Siferopoli f/d cd. in 5 mo.(Hosmer). 11950 and 17615 via Ivano-Frankovsk f/d cds. in 45 ds.(Lare-MI). 17615 f/d "Arbat Square" cd. in 110 ds. (Butcher-MA).

USA: WTNH 15185 f/d cd. w/ schedule in 24 ds.(Livingston). MTNH 7510 f/d "Antenna/Mtns." cd. in 32 ds.(Stephens-AL). f/d cd. in 6 wks.(Boulden). same in 1 mo. for ms.(Grenier). f/d cd. in 35 ds. for ms.(Hardester). in 8 ds. for ms.(Bishop-FL). f/d cd. in 3 wks. for \$1.00.(Kohlbrener-PA). 15590 f/d cd. in 35 ds.(Rigas-IL). f/d cd. in 57 ds.(Weber). same in 1 1/2 mo. for ms.(Lare-MI). WNO 15420 f/d "Special Louisiana" QSL in 126 ds. for SASE.(Turnick-PA). same in 96 ds. Addr: Lt. Gov. Paul Hardy, Louisiana Office of Tourism, P.O. Box 44243, Baton Rouge, LA 70804.(Mayberry). WMCR 7520 p/d "Mountain" cd. in 17 ds. for ms.(Bishop-FL). Radio Free New York 7520 via WMCR p/d cd. in 126 ds. for a phone in rpt.(Stephens). n/d cd. in 1 1/2 wks. on my 3rd try.(Field-MI). f/d cd. w/ QSL kit of former pirate stations in 11 ds. for \$3.00.(Doyle-AR). cd. in 6 ds. for \$1.00.(Blumstein). Radio New York International 7520 via WMCR f/d paper "Logo" cd. in 69 ds. for SASE.(Stephens). f/d cd. in 67 ds.(MacHarg). f/d cd. in 2 mo.(Field-MI). f/d "Operation Peace" cd. in 28 ds. for ms.Addr: P.O. Box 270, Flushing, NY 11352.(Hardester). KVCH 17775 f/d cd. w/ schedule and book in 24 ds. for ms.(Wallace-CT). WMLK 9465 f/d ltr. in 78 ds.(Prisco-PA). f/d ltr. in 59 ds. w/ schedule and stickers.(Mayberry-TX). WCSN 9850 f/d cd. w/ schedule in 17 ds. for \$1.00.(Wallace-CT). same in 34 ds. for 1 IRC.(Comeau). 13770 f/d cd. in 20 ds.(Prisco). 21640 f/d "Antenna" cd. in 76 ds. w/ de-15105 f/d cd. w/ schedule in 60 ds.(Prisco). WSEB 9455 f/d "Photograph" cd. in 7 wks. for 1 IRC. v/s Judy P. Cooke.(Comeau). f/d cd. in 78 ds.(Blumstein). 13760 cd. in 37 ds. for ms.(Prisco). f/d cd. in 46 ds. for ms.(Pennisi-NJ). WYFR 21525 cd. w/ schedule in 18 ds.(Livingston). 11830 f/d cd. in 92 ds. w/ schedule for ms.(Pennisi-NJ). f/d cd. in 23 ds. for \$1.00.(Wallace-CT). 7355 f/d cd. w/ schedule in 16 ds. for GM rpt.(Dieterich).



Confirming your reception report of this station.

Frequency: 11760kHz
Date: 11/3/87
Time: 1800HRS
Power: via Father Eckhart

Many thanks and best wishes,
YOURS IN FRIENDSHIP,
T. URRAI RONOD I.K.A.

COOK ISLANDS BROADCASTING AND NEWSPAPER CORPORATION (Levison-PA).
Voice of Free China 5950 via WYFR f/d "Art"

USA (Pirate): WHDA 7410 f/d cd. via Wellsville in 3 wks. (Field-MI). Radio Wolf International 7415 f/d sheet in 8 mo. w/ pirate promos. (Berg-MA). Hope Radio 7414 f/d cd. in 23 ds. for SASE. (Doyle-AR). 2 nice looking cds. for 2 rpt.s. (Berg-MA). Radio USA 7416 f/d cd. in 36 ds. for SASE. (Doyle). 4 different cds. for different freqs. over period of time. (Zeller-OH). 7395 f/d info. sheet in 98 ds. for rpt. to Wellsville. (Stephens). INES 7412 f/d cd. w/ pennant in 23 ds. for \$1.00. (Wallace-CT). f/d green "Marijuana Leaf" cd. in 22 ds. w/ pennant. (Stephens-AL). Voice of Wilbur 7415 p/d "Duck in Sneakers" cd. in 3 mo. for ms. (Taylor-PA). Samurai Radio 7415 f/d cd. in 3 wks. for rpt. to BRS addr. for ms. (Lobdell). f/d cd. in 1 wk. for SASE. (Comeau-MA). same in 28 ds. (Stephens-AL). Radio Repulse 7419 f/d "actual" ceramic wedding centerpiece for a pss. QSL rpt. in ACE. QSL was written on the bottom. v/s B. Manilow. (Stephens). Voice of Anarchy f/d info. sheet in 42 ds. (Doyle). 7413 f/d mimeo sheet in 44 ds. (Stephens). La Voz de Gringo America 7415 f/d "Old Ladies" cd. hand-delivered by Raoul in 15 mo. (Lare-MI). Voice of the People of Iraq 7415 f/d cd. in 11 ds. v/s Ali Jihan. (D'Angelo-PA). f/d "Eagle Logo" cd. in 36 ds. (Zeller). Hello Radio 7415 n/d ltr. for a rpt. to ACE. (D'Angelo-PA). RPM 15035 f/d cd. in 17 ds. for ms. (Bishop-FL). 15052 f/d cd. in 19 ds. for ms. and a rpt. to BRS addr. (Lare-MI). Voice of the Lampfish 7415 f/d litho of station engineer on throne in 45 ds. (Name?)...Are we having fun yet??? Voice of Bono 7412 f/d logo sheet in 13 ds. (Zeller). Voice of Pancho Villa 7415 p/d purple pancho w/ gun cd. in 17 ds. by mysterious means at the SWL WinterFest. (Zeller). WLIS 7423 and 7415 f/d "Ian Meets the Simpsons" and "Drivetime Audience" map in @ 7 wks. (Bolitho-ONT)....Hey Bill, how about printing the Ruby B. Brown QSL??? Sam. Radio Pluffernut 7415 f/d ltr. in about 7 wks. for \$1.00 Canadian. (Bolitho). Radio Comedy Club International 15050 f/d "Clown" logo sheet in 37 ds. (Stephens-AL). KUSA Radio Wisconsin 7415 f/d "Map/Logo" certificate for a taped rpt. and ms. Home address was publicized after FCC bust. (Stephens). Radio Animal 7395 f/d "Dog at Mixing Board" cd. in 10 ds. for a program via Hope Radio. Also rcvcd. personal ltr. (Stephens-AL).

USSR: Radio Beijing 7170 f/d cd. w/ mention that site was in USSR in 30 ds. (Rigas-IL). **UZBEK:** Radio Tashkent 15470 f/d "Art" cd. w/ schedule and postcards in 79 ds. (MacHarg). 7325 f/d cd. in 9 wks. w/ schedule. (Nibecker).

VATICAN: Radio Vatican 6248 f/d cd. in 1 mo. (Field-MI). f/d "Santa Maria de Galeria Transmitter" cd. in 20 ds. after a f/up rpt. for \$1.00. (Kusalik-ALB).

VENEZUELA: Radio Continental 4939.6 f/d red, white and blue "Map" cd. in 2 mo. for a SP rpt. and 2 IRCs. (Howard-CA). YVVO 5000 f/d cd. w/ ltr. in 6½ mo. for a SP rpt. and 1 IRC. v/s Fernando Aranda Griman. (Wallace-CT).

