

NASA

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NORTH AMERICAN SHORTWAVE ASSOCIATION

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As you read in last month's Journal, the Winter SWL Festival will be continuing under the sponsorship of NASWA. After a dozen wonderful hobby events, **Bob Brown**, **Harold Cones** and **Kris Field** have stepped down as hosts of this annual gathering. NASWA has always been heavily involved in the Winter SWL Festival. Our new hosts, **Richard Cuff** (rdcuff@sprintmail.com) and **John Figliozzi** (jfiglio1@nycap.rr.com), are better known as Mr. and Mrs. Hospitality for keeping the refreshments flowing each year. They will form the heart of the new organizational committee. We hope to see all club members come out and support the 13th annual Winter SWL Festival in Kulpsville, PA on 10 and 11 March 2000. I'll be there and I look forward to meeting as many members as possible once again!

Congratulations to our own **Maryanne Kehoe** who was selected as one of two women honored by JT Clayton Designs for outstanding dedication to vital volunteer service. The award recognizes Maryanne's distinguished efforts of volunteerism at the Atlanta Olympic Games and in the shortwave radio domestic and international communities. The selection process recognizes (1) creativity with volunteer endeavors, (2) consistency in volunteer efforts, (3) public interest and awareness of volunteer projects, and (4) attitude and focus concerning volunteer commitments. The JT Clayton Designs award recognizes "woman who work to strengthen the links in life's chain." Congratulations Maryanne!

ANARC SWL Ham Net

Dave Kirby, one of the net controls for The ANARC SWL Ham Net, has announced a survey to determine whether the net should come back from its summer hiatus. Questions include whether you would be willing to participate on air or via IRC chat channel #swl. Dave and Al Quaglieri hope to bring the net back this fall, depending on the results of the survey. You can find the survey and more information about the future of the ANARC SWL Ham Net at Dave's web site, <<http://www.n1dk.com/>>.

For the pennant collectors we have received word from our good friend TIN that Radio Nuevo Mundo's 21th anniversary pennant is, now available. It costs just US\$5.00, which includes shipping. You can order it from Takayuki Inoue Nozaki, 18-11 Fuzimi-cho, Hachioji-shi, Tokyo 192-0044, Japan. The 20th anniversary giant pennant is still available for US\$20.00.

Just a reminder, be sure to check out the On The Shortwaves website at <<http://www.ontheshortwaves.com/>>. It is devoted to the history of shortwave broadcasting and shortwave listening. The site is a joint production of NASWA members **Jerry Berg** and **John Herkimer**. The main focus of the website is on shortwave broadcasting and the listening hobby that has grown up around it. The site is also home to the Committee to Preserve Radio Verifications ("CPRV"), where hobby enthusiasts can find informa-



Visit our club home page on the World Wide Web at <http://www.anarc.org/naswa/>

Our Motto is - "Unity and Friendship"

Membership Questions?

If you have any questions concerning your membership, renewals, change of address, etc please contact Bill Oliver by postal mail (45 Wildflower Road, Levittown, PA 19057) or e-mail (boliver@bboard.com).

tion about the CPRV's operation; copies of "The CPRV Page," which used to be published in various club bulletins and which contains illustrations and descriptions of many QSLs; and a gallery of other interesting CPRV QSLs.

The Ontario DX Association announced the results of its "Radio In My Life" essay contest. The contest attracted entries from 86 writers in 29 countries on five continents. The judging panel of Ian McFarland, Jim Orcheson, Joe Robinson, Harold Sellers and Tom Williamson had a difficult task in choosing the winners. There were many excellent essays. The first place winner was Terry L. Parsons of Hastings, Nebraska. Terry's prize was a Grundig Yacht Boy 400PE Radio.

Runners-up Neil T. Greenidge, John Grimley, Vern Modeland, and Chris Thompson received either a *World Radio TV Handbook* or *Passport to World Band Radio*.

I'm off to French Creek State Park for our first DXpedition of the season. There is nothing like a DXpedition to make DX happen. We must be closing in on 30 trips over the years and I have enjoyed all of them... er, at least most of them. They are great fun and provide an excellent opportunity to hear some good stuff that is covered up by local noise (electrical, family, etc.).

That's it for this month. Enjoy this month's edition of the JOURNAL; it's another good one.



Welcome to the following new NASWA members

Michael Banys, Evergreen Park, IL
Duane Chapman, Somis, CA
Richard J. Ciskal, Buffalo, NY
Philip Citro, Thornton, CO
Albert DeLaFuente, Edinburg, TX
Boniface DeSilva, San Francisco, CA
Eugene Fifi, Indianapolis, IN
James Francis, College Point, NY
Tom Gore, Orlando, FL
Francis Grimmer, Jacksonville, FL
David Earl Hardin, Cincinnati, OH

Lyle G. Hill, Beloit, WI
Bruce Kainrath, Palos Heights, IL
William Koza, Chagrin Falls, OH
Ruben Larios, San Isidro, TX
Paul B. Larrabee, Calverton, NY
Tom Powers, Woodstock, GA
Luke Seubert, California, MD
George Uhler, Brookings, OR
Sam Weingart, West Lafayette, IN
Greg Young, Waco, TX

FRENDX: Twenty Five Years Ago....

Headquarters put out a call for a volunteer to co-ordinate band monitoring competitions. Charles Wootten volunteered to take over the Shortwave Center column from Ed Shaw. Andy Robbins wrote about the formation of "the branch DX club." In the Clandestine Bulletin column, Larry Magne wrote about Radio Independent Spain and Radio Euzkadi. Don Jensen announced the additions of Antarctica, Bhutan and Scotland to the country list. Henry Rockwood and Robert Wiles prepared their second and final QSL Report column. Bob Zabat was appointed replacement editor. Bob Padula reached the 200 countries verified plateau. Bob Hill's first editorial effort as Log Report A editor appeared in November. Jerry Lineback noted the increase in reports for frequencies above 17 MHz.

Calendar Of Events

Nov'99 Convention. The annual **Conference of the European DX Council** will be held in Copenhagen, Denmark from 5-7 November 1999. The venue will be the Hotel Eremitage (one night in single room 515 DKK or one night in double rooms 370 DKK/per person). This is with the condition that everybody with hotel reservation is requested to participate in the Banquet Dinner plus afternoon coffee costing 260 DKK. The conference fee isn't set, as it depends a bit on the number of participants and also on what conference facilities we are going to need, but this will be 200 DKK as a maximum (hopefully clearly less than that). Reservations and private questions to risto.vahakainu@helsinki.fi. Suggestions, proposals, public comments etc. to edxc@kotalampi.com.

Nov 19 Meeting. Philadelphia Area NASWA Chapter. Kulpsville Holiday Inn, Kulpsville, PA at 7:30 PM. For more information contact Dan Cashin at 610-446-7831.

Nov 19 Meeting. Boston Area NASWA Chapter. The Lexington Club, Rts. 4 & 225, Lexington, MA at 7:30 PM. The location is 1/4 mile west of Rt. 128, Exit 31. For more information contact Paul Graveline at 978-470-1971 or Internet: 74007.3434@compuserve.com. The URL for the BADX guys is <http://www.anarc.org/naswa/badx/>.

Dec 10 Meeting. The Tidewater SWL's meet at 6:30 PM. For more information plus meeting location contact Joe Buch at joseph.buch@dol.net

Dec 10 Meeting. The Cincinnati/Dayton Monitoring Exchange (MONIX) meet at the Lebanon Citizens National Bank on U.S. Route 42 in Mason at 7:00 PM. For more information contact Mark Meece at 513-743-8089 or e-mail at mmeece@siscom.net. For additional information about MONIX, check out their web site at <http://www.siscom.net/~mmeece/monix.html>

Mar 10-12, 2000 Convention. The **13th Annual Winter SWL Festival** will be held at the Kulpsville Holiday Inn (Exit 31 on the Northeast Extension of the Pennsylvania Turnpike) on 10-12 March 2000. Richard Cuff and John Figliozzi co-chair the organizational committee.

Mar 19-21 Contest. 2000 North American DX Championships. For further information you can send a self-addressed stamped envelope to 2000 NADXC, c/o Dr. Harold Cones, 2 Whits Court, Newport News, VA 23606. Rules will also be posted eventually at <http://www.anarc.org/>.

Sep'00 Contest. AWR Contest. Number of different QSL stamps in the listener's collection. More details to follow.

Members are invited to submit items to be included in this calendar to Rich D'Angelo (Internet: rdangelo3@aol.com) or Ralph Brandi (Internet: ralph@brandi.org).

Contribute!

Send your loggings and QSL information off to our Distributing Editor, **Fred Kohlbrenner** (2641 South Shields Street, Philadelphia, PA 19142). He will forward them to the appropriate editor. Remember, Fred has now expanded his business to include QSL report information and totals for the **Scoreboard** column. He can also be reached through the Internet at: fkohl@ix.netcom.com.

Musings

This column provides a forum wheras members can express comments, ideas, and thoughts about NASWA or the SW radio hobby. Please feel free to comment on anything presented this month (or previous months). Opinions expressed here are are soley those of the submitters. Please submit all Musings to Richard A. D'Angelo, 2216 Burkey Dr., Wyomissing, PA 19610 or via email: rdangelo3@aol.com.

John Lyon <John.Lyon@ecolab.com>, 2346 Dorothy Avenue, White Bear Lake, MN 55110

The last week of August, on vacation, I had a couple of interesting short wave experiences.

The first was early in the week. I sat down in the middle of the day to do some listening. As I scanned the 15 MHz. band, I didn't hear anything. Nothing at all. I dropped down to 11 and then 9 MHz, but I couldn't hear a thing. Then I checked WWV on 5, 10, and 15 MHz. Nothing, not even a whistle with the BFO on. I unscrewed the antenna connector and inspected it. It looked ok. Whenever something doesn't work, my first inclination is to reach for my favorite 'fix-it' tool, my trusty rubber mallet. Thinking that that might not be the best approach with electronics, instead I went upstairs to see if my antenna had come down from the trees. It hadn't. On an impulse, I turned on a conventional radio, and there was a FM station from 40 miles away, full quieting. It's been a long time since I experienced a total High Frequency radio blackout. Rather eerie, to say the least. Checking back several hours later, HF signals were starting to come back up.

Several days later, I again sat down in the late afternoon, with a cup of tea, to do some band scanning. I punched in 7100 kHz. and started tuning upward. At 7125, there was a strong signal that made me pause. 7125 is what I call a 'garbage' frequency. It often seems like half the world's broadcasters are using this frequency, sometimes simultaneously. The signal was S7 on my quite scotch Lowe HF-225 S-meter, completely in the clear, and the audio was fairly decent. A man with a deeply resonant voice was talking in a dialect, the timbre of his voice made me think he was elderly. From the first few sentences, I knew from my Peace Corps days that it was a West African dialect. My first guess was that the station was Guinea, which I haven't heard in a while. West Africa is one of my favorite listening targets. At first the man spoke very slowly, with long pauses between phrases and thoughts. Almost as if he was having trouble choosing his words. I continued listening for a while, just enjoying the sound and rhythm of the language. Then the man started to increase his cadences and rhythm, and his voice became more animated. He was obviously an excellent public speaker. His phrasing, cadences, and pacing reminded me of music. Now he was getting really excited, his voice rising and falling, heading toward the climax of his performance. Without realizing it, I had been listening to this man speak - without understanding a single word - for half an hour. Suddenly I heard a buzzing sound overtake the signal I was listening to. I looked over at the S-meter, and it was several s-units higher. Darn, I thought, Radio Moscow signing on. Sorry, Voice of Russia. Soon, long tones started on the new carrier, and I could just barely tell that Guinea was under there. I didn't get to hear the climax of the speech, or get an id, but I did enjoy an excellent performance.

It remind me of another masterful speaking performance I'd heard perhaps 4 or 5 years ago on 60 meters. If I remember correctly, it was on the American station that at that time was broadcasting from Salt Lake City, UT. I was tuning the high end of 60 meters, above 5 MHz. Suddenly, there was a strong station, at least S9+20db. This was before the American 'legal pirates' broadcasting in the 60 and 90 meter tropical bands. I didn't think it was a harmonic,

because the signal was so strong; my guess was that the wrong frequency had been punched up at the transmitter control console. It was a religious broadcast, to which I almost never listen. The preacher had an excellent speaking voice, and he was preaching to a crowd. This time the man speaking was younger, but he sure could talk that stuff. He also had musical sounding cadences and phrasing. He also started out softly, raising his voice as he got into it. First a mezzo piano, rescinding to a mezzo forte, dropping back down to a lower level, crescendoing to the next higher level, then dropping back down. After half an hour, his voice had raised to where he was practically shouting, the words coming out in a torrent, with frequent 'Amens' from the crowd. He had the audience in the palm of his hand. At the end, one could imagine the crowd on its feet, clapping and responding. I can't remember a thing he said, but again it was a masterful speaking performance. I checked a couple of times in the next few weeks, but never heard that station on 60 meters again.

One of the reasons I like short wave listening is that you never know what you might run into on the bands. And, no, I don't make it a habit to sit and listen to a language where I don't understand a word. I'm not that far-gone, at least not yet. hi. But one can still enjoy a good performance, and the musical beauty of the words.

Doug Robertson, 4045 Sunset Lane, Oxnard, CA 93035

Here is some background on the NASA HF4 communications receiver very capably reviewed (as usual) by Alan Johnson in the September 1999 NASWA Journal.

The UK source, NASA 1992 Ltd., belongs to the British Marine Electronics Association and the British Industry Federation. Two basic variants, voice only, and weather fax capable, with various memory channel sizes have been offered under Target, AKD, Lower and SITEX labeling. All cover 30 kHz to 20 MHz, USB and LSB.

There are also reviews of some of the variants in WRTH 1999 and PWBR 1999. Interesting catalogs (catalogues) to sort out some of these are available from: SITEX Marine Electronics, Inc., 11001 Roosevelt Blvd. Suite 800, St. Petersburg, FL 33716 and NASA 1992 Ltd., Boulton Road, Stevenage, Herts, SG1 4QG, England.

NASA will sell and ship to the USA. SITEX has offered over the past two years through marine retailers two versions, the SITEX Communication Receiver Nav-Fax 100 (voice only) and Nav-Fax 200 with a data interface port, cable and control software for printing weather fax images and data. Defender Industries, Inc., 42 Great Neck Road, Waterford, CT 06385 is a discount retailer of the SITEX Nav-Fax 200, and also offers a catalog. NASA 1992 Ltd. Also offers two NAVTEX receivers for the Lofers and marine usage.