WEST BERLIN: RIAS 6005 f/d "Studio-Building" cd. in 82 ds. for a taped rpt. and ms. (Stephens-AL). p/d cd. w/ ltr. in 2½ mo. for a taped rpt. and 3 IRCs. Also rcvcd. stickers, RIAS Yearbook and specification sheets for the transmitter. (Krepp).

WEST IRLAN: BRI Serui 4607.3 f/d prepared cd. in 14 mo. after a f/up rpt. in IN for ms. Also rcvcd. personal ltr. v/s Drs. Jasran Abubakar. (Lare-MI). p/d personal ltr. in 2 mo. for an IN rpt. (Loudell-DE). BRI PakPak 4790 f/d prepared cd. w/ ltr. in 295 ds. for an IN rpt., ms. and SASE (used). v/s A. Rachman Syukur. Addr: Jl. Kapten P. Tendean, Kode POS 98601, Kotak POS 54. (Hardestar).

YUGOSLAVIA: Radio Titograd 5955 via Radio Yugoslavia n/d "Scenes from Titograd" cd. in 78 ds. for \$1.00. Also rcvcd. tourist info. promoting nudist settlements...ah the free enterprise system! (Hoemer-MI). Radio Slovenia 5955 via Radio Yugoslavia p/d ltr. in 94 ds. for \$1.00. (Hoemer-MI). Radio Television Sarajevo 9620 via Radio Yugoslavia p/d registered ltr. in 18 ds. for \$1.00 after a f/up rpt. v/s Senada Kreso, International Relations Department. (Wakiaaka-JPN).

ZAMBIA: Radio One 4910 f/d cd. w/ personal ltr. and an apology about the delay in 26 mo. for \$1.00. v/s W. Lukozu, Project Engineer. (Eckert-PA).

**RADIO
SULTANATE
of OMAN**



NOTES: Well, as promised I did cut back on the number of illustrations and got in almost all of your QSL reports. Next month we will empty the chest.

I hope all of you enjoy the QSL Column and find the information useful. If any of you are ever in the area, please call me at 589-0083 and we'll have a little eyeball. Recently new member Rev. George Lukaczyk of Terryville, CT stopped in to say hello.
Best of DX and QSLing.

Sam

Contributors' Page

Vernon Hyson
9835 Lone Eagle Lane
Charlotte, NC 28215



LOGGINGS CONTRIBUTORS - JULY 1991 - DEADLINE 10th of MONTH

The following members contributed loggings:

Brian ALEXANDER, PA	NRD525 MAP SP4 T2FD Farley Loop ICF2010
Guy ATKINS, WA	HQ180A R390A 150' Longwire
Jerry BERG, MA	Satellite 400 & 500
Norman BOBB, MN	
John BRYANT, Whidbey Island, WA	NRD525 **DXpedition
John CARSON, OK	NRD525 NC183DATS803ASPR4AD Sloper 500' Beverage
David CLARK, ONT	NRD515 51J3 3-500' Beverage 60/90m Dipoles
David CLARK, Longford Mills, ONT	R71A Random Wire ** DX Camp
Patrick CRUMHORN, TX	NRD525 Random Longwire
Richard D'ANGELO, PA	R70 AD Sloper
James FEELEY, GA	R2000 Eavesdropper
Marlin FIELD, MI	NRD535D Eavesdropper
William FLYNN, OR	R2000 Sony 2010 TUN3 140' Longwire 85' Dipole
Peter GRENIER, NV	FRG7 Sangean 789 MFJ1020A
Gerald HART, MN	Sony 2010 Long wire
Hans JOHNSON, MD	R71A MAP AD370
Rufus JORDAN, PA	DX302 Zenith Transoceanic
W KARCHESKI, MA	
Ichiro MARUO, JAPAN	
Sheryl PASZKIEWICZ, WI	NRD515 NRD515 Eavesdropper Random Wire
Daniel SAMPSON, WI	FRG7700 Sony 2010 R1000
Robert TUCKER, Jr, GA	ATS803A
Dave WEINRICH, ND	ATS803A TUN4 Random Wire
William WENTWORTH, MA	
Mike WOLFSON, OH	R5000 Sony 2010 125' Longwire
Robert ZILMER, NM	NRD525 R7 3-Antennas

WHAT HIO?

This could be related to Don & Gung, but not this month. For lack of response, next month we will go back to the normal listing of name, city, state and then equipment. It was suggested that later, one of the other editors do a survey on the equipment and antennas we use & put the results in their column.

According to James Feeley, Radio Hope, despite a close call with the FCC has a mission & will continue to broadcast but not on 7415 kHz, heard on 7325 kHz.

Hopefully the QRN at your QTH is less than here in N.C. Awesome is how I would describe it. At least the rain is keeping the ground rod good & wet!

COMPUSERVE REMINDER ID #76516,1531

'Till next month, Good DX, Happy Listening & 73's,



Tropical Band Loggings

Sheryl Paszkiewicz
1015 Green Street
Manitowoc, WI 54220

- 1620 USA, WNPF, still unsure of call but word unable to hear on previous log is "travel." (Johnson-MD)
- 2410 NEW GUINEA, R. Enga, 5/28, 1145-1150 tlks, SIO=242. (Maruo-JAPAN) Tnx for taking time to send yr logs--sp.
- 3205 NEW GUINEA, R. West Sepik, 5/23, 1030 tlk in Pidgin. (Feeley-GA) 5/28, 1150-1200 w/conversation, SIO=343. (Maruo-JAPAN)
- 3275 PAPUA TERR, R. Southern Highlands, 5/29, 1053-1132 light mx, "waltzing Mathilda." TP, nx, SIO=333. (Maruo-JAPAN)
- 3310.3 BOLIVIA, R. San Miguel, 5/22, 0240 great mx, sev IDs to 0300°. Better than R. Cultural tonight. (Johnson-MD)
- 3315 ADMIRALTY ISLANDS, R. Manus, 6/11, 0906 end of nx, lcl mx pgm incl. "76 Trombones"! S9+10 peaks. (Bryant-WA)
- 3325 BORNEO, RRI Palangkaraya, 6/17 noted on exactly this freq, no R. North Solomons. (Bryant-WA)
- 3330 UNID, 5/29, 1020-1114° pop mx, nx, chorus & crowing ID ss "37EBC. . ." SIO=343. Please help!! (Maruo-JAPAN)
- 3345p MOLUCCAS, RRI Ternate, 5/2, 1343-1358° old pops & C&W mx, W anncr, SCI. Weak but good audio. (Flynn-OR)
- 3345 PAPUA TERR, R. Northern, 6/12, 0910 //to sev other PNGs, political nx, weak, obviously still 2 kW. (Bryant-WA)
- 3366 GHANA, 6/12, 0533-0600 GBC, ID, rel hymn, EG tlk & lang. Native mx, //4915 which was S8-9, ID 0600, (Atkins-WA)
- 3385 NEW BRITAIN, R. East New Britain, 5/18, 0925 tlk by W, C&W mx, TC, lcl nx, mx across 1000, good level thru QRN & good modulation. (Clark-ON)
- 3481 CLANDESTINE, Vo Natl Salvation, 5/2, 1330-1340 M&W speakers, KK tlks, Occidental type mx, S7 but jamming & het. (Flynn-OR)
- 3935 NEW ZEALAND, ZLXA, 5/20, 0630 instls, tlk by W in EG, fair audio but QRN & QRM from AROs, carrier also hrd on 5030 Tonga but noisy. (Clark-ON) 6/11, 0925 W reading, peaks only S5, How does Clark hear this stuff? (Bryant-WA)
- 4649 BOLIVIA, R. Santa Ana, 5/22 & 5/24, 0055 mx to 0154° no ID but presumed since rptd by others. Only possible w/ my new NRD-535. (Field-MI) Already 2 reporters bought the NRD-535! --sp.
- 4680 ECUADOR, RN Espejo, 5/22, 0212-0231 shouted anmts, echo IDs, rapid tlks, jingles, IDs, tlks, poor. (Jordan-PA)
- 4725 MYANMAR, Vo Myanmar Minorities See S5 or S6 at 1230, 6/12. Exc. modulation. (Bryant-WA)
- 4753.2 SULAWESI, RRI Ujung Pandang, 5/18, 1010+ evening rel fare, Moslem vcls, weak sig. (Clark-ON)
- 4754v BRAZIL, R. Educacao Rural, 6/2, 0125-0220 EZL mx, ballads, "Unchained Melody," "I Can't Help Falling in Love with You," IDs, anmts, poor. (Jordan-PA) 5/25-26, 2355-0010 rel tlk & mx, ID 0001, Abba mx, Braz. pops/ballads, tlk (Alexander)
- 4770 NIGERIA, R. Nigeria Kaduna, 5/9 & 20, 0508-0515 EG w/ID. (Weinrich-ND)
- 4785.5 COLOMBIA, Ecos del Combeima, 5/21, 0113 tlks w/no mx over an hour, 0225 ID finally, gone by 0240. (Johnson-MD)
- 4795 CAMEROON, CRTV Douala, 5/27, 2250-2304° FR tlk & pops, s/off w/NA. (Alexander-PA)
- 4800 ECUADOR, R. Popular Independiente, 5/22, 0231-0250 pops, brass & percussion, jingles, IDs, echo effects, promos, other sound effects. (Jordan-PA)
- 4844.3 GUATEMALA, R. K'ekchi', 6/2, 0120-0306° tlk, rel mx, marimbas, ID & "La Voz Evangelica de las Casas." Poor in static. (Alexander-PA)
- 4845 BRAZIL, 5/25, 0828 w/mx pgm. (Field-MI)

- 4850 CAMEROON, CRTV Yaounde, 5/27-28, 2315-0003* FR tlk, Afr. pops, FR pops, s/off w/NA. (Alexander-PA)
- 4870 BENIN, ORTB Cotonou, 6/12, 0505-0523 tlks in FR & lang, brief mx, ment Cotonou & Benin, S8 but quick fades to inaudibility. Geoclock pgm shows Cotonou sunrise at this time. (Atkins-WA)
- 4880 BANGLADESH, R. Bangladesh, 5/24, 1256 tlk, pips, "Radio Bangladesh" ID, SIO=343. (Maruo-JAPAN)
- 4881.2 IRIAN JAYA, unid, 5/18, 1010 fair carrier but audio not quite making it. Other Irian Jayans weak also. (Clark-ON) 6/12 checked here but no sign of RPDT Irian Jaya station, off the air temporarily? (Bryant-WA)
- 4890 GABON, R. France relay, 5/29, 0440 mx, FR tlks. (Hart-MN) And here's our other proud owner of the new NRD-535--sp.
- 4915 GHANA, GBC-1, 5/9, 0530-0545 EG & lang ID, mx. (Weinrich)
- 4920 ECUADOR, R. Quito, 5/1, 0324-0335 pop instls, ID 0331. (Weinrich-ND)
- 4950 PERU, R. Madre de Dios, 5/20, 0140 mx, M anncr ment sev stations. 0158 nice ID. (Johnson-MD) Nice to see these stations possible at times other than 4 a.m.--sp.
- 4991 BOLIVIA, R. Animas, 5/21, 0305 amnts, ID, "R. Animas, la voz de . . . en de republica (Bolivia)." (Johnson-MD)
- 5009.4p MADAGASCAR, R. Madagasikara, 6/2, *0255-0330, IS, NA, amnts by W, choral mx & rel tlk in lang, weak. (Alexander)
- 5010 CAMEROON, CRTV Garoua, 5/27, 2250-2301* FR tlk, Afr. folk mx, s/off w/NA, poor w/RTTY QRM. (Alexander-PA)
- 5011.3 ECUADOR, Esc. Radiofonica Pop, 5/11, 0205-0218* pops, HC mx, ID 0212 & abrupt s/off. (Alexander-PA)
- 5020 COLOMBIA, unid, 5/14, 0330-0356* non-stop LA mx, heavy drumbeats, ment Colombia sev times, close w/Colombian NA, weak, only S3-5. (Flynn-OR) Ecos del Atrato?--sp.
- 5020 NIGER, ORTN Niamey, 5/26, *0500-0525 FR choral anthem, full ID, amnts, prayer & tlks, SIO=353 fading. (D'Angelo-PA)
- 5020 SOLOMON ISLANDS, SIBC, 5/19, 0730 mx by W, 0745 mx. (Feeley-GA) 6/11, 0904 lcl pops, great mx, peaks to over S9 w/no noise, like being there. (Bryant-WA) 5/18, 0950+ EG pgm "Faraway Places" anncr read reception rpts! TC 0956, native vcls across the hour, C&W countdown 1025 recheck. (Clark-ON)
- 5025p BHUTAN, BBS each morning 1220-1300 peak around 1230 running up to S5. Perfect grayline. Great subcont mx, brief amnts, poss. ID 1230, 1300 by mush mouth M. Quality sig. If this is Bhutan, we should hear them on crystal set during our sub-cont season! (Bryant-WA) Right John--sp. 4/23, 1345-1430 lcl mx, nx in lang, IS of drums & lcl instruments, flute? mx EG nx 1415, splatter from China 5030, SIO=343 (Flynn-OR)
- 5025 CUBA, R. Rebelde, 5/19, 0346 w/SP tlks, ID, SIO=433. (Hart-MN)
- 5030t TONGA, TBC, 5/10, 0523-0604 mx pgm, no ID & not hrd since, unable to hear w/o special features on the 535. (Field-MI) If you can hear it, maybe there's hope for me yet--sp.
- 5047.3 TOGO, RTV Togolaise, 5/26, 0522 IS of chimes, 0528 FR tlk, mx. (Hart-MN) 0523-0530, 6/12, IS, NA, amnts poor-fair, rapid fade. (Atkins-WA)
- 5054.7t ECUADOR, R. Catolica Nacional, 5/12, 0210-0347* tlks, HC mx, echo amnts, ment Quito, tent ID, hrd previous nite on 5053.7. HC NA at s/off. (Alexander-PA) Also see below--sp.
- 5053.4p ECUADOR, RN Progreso, 5/22, 0325 mx, nx, 0345 s/off w/NA. Couldn't catch ID. (Field-MI) Sorry this out of order--sp.
- 5055 COSTA RICA, Faro del Caribe, 5/9, 0315 EG Focus on the Family pgm. SIO=322. (Hart-MN)
- 5063v ECUADOR, RN Progreso, 5/19, 0246-0338* lively LA mx, TCs, ads, s/off amnts, NA, SIO=454. (D'Angelo-PA) 5/26, 0315-0334* amnts, mx, s/off w/NA. (Alexander-PA)

Reporters from 8 states, 1 Canadian province and 1 foreign country this time. GUY ATKINS sent in his loggings taken during a MAJOR geomagnetic storm. This type of activity wreaks havoc on the SW bands but can often result in unusually good loggings as Guy observed. Also loggings from new reporters JIM FEELEY of Georgia (whom I met at an ANARC convention once) and ICHIRO MARUO of Japan. Appreciated your input. Everyone is encouraged to send in their loggings even if they seem commonplace to you. On the tropical bands conditions can rapidly change and your routine logging may be someone else's target on their want list. JOHN BRYANT'S logs were all from Ft. Ebey State Park, Whidbey Island, WA. VERN HYSON is in the process of moving (that is, literally moving his entire house). Hope everything turns out for good. BILL FLYNN has a new 350' random wire attached to his Drake R7A and is hoping for some good loggings. Bill, by the way, has the WDX call sign of WDX7AF. Greetings from me to our West Coast readers. How about some loggings from our members in the Golden State? Bill also sent in a card advertising a pane of 10 Canadian commemorative postage stamps featuring public gardens. Call 1-800-565-1336 for prices if interested. The address is National Philatelic Centre, Antigonish, NS B2G 2R8 CANADA.