Other private label designations and sources for the two NASA communication receivers may emerge. Stay tuned.

73, Doug

Gerald F. Kercher, P. O. Box 168, Quaker Hill, CT 06375-0168

Please excuse the lateness of this letter, but I did want to reply to the musings of Maryanne Kehoe in the August Journal. The response she received from the site operator might well not have been engendered by misogyny. Could it have been that it was a feeble attempt at humor? Could it have been that the answer was prepared by someone other than the person whom Maryanne was acquainted, someone who was helping out but did not know that she

knew the operator personally? Gender should have nothing to do with the radio hobby. I recall an ANARC convention in Canada a few years back. It may have been in Montreal. Anyway, they had a quiz with two teams on the stage. Sheryl Paskiewicz was on one of them. Well, male supremacy went down in flames that day! As I recall, Sheryl knew more frequencies than all of the boys combined.

On another topic, I will have to say that some of the equipment being sold today is ruggedly made. A few weeks ago I was driving in New London and I saw in a vacant lot what appeared to be a discarded radio receiver. I said to myself, "If that is still there when I come back, I am going to pick it up." Well, it was and I did. It had hit the ground pretty hard and the little doors were sprung off but I gathered up the scattered parts. When I got it home I saw that it was a Sanyo AM/FM receiver with four speakers and a cassette player. I think it was what some call a boom box. I was 99% sure that it was worthless but I shook the dirt out of it and thought I would have some fun with it. I took it to one of my sons-in-law who is a radio hobbyist. He sometimes does a little repair work for me. I showed it to him and, with a straight face, said, "Do you think you could repair this?" He apparently did not sense my feeble attempt to be funny (or maybe he did!). Anyway he said, "Let's plug it in." He did and it worked! I cleaned it up a bit and it is now installed in my garage where I listen to it when I am working out there.

Are you going to Ontario for the ODXA doings this week? I plan to go and expect to pick up Michael Murray in Syracuse where he is visiting Rich McVicar who used to be with HCJB.

73, Gerry

[I couldn't make it to the ODXA gathering. Musings about this one or any other gathering are always welcomed here. -RAD]

Mike Wolfson <mwolfson@bright.net>, Ashland, Ohio USA

I notice in the current issue of "The Journal" that the "Gang of Three" is stepping down from their position as organizers of the Winter SWL Festival. As an attendee for the last 10 years, I have seen firsthand their commitment to putting the weekend together.

I've helped organize several conventions and know how much work it takes to do them. The fact that they did it for 12 years is a testament to their dedication. I for one would like to thank them for their effort and for their contribution to the hobby.

George L. Glotzbach, 5 Herrada Court, Santa Fe, NM 87505

I've been picking up shortwave stations I cannot identify. I presume that is true of others. But there must be DX'ers more expert than I who can and have identified these stations. The idea here is to start a new column in the NASWA Journal titled something like "What is it? Name that Station." Members could send in details of their logging for publication. Knowledgeable members could reply with an ID of the station, its mailing address, etc. for publication in a subsequent issue. I'd be happy to contribute to both ends insofar as I am able.

Cordially, George

Easy Listening

Richard D. Cuff
327 Springhouse Road, Apt. 102
Allentown, PA 18104
Internet: rdcuff@sprintmail.com

The Benefits of Time Shifting

No, I'm not talking about time travel a la *Star Trek*. I'm talking about listening to programs when it's convenient for you, not the broadcaster. In a house with two young children, I rarely am afforded long stretches of time when I can relax and truly focus on what's being said in a radio program. I can catch a couple minutes here and there, and I now have a 50-minute one-way commute that enables me to put something between my ears other than local commercial radio during the drive. Both these situations lend themselves to saving programs on cassette tape or minidisc for later listening, when I can stop and start the tape, rewinding as necessary when I'm distracted. Sure, it takes work to set up a cassette recorder and the timer function on my Sony '2010, and news analysis programs quickly get stale, but there is much programming available that doesn't grow stale over a week or two before I get a chance to listen.

In the US, at least, you can set yourself up for under \$40 if you have a shortwave radio with an alarm / timer function, preferably a digital tuner, and a headphone jack. An inexpensive investment with an instant payback!

10th Anniversary: Berlin Wall Comes Down

Perhaps the most symbolic and graphic example of the collapse of communism in Eastern Europe was the fall of the Berlin Wall on November 9th, 1989. I suspect there will be many special programs commemorating the event; the BBC offerings are described below. In

addition to those, you can also find the following:

Deutsche Welle

Substantial offerings commemorating the event, including:

Wednesday, November 10th, 0130, 0330, and 0530 UTC: *Insight* features "East Germany Ten Years after the Fall of the Wall", with analogous "Ten Years After" programs for other Eastern European countries as follows:

- November 24th: Czech Republic and Slovakia
- December 8th: Bulgaria
- December 22nd: Romania

Thursdays, 0130, 0330, and 0530: *Living in Germany* features "Eastern Germany ten years on" on November 11th, and "Eastern Germany in the later diaries of Viktor Klemperer" on November 18th.

Also, *Inside Europe* will offer special programming with roughly the same content as *Insight*, if you can hear this weekly one-hour program via a local rebroadcast. I am not sure how much of this program is included in the 15-minute weekly shortwave edition of *Inside Europe* airing 0130 Sundays. (via DW correspondence)

Radio Australia

Sundays, 0110, 21740 kHz and Internet audio: Radio Australia's weekly program *The Europeans* ran a documentary series in October entitled *We The People*, hosted by the Misha Glenny, the historian and former BBC World Service correspondent hosting the BBC's *Pushing Back the Curtain* series highlighted below. I would expect special programming right around the anniversary date itself.

Miscellany

Radio Australia—*The National Interest*

Presented by Terry Lane, one of Australia's most accomplished interviewers, *The National Interest* looks at major Australian issues of the week. Sometimes these are the events that have made headlines, and sometimes they're issues that haven't received the attention they deserve. Sometimes they're national stories, and sometimes they're local developments with national significance. I sampled a recent edition featuring an interview with an economist regarding Australia's macroeconomic policies and their social impacts, plus a discussion on military conscription and whether or not it should be brought back. While both issues were specific to Australian policies, the perspectives were very interesting to compare with American perspectives in these areas. Definitely worth a listen. The National Interest airs Wednesdays 0100 and Sundays 1605, which means our best listening strategy in Eastern North America is via Radio Australia's RealAudio feed. While the program is not yet available for on-demand listening, this may change as an increasing proportion of ABC programming is being made available for download.

Radio Canada International: Domestic content, too

With a new 50-minute one-way daily commute to work, I am arming myself with shortwave programs recorded on tape, so I can avoid listening to the meager offerings of local commercial radio, and to listen to a more diverse selection of programming than is available from the USA's National Public Radio during drive time. There are several weekly programs produced by Canada's domestic public spoken work network, CBC Radio One, that are longtime staples at RCI and are among the best in their class; these suggestions come from NASWAN Joe Buch, a longtime CBC aficionado:

Quirks and Quarks is the CBC's longtime science and technology program. It's more

lively than the BBC World Service science program, *Discovery*, as it presents scientific principles in language "...even a marketer [like me -ed.] can understand."

Sundays, 1400 to 1700 (after the switch to Standard Time), 13650 kHz: *This Morning—Sunday Edition* is the renamed *Sunday Morning* program, featuring a mix of news analysis, book reviews, and short documentary pieces. It's a rich mix of material, and I certainly wouldn't characterize it as light fare.

Weekends, 2300 (as of October 31st), 5960 and 9755 kHz, among others: *The World This Weekend* takes the same time slot occupied weekdays by *The World at Six*, a decent news and current affairs program, but the weekend version is much more like a documentary than its weekday counterpart.

Even though these programs focus on issues of domestic relevance, Canada's geographical proximity to the USA makes many of these issues common issues to both countries. Also, those of us with Canadian roots (like myself) can feel more in touch with our heritage via these programs.

Radio Netherlands Upcoming Documentaries

Here is the schedule as available at composition time, via the RNW website:

November 18th/19th: *The Palace*—This is a chance to hear a repeat of Eric Beauchemin's portrait of the grotesque legacy left by Romanian dictator Nicolae Ceausescu.

November 25th/26th: *Stories of the 20th Century: The Laughing Cry*—continues the ongoing monthly retrospective series on the 20th century.

December 2nd/3rd: *Aids In Zimbabwe*—On International Aids Day, Eric Beauchemin travels to Zimbabwe, where the main morgue in the capital Harare is kept open 24 hours a day to deal with the constant stream of AIDS-related deaths.

BBC World Service November Highlights

Current Affairs and General Features

The tenth anniversary of the fall of the Berlin Wall, signaling the collapse of communism in Eastern Europe, figures prominently in World Service programming in November.

Tuesdays, 0230, beginning November 16th, and Sundays, 0530, beginning November 14th: *Pushing Back the Curtain* is a six-part, 30-minute series tracing the fall of communism, looking at what provoked one of the most decisive, yet unexpected revolutions in modern history. Historian and former World Service correspondent Misha Glenny hosts the series, which is arranged chronologically. The series begins with the newly elected Pope's visit to Poland in 1979, the creation of the Solidarity trade union there in 1980, and Mikhail Gorbachev's arrival in the Kremlin in 1985. Interestingly, if you're impatient, this series was presented on the BBC's domestic **Radio 4** service beginning on September 30th, and the programs are already archived at the Radio 4 website.

Tuesday, 2000, November 9th: *One Europe: Dream or Reality?* is a special one-hour debate to be broadcast on the 10th anniversary of the fall of the Berlin Wall. Misha Glenny (see above) will chair the debate, and will feature the foreign ministers of Germany and Poland, the Russian Duma's foreign affairs chairman, the US ambassador to the UN, and NATO's Secretary General. The debate will take place at Berlin City Parliament in front of a 350-person invited audience. While this air time is not favorable for North America-directed frequencies, the Europe-targeted frequencies of 9410 and 12095 should give reasonably good reception, at least here in the Mid-Atlantic region.

Sunday, November 14th, 0105: *International Question Time* returns for a one-time special as Sheena McDonald chairs a discussion of foreign ministers at the Commonwealth Heads of Government Meeting in Durban, South Africa. Questions

will be posed by a studio audience, and are also being accepted at the E-mail address igt@bbc.co.uk. Obviously, questions pertaining specifically to Commonwealth member nations would be most likely to be aired.

Tuesdays, beginning November 2nd, 1130, and Wednesdays, 0230: *Trading Places* is a new four-part, 30-minute series focusing on a unique initiative run by the Oxfam charity—Skills developed in one area of the world, in this case, India, are transplanted to a disadvantaged community in the British city of Gloucester.

Mondays, beginning November 8th, 1615, and Tuesdays, 1430: *Talking to Home* is a new four-part, 15-minute series profiling four BBC journalists recruited from abroad for specific foreign language services. The series looks to explore the unique perspectives these four have regarding their careers in radio, how they were recruited by the Beeb, and how they're perceived by their home country audiences.

Religion

Tuesdays, beginning November 30th, 1130, Wednesdays, 0230, and Fridays, 1530: *Christianity at the Crossroads* is a four-part, 30-minute series hosted by Rosemary Hartill, the BBC's Religious Affairs correspondent in the 1980s. The series assesses the role of Christianity in today's world 2000 years after the birth of Christ. Hartill returns to Uganda, Brazil, and the USA to places and people who have given her a unique viewpoint on the roots and presence of Christianity, its role, and its readiness to reinvent itself for the changing future.

Wednesdays, 0430, beginning November 10th, and Fridays, 1515: *Next To Godliness* is a five-part, 15-minute series examining purity and cleanliness in world faiths, hosted by Kate Saunders.

Saturdays, 0430, and Mondays, 1515: *Inspired By Faith* is a five-part, 15-minute series profiling artists and performers, musicians and poets, from a variety of

religious backgrounds who have been inspired by faith and spirituality. A Hindu performance artist, Islamic musicians, a Baha'i painter, and an Afro-Caribbean poet are among the artists profiled.

Drama and the Arts

Saturdays, 2230, and Sundays, 0630: *Play of the Week* offerings include:

November 13/14: *The Golden Ass* is sometimes described as the first novel in the history of literature. The storyteller, Apuleius, is flogged, starved, and turned into a donkey; Roman wenches are cheerfully kissed, cuddled, and abandoned. Jeremy Clyde, whose original dramatization was the basis for this version, stars as the storyteller.

November 20/21: *Stuffed*, by Australian Maree Gutterson, is the winner of the World Service Playwriting Competition, having been chosen from over 1200 entries. It's a black comedy, with armchair traveler Pa, chronically overweight Ma, and their 30-year-old son Paul, living happily together in a house increasingly full of stuffed pets, until Yvette, Paul's new girlfriend, shows up.

November 27/28: *Mistificator* won the Playwriting Competition as the best play from a writer having English as a second language, Petr Andreevich Kohtianovsky from the former Soviet republic of Georgia. George takes bribes, keeps a mistress, and says he'll do anything for money. A stranger moves into his flat, who might be there to make his fortune or destroy his future.

Mondays, 0130 repeated at 1430: *Likeness of Being* is a special five-part series replacing *Meridian Feature* in November. This series looks at how artists have worked over the centuries to capture human images. Each week features a different topic; *Lovers*, *Dancers*, *Mothers*, and *Gods* are the four topics remaining as the *Journal* arrives in your home. Laura Cumming hosts.

Tuesdays-Saturdays, 0445: The timing is now favorable to drift off to sleep with *Off*

The Shelf readings. *Memoirs of an Infantry Officer*, by Siegfried Sasoon, set in the British Army in Flanders in 1916, will be read the week of November 9th; the classic *Madame Bovary* by Gustave Flaubert, about a struggling country doctor and his wife, will be read for the four weeks beginning November 16th.

Classical Music

Sunday, November 21st, 1600: I'm not sure this is the correct category, but *BBC On Air* used this category to highlight the November *Millennium Concert* featuring Ladysmith Black Mambazo, Africa's number one recording group, perhaps best known in the USA for their collaboration on Paul Simon's *Graceland* album. Chief Mangosuthu Buthelezi, President of South Africa's Zulu Inkatha Freedom Party, and the country's Minister for Home Affairs, will introduce the concert, in their hometown of Durban.