NORMAN BOBB of Minneapolis wrote in to say he heard yours truly on the DX Party Line call in program on HCJB recently. Norman suggested we conduct a little survey to see how many NASWA members heard the program. Norman is 3000 miles from the Voice of the Andes and was using a Barlow Wadley portable radio with a 40' loop antenna inside his basement apartment. Glad you are still tuning in, Norman.

JOHN MEYER of Kellnersville, WI, kindly dropped off something for the Journal just an hour ago. It is a bulletin of the Union of Asian DXers, published by Victor Goonetilleke. Victor, as you may know, is a professional monitor for several shortwave broadcasters from his monitoring post in Sri Lanka. I am sending this to Bill Oliver to use as space permits. Perhaps it would fit in best in conjunction with Dan Ferguson's column but we'll leave it up to Bill.

DXing nor QSLs have been too plentiful here, but I see several of you have managed to pull out good material from the QRN (noise). The latest issue of Fine Tuning (as of June 22) showed loggings from Burundi and Guyana, which has obviously reactivated! Things are looking up!

JOHN BRYANT checks in again on the next page. He has supplied this month's special feature (unbeknownst to him). Please support your NASWA editors as often as possible. It is only with your valuable input that we can continue to produce a top-notch radio publication. I would like to say hello to Richard Cuff and also apologize because it has been my intention for sometime to send him some material for his Easy Listening column but haven't had time to compile much. I believe his column proves very useful and I am sure Richard would appreciate whatever you can send his way for this aspect of the hobby which often suffers from lack of easily accessible info. I have also ordered, but not yet received, John Figliozzi's Shortwave Radioguide, which I'm really looking forward to. Here's a few abbreviations frequently used in the tropical bands column:

AR	Arabic	lang	unknown language	QTH	place
C&W	Country & Western mx	lcl	local	SP	Spanish
EG	English	M	Male announcer	TC	time check
EZL	Easy Listening music	mx	music	TP	time pips
FC	Frequency anmt	nx	news	tlk	talk
FR	French	pgm	program	w	female
ID	Station identification	PNG	Papua New Guinea	w/	with
IN	Indonesian	Pt	Portuguese	w/o	without
IS	Interval signal	QRN	interference	wx	weather
LA	Latin American	QRN	noise	xmtr	transmitter
SCI	Song of the Coconut Islands (15 of Indonesian stations)				

PNG bandscan June 12 from 1210-1230 by JOHN BRYANT in Washington State w/NRD-525 and 100' wire antenna:

3315 R. Manus peaks to S9+20, superb string band sing sing.
3335 R. East Sepik strange almost utility sounding modulation, weak carrier, not its usual strong self.
3345 R. Northern & RRI Ternate (Indonesia) mixing equally. Ternate usually walks over them. Did new 10 kW xmtr come on today?
3355 R. Simbu unhrd, bad, strong ute here, will recheck.
3365 R. Milne Bay, believe hrd mixing w/terrible ute. (Yes, that's another abbreviation - for utility station--sp)
3375 R. Western Highlands, strong sig w/lamentable US C&W mx, really awful.
3385 R. East New Britain, wall to wall S9+20 sig w/great modulation & weak het & audio from presumed Kupang.
3395 R. Eastern Highlands exc S8 sig.
3905 R. New Ireland exc sig & very good modulation. back to. .
3305 R. Western fair but clobbered by RRI Dili on 3306.1

PNG bandscan June 16 from 0930-0945 from Orcas Island, WA:

3205 R. West Sepik fair to good, normally strong.
3220 R. Morobe carrier peaks to S9 but only 60% modulation.
3235 R. West New Britain big sig. Those fellows have their xmtr tuned up real well!
3245 R. Gulf relatively weak.
3260 R. Madang w/S8 sig & good modulation.
3275 R. Southern Highlands relatively weak.
3290 R. Central quite weak, quite sure old 2 kW xmtr.
3305 R. Western off yet again.
3325 R. North Solomons still not there.

If R. Northern is, in fact, using the new 10 kW xmtr as per Darling on Media Network, they either have an awful location, poor antenna or both - sig on June 16 S2 to S4.

Indonesian bandscan June 12, 1213-1245:

3222.9 RRI Mataram w/modulation problems, Jakarta nx relay 1200.
3306.1 RRI Dili w/close of Jakarta nx, into lcl pgm, exc S8 to 9 sig. In early June noted off sev mornings.
3324.7p RRI Palangkaraya audible 1216, also hrd open carrier on 3325.0.
3384.8p RRI Kupang, refer to 3385 logging above.
3447.1p RRI Pontianek het only 1230.
3579.8 RPDT2 Asahan noted sev mornings 1200-1300 early June weakly.
3654.3p RPDT2 Buol Toli Toli w/pops 1154 UTC low audio, distorted, peaks S7 but audio barely there, LSB best. (Note: Kirk Allen rptd in NU that Aboe Thaliep of Indonesia thinks this is Luwu station, not Buol Toli Toli. Kirk has sent his tape to Aboe to recheck.)
3934p RRI Semarang, S6 carrier, weak audio only.
3959.8 RRI Palu, S8 carrier, very poor audio.

Heterodynes also noted on 2962.7 (RPDT2 Manggarai), 2694.9 (RPDT2 Ende), 2895.6 (RPDT2 Bima?), 2987.3 (RKPDT2 Ngawi?) Ngada 2904.8 not noted.

Thank you to all who contributed this month and, hopefully, conditions will only improve! Hope everyone enjoys the summer.