Mondays, 1530: *Composer of the Month* takes on a decidedly American tone this month, focusing on Leonard Bernstein, composer, conductor, and singer. Edward Seckerson hosts.

Sundays, 1615 (except for November 21st): *Performance* also has an American flavor in November, as Eugene Ormandy, long associated with the Philadelphia Orchestra, is profiled in music and story.

Internet Mailing List on Shortwave Programming

As a reminder, if you are interested in advance program information that comes in too close to air dates to be used here, or are interested in two-way discussion on programming content, check out the *swprograms* E-mail reflector. You can easily subscribe in one of two ways: 1) Visit the URL <http://www.topica.com/lists/swprograms>; or, 2) Send a blank E-mail to swprograms-subscribe@topica.com.

Until next month,
73 DE Richard



Listener's Library

T. J. "Skip" Arey N2EI
P. O. Box 236
Beverly, NJ 08010
Internet: tjarey@home.com

We have a number of excellent finds for adding to your radio knowledge database. Let's start off start off with another great addition to your CD-ROM collection.

THE QEX COLLECTION CD-ROM 1981-1998 2 CD SET

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**Published by
The American Radio Relay League
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<http://www.arrrl.org/catalog>**

Many of you old timers may recall a fine old radio magazine called *HAM RADIO*. HR was a bit different from the larger crop of radio hobby publications in that it had a decidedly technical/engineering style that often left rank beginner's with their head's spinning. Still, for those who were dedicated to experimenting, building and stretching their knowledge, Ham Radio was a great read. Well as all too many good things go. Ham Radio stopped publishing. Since that time, several publishers have tried to revive the spirit and level of HR with varying success. One of the most consistently successful at this has been the ARRL's *QEX*. Starting out as a newsletter in 1981 and growing to a full format magazine, *QEX* has been a source of information for anyone with a desire to go beyond "store bought" communications into the world of modification, construction and experimentation.

As I have mentioned in previous columns. The American Radio Relay League has taken a forward position in the world of computer based publishing. Every issue of their magazine *QST* back through its first year of publication in 19915 can currently be had in CD-ROM format. Now the complete set of *QEX* issues can also be found in CDROM format.

Now those of you who purchase League CD regularly know that *QEX* is included on the yearly edition CD's of *QST* since 1995 (along with National Contest Journal). This new *QEX* CD set includes the thirteen years not covered in the yearly edition disks.

The *QEX* CD Set includes every article, ad, column and cover including all illustrations, tables and schematics. Included is a search engine that can take you directly to any article by title and author. It will also allow general searches on title words such as "receiver" or "propagation".

The CD Set requires a Pentium or equivalent IBM-compatible PC using Microsoft Windows™ 95,98 or NT 4.0. This disk set will NOT run under Windows 3.1. System requirements include 16 MB of RAM (32 MB recommended). You will also need a minimum of 256 color video display running at 800x600 or larger format. Obviously you need a CD-ROM drive that is supported by your system.

This disk set has been taking up quiet a few evenings here in my shack. I only became a subscriber to the *QEX* magazine beginning about 1995 or so. All those back issues that I missed are full of articles that would have been well worth the original subscription price but are now an absolute bargain in the CD ROM format. Using the search engine I found dozens of articles of specific interest to the shortwave listener including such topics as diversity reception, antennas, and propagation. If you are a home-brewer, you'll find enough projects to drive solder futures through the roof!

And like Ham Radio Magazine of years gone by, all of the articles present the reader with the opportunity to expand their knowledge of the radio art.

One particular radio hobby author I hold in high esteem is Ed Noll W3FQJ. Over the last several years MFJ Enterprises has republished many of his books for a new generation of radio hobbyists. While Ed's expertise covers all aspects of the world of radio, his work with antennas has kept me stringing wire for over twenty years.

73 DIPOLE AND LONG-WIRE ANTENNAS

by Edward M. Noll W3FQJ

160 pages

\$12.95

ISBN 1-891237-06-3

MFJ Publishing Company, Inc.
Starkville, MS 39759

Most shortwave listeners antennas consist of a piece of wire strung out and away from their receiver. What makes one person able to hear better than any other is knowing how to string that piece of wire in a configuration that is going to give the best performance.

As the title suggests, in this well written and illustrated book, you will find 73 examples of wire antennas that go well beyond the random length of wire many of us started out with or maybe even continue to use is our efforts to hear radio signals from little lumps of rock in the South Pacific. While the design's in this book a configured for the common amateur radio bands, changing their resonant length to the shortwave broadcast bands is just a matter of a little quick calculator math using the formula listed on page 9.

The book is divided up into sections covering Regular and Modified Dipoles, Inverted-Vee Antennas, Long Wire Antennas, Vee-Beam Antennas, Long Vee-Beam Antennas, Rhombic Antennas, Very Long Long-wire Antennas and Special Vee's and Rhombics. These design sections are supported by no less than seven appendix sections.

The sections I found most interesting were those related to V-Beam design. Many advanced shortwave listeners tend to specialize on certain parts of the world. Vee-Beams provide an inexpensive pathway to directionality. They can be put up with as few as three supports and exhibit increased band-

width by modifying the design with additional legs.

If you enjoy stringing wire through the trees as much as I do, this book will give you hours of fun and the commodities exchange rate for copper with fluctuate madly.

Well with all that new knowledge from the League CD and all that antenna information from Ed's book. All you need is a little bit more information to make you the next DXer of the year.

THE LITTLE PISTOL'S GUIDE TO HF PROPAGATION

By Robert R. Brown NM7M

126 pages

\$12.95


Worldradio Books

PO Box 189490

Sacramento, CA 95818

Okay, while this is not our own Bob Brown of infamous "Gang of Three" fame, this particular Bob Brown NM7M knows a thing about how radio signals travel around the world. Very few truly useful books have been published on the subject of propagation. Most texts on the subject are written for folks with ore than a passing understanding of physics, solar astronomy and atmospheric analysis. But what about the rest of us? We tend to listen to the forecasts on WWV and then go ahead and try to listen randomly anyway. Mr. Brown's book will give any radio hobbyist a good working knowledge of propagation that will go a long way in helping fill in those banks on your country lists.

Most people do know that many recent advancements in the study of the sun have vastly improved our understanding of how solar activity effects our ability to enjoy the radio hobby. Bob Brown's book not only covers the traditional areas of propagation study, he brings the reader up to date in these latest advancements.

This book covers a very difficult and complicated subject in 23 easy to read and digest chapters that will give any shortwave listener a leg up on their listening skills. With the DX season upon us and the sunspot cycle coming our way. This book is an essential read. 

DX Target: Korea A Peninsula Filled With Radio Drama

By Richard A. D'Angelo

The Korean Peninsula offers a number of exciting listening opportunities for shortwave enthusiasts. The division of Korea into North and South has resulted in an interesting contrast in broadcasting styles, which reflect the obvious differences in how the two countries are run politically. Let's take a look at the two Korea's and shortwave broadcasting from the Korean Peninsula.

Background

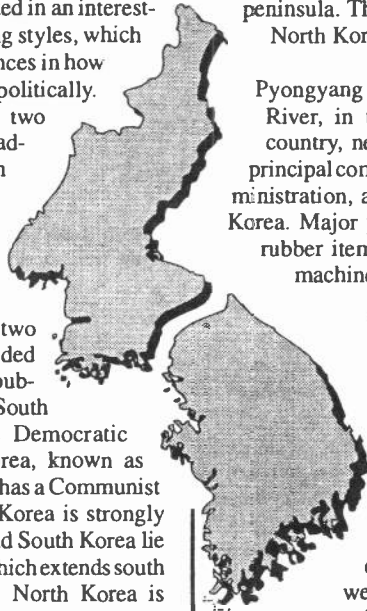
Korea is located in eastern Asia and consists of two states that have been divided since 1948. One is the Republic of Korea, usually called South Korea. The other is the Democratic People's Republic of Korea, known as North Korea. North Korea has a Communist government while South Korea is strongly anti-Communist. North and South Korea lie on the Korean Peninsula, which extends south from northeastern China. North Korea is slightly larger than South Korea but the South has more than twice as many people as the North.

North Korea occupies the northern portion of the Korean Peninsula. North Korea is bound by China on the north, on the northeast by Russia, on the east by the Sea of Japan, on the south by South Korea, and on

the west by the Yellow Sea. It has an area of 120,538 sq. km (46,540-sq. mi.). The state of North Korea was established in 1948 as a result of the post-World War II Soviet military occupation of the northern portion of the peninsula. The capital and largest city of North Korea is Pyongyang.

Pyongyang is located on the Taedong River, in the western section of the country, near the Yellow Sea. It is the principal commercial, manufacturing, administration, and cultural center of North Korea. Major products include metal and rubber items, textiles, processed food, machinery, building materials, armaments, and ceramics. A nearby international airport serves the city.

North Korea is extremely mountainous and marked by deep, narrow valleys. A complex system of ranges and spurs extends across the country in a generally northeastern to southwestern direction. The most prominent mountain range is the Nangnim-sanmaek, in the north central region. Mount Paektu, or Paektu-san (2744 m/9003 ft), on the Chinese border, is the highest peak. Lowland plains comprise only about one-fifth of the total area and are largely confined to the country's western coast and to the several broad river valleys of the west. Fertile allu-



vial soils are found in these river valleys. Most of the soils in the mountainous regions lack organic material and are relatively infertile. Nearly all the major rivers rise in the mountains and flow west to the Yellow Sea. The longest river, the Yalu, forms part of the border with China. Other streams include the Taedong, Ch'ong-ch'òn, and Chaeryòng rivers. Of the major rivers only the Tumen flows to the eastern coast to empty into the Sea of Japan.

North Korea has a continental climate, with hot summers and cold winters. The average July temperature at Pyongyang is 24.4° C (76° F). Winter temperatures at Wònsan in the south average -3.9° C (25° F) but are considerably lower in the north. Annual precipitation in most parts of the country is about 1000 mm (about 40 in) and is concentrated in the summer months.

The population (1995 estimate) of North Korea is about 24 million. The average population density is 198 persons per sq. km (514 per sq. mi.). The population, however, is very unevenly distributed and is largely concentrated in the lowland plains of the west. The annual rate of growth in the late 1980s was 2.4 percent. Urbanization of the North Korean population has progressed rapidly since the 1950s; approximately 64 percent of the total population of North Korea is now classified as urban.

With the establishment of the Democratic People's Republic all industry was nationalized and agriculture was collectivized. Successive economic plans have given emphasis to development of heavy industry and to mechanization of agriculture.

The government-run Korean Central News Agency is the principal distributing source of news in North Korea; several daily newspapers are published. Radio broadcasting is under the auspices of the Korean Central Broadcasting Committee. Television broadcasting was instituted in 1969.

South Korea occupies the southern portion of the Korean Peninsula. South Korea is

bound by North Korea on the north; on the east by the Sea of Japan; on the southeast and south by the Korea Strait, which separates it from Japan; and on the west by the Yellow Sea. It has a total area of about 98,480 sq. km (about 38,023 sq. mi.), including numerous offshore islands in the south and west, the largest of which is Cheju (area, 1829 sq. km/706 sq. mi.). The state of South Korea was established in 1948 following the post-World War II partitioning of the peninsula between the occupying forces of the United States in the south and the Union of Soviet Socialist Republics in the north. The capital and largest city of South Korea is Seoul.

Seoul is located on the Han River, near the Yellow Sea port of Inch'ón. Situated near North Korea, it is the largest city and the chief commercial, manufacturing, and cultural center of South Korea. Major manufactures include textiles, clothing, metal products, chemicals, processed food, electrical and electronic equipment, machinery, and printed materials. Government activities and tourism are also important to the city's economic base. The community was established in 1392 as Hansóng. It served as the capital of the Korean Yi dynasty until 1910, when the country came under the control of the Japanese. The city was renamed Kyóngóng in 1911. After 1945 it was given its present name, which had long been in popular usage, and in 1948 the city was chosen to be the capital of South Korea. During the Korean War (1950-53), the city was several times captured and severely damaged by North Korean troops. A number of modern buildings were constructed following the war. Seoul was the site of the Summer Olympic Games in 1988.

South Korea has a predominantly rugged, mountainous terrain. The principal range is the Taebaek-San Maek, which extends in a generally north-south direction parallel to the eastern coast. The country's highest peak, located on the island of Cheju, is Halla-san (1950 m/6398 ft). Plains constitute less than one-fifth the total area and are concentrated in the west along the coast; the coastal plains in the east and south are very narrow. Apart

from the eastern coast, South Korea has a highly indented coastline characterized by high tidal ranges. The country's two longest rivers, the Naktong and Han, rise in the Taebaek-San Maek, the former flowing south to the Korea Strait, the latter northwest to the Yellow Sea. Other major rivers include the Kum, Yongsan, and Tongjin.

South Korea has a continental climate, with cold, dry winters and hot, rainy summers. In Seoul the average January temperature range is -9° to 0° C (16° to 32° F), and the average July temperature range is 21° to 29° C (70° to 84° F). Winter temperatures are higher along the southern coast and considerably lower in the mountainous interior. The average annual precipitation in Seoul is 1250 mm (49 in), and in Pusan is 1370 mm (54 in). Rainfall is concentrated in the summer months (June to September). The southern coast is subject to late summer typhoons that bring strong winds and heavy rains.

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.....

The population of South Korea (1995 estimate) is about 45 million. The country's estimated population density of 459 persons per sq. km (1188 per sq. mi.) is one of the highest in the world. The majority of the population lives in the southern and western coastal areas. The annual rate of increase has

dropped steadily from more than 3 percent in the late 1950s to 0.8 percent in the mid-1990s. Urbanization of the country has proceeded rapidly since the 1960s, with substantial rural to urban migration; approximately 78 percent of the population is now classified as urban. Since the establishment of North Korea, some 4 million immigrants have crossed the border to South Korea. This increase has been partly offset by emigration from South Korea, especially to Japan and the United States.

South Korea's economy, traditionally based on agriculture, has, since the early 1960s, undergone an extraordinarily rapid industrialization; the gross domestic product expanded by more than 9 percent yearly between the mid-1960s and the early 1990s. A series of five-year economic plans begun in 1962 have concentrated on the development of manufacturing, much of it oriented toward exports. Economic aid, especially from the United States and Japan, was important to the economic growth of the country, which in the span of a generation grew from one of the world's poorest to a mid-ranking industrial power.

Mass media have assumed large importance since the 1950s. In the early 1990s about 44 million radios and 9.1 million television sets were operating in South Korea. National daily newspapers number 23.