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International Band Loggings

- 5960 CANADA R Japan relay in EG 0100, nx, QRM in background (Flynn OR 5/21)
 5975 ANTIGUA BBC relay in EG 0134, "Seven Seas" pgm re ships (Wolfson OH 5/10)
 6005 CANADA CFCX Montreal in EG 0000, bcst of Expos vs Pirates (Wentworth MA 5/21)
 6020 NETHERLANDS R Nederlands in EG 0104, "Images", tlk re drama (Wentworth MA 5/21)
 60499 NIGERIA RN in Vern 2225-2307*, folk mx, EG at 2300, ID, NA (Alexander PA 5/18)
 60553 PERU R Continental in SP 0225, ballads, ID, ads, g (Paskiewicz WI 5/21)
 6085 GERMANY Bayerischer Rundfunk in GM 0100, mx, tlk, ID, p (Tucker GA)
 6135 BOLIVIA R Santa Cruz in SP *0900, IS, ID, fqys, QTH, LA mx, exc (Berg MA 5/22)
 6145 ALGERIA RTV Algerienne in AR 0015, hrd under D Welle, //15215 (Johnson MD 5/18)
 6155 BOLIVIA R Fides in SP 0025, lcl mx, ID 0045 (Johnson MD 6/1)
 61917 PERU R Cuzco in SP 0011, non-stop tlks, quick ID (Johnson MD 6/1)
 67547 PERU R La Merced (t) in SP 0345-0405, Andean mx, TC's, ID? (Paskiewicz WI 5/13)
 6840usb UNITED KINGDOM BFBS in EG 0025, pop mx, ID's, TC's, BBC nx (Alexander PA 5/27)
 7255 NIGERIA V of Nigeria in EG 0459*, mx, nx, ID (Weinrich ND) in EG 0555, pgm notes
 pop mx, ID, TC, nx, talking drums 0629 (D'Angelo PA 5/25, Alexander PA 5/12)
 7270 SOUTH AFRICA RSA in EG 0438, ID, modern mx, heavy QRM, p (Hart MN 5/2)
 7345 CZECHOSLOVAKIA R Prague in EG 0300, ID's, IS, //5930, 9540, f (Flynn OR 5/21)
 9115usb ARGENTINA R Continental in SP 0020, vcls, anmts, ID, ads, promos (Paskiewicz)
 in SP 0225, tlks, ID, 3 pips on 1/2 hr, 5+1 on the hr, nx? (Jordan PA 6/6)
 9445 TURKEY Vof in EG 0300, IS, nx, cmntry, contest (Carson OK 6/6, Weinrich ND 5/1)
 in EG 2200, nx, Turkish mx, essay contest, p (Tucker GA 5/16)
 9475 EGYPT R Cairo in EG 0150, ID, political cmntry, req rpts, p (Hart MN 5/5) in EG
 0224, tlk re "Moscow Summit", ID, freqs, tlk re Israel, p (Carson OK 6/6)
 9480 MONACO TMR Monte Carlo in EG 0636, IS, ID, relig pgms, f (Carson OK 6/8)
 9560 ETHIOPIA VoE in EG 1530, ID, 3 chimes, TC, nx, clear but wk sig (Flynn OR 5/18)
 9570nf NIGERIA RN in EG 0550-0630, tlk, ads, ID, drums, TC, nx, mx (Alexander PA 5/12)
 9580 ALBANIA R Tirana in EG 0232, nx, mx, mailbag, s/off 0257 (Carson OK, Hart MN)
 9580 AUSTRALIA RA in EG 1452, "Innovations" tlk on voice prints (Grenier NV 5/22)
 9630 SPAIN Spanish Foreign R in EG 0037, financial nx (Wentworth MA 5/21) in EG 0500
 nx, cmntry on Yugoslavia & Tito, press review (Weinrich ND 5/8)
 9675 BRAZIL R Cancao Nova in PT 0045, Brazilian pops, ID, tlk (Crushhorn TX 6/10)
 9680 AUSTRALIA RA in VT 1330, IS, nx (Carson OK) in EG 1501, cmntry (Grenier NV 5/22)
 9900 EGYPT R Cairo in EG 2115, nx, AR mx, Ramadan discussion, f (Tucker GA)
 11620 INDIA AIR in EG 2100, coverage of Gandhi assassination, mx (Johnson MD 5/21)
 in EG 2200, nx, reaction to assassination of Gandhi, ID (Weinrich ND, Tucker GA)
 11660 BULGARIA BR Horizont in EG 0320, pop mx, //7670, ID, exc (Johnson MD 5/18)
 11685nf CZECHOSLOVAKIA R Prague in EG 0000, nx, class mx, tlks, f/g (Jordan PA 5/19)
 11695 FRANCE RPT in EG 1329, nx, discussion on Lebanon, ID, f (Carson OK 5/24)
 11735 YUGOSLAVIA RY in EG *0000, nx, political tlks, f (Jordan PA 5/19) in EG 0015,
 "European Culture Society" and other features, g (Flynn OR 5/17)
 11800 ITALY RAI in EG/FR 0100, IS, ID, nx, into FR 0121, f (Carson OK 6/10)
 118215 COLOMBIA R Nacional Bogota in SP 0030, LA mx, tlk, ID, p (Tucker GA 5/13)
 11840 PORTUGAL RP in PT 0000, tlk, into brief mx 0003, more tlk, g (Carson OK 6/6)
 11865 JAPAN RJ in EG 1530, "DX Corner", testing of AM stereo in Japan (Hart MN 5/26)
 11925 NORWAY R Denmark relay in DN 0300, ID in EG at s/on, f (Hart MN 5/6)
 11925nf GERMANY D Welle in EG *0500-0550*, nx, mailbag, orch mx, f-g (Jordan PA 5/12)
 12015 MONGOLIA R Ulan Bator in EG *1200, IS, ID appx 1 min after R Beijing's s/on,
 1 time pip hrd, then into nx(p), extremely poor signal (Jordan PA 5/29)
 12085 SYRIA R Damascus in EG 2020, Mid-East nx, lcl mx, polit tlk, p (Tucker GA)
 12095 UNITED KINGDOM BBC in EG 0200-0445, country mx, nx (Grenier NV, Karcheski MA)
 13605 AUSTRALIA RA in EG 1619, rpt on cyclone in Bangladesh (Grenier NV 5/1)
 13610 GERMANY D Welle in EG 0107, "European Journal" (Wolfson OH 5/10)
 13630 COSTA RICA RFPI in EG 0114, pgm re C&W singer Ramona Jones (Wolfson OH 5/10)
 13750 ISRAEL Kol Israel in HB 0204, call-in show, mx, vocals (Wolfson OH 5/31)
 141976 KIRIBATI RK in EG *0609, s/on w/C&W tune, lcl nx, TC, US pop mx, relig pgm, g
 (Alexander PA 5/19) s/on 0555 w/tone, fanfare, ID, ancd 846 MW freq (Clark ONT)
 in EG 0650 w/R Australia pgm, "Pacific Sunrise", lcl lang 0700 (Feeley GA 5/21)

15029nf COSTA RICA RPPI in EG 0250, tlk on Kuwait after the war, //7375 (Flynn OR 5/21)
 15115 NO. KOREA R Pyongyang in EG 0032, nx, choral mx, f (Carson OK 6/4)
 15140nf CUBA RHC in EG *0200, "One Man's Opinion", Cuban & jazz mx, g (Jordan PA 5/20)
 NOTE: My SWL Register indicates that RHC used this freq way back in 1973 (Ed)
 15180 FINLAND RF in EG 2300, "Northern Report", sked (Flynn OR 5/17, Sampson WI 5/20)
 15190 BRAZIL R Inconfidencia in EG 0301, short segment of EG with ID, QSL (Zilmer NM)
 15208 BANGLADESH RS in EG *1230-1300*, freqs, nx, lcl mx, ID (Alexander, D'Angelo PA)
 15210 SOUTH AFRICA RA in EG 1504, nx and press review (Grenier NV 5/15)
 15250 SRI LANKA VOA relay in EG 0112, rpts on situation in Ethiopia (Johnson MD 5/29)
 15260 CANADA BBC relay in EG 1400, Soccer Cup final, nx at halftime (Tucker GA 5/18)
 15260 ASCENSION IS. BBC relay in EG 0134, opera pgn incl cmtry, exc (Carson OK 6/10)
 15285 CHINA R Beijing in EG 0000, nx, rpt on Intl Children's Day (Crumhorn TX 6/2)
 15345nf MOROCCO RTM in AR 2100, tlks in AR, ME mx, chants, pips, ID, f (Jordan PA 5/18)
 15350 LUXEMBOURG R Luxembourg in FR/EG 0402, ID in EG, pop mx, f (Hart MN 5/20)
 15485 USSR R Kiev in EG 2326, "Kiev Dynamo", relig revival in USSR, g (Hart MN 5/17)
 15550 GRECE V of Greece in GK *1500, IS, ID, nx, local mx (Zilmer NM 5/22)
 15710 CHINA CPBS Taiwan 1 Service in CH 1205, long cmtry, //11100, exc (Crumhorn TX)
 15770usb ICELAND INBS in IC *1935, tlk, mx bridges, //13855 (Alexander PA 5/19)
 15880 CHINA CPBS Taiwan 2 Service in CH 1200, cmtry, g, //11000 (Crumhorn TX 5/31)
 17500 TUNISIA RTV Tunisienne in AR 0545, tlks, ME mx, into FR 0620 (Jordan PA 5/26)
 17685 ISRAEL Kol Israel in EG *1900, pips, ID, TC, pgn notes, nx, f-g (Jordan 5/19)
 17715 AUSTRALIA RA in EG 2200, nx, ID (Zilmer NM 6/9) in EG 0332, address by Aust PM,
 (Grenier NV 5/18) in EG 0500, nx, press review, cmtry, exc (Carson OK 5/15)
 17725 LIBYA V of the Great Homeland in AR 1940, tlks, Q&A format, martial mx, polemics
 f-p (Jordan PA 6/1) in AR 0045, drama, //15435 (Flynn OR 5/21)
 17770 NEW ZEALAND RNZ in EG 0430, mailbox, ads, sports (D'Angelo PA, Grenier NV 5/29)
 17795 AUSTRALIA RA in EG 0448, tlk re Australian television (Grenier NV 5/17)
 17800 ITALY RAI in IT 1440, Sunday sports, live soccer, p (Flynn OR 5/19)
 17825 JAPAN RJ in EG 0548, mailbag, cmtry on women & the law, f (Carson OK 5/21)
 17825 BULGARIA R Sofia in EG 0300, nx, stronger than co-channel R Japan (Zilmer NM)
 17855 CHINA R Beijing in EG *1200, IS, ID, nx, political tlks, p (Jordan PA 5/20)
 17875nf? SWEDEN RS in EG 1533-1558*, mailbag, DX pgn (Hart MN 5/5, Sampson WI 5/19)
 21500 SWEDEN RS in EG 1544, tlk re dairy business in USSR (Grenier NV 5/16)
 21635 FRANCE RP1 in FR/EG 1220, "France News Weekly", IS, ID, into EG 1230, nx, mx,
 appt of first woman as FR PM, //21645 (Jordan PA 5/13, Tucker GA 5/15)
 21730 PAKISTAN RP in EG 0232-0245*, slo speed nx, ID, abrupt s/off, p (D'Angelo PA)

CLANDESTINE STATIONS

6260v R Patria Libre in SP 0104, tlks, IDs, mx (Paszkiewicz WI 5/20)
 6290v El Pueblo Responde in SP 0032, tlk, ID, LA mx (Alexander PA 5/19)
 7520 Cuban Alliance via WOCR in EG 2305, anti-Castro, Miami address (Field MI 5/13)
 11710 Radio SPLA in AR/EG 1343, mentions of Sudan, off in EG w/freqs (Carson OK 5/24)
 15600 V of Free Iraq in AR 2220, tlk, some mx, jammed, //9570, 17960 (Alexander PA)
 15650 R Iran In lang *0225-0322*, piano IS, ID, NA, ME mx, tlk, //9400 (Alexander PA)
 15690 Municipalities of Cuba in Exile via WOCR anti-Castro pgn 2310 M-P (Field MI 5/14)
 17950 V of the Iraqi Opposition hrd this freq 2105 instead of 17940 (Johnson MD 5/21)

PIRATE STATIONS

6205 R Fax Europirate Ireland? with hit songs 0353, //12255 (Berg MA 5/12)
 7410 Voice of Tomorrow wolf howl IS, Neil Young mx, speech 0507 (Paszkiewicz WI 5/5)
 7412 WHIP "The Voice of the Hipster" 0338, jazz mx (Paszkiewicz WI 5/20)
 74156 Action Radio in EG 2300-0014*, reggae, oldies, rock, spoofs, ID's, QSL card
 offer, Wellsville, NY addr (Paszkiewicz WI, Berg MA, D'Angelo PA, Alexander PA)
 74167 Radio USA in EG 2140-0019, ID, rock, fake ads, comedy (Alexander, D'Angelo)
 11401 R Waves Int Europirate 0605, pop mx, ancnmts, ID, p (Alexander PA 5/5)
 114159 R Stella Int in EG 0110-0456, pops, IDs, mailbag, p (Alexander, Field MI 5/19)
 12255 R Fax in EG 0115-0435, ID, pops, mail, ads, freqs (Alexander, Clark ONT 5/19)
 15046 Free R Service Holland in EG 0122-0206, test to NA, ID, rock, p (Berg MA 5/12)
 15050 R Tower in EG 0140, pops, IDs, Utrecht, Holland addr, p-f (Alexander PA 5/18)

 Small wonder that the contributions this month are so light in view of the severe solar
 flares over the past few weeks. I could hardly believe my ears when WWV announced the
 Solar Activity number for June 5. Isn't 151 off the scale? Anyway, the N Lights are nice!

English Schedules

Tom Sundstrom

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Pinelands RBBS 609-859-1910



Prepared 6/28/91 at 7:36 PM.

Thanks to John Carson (OK), Patrick Crumhorn (TX), Kris Field (PA), Gordon Darling (Papua New Guinea), Tetsuya Kondo (Japan), Andy Sennitt (WRTH), Bob German (EWTN) and Joe Hanlon (PA) for material received.

Notes

Vatican Radio moved off 11620, to 11625, clearing the frequency for long-time occupant All India Radio. In early June, from Austin, TX, via the FidoNet SHORTWAVE echo, Patrick Crumhorn tipped us to R Beijing's change of its 00 UT NA frequencies to 15285 and 17790; all indications here are that these are via Mali.

The solar disturbances that began June 1 with a major SWF at 15 UT produced interesting trans-equatorial conditions all that week. I heard Radio Nacional de Venezuela on 9540 - at 2140 with news in English and French. Normally this station is impossible to hear due to the European interference.

WRNO has dropped all but three of the *World of Radio* releases. Prime-time M-F has been sold to a group airing Spanish-language programming for Cuba.

Jonathan Marks on *Media Network* June 20 carried an update on the Kol Israel threatened July 1 budget cuts. If these are carried out, only the 1900 and 2130 English releases will remain. R Sofia has made major changes to its English schedule. Within the story about the volcano's effect on broadcasters in the Philippines, I learned that R Veritas has a 5-minute English newscast at 1530 in the middle of the 1505-1505 Tatalog broadcast on 15140 to the Middle East. I can't hear it due to co-channel interference.

Bob German of EWTN tells us that there has been a change of plans with transmitter sites. The proposed Italian site has been dropped. Birmingham, AL, will be the home of four 500 kw Continental transmitters to cover everything but India, China and the eastern USSR. An engineering study showed that the consolidation of sites is possible without compromising the signal in the target areas.

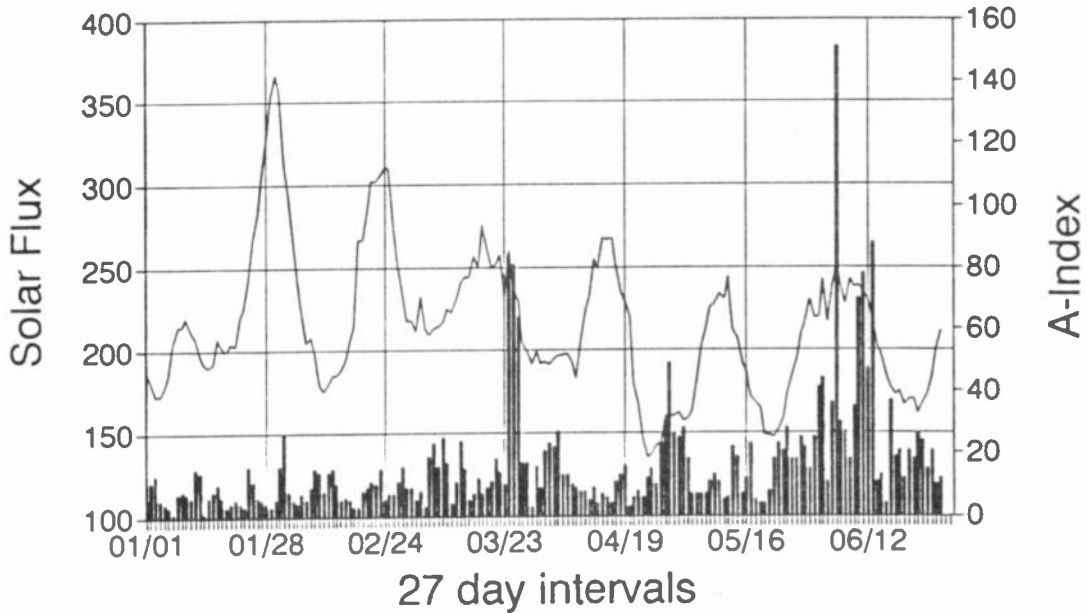
R Budapest cuts reportedly take effect July 1. English is cut back to two hours per day. Per Jeff White on *MN* June 27, AWR Costa Rica has purchased the Radio Impacto sites, transmitters and frequencies. More details will follow.