Radio Pyongyang (North Korea)

The Radio and Television Broadcasting Committee of the Democratic People's Republic of Korea is the governing authority that oversees all broadcasting in North Korea. Domestic broadcasting is under the sponsorship of the Korean Central Broadcasting Station, which provides local coverage throughout the country on 1 FM, 10 medium wave and 11 shortwave frequencies; three from Pyongyang (2850 kHz, 3350 kHz, and 9665 kHz) and three from Kanggye (3960 kHz, 6100 kHz, and 11680 kHz). Most of these outlets provide central broadcasting

feeds from Pyongyang and some regional broadcasting coverage. All programs are in Korean. A medium wave transmitter operating on 1368 kHz with just 2 KW, located in Pyongyang, provides a relay of external service programming.

The Pyongyang Broadcasting Station provides feeds from Pyongyang on six medium wave outlets ranging in output from 50 KW all the way up to 1500 KW. There are also a number of shortwave frequencies in use from Pyongyang (3250 kHz, 3320 kHz, and 6250 kHz) and Kanggye (6400 kHz). There are numerous FM outlets in Pyongyang and Kaesong.

Radio Pyongyang is the government's external service to the world. It broadcasts in ten languages to the Middle East, Africa, China, Southeast Asia, Europe, Russia, North and South America. The station's interval signal is the Song of General Kim Il Sung. Obviously, strident Communist fare is still standard on this external service. In addition, the station is very proud of its vehement verbal attacks on neighboring South Korea. The "unification" theme is a constant on these broadcasts. The Korean service opens and closes with the national anthem.

Radio Pyongyang broadcasts in English:

- from 0000–0100 UTC on 3560 kHz, 11845 kHz, 13650 kHz, and 15230 kHz;
- from 0500–0600 UTC on 11710 kHz, and 13790 kHz;
- from 1100–1200 UTC on 3560 kHz, 9640 kHz, 9975 kHz, 11335 kHz, and 13650 kHz;
- from 1500–1600 UTC on 3560 kHz, 9640 kHz, 9975 kHz, 11335 kHz, 11735 kHz, and 13650 kHz;
- from 1800–1900 UTC on 6575 kHz, 9335 kHz, 11710 kHz, and 13760 kHz;
- from 1900–2000 UTC on 6520 kHz, 9600 kHz, and 9975 kHz;

- from 2100–2200 UTC on 4404 kHz, 6575 kHz, 9345 kHz, 11700 kHz, and 13760 kHz; and
- from 2300–0000 UTC on 11335 kHz, 13760 kHz, and 15130 kHz.

The station utilizes three transmitter site locations for its broadcasts. There are five 200 KW transmitters located at Kanggye, five more 200 KW transmitters at Kujang, and ten 200 KW transmitters located in Pyongyang. Radio Pyongyang has utilized 28 different frequencies for its transmissions over the years. To stay current on the latest broadcasting times and frequencies for Radio Pyongyang, check Al Quaglieri's *Listener's Notebook* column on a regular basis.

The station is one of the most difficult broadcasters to verify in Asia. Although Radio Pyongyang seems very receptive to listener mail, it is very difficult for DX'ers residing in the United States to successfully get their reception reports into the hands of the station. There are reports that letters sent to North Korea actually receive replies containing anti-Communist literature from South Korea! A clear indication that some mail addressed to North Korea obviously winds up somewhere in South Korea. Unfortunately, the station does not as yet have an e-mail address, which would be very helpful to listeners that are connected to the Internet. A successful trick utilized by many DX'ers is to send a reception report via a third party in another country. This gambit has worked very nicely in the past for a number of United States based World DX Club members, such as myself, who used the club's United Kingdom address as a gateway for their reception reports to the station. The return rate was a very satisfactory 100%, which most QSL hounds find to be an acceptable rate. From time-to-time there have been other routes and intermediaries that have successfully obtained those exotic Radio Pyongyang QSL cards from the station. A keen shortwave listener will always stay abreast of the latest DX news and information from North Korea to seek out the latest avenues to obtain a

verification of Radio Pyongyang. In any case, the direct address to contact the station is:

Radio Pyongyang
External Service
Korean Central Broadcasting Station
Pyongyang
People's Republic of Korea

Although the station doesn't have an Internet site at the moment, one can only hope that the computer revolution will catch up with the "cultural" revolution over the next few years. Hopefully that will enable listeners to contact the station via e-mail and eliminate the postal hassles associated with reaching out to Radio Pyongyang.

Radio Korea International (South Korea)

The Korean Broadcasting System ("KBS") was launched in 1947 as a government-run broadcasting station. Prior to KBS (then-called Joong-ang Broadcasting Station with the call sign HLKA), Kyung-sung Broadcasting Station (with the call sign, JODK) was the precursor of KBS, and initiated Korea's first broadcasting in 1927. KBS began television broadcasting in 1961. It completed organizational restructuring in 1973 to serve as a fully-fledged public broadcasting network. Since the completion of its Yoido Headquarters in 1976, KBS has advanced even further to become what it is today.

KBS operates two terrestrial TV channels, two satellite TV channels, six radio channels, and one special broadcasting channel for the handicapped. KBS maintains a nationwide network that links the national station in Seoul to a total of 25 local stations. It also maintains 9 regional bureaus throughout the world.

Radio Korea International ("RKI") is the nation's shortwave network, representing the Republic of Korea abroad. It targets the entire world as its coverage area. Since its first signal beamed in 1953, RKI has provided up-to-date news from Korea, the nation's major policies, significant global events and

issues to listeners in every corner of the world. In addition, it brings worldwide listener's traditional arts and culture of Korea as well as topical events from every corner of the world. Through these programs, RKI helps people of the world better understand Korea and Korean culture. RKI broadcasts in 10 different languages: Korean, English, Japanese, Chinese, French, German, Russian, Spanish, Indonesian, and Arabic. RKI programs are on the air for a total of 111 hours per day.

Although
Radio Pyongyang
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to listener mail,
it is very difficult for
DX'ers residing in the
United States
to successfully get their
reception reports into
the hands of the station.
There are reports that
letters sent to
North Korea
actually receive replies
containing
anti-Communist
literature from
South Korea!

RKI also offers its major broadcasting programs through the Internet news-on-demand service. RKI receives some 4,000 letters and over 13,000 reception reports a month from people around the globe. RKI has appointed 220 official monitors in 74 countries, receiving their feedback and reception reports quarterly on each program.

KBS continues to expand its cooperation and exchanges with a number of international broadcasting and related organizations. KBS

is not only one of the founding members of the Asia-Pacific Broadcasting Union (“ABU”) but also an associate member of the European Broadcasting Union (“EBU”). In 1997, KBS successfully hosted the 34th ABU General Assembly in Seoul. In addition, KBS is taking part in various activities with major broadcasting organizations throughout the world.

KBS continues to increase its cooperative activities with international broadcasting companies through program exchanges and joint productions. At present, KBS maintains broadcast cooperation agreements with a total of 40 major broadcasting organizations in 30 countries including the NHK in Japan and the CBC in Canada. KBS provides a variety of satellite transmission services to foreign broadcasting companies. KBS started a service on Internet in October, 1995. KBS continues to expand its overall broadcasting domain through Internet broadcasting services for worldwide Netizens and Korean language broadcasters abroad.

.....

Radio Korea International
is an excellent verifier
of listener reception reports.

.....

The key aims of Radio Korea International are to deliver accurate and objective information to overseas listeners. Since it first started broadcasting in August 1953 as Voice of Free Korea, RKI has been producing programs with five basic goals: 1), 2), 3), 4), and 5) To keep Korean expatriates posted of what’s happening in their mother country.

RKI broadcasts 108 hours in Korean and 9 other languages for 40 million listeners from all over the world both on medium and short wave. To improve reception quality throughout the world, RKI has program/transmission relay exchange agreements with Radio Canada International and the BBC World Service. With these arrangements, RKI can

provide listeners in Europe, North and South America with a variety of programs with very good reception conditions.

RKI broadcasts in 10 different languages on a total of 24 frequencies targeting 9 directions: Europe, North America, South America, Southeast Asia, Middle East & Africa, Australia, China, Japan and non-directional. The following is the English language service schedule from Radio Korea International:

- Program 1 to Europe from 0800–0900 UTC on 13670 kHz and 2100–2200 UTC on 15575 kHz;
- to North America from 0200–0300 on 15575 kHz;
- to South America from 0200–0300 UTC on 11725 kHz and 11810 kHz;
- to the Middle East and Africa from 1600–1700 UTC on 9515 kHz and 9870 kHz;
- to Australia from 0800–0900 UTC on 9570 kHz;
- to South East Asia from 1230–1330 UTC on 9570 kHz and 13670 kHz;
- to China from 0200–0300 UTC and 1900–2000 UTC on 7275 kHz; and a
- General Service from 1600–1700 UTC and 1900–2000 UTC on 5975 kHz and from 1230–1330 UTC on 9640 kHz.
- Program 2 to Europe from 2100–2130 UTC on 6480 kHz and 3970 kHz (via a relay in Skelton, England); and
- to North America from 1030–1100 UTC on 11715 kHz (via a relay in Sackville, Canada).

Remember, to stay current on the latest broadcasting times and frequencies for Radio Pyongyang, check Al Quaglieri’s *Listener’s Notebook* column on a regular basis.

Radio Korea International is an excellent verifier of listener reception reports. The station accepts reports via e-mail and postal mail. E-mail reports should be sent to the station at <rki@kbsnt.kbs.co.kr>. English language letters, without return postage, can be sent to the station at:

Radio Korea International
#18 Yoido-dong
Yongdeungpo-gu
Seoul 150-790
Republic of Korea

Similar to most international broadcasters today, RKI can be found on the Internet. For listeners connected to the Internet you can check out the latest developments in programming and news about South Korea, check out the station's website at:

<<http://rki.kbs.co.kr/rki/index.htm>> or
<http://www.kbs.co.kr/aboutkbs/e_index.html>.

Clandestine Radio Activity

There are two types of clandestine radio activity emanating from the Korean Peninsula. The first is traditional shortwave broadcasting designed to reach a specific audience. The second type is the infamous numbers stations, which has its own *special clientele*.

Broadcasting Stations

Korea is one of those places where clandestine radio broadcasting on shortwave is alive and well. Currently, there are three clandestine operations active from this region. The following was obtained from a variety of sources but the two most useful were the Clandestine Radio Intel Web <<http://www.qsl.net/yb0rmi/clang.htm>> and the Asian Broadcast Institute <<http://www.246.ne.jp/~abi/index.html>>.

The first of these stations is the long running clandestine station Radio Echo of Hope, which has been active since June 1973. Prior to that, it was active under the name Voice of Reunification. It is nominally sponsored by the group Koreans Living Abroad (Agency

for National Security Planning) and transmits from Kyonggi-do, South Korea. They broadcast solely in Korean with the following identification: "Shimang e mei ari pangsong imnida." The schedule is from 1500–1800 UTC on 3985 kHz and 6003 kHz; 2000–2300 UTC on 3985 kHz; 0300–0700 UTC on 6348 kHz; and 1100–1500 UTC on 3985 kHz and 6003 kHz. There is no known contact address for this clandestine station.

The second of these stations is the Voice of the People, which has been active since June 1985. It broadcasts from two sites in Kyonggi-do, South Korea. Broadcasts are strictly in the Korean language with the following identification: "Yoginun Pyongyang-eso ponadurimun imnibusoribang-imnida" in Korean and "This is the Voice of the People coming to you from Pyongyang" in English. The schedule shows them broadcasting from 0300–0600 UTC on 6518 kHz and 6600 kHz; and 0900–2100 UTC on 3881 kHz and 3912 kHz. There is no known contact address for this clandestine station.

Finally, there is the Voice of National Salvation, which has been active since August 1985. The station has had a long history with other names: *Voice of the Revolutionary Party for Reunification* and *Radio Station of the South Korean Democratic National League for Liberation*. The sponsoring organization is the Front for the National Salvation, which is backed by North Korea. The station's studios are reported to be in Heungbu-dong, Moranbong District, in Pyongyang. It broadcasts mainly in Korean with some English with the following Korean language identification: "Kobugei Sori Pangsong imnida." The schedule is:

- 0300–0700 UTC on 1053 kHz, 3480 kHz, 4450 kHz, and 4557 kHz;
- 1000–1700 UTC on 1053 kHz, 3480 kHz, 4120 kHz, 4450 kHz, 4557 kHz, and 6010 kHz (until 1400 UTC);
- 2000–0030 UTC on 1053 kHz, 3480 kHz, 4450 kHz, and 4557 kHz; and

- 0030–0100 UTC on 1053 kHz, 3480 kHz, 4450 kHz, and 4557 kHz (English).

The station can be reached at Kankoku Minzoku Minshu Tenzen, Amatsu Bld, 2-1 Hirakawa 1-chome, Chiyoda-ku, Tokyo, Japan. I have not seen verifications of this station although reception reports are generally answered by placing the writer on the mailing list for their “inspirational” newsletter.

Numbers Stations

Both Korea’s operate numbers stations although the north has been far more active in this area than the south. The Asian Broadcasting Institute covers the scene like nobody else and a recent piece about *Numbers Stations On The Korean Peninsula* appeared in the July 1999 Numbers and Oddities column of the Worldwide Utility News. It forms the basis of most of the material covered in this section.

Numbers stations operated by North Korea have been monitored for decades. The activities of the stations in recent years has been reduced, compared to that in early 1980’s. The North Korean numbers stations, which transmit voice five-digit figures, have currently three outlets. Two are broadcast over Radio Pyongyang, a Korean-language service beamed to South Korea and Korean residents in Japan. One opens with the Red Flag Song on 621 kHz, 657 kHz, 684 kHz, 702 kHz, 720 kHz, 855 kHz, 3250 kHz and 6400 kHz at 0600 UTC. The Red Flag Song outlet broadcasts coded messages almost every day. The other one starts with the March of the Guerrilla Army on 729 kHz, 801 kHz, 1080 kHz, 3320 kHz and 6250 kHz also at 0600 UTC. The March of the Guerrilla Army outlet transmits numbers and correspondence for specific agents or collaborators on fixed dates. After the coded message broadcasts end, Radio Pyongyang returns with its unified program.


The last outlet is not affiliated with Radio Pyongyang’s service but opens with the same interval signal with that of Radio Pyongyang’s external service—an arranged version of Song of General Kim Il Sung—using 4770 and 5870 kHz. The station plays Cantata to

Marshal Kim Il Sung after the interval signal. The station has been monitored irregularly at 1900, 0100, 0300, 0500, 0800 or 1300 UTC. When there are no messages, the station broadcasts readings of essays or music. At 1230 UTC on every 8th and 28th of March, June, September and December, the station plays music “requested by servicemen and workers.” At 2200 UTC on December 31st, February 15th and April 14th and at 1200 UTC on January 1st, February 16th and April 15th, only music is played without announcement. February 16th is the birthday of North Korea’s leader Kim Jong Il and April 15th is the birthday of the late North Korean President Kim Il Sung.

Numbers stations believed to be operated by South Korea were first noted in the late 1970’s. The purpose and the nature of the stations remain a mystery. The stations appear sporadically on the hour or the half-hour at night and early morning (Korea time) on 4500 kHz, 4600 kHz, 4940 kHz, 5450 kHz, 5715 kHz or 6215 kHz. The stations start with a Korean song. Various songs have been used. At one case, Song of General Kim Il Sung was played. The names of recipients of messages is referred to such as No. 008, and names of rivers and mountains in the Korean Peninsula. Texts are either four-figure or five-figure groups. The stations occasionally end after only playing music.

Conclusion

Clearly, there is a lot of interesting broadcasting activity coming from the Korean Peninsula. In addition to the traditional government external broadcasts, such as Radio Pyongyang and Radio Korea International, there are clandestine broadcasters and exotic numbers stations rounding out the scene. Korea offers numerous of exotic and diverse targets for the shortwave enthusiast to add to his/her hit list.

As always, remember to send in those exotic Korean logs to either Sheryl Paszkiewicz or Wallace Tribel for the *Log Report* and those interesting and rare QSL verifications to Sam Barto for inclusion in the *QSL Report* column. Good luck with this DX Target. 

Digital Short-wave Broadcasting The Quest Continues

Part 4

We have seen in past installments how multiple carriers can be used to achieve the desired data rates while confining the data to the same bandwidth as normally occupied by a conventional analog AM transmitter. This month I will present specific characteristics of the Thomcast Skywave 2000 technology. We will see how additional carriers are modulated with information which assists the receiver demodulator to compensate for ionospheric distortion and similar receiver control functions.

As in any real-world engineering solution, the Skywave 2000 system is a balance between often conflicting goals. It balances possible data rates, bandwidth, channel coding complexity, quality and flexibility. It provides a common approach for all AM frequency bands (LW, MW, SW) providing receiver simplicity, economy of scale, and an easy transition for broadcasters. The design is the result of a system engineering approach considering cost, existing technology, and ease of implementation.

Skywave 2000 is based upon the parallel modem approach described in Part 3 of this series. Incremental architecture allows easy and transparent adaptation to bandwidth, bitrate and level of protection without any operator initiated changes on the receiver side.

The transmitted signal consists of a kernel group of subcarriers of 3 kHz total bandwidth containing the signals necessary for frequency and time synchronization, remote

receiver control, and transmission of a basic bit stream of 8 kb/s (kilobits per second) with 64 QAM in normal mode and 6 kb/s with 16 QAM in fall-back mode. If you've forgotten what QAM is, go back and read this column in the January 1998 issue of the NASWA Journal.

A number of additional signals, each of 1.5 kHz bandwidth, convey a nominal bitstream of 4 kb/s of audio together with a little more than 200 b/s of data. The number of additional signals depends upon the total available bandwidth. This allows signal bandwidths of 3 kHz, 4.5 kHz, and 9 kHz with bitrates of 8 kb/s, 12 kb/s and 24 kb/s using 64 QAM modulation.

Signal Formatting

The basic frame length is 18 milliseconds (ms), corresponding to a useful symbol duration of 15 ms with a guard interval of 3 ms. The sub-carriers are at multiples of 66.666 Hz ($\frac{1}{3}$ ms). This spacing is chosen to account for the maximum propagation delay spread. Delay spreading results from the multipath character of ionospheric reflections. The frames are grouped into bursts of 16 frames (288 ms) labeled 0...15.

In the kernel group of sub-carriers (47 sub-carriers), three are transmitted unmodulated as frequency references for fast acquisition and Doppler tracking. In the kernel group, all the carriers of frame 0 are unmodulated for time synchronization. In every group (kernel group, and additional groups of 22 carriers), frames 0, 4, 8 and 12 contain gain references

(unmodulated symbols) on even sub-carriers (frames 0 and 8) or odd sub-carriers (frames 4 and 12). This represents an average of 1 reference symbol for each group of 8 symbols. In each frame the remainder of the symbols convey audio or data. These symbols are modulated with 64 QAM at 4 bits/symbol (nominal), 16 QAM at 3 bits/symbol (fall-back bit rate) or 256 QAM at 6 bits/symbol (maximum bit rate).

In order to improve the channel estimation, and taking into account their low proportion (1/8) reference signals are transmitted at a level typically 3 to 6 dB higher than other symbols.

Audio Source Coding

The audio source coder for this type of application is primarily defined by the available bit rate which is inherently variable according to the available bandwidth and to the degree of protection required. A minimum of 6 kb/s (reduced bandwidth, SSB-like speech only) to a maximum of 48 kb/s (stereo music) can be considered the limits of the system. The chosen coder must provide the best perceptual quality under real transmission conditions considering the effect of transmission errors. The data rates and signal structure will have to be slightly modified—and its useful bit rate reduced—to add protection bits to critical parameters in order to ensure graceful degradation of the quality in bad transmission conditions.

Other Data

A highly protected low bit rate data stream is devoted to the remote control of the receiver (internal service data). It conveys the transmission parameters: modulation format (16 QAM, 64 QAM, etc.), interleaving depth, and total bandwidth. A second bit stream, proportional to the total occupied bandwidth, transmits data directly related to the actual transmission including text information, next frequency to use, service data, etc. Finally, in some circumstances, a portion of the total bit stream conveying audio data can be temporarily replaced by bursts of other data such as still images. The audio coder bit rate has to be

reduced in this case, ideally without loss of quality (this can be done during silent periods between words and sentences, for example).

Compatibility With Existing Receivers

The economics of any new system during the transition phase must be considered. All receivers are analog. Broadcasters cannot forsake analog listeners. Remember the transition from monochrome to color TV. The first system approved never took off because viewers could not watch the color programs on their old B&W TV sets. Nobody could afford to produce programming for the few color sets in the marketplace. A similar problem exists now.

Compatibility with existing analog AM receivers can be achieved by simultaneously sending a half bit rate version of the digital audio along with a compatible SSB transmission of the analog signal. The analog SSB signal could use reduced carrier and vestigial side-band to improve quality in the presence of fading. Vestigial sideband transmission uses double sideband for the low audio frequencies and single sideband for the upper frequencies. Synchronous detectors can handle such a signal more easily than pure SSB with carrier because balanced low frequency sidebands falling inside the detector tracking loop bandwidth will not pull the reference oscillator. With SSB, a synchronous detector tries to grab low frequency sidebands and then jumps back to the carrier when the sideband disappears. Distorted audio results.

The digital signal is put on the high side of the SSB signal. The analog listener hears the digital signal as a weak high frequency noise or hiss which can be filtered out. In addition, if correctly filtered and amplified linearly at the transmitter side, the analog part of the signal has no effect on the digital part.

Next time we will finish our look at the Skywave 2000 system. Until next time, stay tuned.



The Icom IC-R75 Communications Receiver

The IC-R75 is Icom's re-entry to the HF-only desktop communications receiver market after the R71A was discontinued. Yes, there was the R-72, but this receiver was poorly received by the SWL community. This leaves Icom as one of the few Japanese ham radio equipment manufacturers that hasn't written off the SWL market. The R75 is a definite step-up from the R72 and rated specifications are closely equivalent to the R-71A. The R75 is a triple-conversion digitally synthesized radio, but signal processing and filtering are analog in nature. There is provision for adding a DSP audio processing unit for noise reduction and automatic notch filtering. The R75 has a list price of \$950, but the street price is very attractive at less than \$800, making it a competitor to the Drake SW8. For a receiver in this price class, there is a high degree of flexibility in configuring the various operating parameters of the receiver.

The R75 is not completely HF-only, as it has coverage up to 60 MHz to permit reception of the amateur 6 meter band and the low VHF public service band. All reception modes are supported (including FM for ham and public service transmissions) and it comes standard with two IF filter bandwidths, 6 and 2.4 kHz. There is a dual passband shift control to vary the receiver's selectivity. There are sockets for additional filters, one in the 9 MHz IF chain and another in the 455 kHz IF. Double sideband AM synchronous detection is provided. It has 99 memory channels, as well as two channels to set the limits for frequency

scanning. It is a compact 9.5 x 4.0 x 9.5 inches (WxHxD). Icom must consider the radio compact enough for mobile use, since they offer the IC-MB5 mobile mounting bracket as an option. The radio requires 12 volts DC and an AC adapter is provided. The receiver's portability can be enhanced by adding the optional MB23 carrying handle kit.

The front panel

The front panel is dominated by a 1.5 by 3.4 inch LCD display with attractive orange backlight—the illumination level is adjustable through the "Set Mode" menu. The orange display provides a pleasant contrast to the receiver's black front panel and case. The display shows the tuned frequency to either the nearest 10 or one hertz. The display can be toggled between frequency or time by pressing the "CLK" button. There are only a few knobs on the front panel but a plethora of pushbuttons. The knobs include concentric volume and RF gain/squelch (choosing between the latter two is another Set Mode menu), the PBT controls and a 1.75 inch rubber rimmed tuning knob. The friction on the tuning knob can be adjusted by a small lever beneath the knob. Tuning steps can be quickly switched between 10 hertz, one kilohertz or one megahertz by pressing the "TS" button. Holding the TS button for two seconds puts the radio into tuning step programming mode, where the tuning step can be set to 0.1, 1, 5, 6.25, 9, 10, 12.5, 20, 25 or 100 kHz. The radio can also be directly tuned via

the front panel keypad with frequency entry in MHz format, i.e. entering frequencies below one megahertz requires pressing "0" and the decimal point. The keypad also doubles as an alphanumeric keypad for labelling the memory channels.

There are too many pushbuttons to list, since most of the buttons control a single function, unlike the menu style interface of the AOR 7030. Many of the buttons have dual functions depending on whether the pushbutton is momentarily pressed or held for two seconds. Most of the secondary functions are "set and forget" configuration options, so once the radio is setup, operation is quick and straight forward. Reference to the manual is definitely required for the initial configuration, however.

There is a small speaker mounted behind the left-hand side of the front panel. The sound produced is crisp, but adequate. Below the speaker is a 1/4" headphone jack. The internal audio amplifier produces two watts of output power.

The back panel

The most appealing feature of the jacks provided on the back panel is actually located on the front panel. That is the button to toggle between the two antenna inputs, either a 50-75 coaxial socket or a terminal for a 500 ohm wire antenna. The back panel has provisions for two types of computer control—a DB9 connector for a RS-232 interface or a 1/8" jack for Icom's CI-V remote control. There are also jacks for line level output to a recorder and recorder remote control via a relay driven by the R75's timer, which is a single event on-off timer.

The RF chain

Once the desired antenna has been selected the signal can be routed through a pre-amp (there are two selections: preamp 1 and 2—the manual doesn't make the difference between the two clear, but preamp1 seems to give 10 dB of amplification and preamp2

20 dB), through a 20 dB attenuator or straight to the first mixer. The signal is then upconverted to the first IF of 69.01 MHz and then downconverted to the second IF of approximately 9.01 MHz (actual center frequency depends on mode). The first selectable filtering occurs at the 9 MHz IF with the stock filters being 15 kHz and 2.4 kHz. One optional filter can be added to the 9 MHz stage, with available bandwidths being 2.8, 1.9, 0.5, 0.35 and 0.25 kHz. These filters can be individually selected for each mode through the filter set menu. The signal is then converted to the third IF of 455 kHz (450 kHz in AM/FM modes). The stock bandwidths in this stage are 15, 6 and 2.4 kHz. One optional filter can be added in the 455 kHz IF, with available values being 3.3, 2.8, 1.8, 0.5 and 0.25 kHz. The available optional filter bandwidths reflect Icom's emphasis on the ham, rather than SWL market. Icom also makes a 6 Khz bandwidth filter for use in the 9 MHz IF in some of their transceivers (the FL-102), but according to Icom America, this filter cannot be used since it is not supported by the R75's filter selection menu. This is a shame, as it would help tighten the overall IF selectivity.

There are three available bandwidths for each mode: Wide, Normal and Narrow. The desired filters are chosen in the "Filter Set Mode" menu. For example, in AM mode the two 15 kHz filters can be chosen for "Wide", "Normal" can be set to use the 15 kHz filter in the 9 MHz IF and the 6 kHz filter in the 455 kHz IF and "Narrow" can be set to use both 2.4 kHz filters. The review unit had the 3.3 kHz 455 Khz optional filter, so I set the "Narrow" filter setting for 15 kHz/3.3 kHz.

The concentric-knob twin passband tuning control can be used to "slide" the filter bandwidth windows relative to the received signal. If both controls are turned in the same direction, the control acts as an IF shift, which can be used to emphasize the higher frequencies in a signal. If the controls are turned in opposite directions, the effective filter passband is narrowed, serving to increase selectivity. The range

of adjustment varies with the filter in use: either ± 1.29 kHz in 15 Hz steps with the wider filters and ± 258 kHz in 3 Hz steps with the narrower filters. I did not find the Twin PBT to be very effective with the AM filters. I'm not sure if this was due to poor skirt selectivity of the filters themselves or the limited range of passband adjustment relative to the width of the filters. The Twin PBT worked well with the narrower SSB and CW filters, however.

The AF chain

After the signal has been filtered in the IF stages, it goes to the detector stage. For SSB/CW signals a standard product detector is used. AM signals can be detected by a standard detector or by a synchronous detector. This sync detector does not allow for selection of either sideband and, what's worse, I couldn't tell any difference in signal distortion or fading when the synchronous detector was engaged.