Attention NRD-535 Owners!

Three IBM PC-compatible software packages are now ready for immediate shipping. The award-winning *English Language SWBC Schedules* program now loads frequencies into the VFO or receiver memories. Load the memories of the receiver with files you create using the *NRD-535 Memory Manager*. The NRD-535 has a single event clock, but like programming a television VCR set up the PC in the *NRD-535 Event Management* to turn the receiver and tape recorder on and off to capture multiple shows when you can't be around to listen. For a catalog, send a business-size SASE to TRS Consultants, PO Box 2275-NA, Vincentown, NJ 08088-2275 or download TRS_SOFT.ZIP from the Pinelands RBBS or TRS_SOFT.EXE from GENIE's Radio BBS.

Solar Flux & A-Index: Jan-Jun 91

Recorded from WWV

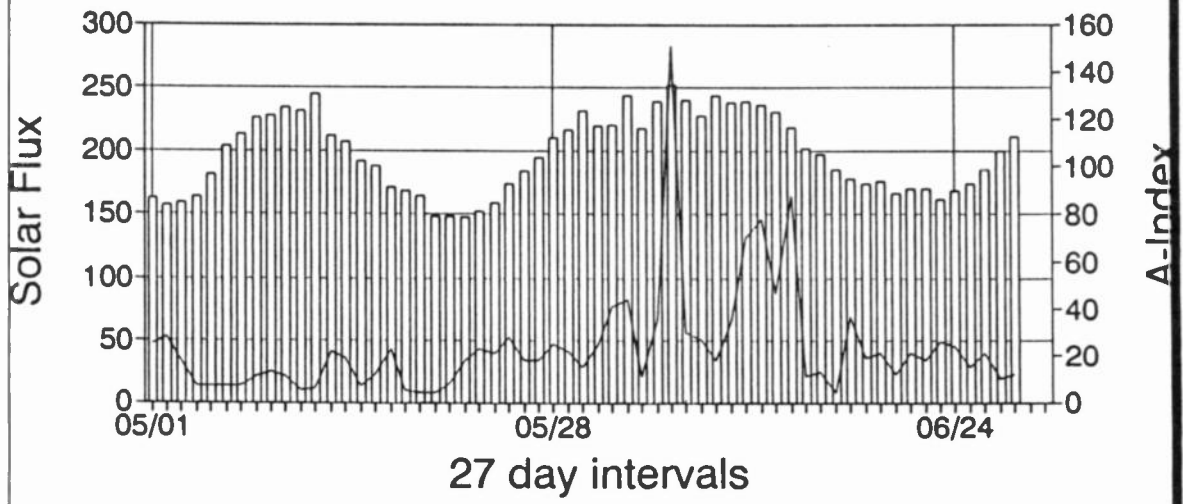


by Sundstrom

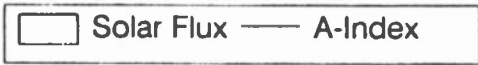


Solar Flux & A-Index: May-Jun 1991

Recorded from WWV



by Sundstrom



Changes entered between 05/26/91 and 06/28/91.

ENGLISH LANGUAGE SW BROADCAST SCHEDULES: By Start Time
Compiled by Thomas R. Sundstrom, W2XG

Start Time (UTC)	End Time (UTC)	Country	Station	Freq #1	Freq #2	Freq #3	Freq #4	Freq #5	Freq #6	Freq #7	Freq #8	Target Area	Notes	Record Last Updated
0000	0100	China	R Beijing	17705	15285							ENA	v Mali	06/03/91
0000	0300	USA	WRNO	7355								NA/CA	Spanish Tu-F	06/05/91
0040	0055	Venezuela	R Nacional de Venezuela	9540								SA	news/Eng Tu-Su	06/06/91
0100	0130	USSR	R Tashkent	11975	9740	7335	7325					unknown		05/27/91
0145	0200	Vatican State	Vatican Radio	15090	11935							As/Aus/NZ		06/06/91
0200	0300	Hungary	R Budapest	11910	9835	6110						NA		06/28/91
0300	0515	Bulgaria	R Sofia	17825	15160	11720						World Service: NA/Af		06/07/91
0300	0600	USA	WRNO	6185								NA/CA	Spanish Tu-F 03-04	06/05/91
0340	0355	Venezuela	R Nacional de Venezuela	9540								SA	news/Eng Tu-Su	06/06/91
0500	0530	Vatican State	Vatican Radio	17730	15090	11625	7250	6245				E&S Afr/Eu	#344 -0520	06/24/91
0600	0650	Fed Rep Germany	R Deutsche Welle	17875	15205	15185	13790	13610	11780			W Afr		06/28/91
0630	0700	Vatican State	Vatican Radio	17730	15090	11625						C&S Af		05/28/91
0730	0825	Netherlands	R Netherlands	11895	9630							NZ/Aus	v Bonsire	06/05/91
0900	1000	Bhutan	Bhutan Broadcasting Serv	6035									Su	06/22/91
0900	0950	Fed Rep Germany	R Deutsche Welle	21680	21650	21645	21600	17820	17780	15410	11915	Aus/As/S&C&E Afr		06/28/91
0930	1030	Afghanistan	R Afghanistan	21600	17655							S&SE As/ME	#182 v USSR	06/22/91
1100	1300	Costa Rica	AWR Costa Rica	11870	9725							CA/SA		06/19/91
1140	1155	Venezuela	R Nacional de Venezuela	9540								SA	news/Eng M-Sa	06/06/91
1200	1300	USSR	R Moscow	21800	21785	17810	17570	15560	15485	15375	15155	World Service	#10 v Cuba	06/01/91
1345	1400	Vatican State	Vatican Radio	17535	15090	11830	11740	9645	9615	6245		As/Aus/NZ/Eu		06/24/91
1415	1500	Bhutan	Bhutan Broadcasting Serv	5025									M-Sa	06/22/91
1440	1455	Venezuela	R Nacional de Venezuela	9540								SA	news/Eng M-Sa	06/06/91
1445	1515	Mongolia	R Ulan Bator	13780	7260							India		06/22/91
1500	1600	Ethiopia	V of Ethiopia	9560	7165							E Af	(RMMN 6/27)	06/28/91
1545	1600	Vatican State	Vatican Radio	17865	15090							As/Aus/NZ		06/07/91
1700	1800	Pakistan	R Pakistan	15550	11570							W Eu		06/05/91
1730	1900	Bulgaria	R Sofia	17825	17780	15330	11765	11720	11660			World Service: Eu/Af		06/07/91
1730	1800	Vatican State	Vatican Radio	17730	15090	11625						E&S Afr		05/28/91
1840	1855	Venezuela	R Nacional de Venezuela	9540								SA	news/Eng M-Sa	06/06/91

1940	2010	Mongolia	R Ulan Bator	11850	11790							M Eu	06/22/91	
1945	2030	Bulgaria	R Sofia	17825	17780	11765						World Service: Eu/Af	06/07/91	
1950	2010	Vatican State	Vatican Radio	7250	6245							Eu	06/24/91	
2000	2100	China	R Beijing	15110	11715	11500	9920	9640				WMA Af/Eu	#1&2 v Meli	05/28/91
2100	2200	Hungary	R Budapest	11910	9835	6110						Eu	06/28/91	
2100	2400	USA	WRNO	13720								NA/CA/Eu	Spanish M-F	06/05/91
2100	2115	Vatican State	Vatican Radio	15090	11625	9645						CBS&M Af		06/24/91
2140	2155	Venezuela	R Nacional de Venezuela	9540								SA	news/Eng M-Sa	06/06/91
2145	2400	Bulgaria	R Sofia	17825	15330	15110	11710	11660				World Service: Eu/NA		06/07/91
2200	2300	USSR	R Moscow	17655	15535	15500	15355	12060	11890	11850	11710	World Service	#8 v Cuba -04 UT	06/08/91
2245	2305	Vatican State	Vatican Radio	15105	11830	9600						As/Aum/N2		06/24/91
2300	0100	Costa Rica	AMR Costa Rica	11870	9725							CA/SA		06/19/91
2300	2330	USSR	R Vilnius	15485	15180	13645	11790					NA		06/03/91
2330	2355	Belgium	BRT	13710	13655							NA/SA		06/16/91

Changes entered between 05/26/91 and 06/28/91.