The most interesting part of the audio chain in the R75 is the optional UT-106 audio frequency digital signal processing unit. This is a small PC board which mounts on the receiver's main circuit board. The UT-106 provides two functions: a noise reduction system that is effective in reducing static, hiss and hum and an automatic notch filter that slices out multiple single tone signals. The noise reduction level can be set in 15 steps—level "5" worked the best for me. I found the DSP noise reduction filter to be very useful at reducing the background "wash" of noise without significantly reducing signal intelligibility. There was a slight reduction in the high frequency content of audio signals when the noise reduction was engaged, but the benefits of the noise reduction was a worthwhile trade-off. The manual states that the noise reduction and notch filter are not available in AM mode, but it seemed to work fine in this mode in the review unit. I E-mailed Icom America about this, but they were unable to clarify this discrepancy.

I found the R75 to be very pleasant to listen to for long periods, especially when the DSP noise reduction was used. The internal front-mounted speaker produces a crisp, but not tinny, sound. The headphone out audio was rather bassy for my tastes, but this may reflect the headphones I used. There was plenty of power to drive an outboard speaker and I thought the audio with an external 8 inch speaker was rich and full.

What about value?

The street price of the R75 puts it head-to-head with the Drake SW-8 and the JRC NRD-345. The Drake is more portable, since it has provisions for internal batteries, a built-in whip antenna and a carrying handle. The Drake also has a narrow (4 kHz) AM filter and covers the FM broadcast band. The Icom has more features than the NRD-345

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*Icom is one of the few
Japanese ham radio equipment
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written off
the SWL market.*
.....

and is smaller than the SW-8. What does have to be factored into the R75's price, however, is the additional cost of the DSP unit at \$139.95 and the cost of the FL-257 3.3 kHz filter (\$159.95) if a narrow AM filter is desired. Icom America is providing a free UT-106 DSP units with R75's purchased by December 31, 1999. This offer makes the R75 an outstanding value for listeners looking for a quality table-top radio, especially those who are interested in a receiver for utility listening as well as receiving SW broadcasters. The R75 is attractive, easy to use (once configured) and a good performer. Thanks to fellow NASWAN John Wagner for providing the "full-dress" R75 for review. 

Listener's Notebook

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ALBANIA *Trans World Radio*

0615-0630	Polish	7385S	Mo-We/Fr-Su
0615-0630	Polish	9475	Mo-We/Fr-Su
0745-0920	English	12070	Sa
0745-0950	English	12070	Su
0755-0920	English	12070	Mo-Fr
0930-0945	Hungarian	7385S	Tu-Sa
0930-0945	Hungarian	9490	Tu-Sa
0945-1000	Slovak	7385S	Mo-We/Fr
0945-1000	Slovak	9490	Mo/Tu/We/Fr
1130-1200	Slovak	7385S	9490 Sa
1440-1455	Russian	9705	11635 Su
1440-1540	Russian	9705	11635 Sa
1440-1555	Russian	9705	11635 Tu-Fr
1525-1555	Russian	9705	11635 Mo
1600-1615	Armenian	7395	9945 Sa/Su
1600-1630	Armenian	7395	9945 Mo-Fr
1600-1630	Polish	7385S	9435
1645-1745	Farsi	9960	12090 Sa/Su
1645-1800	Farsi	9960	12090 Mo-Fr
1715-1730	Czech	6235	7355S Mo/Tu/Th/Fr
1900-1915	Russian	7335	9875 Mo
1900-1945	Russian	7335	9875 Tu-Su
1915-1945	Belarus	7335	9875 Mo

All from Cerrik site except S=via Shijak (18-Oct/
TWR Europe/BC-DX/Bueschel-GER)

AUSTRALIA 9445 *Radio Australia* is noted using new 9445, I assume ex- inaudible 9500 for Chinese 1100-1230 and Vietnamese 1230-1330, //11880. Vietnamese heard until 1430 on Sunday 3rd, when /11660. However Mon 4th starting 1330-1430 was RA Timor Hour in English for Aussie troops on 9445 & 11660. I assume 9445 returns to 9500 at 1430 but cannot hear if them due co-ch REE Madrid, but 9500 is very good when REE goes off. (5-Oct/Green-UK/BC-DX/Bueschel-GER)

AZERBAIJAN The latest monitoring on the *Voice of Azerbaijan* Baku Foreign service:

0300-0400	Azeri/Turk	9165
1000-1100	Persian	9165
1100-1200	Azeri/Turk	9165
1200-1230	German	9165
1230-1300	French	9165
1300-1500	Azeri/Turk	9165
1600-1700	Arabic	9165

1700-1730	English	9165
1730-1800	Russian	9165

(30-Sep/PANVIEW-BUL/BC-DX/Bueschel-GER)

BELGIUM *Radio-Television Belge de la Communaute Francaise (RTBF)*

0400-0559	French	9490	Mo-Fr
0530-0559	French	9490	Sa/Su
0600-0812	French	17580	Mo-Fr
0600-0906	French	17580	Su
0600-1059	French	17580	Sa
1100-1217	French	21565	Sa/Su
1100-1306	French	21565	Mo-Fr
1600-1812	French	17570	Su-Fr
1700-1812	French	17570	Sa

(BBCM)

BOLIVIA *Radio A.N.D.E.S.* has a new name, *R. Maico*, from Uyuni, Potosi, now on 4796.5, Oct 9 *1030 claiming 4745. Also heard Oct 8 2310-2400* with news until 2330 (8-Oct/Aragao-BOL/Radioescutas/Hauser/World of Radio) I would not be surprised if the real name is *Radio Mallku*, which in Quechua is Radio Condor. The name might be perceived as "maico"—which is nonsensical in Spanish—but not in Quechua. (11-Oct/Klemetz-SWE/World of Radio/Hauser-OK)

BULGARIA *Radio Varna* on shortwave Sun-Mon only from 2200-0200. (PANVIEW- BUL/BC-DX/Bueschel-GER)

CAMBODIA 6970 *Lao National Radio* Luang Prabang is active before 2300, much mx. (12- Oct/Volk-THA/BC-DX/Bueschel-GER)

CHINA Changes in the English service broadcasts of *China Radio International*, Beijing, per announcements:

0100-0200	9570	(RHC relay)
1900-2100	11840	
2000-2100	7590	9440 9535 11840
2100-2200	7150	
2200-2300	5970	7175
2300-2400	5990	(RHC relay)

(30-Sep/PANVIEW-BUL/BC-DX/Bueschel-GER)

Additional changes of *China Radio International*:

0000-0057	Hakka, Chaozhou	NF 6165
1100-1157	Cantonese	addit NF 7170 BKO-MLI 100, non-dir [Bamako-MLI relay]
1300-1357	French	(add program) 17880
1300-1357	Mandarin	(add program) 9365 9440 11685 11875 15260
1400-1457	English	add NF 11675
1400-1457	Khmer	addit NF 15180 XIA 100 200
1400-1457	Sinhala	NF 15145 KUN 150 (x11980)
1500-1557	Russian	NF 6180 (x15415)
1600-1657	Arabic	NF 7130 S.P.-RUS (x17580)
1700-1757	English	addit NF 9745
1800-1827	Persian	NF 7130 S.P.-RUS (x15595)
1800-1857	Persian	addit NF 11810
1800-1957	German	NF 12030 (x9685)
1900-2057	English	addit NF 11840
1900-2157	English/Mandarin/Arabic	NF 6165
2200-2257	Portuguese/Esperanto	NF 6950 (x11700).

(1+15-Oct/OBSERVER-BUL/BC-DX/Bueschel-GER)

Xinjiang PBS Mongolian has been active on its 2nd freq 5060 for some time already //4980. This program is also heard on unlisted 1233. The other Xinjiang second SW freqs remain silent.

Xinjiang PBS Chinese is also heard on OOB freq 1641.7, most likely off from 1494. CNR-1 from somewhere in Xinjiang is still on 1351.7v.

Xizang PBS has been unheard on 4750 for some time. All other freqs heard (4035, 4820, 5240, 5935, 5950, 6050, 6110, 6130, 6200, 7170v, 11950v).

Lingshi transmitters on 10260 & 15390 are used to jam **RFA** Uigur on 11520 & 15405 0100- 0130. They go off their normal freqs at 0100, and 11520 goes off at 0127 to be back on 10260 in time for the Mongolian minority program. 15405 switches back at 0130. (6-Oct/Alin-SWE/Bygden/BC-DX/Bueschel-GER)

11000/11100/11935, **Taiwan-1** or **2 Network** (presumed), 1139-1151, not sure what network this is (11000 used to be Taiwan-2, 11100/11935 Taiwan-1). All freqs good, w/flutter. Ch M&W, traditional Ch vocals. (5-Oct/Krueger-FL/BC-DX/Bueschel-GER)

CLANDESTINE—MIDEAST Voice of the People of Kurdistan noted on 6985 to fade-out at about

0530, seemingly extended bc time on Fridays only [Muslim Sunday]]. Also program end at 0400 varies widely. (2-Oct/Meixner-AUT/BC-DX/Bueschel-GER) Also on 4059.35 around 1612-1618. (3-Oct/Mic-ciche-ITL/BC-DX/Bueschel-GER)

CYPRUS Cyprus BC Nicosia via BBC Zyyi relay
2215-2245 Greek 6180 7205 9760 Sa/Su
(15-Oct/Volk-GER/BC-DX/Bueschel-GER)

CZECH REPUBLIC Radio Prague Winter Period

0000-0027	Spanish	7345 11615
0030-0057	Czech	7345 11615
0100-0127	English	7345 9665
0130-0157	Spanish	7345 9665
0200-0227	English	6200 7345
0230-0257	Czech	6200 7345
0300-0327	Spanish	6200 7345 *7465
0330-0357	Czech	7345 *7465 9435
0400-0427	English	7345 *7465 9435
0430-0457	English	9865 11600
0700-0727	French	5930 7345
0730-0757	German	5930 7345
0800-0827	English	11600 15255
0830-0857	Spanish	11600 15255
0900-0927	French	11600 5255
0930-0957	Czech	15255 21745
1000-1029	English	17485 21745
1030-1057	Czech	17485 21745
1100-1127	German	7345 9880
1130-1157	English	11640 21745
1200-1227	Czech	11640 21745
1230-1257	English	6055 21745
1300-1329	German	6055 7345
1330-1357	Czech	6055 7345
1400-1429	English	21745
1430-1457	Czech	21745
1500-1527	Spanish	11600 13580
1530-1530	French	11600 13580
1600-1627	German	5930
1630-1657	Czech	5930 17485
1700-1727	English	5930 17485
1730-1757	French	5930 7485
1800-1827	English	5930 7315
1830-1857	Czech	5930 7315
1900-1927	Spanish	5930 9430
1930-1957	French	5930 9430
2000-2027	Spanish	5930 9430
2030-2057	Czech	5930 9430
2100-2127	English	5930 9430
2130-2157	Spanish	5930 9435
2200-2227	Czech	5930 9435
2230-2257	English	7345 9435
2300-2327	French	7345 9435
2330-2357	English	7345 9435

*relay via WRMI (20-Oct/Czech Radio/Schaay-HOL/BC-DX/Bueschel-GER)

DENMARK *Radio Denmark*, via Radio Norway International

0030-0055	Danish	9935 9945
0130-0155	Danish	7465 7490 9945
0230-0255	Danish	7465 7490 9945
0330-0355	Danish	7465 7490 7565
0430-0455	Danish	7465 7490 7565
0530-0555	Danish	7465 7485
0630-0655	Danish	5965 7180 9590 13800
0730-0755	Danish	7180 9590 18950
0830-0855	Danish	13800 15175
0930-0955	Danish	13800 15175
1030-1055	Danish	15735 21490
1130-1155	Danish	13800 21490
1230-1255	Danish	13800 15735 18950 21755
1330-1355	Danish	9590 13800 18950 21755
1430-1455	Danish	15705 18950
1530-1555	Danish	13800 15705 15735
1630-1655	Danish	9590 13800 15735
1730-1755	Danish	7485 11560 15705 18950
1830-1855	Danish	5960 7485 15705 18950
1930-1955	Danish	7485 9940 13800 15705
2030-2055	Danish	7465 7485 15705
2130-2155	Danish	7485 9945
2230-2255	Danish	9415 9925
2330-2355	Danish	9415 9940 9945

(BBCM)

FRANCE Freq changes of *Radio France Internationale*, Paris

0100-0156	French/ Spanish	NF 11665 (x11670)
0500-0556	Arabic	(new morning program) 5925, 7135
0500-0556	Serbian/ Albanian	NF 7280 (x11975) 9805
1400-1456	English	NF 11955 (x11910)

(1-Oct/OBSERVER-BUL/BC-DX/Bueschel-GER)

GERMANY *Deutsche Welle* B99 English schedule:

0100-0145	6040S 6145 9640P 9700A 9790S
0200-0245	7285 9615T 9765 11965T
0300-0345	6045 9535S 9640P 9700A 11750B
0400-0445	7280K 9565 9765K 11785 11965K
0500-0545	6100 6120P 9670A 11795B
0600-0645	7225P 9565 11785 17820T 21695T
0600-1329	6140
0900-0945	6160A 11785K 15105T 15410K 15470IRK 17800K 17820T 17860M 21600
1100-1145	15370K 15410K 17800K 21780
1600-1645	6170T 7225T 9735K 11785K 15145K 15380 17800 17810 21780
1600-1900	6140
1900-1945	11765 11785 11810K 13610 15135K 15390T 17810T
2000-2045	9725P
2100-2145	9615K 9690 9690 9765 15135T 15410K 17560T
2300-2345	6010T 9815 13690T

A=Antigua B=Bonair K=Kigali, Rwanda M=Madagascar P=Sines, Portugal S=Sackville, Canada T=Trincomalee, Sri Lanka (13-Oct/DW/Volk-GER/BC-DX/Bueschel-GER)

The October edition of Deutsche Welle's "DW Plus" program magazine was the last one. (Ludwig-GER)

Trans World Radio via DTK Jülich relay:

1330-1345	Croatian	9490 Tu/We/Fr-Su
1330-1345	Macedonian	9490 Mo
1330-1345	Slovenian	9490 Th
1345-1400	Macedonian	9490 Su
1345-1400	Slovenian	9490 Sa
1700-1745	Romanian	5840 Sa
1730-1745	Romanian	5840 Fr/Su

(18-Oct/TWR Europe/BC-DX/Bueschel-GER)

Radio Samtec - Die Kosmische Welle

0100	English	9495 Su
0230	Spanish	7310 7330 7390 7440 7570 9450 9470 9810 9860 9945 9965
1030	German	7120 Sa/Su
1300	German	9710 Su? Sa?
1400	English	9710 Su
1600	English	15105 Su
1730	German	6010 Mo-We
1800	French	11840 Su
1800	German	5950 7300 7390 Su?
1830	German	5950 7300 7390 Tu/Sa
1830	Spanish	6010 Sa
2000	German	3985 Mo/Th
2030	French	6090 6130 7360 7290 9470 Fr
2330	Spanish	9955 Su
9955	English	9955 Su ("to USA"...right!!)

Address: Radio Santec GmbH, Marienstrasse 1 D-97070 Würzburg. (Direct/BDXC/Nieuwenhuis-HOL) [Cosmic Voice indeed! Someone mind explaining this to me?-AQ]

GUAM Freq changes of *KTWR* Agana

1300-1330	Mandarin	NF 9870 (x9615)
1300-1345	Burmese	NF 13685 (x9430)

(1-Oct/OBSERVER-BUL/BC-DX/Bueschel-GER)

INDIA *All India Radio* changes in the B99 sked:

5985R	0700-0940	regional sce [ex-6140]
7230P	1615-1730	Persian [ex-7265]
12045P	1615-1730	Hindi [ex-12040]
13750B	1745-1945	GOS-IV [ex-13780]
15780A	0400-0430	Persian [ex-15050]
15780A	0430-0530	Arabic [ex-15050]
15780A	0845-0945	Indonesian [ex-15050]
15780D	1145-1315	Chinese [ex-15050]
17485D	0845-0945	Indonesian [ex-15050]

17485D 1000-1100 GOS-III [ex-15050]
17620P 1115-1215 Tamil [ex-17595]
17620P 1215-1245 Telegu [ex-17595]
17710A 0315-0415 Hindi [ex-17387]
17710A 0415-0430 Gujarati [ex-17387]
17710A 0430-0530 Hindi [ex-17387]
17895B 1000-1100 GOS-III [ex-11735]

A=Aligarh B=Bangalore D=Delhi P=Panaji R=Ranchi (Das Gupta-IND)

INDONESIA RRI Program Nasional 1 appears to be using only 11760(0105-), 11860 (-0105) and 15125 at present. 15125 remains on air well past 1100 UTC, but reception is very difficult here in local evening due to poor propagation and strong Taiwan QRM. FS is still heard on 9525 and/or 11785 at various times. Everything else via high-power transmitters in Jakarta area seems to have gone. (15-Oct/Davies-MLA/BC-DX/Bueschel-GER)

2899.0 **RPDT2 Ngada**(p); M talk at 1110. Relayed Jakarta news at 1200. Still heard at 1330. (23-Oct/Yamada-JPN/Jembatan DX)

2960 **RPDT2 Manggarai**(p); 1005-1025. Local pop music and talk by man, poor (23-Oct/Takeno-JPN/Jembatan DX) Newscast program including information from local government at 1030. Relayed Jakarta news at 1200. Signed off at 1345. (23-Oct/Yamada-JPN/Jembatan DX)

3215 **RRI Manado**; 1030-1050. Talk program by man and woman. Radio Republik Indonesia Manado, ID clearly at 1048. (23-Oct/Takeno-JPN/Jembatan DX)

3232 **RRI Bukittinggi**; Not heard. Inactive now. (23-Oct/Yamada-JPN/Jembatan DX)

3250 **RRI Banjarmasin**; Not heard. Inactive now. (23-Oct/Yamada-JPN/Jembatan DX)

3264.67 **RRI Golontoro**; 1120-1128. Music then local ID at 1121, Fair. (1-Oct/Takeno- JPN/Jembatan DX)

3264.8 **RRI Bengkulu**; Jakarta news relay at 1300. ID at 1307 as "Inilah Radio Republik Indonesia Bengkulu," then talk and lagu melayu. (23-Oct/Yamada-JPN/Jembatan DX)

3324.8 **RRI Palangkaraya**; Signed on at 2155 with opening music. (23-Oct/Yamada- JPN/Jembatan DX) 1103-1115. Local news program. ID at 1005, SINPO 43443 Good signal. (23-Oct/Takeno-JPN/Jembatan DX)

3355.3 **RRI Jambi**; 1600 Jakarta news relay then local pops.//4927kHz. (23-Oct/Yamada- JPN/Jembatan DX)

3385 **RRI Kupang**; Not heard in spite of picking up one day only on Oct 19. (23-Oct/Yamada- JPN/Jembatan DX)

3395.1 **RRI Bandar Lampung**; Jakarta news relay at 1505. From 1524 program like wayang. At 1600 suddenly connected to Jakarta news (No SCI before news relay). Poor. (15-Oct/Yamada-JPN/Jembatan DX)

3905.0 **RRI Merauke**; Dangdut music at 1949. SCI at 1959 then Jakarta news relay. ID at 2006. Fair. (23-Oct/Yamada-JPN/Jembatan DX)

4753.4 **RRI Ujung Pandang**; Love Ambon and closing announcement at 1617. Usually signs off at 1600. (15-Oct/Yamada-JPN/Jembatan DX)

4766 **RRI Medan**; Now inactive. (11-Oct/Yamada-JPN/Jembatan DX)

4777 **RRI Jakarta**; Kebayoran. Now inactive. (11-Oct/Yamada-JPN/Jembatan DX)

4874.6 **RRI Sorong**; Advertisement at 2059. SCI, then Jakarta news relay. The local morning broadcast is rarely heard. Very irregular. Fair to poor. (10-Oct/Yamada-JPN/Jembatan DX)

5040.0 **RRI Pekanbaru**; Talk and popular music at 1435. ID by M at 1459, SCI, and Jakarta news relay at 1500. No QRM from AIR Jeypore on the same frequency. Fair. (10-Oct/Yamada-JPN/Jembatan DX)

6069.8 **RRI Jayapura**; Catholic religious program at 2006. Poor. (15-Oct/Yamada-JPN/Jembatan DX)

6153.4 **RRI Biak**; Music program at 1253. SCI at 1258 then Jakarta news. 1309 local pops program. ID at 1402 then telephone conversations and English pops. No local news at 1400. The schedule changed? Poor. (10-Oct/Yamada-JPN/Jembatan DX)

7098 **RRI Yogyakarta**; Now inactive. (11-Oct/Yamada-JPN/Jembatan DX)

9565 **RRI Jakarta**; Bonto Sunggu. Now inactive. (11-Oct/Yamada-JPN/Jembatan DX)

9630 **RRI Jakarta**; Bonto Sunggu. Now inactive. (11-Oct/Yamada-JPN/Jembatan DX)

15125.1 **RRI Jakarta**, Cimanggis; At 0720 the special program of meeting of MPR (Majelis Permusyawaratan Rakyat: People's deliberation council). At this time, RRI Ujung Pandang on 9552kHz was heard. Ujung Pandang relayed this program from 0800. (16-Oct/Yamada-JPN/Jembatan DX) Heard at 0430-0830. No QRM from R. Taipei Int. so could be

heard on good condition. News was heard on the hour except at 0800. And not heard military news entitled "Berita PNI" at 0730. (10-Oct/Yamada-JPN/Jembatan DX)

JORDAN From Oct 1 *Radio Jordan* in English is on the air 1 hour later. 1100-1730 (x1000- 1630) on tradit 11690. (15-Oct/OBSERVER-BUL/Ivanov/BC-DX/Bueschel-GER)

KUWAIT Radio Kuwait

0000-0200	Arabic	11675
0200-0400	Arabic	6055 11675 15495
0400-0445	Arabic	6055 11675 15495 15505
0445-0500	Arabic	6055 11675 15110 15495 15505
0500-0530	Arabic	6055 11675 15495 15505
0500-0800	English	15110
0530-0800	Arabic	6055 15495 15505
0800-0900	Arabic	6055 15110 15495 15505
0900-0930	Arabic	6055 15110 15495 15505 17885
0930-1305	Arabic	6055 13620 15495 15505 17885
1305-1505	Arabic	9880 13620 15110 15505 17885
1505-1605	Arabic	9880 13620 15110 15505
1605-1730	Arabic	9880 11990 15110 15505
1735-1800	Arabic	9880 11990 15505
1800-2100	English	11990
1800-2130	Arabic	9855 9880 15495 15505
2130-2300	Arabic	9855 15495 15505
2300-2359	Arabic	9855 15495

(BBCM)

LAOS 6130 *Lao National Radio* Vientiane now inactive! At 2310 RFE Lampertheim in S-Cr 250 kW 120 degr noted so far. (12-Oct/Volk-THA/BC-DX/Bueschel-GER)

MALAYSIA Domestic HF channels observed active as of 16 Oct '99 (RM-*Radio Malaysia*, Ch=Channel)

4845	RM Ch6 Tam, Kajang, 24h
4895	RM Sarawak, Kuching
5965	RM Ch1 Mal, Kajang, 24h—slightly off channel, muffled audio
5979	RM Sabah misc langs, Tuaran—has been reported special occs only, but I'm hearing it daily until 1330 s-off
6025	RM Ch7/8 Mal/Orang Asli langs 0400-1300, V of Islam Malay 1400-1600 Slightly above channel, strong harmonics observed just above 12050, 18075 and 24100
6050	RM Sarawak, Sibul
6175	V of Islam Malay, Kajang, 1400-1600
7130?	RM Sarawak, Kuching, daytime only, heard tentatively only
7270	RM Sarawak, Kuching

7295	RM Ch4 En, Kajang, 24h—Consistently best audio out of Kajang
9750	V of Islam Malay, Kajang, 1400-1600

I believe that all other dom channels are currently inactive, including Sibul 5005 (which was re-activated for a short time earlier this year, but not heard for several months). (17-Oct/Davies-MLA/BC-DX/Bueschel-GER)

MALI Updated schedule for *CRI* Beijing via Bamako relay:

0000-0057	Spanish	5990
0100-0157	Spanish	9665
0830-0857	Hausa	7170
1100-1157	Cantonese	7170
1400-1457	English	15125 13685
1500-1557	English	15125 13685
1600-1657	Arabic	17880 15125
1700-1727	Swahili	11970 15125
1730-1757	Hausa	11970 9890
1800-1827	Hausa	11970 9890
1830-1927	Arabic	15530 13685
1930-1957	Portuguese	15530 11975
2000-2057	English	15500 11975
2100-2127	English	15500 11975
2130-2227	French	15500 11975
2230-2257	Cantonese	15500 11975
2300-2357	Cantonese	7170 11975

(8-Oct/Aoki-JPN/EDXP/Padula-AUS/BC-DX/Bueschel-GER)

MONACO TWR Monte Carlo:

0745-0920	English	9870 Sa
0745-0950	English	9870 Su
0755-0920	English	9870 Mo-Fr
0930-0945	German	7160 9795 Mo-Sa
0930-1015	German	7160 9795 Su
1330-1345	Croatian	7255 Tu/We/Fr-Su
1330-1345	Macedonian	7255 Mo
1330-1345	Slovenian	7255 Th
1345-1400	Macedonian	7255 Su
1345-1400	Slovenian	7255 Sa
1400-1430	German	7160 9795 Su
1415-1430	German	7160 9795 Sa
1430-1500	German	7160 9795
1700-1745	Romanian	9445 Sa
1730-1745	Romanian	9445 Fr/Su

(18-Oct/TWR Europe/BC-DX/Bueschel-GER)

MOROCCO Radiodiffusion Television Marocaine (RTM)

0000-0500	Arabic	11920
0900-1100	Arabic	15345
1100-1400	Arabic	15345
1400-1500	Arabic	15335 15345
1500-2200	Arabic	15345
2200-0000	Arabic	15335

(BBCM)

MYANMAR *Mayawadi Radio Station* (x5973) and *Myanmar Defence Forces BC Unit* (x6570) are still inactive. Audible is the Ext Sce 5985v, 7185 and 9730; Dom Sce on 4725. Schedule of the dom service varies day by day. At 1430 Oct 13, 5985v BRM R *Myanmar*, Yangon English 33443 heterodyne-tone. On Oct 12, 7185 BRM *Radio Myanmar*, Yangon MYA carrier+tuning tone from 0000. (17-Oct/Volk-THA/BC-DX/Bueschel-GER)

OMAN *Radio Oman* English 1400-1500 15140 now with very good modulation. Station annt only FM's 90.5 & 94.3 MHz. (1-Oct/OBSERVER-BUL/BC-DX/Bueschel-GER)

PERU 5523.01 *Radio Sudamerica*, Cutervo; 1100-1115 fair to poor signal with QRM from CW station. Playing nice Cajamarcan folklore and saludos. ID was announced as "Desde la historica ciudad de Cutervo, Cajamarca, Peru, t ransmite Radio Sudamerica, 1060 kHz onda media y 5525 kHz onda corta..." (24-Oct/TIN-JPN/Relampago DX)

6535.78 *Radio Difusora Huancabamba*; 1120-1135 Huayno and M talk. At 1130 ID "Son las 6 y media en Difusora Huancabamba, la positiva." (24-Oct/TIN-JPN/Relampago DX)

7003.36 *Radio La Voz de las Huarinas*, Huancabamba; was noted at 1135 with wea k signal. Heard program "Amanecer Campesino" (24-Oct/TIN-JPN/Relampago DX)

Some interesting news about Peruvian stations, based on a recent visit to the country:

Radio Arequipa 5949.3V is currently operated by a evangelistic organization named "Movimiento Misionero Mundial" with full time religious programming of 17 hours (1000-0300). The station also identified itself on the air as "Radio Arequipa Bethel." Studio/office: Avenida Union No.215, 3er piso, Distrito Miraflores, Arequipa, Peru.

Radio Melodia, Arequipa 5995.3 runs for 24 hours a day, simulcasting with the medium wave outlet on 1220.

Radio Continental, Arequipa, 6055.3 is inactive on shortwave due to economical reason, but its medium wave outlet OAX6C is in operation at 0900-0300 daily.

Radio Landa, Arequipa, 6033.9 reportedly the station was closed down a few years ago.