ENGLISH LANGUAGE DX SHOWS: By Day of Week

Compiled by Thomas R. Sundstrom, W2XR

Shortwave DX Program	Show Xmas			Station	Freq							Target Area	Notes re DX Show	Record Last Updated
	Start Time	Start Time	Country		#1	#2	#3	#4	#5	#6	#7			
** DAY OF THE WEEK: Sunday														
DX Log	0200	0200	Hungary	R Budapest	11910	9835	6110					NA		06/28/91
R Sofia Calling	2330	2145	Bulgaria	R Sofia	17825	15330	15110	11710	11660			World Service: Eu/NA		06/28/91
** DAY OF THE WEEK: Monday														
R Sofia Calling	0445	0300	Bulgaria	R Sofia	17825	15160	11720					World Service: NA/Af		06/28/91
World of Radio	1530	1500	USA	WRNO	15420							NA/CA/Eu		06/05/91
R Sofia Calling	1830	1730	Bulgaria	R Sofia	17825	17780	15330	11765	11720	11660		World Service: Eu/Af		06/28/91
** DAY OF THE WEEK: Tuesday														
OKers Unlimited	2035	1900	Cuba	R Havana	17705							Eu/Af/ME		06/05/91
OK News	2100	2100	Hungary	R Budapest	11910	9835	6110					Eu		06/28/91

** DAY OF THE WEEK: Wednesday												
DX News	0200	0200	Hungary	R Budapest	11910	9835	6110	NA	06/28/91			
DX Log	2100	2100	Hungary	R Budapest	11910	9835	6110	Eu	06/28/91			
R Sofia Calling	2330	2145	Bulgaria	R Sofia	17825	15330	15110	11710	11660	World Service: Eu/NA	06/28/91	
** DAY OF THE WEEK: Thursday												
DX Log	0200	0200	Hungary	R Budapest	11910	9835	6110	NA	06/28/91			
R Sofia Calling	0445	0300	Bulgaria	R Sofia	17825	15160	11720	World Service: NA/AF	06/28/91			
** DAY OF THE WEEK: Friday												
R Sofia Calling	1830	1730	Bulgaria	R Sofia	17825	17780	15330	11765	11720	11660	World Service: Eu/AF	06/28/91
R Sofia Calling	2000	1945	Bulgaria	R Sofia	17825	17780	11765	World Service: Eu/AF	06/28/91			
DX News	2100	2100	Hungary	R Budapest	11910	9835	6110	Eu	06/28/91			
R Sofia Calling	2330	2145	Bulgaria	R Sofia	17825	15330	15110	11710	11660	World Service: Eu/NA	06/28/91	
** DAY OF THE WEEK: Saturday												
DX News	0200	0200	Hungary	R Budapest	11910	9835	6110	NA	06/28/91			
R Sofia Calling	0445	0300	Bulgaria	R Sofia	17825	15160	11720	World Service: NA/AF	06/28/91			
DX Log	2100	2100	Hungary	R Budapest	11910	9835	6110	Eu	06/28/91			

M-7000 multi-mode decoder for sale. RTTY, Sitor, VFT (FDM), ARQ, Fax, CW. Video Fax and read-time clock options included. Clean, like new. This is version 2.02. \$900 OBO plus shipping, handling, insurance. If you need the esoteric Swedish ARQ and FEC modes you can upgrade with a \$69 ROM from Universal Radio. Tom Sundstrom, PO Box 2275, Vincentown, NJ 08088-2275 or call evenings/weekends 609-859-2447 or leave email on Pinelands RBBS or Genie or MCI Mail.

Publisher's Page

Bill Oliver
45 Wildflower Road
Levittown, PA 19057



NOTICE, PLEASE.

The NASWA Journal is mailed by First Class Mail with a permit imprint to avoid having to affix stamps to each copy. Until last February when we got the postage increase, the section of the post office that handled permit imprint mail was open on Saturday. As a further cost savings, this section is now open from Monday to Friday only. This isn't really a great problem because we have been able to mail each issue on Friday with only a few exceptions and we expect to be able to do so in the future. This notice is to advise the membership that should a holiday or some other problem delay our mailing, the Journal will have to be mailed on the Monday following the first Saturday of the month.

NO COLLECT CALLS, PLEASE.

FOR SALE: Kenwood R-5000 communications receiver with optional YK-88A-1 AM filter. Mint! \$750.00 including UPS. I'm studing for ham license and need \$ to purchase a transceiver. Bob Schoenleber, 310 Yardley Commons, Yardley, PA 19067. Phone (215) 493-1019.

FOR SALE: Alpha Delta DX-SWL 60-foot sloper antenna. Used, but in excellent condition. Price \$50.00 including 30-foot RD-58 lead-in and UPS. Also a Simpson 260-6 VOM meter. Used, but in excellent condition with manual and leads. Price \$50.00. Mark Darter, 99 Tide Mill Lane #134, Hampton, VA 23666. Phone (804) 838-0176.

WANTED: World Radio TV Handbooks. I still need the following for my collection: 1946, 47, 58, 59, 60, 61, 62, and 68 and the Summer Editions for all years issues except 1968 and 71. I have the following to trade with other collectors: 1952, 53, 54, 55, 56, 65, 66, 74, 78, and 79. Harold Sellers, 101 Rutledge Ave., Newmarket, Ontario, Canada L3Y 5T5. Phone (416) 853-3518.

FREE: 1991 WRTH. Never used. I got it free and it's going to the first \$2.00 (for postage) I get. Gerry Bishop, 126 Dyer Street, Niceville, FL 32518.

WANTED: Old shortwave receivers such as Zenith, Hallicrafters and Scott in any condition. C. Blatter, 610 West Sunset Drive, Redlands, CA 92373. Phone (714) 792-4184.

FOR SALE Yaesu FRG-7 with Collins filter installed by Radio West. Also MFJ-1020A active antenna. Make offer. Al Clark, 33 Bull River Bluff Drive, Savannah, GA 31401. Home phone (912) 897-7515; work (912) 233-1271.

FOR SALE: JRC NRD-525 receiver with all ESKAB modifications, 1.8 and 1.0 kHz filters, NVA-88 speaker and service manual. Price \$1000.00. Alan Johnson, 6001 Goldboro Road, Bethesda, MD 20817. Phone (301) 229-7069 before 0200 UTC.

FOR SALE: Kenwood R-5000 with AM filter. Six months old and in excellent condition. Price \$750.00. John H. Ferguson, 63 Pine Ridge Road, Buzzards Bay, MA 02532. Phone (508) 759-5257.

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The Journal of the
North American Shortwave Association

ISSN 0160-1989

Executive Director: Bob Brown, 238 Cricklewood Circle, Lansdale, PA 19446
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