Radio Hispana, Arequipa, 5015.4 ceased transmissions on medium wave and shortwave. Currently the station's facilities are used by Cadena Sur de Noticias. (TIN-JPN/EDXP/Padula-AUS)

PHILIPPINES *FEBC* in Manila is now using 15175 at 0000-0200 (x15450) to avoid side channel splash from PAK 15455. (9-Oct/Dasgupta-IND/BC-DX/Bueschel-GER)

RUSSIA *Voice of Russia* World Service:

0100-0300	17595 17660 15450 15525 15595
	13800 12010 9890 7125 7350
1300-1500	15480 7155 7170
1600-1700	15515 9470 7445 6005
1800-1900	5920, 7205
2000-2100	9905 7205 7310 7380 11980

Special program for BALKAN region:

1920-1940 6205 7320

(Mikhaylov-RUS/RUS-DX/Klepov-RUS) [*Sad indeed. I remember VOR used to be on so many frequencies throughout the day that Tom Sundstrom and I would spend the better part of a schedule season trying to track them all down. Now you can fit their whole sked on a matchbook...AQ*]

GPR-2 Saint Petersburg skeds for winter B99:

K=Kaliningrad S=St. Petersburg

5920S	0400-0530	VOR Serbian
5920K	1600-1800	VOR German
	1800-1900	VOR Russian
	1900-2000	VOR English
5950K	1600-2000	VOR German
5975S	1800-1845	VOR Hungarian
	1845-1930	VOR Czech
	1930-2000	VOR Slovak
6205S	2000-2200	VOR "Kosovo"
	2200-2330	VOR Serbian
7130S	1600-1700	CRI Arabic
	1700-1800	VOR Arabic
	1800-1830	CRI Persian
	1830-2000	VOR Arabic
7290S	1830-2100	VOR French
7310S	0000-0100	VOR Portuguese
	0100-0300	VOR Spanish
7335S	0100-0500	Radio Rossii
7340S	1430-2200	Radio Rossii
7370S	1600-1630	VOR Albanian
	1630-1800	VOR Serbian
	1800-1900	VOR Italian
	1900-2100	VOR French
9840S	1600-1700	VOR Persian
	1700-1800	VOR Arabic
9865S	1700-2000	VOR Arabic
9890S	0100-0200	VOR Spanish
	0200-0400	VOR Russian
	1800-2200	VOR English
12010S	1000-1100	VOR German
15515S	0500-1100	Radio Rossii
15605S	1130-1400	Radio Rossii

(GPR-2/Timofeyev-RUS/RUS-DX/Klepov-RUS)

3922.65 *Radio Samorodinka*, Moscow, heard Sat at 1959 with talk programming and frequent IDs.

Something I've been trying to hear for years. (2-Oct/Makelainen-FIN/HCDX/BC-DX/Bueschel-GER)

Radio Rossii mornings has switched from 6205 to 5955. Murmansk is heard regularly on 5930 with a good signal, but usually shallow modulation. It appears that the buzzy old 50 kW transmitter has been replaced by two 20 kW ex-jammers that have not been properly phased in the audio output. (6-Oct/Alm-SWE/Bygden/BC-DX/Bueschel-GER)

Changes of Voice of Russia:

1400-1500 English 7315
1400-1600 English/ NF 11685 (x12005)
Hi/Be
1400-1800 English/ add 7315 instead of DW Ge
Hi/Be
1500-1600 Russian NF 7130 (x17580)
1500-2000 Russian/add 9835 instead of DW Ge
English/
Ar
1500-2000 Alb/Se/ deleted 7310
It/Fr
1600-1900 Rom/ NF 6000 (x9470)
Bul/Gr
1600-2000 French NF 11685 (x12005)
1700-1800 Arabic NF 7130 (x15595)
1830-1900 Arabic NF 7130 (x15595)
1800-1900 English NF 11685 (x12025)
(not Fri)

(1+15-Oct/OBSERVER-BUL/BC-DX/Bueschel-GER)

BBC Chita relay

1300-1530 Mandarin 7330
2200-2300 Mandarin 7330

BBC Moscow relay

1700-1730 Uzbek 7390
1730-1800 Russian 7390 Mo-Sa
1730-1800 English 7390 Su

BBC Vladivostok relay

1000-1100 Mandarin 11695

(15-Oct/Volk-GER/BC-DX/Bueschel-GER)

Deutsche Welle via Russian relays:

0000-0100 Russian 5925S 12045P
0900-0915 Dari 21800K
0900-0945 English 15470I
0915-0930 Pashtu 21800K
1000-1050 Chinese 9450P 15610N
1000-1050 Persian 21780S
1000-1200 German 9900I 12000P 13810N
15490N
1200-1400 German 9900I 12000P 12055M
13810N 15490N
1230-1300 Japanese 12055N
1300-1600 Arabic 12015K
1330-1355 Chinese 9450P 15610N

1400-1600 German 12055M
1600-2000 German 11625M
1600-2000 Russian 5945S
1800-1850 Persian 5935S 7305K
2000-2100 Romanian 9470S
2000-2200 Russian 7395I
2200-0000 German 7375N 11795N

I=Irkutsk K=Krasnodar M=Moscow N=Novosibirsk
P=Petrovsk K Kamchatskiy S-Samara (DW/Volk-GER + Lieberwirth-GER/BC-DX/Bueschel-GER)

SINGAPORE RAI Kranji relay via Merlin

1000-1100 Italian 11920

Radio Netherlands Kranji relay

2227-2325 6120
2330-0025 7280
1130-1325 11690

(15-Oct/Volk-GER/BC-DX/Bueschel-GER)

SLOVAKIA Radio Slovakia International

0100-0130 English 5930 7300 9440
0130-0200 Slovak 5930 7300 9440
0200-0230 French 5930 7300 9440
0700-0730 English 11990 15460 21705
0730-0800 Slovak 11990 15460 21705
0800-0830 German 5915 6055 7345
1400-1430 Russian 9440 11990 13715
1430-1500 German 6055 7345 9450
1600-1630 Russian 5915 9535 11990
1630-1730 Slovak 5915 6055 7345
1730-1800 English 5915 6055 7345
1800-1830 French 5915 6055 7345
1830-1900 Russian 5915 9485 11990
1900-1930 German 5915 6055 7345
1930-2000 English 5915 6055 7345
2000-2030 Slovak 5915 6055 7345
2030-2100 French 5915 6055 7345

(BBCM)

SOUTH AFRICA Channel Africa-South African Broadcasting Corp

0300-0325 English 9525
0300-0325 Swahili 9685
0330-0355 French 9525
0400-0430 English 5955
0430-0455 French 15215
0430-0455 Portuguese 3345 5955
0500-0530 English 15215
0530-0555 Portuguese 15215
0600-0630 English 15215
0630-0655 Portuguese 15215
0800-0900 English 9750 21530 Su
1300-1455 English 11720 17780 21530 Sa/
Su
1500-1530 English 17770
1500-1525 Swahili 17780
1530-1555 French 17770
1600-1630 English 9525

1600-1630	Swahili	17860
1630-1655	French	17860
1630-1655	Portuguese	3345 9525
1700-1730	English	17870
1730-1755	Portuguese	17870
1800-1830	English	17870
1830-1855	French	17870

(BBCM)

SWEDEN Radio Sweden B99 schedule

0000-0030	Swedish	9495
0100-0130	Swedish	9495
0130-0200	English	9495
0200-0230	Swedish	9495
0230-0300	English	9495
0300-0330	Swedish	9495
0330-0400	English	9495
0500-0530	Swedish	9495
0500-0700	Swedish	6065 17505 Mo-Fr
0600-0700	Swedish	9490 Mo-Fr
0700-0800	Swedish	6065 (alt.9490) Mo-Fr
0700-0900	Swedish	6065 17505 Sa
0800-1000	Swedish	6065 17505 Su
1100-1110	Swedish	6065 9490 21810
1110-1130	Swedish	6065 9490 21810 Sa/Su
1130-1140	Swedish	15240(alt.17870) 21800 21810 Mo-Fr
1130-1200	Swedish	15240(alt.17870) 21810 Sa/Su
1230-1300	English	18960 21810
1300-1315	Swedish	9425 18960 Mo-Fr
1300-1330	Russian	15240
1300-1330	Swedish	9425 18960 Sa/Su
1315-1330	Swedish	17505 18960 Mo-Fr
1330-1400	English	9425 17870
1400-1415	Swedish	13800(alt.17505) Mo-Fr
1400-1430	Russian	9865
1400-1430	Swedish	13800(alt.17505) Sa/Su
1415-1430	Swedish	13800(alt.17505) Mo-Fr
1430-1500	English	13800 18960 21810
1500-1530	Swedish	17505 18960 21810
1545-1600	Swedish	18960(alt.17870)
1545-1700	Swedish	6065 Sa/Su
1545-1710	Swedish	6065 Mo-Fr
1600-1630	Swedish	11910
1645-1700	Swedish	13765 15495 Sa/Su
1645-1710	Swedish	13765 15495 Mo-Fr
1700-1715	Estonian	6065 Sa/Su
1730-1745	Estonian	5965
1730-1800	Russian	6065
1745-1800	Latvian	5965
1800-1815	Estonian	6065 Mo-Sa
1800-1900	Swedish	6065 Su
1815-1830	Latvian	6065 Mo-Sa
1830-1900	English	6065 7345(Su only)
1900-1930	Swedish	6065 9590 11615
1930-2000	German	6065 Mo-Sa
1930-2030	German	6065 Su
2000-2030	Russian	6065 Mo-Sa
2000-2030	Russian	9590
2030-2100	English	6065

2100-2145	Swedish	6065 9445 Su
2100-2200	Swedish	6065 9445 Mo-Sa
2200-2230	Swedish	6065 7325
2230-2300	English	6065 7325

(Radio Sweden/BC-DX/Bueschel-GER)

**SWITZERLAND Swiss Broadcasting Corporation/
Swiss Radio International**

0030-0100	German	9885 9905f
0100-0130	English	9885 9905f
0130-0200	Spanish	9885 9905f
0200-0230	French	9885 9905f
0230-0300	Spanish	9885 9905f
0300-0330	Italian	9885 9905f
0330-0400	German	9885 9905f
0400-0500	English	9885 9905f
0500-0530	English	9655g
0500-0530	French	9885
0530-0545	Italian	9885
0530-0600	French	9655g
0600-0630	English	9655g
0600-0630	French	9885g 13635g 17665
0630-0700	??????	9885g 13635g 17665
0700-0730	Italian	9655g
0700-0730	Italian	9885g 13635g 17665
0730-0800	English	9885g 13635g 17665
0800-0815	German	9885g 13635g 17665
0830-0900	English	9885f 13685
0900-0930	Italian	9885f 13685
0930-1000	German	9885f 13685
1000-1030	French	9885f 13685
1100-1130	English	9535g
1100-1200	English	9540s 21770
1130-1200	German	9535g
1200-1230	French	9535g
1200-1230	German	9540s 21770
1230-1300	French	9540s 21770
1230-1300	Italian	9535g
1300-1330	English	9535g
1300-1330	Italian	9540s 21770
1400-1500	English	12010s 15185
1500-1530	German	9575s 17670
1530-1600	French	12010s 15185
1600-1615	English	12010s 15185
1630-1700	Italian	9620g 13790g 15555
1700-1800	Arabic	9620g 13790g 15555
1800-1815	French	9620g 13790g 15555
1830-1900	German	6165g
1830-1900	Italian	9620g 11910 13660g
1900-1930	Italian	6165g
1900-2000	Arabic	9620g 11910 13660g
1930-2000	French	6165g
2000-2030	English	6165g
2000-2030	English	9620g 11910 13660g 13790f
2030-2100	German	9620g 11910 13660g 13790f
2100-2130	French	9620g 11910 13660g 13790f
2200-2230	French	9885 11660f
2230-2300	German	9885 11660f
2300-2330	Italian	9885 11660f
2330-0000	Spanish	9885 11660f

f=French Guiana g=Jülich s=Singapore (BBCM)

"It was unfortunate that the SW freq 6165 to NoEUR was discontinued earlier this year, the non-directional transmission for Europe on by the end of October last year. The unavoidable decision to reduce SRI's presence on SW was met, as expected, with annoyance and disapproval by many listeners. In the meantime, because of listeners' demand, SW 6165 will be introduced as of Oct 31, 1999." (1-Oct/Wegmueller-SRI Frequency Management SRI/BC-DX/Bueschel-GER)

TAJIKISTAN *Tajik Radio* has been noted on 5800 & 9905 1630-1830, on 7510 1630-1800. (6-Oct/Alm-SWE/Bygden/BC-DX/Bueschel-GER) 4965 at 1545 English talk mentioning Gorbachev. This may be a change from 4975 of "The Voice of Russia" relay. (16-Oct/Bergmann-GER/BC-DX/Bueschel-GER) 4965 (though registered on 4975) and 4940 VoR in English, also in //7325 9480, and Irkutsk? fluttery signal on 11500. 4730 couldn't be traced so far. Just to mention that I listen at same day [1540-1600] as Erich did some 150 kms eastwards. (16-Oct/Bueschel/BC-DX)

Voice of Tibet in Tibetan via Dushanbe 1225-1255 back on NF 15685 (x15645 x15680). (12-Oct/Lieberwirth-GER/BC-DX/Bueschel-GER)

TURKEY TRT Schedule:

0000-0200	Turkish	5980 6120 7300 9445 9460 11980
0200-0400	Turkish	5980 6120 7300 9445 9460 21715
0200-0300	Uzbek	7115
0400-0500	English	6010 7240 21715
0400-0500	Turkish	5980 6120 7300 9445 9460
0500-0800	Turkish	9445 9460 11620 11925 11955 13770 21540
0800-1000	Turkish	9460 11925 11955 13770 15350
0800-0900	Bulgarian	11700
0800-0930	Azerbaijani	11835 17755
0900-1000	Macedonian	11895
0930-1030	Persian	11795 17870
1000-1200	Arabic	15245 21470
1000-1100	Turkish	9460 11955 15350
1030-1130	Hungarian	13770
1030-1130	Rumanian	11930
1100-1400	Turkish	9460 11955 15350 21715
1100-1600	Turkish	15615 Sa
1130-1230	Greek	9630 11855
1200-1300	Chinese	17715
1230-1330	Albanian	11910
1230-1330	German	17870
1300-1400	Urdu	17715
1330-1430	English	15295 17815
1330-1500	Persian	11940
1400-1500	Russian	15385
1400-1700	Turkish	9460 11955 13750 15350

1430-1500	Serbian	13685
1500-1600	Azerbaijani	5965
1500-1700	Arabic	6120 11790
1530-1630	Greek	6195
1600-1700	Kazakh	7295
1630-1730	Turkmen	5965
1700-1730	Croatian	9595
1700-1800	Georgian	6045
1700-1800	Kyrgyz	6095
1700-1800	Turkish	5980 6120 9460 9560
1730-1800	Spanish	11670
1800-1900	Russian	6135
1800-1900	Uzbek	5955
1800-2000	Turkish	5980 6120 7110 9460 9560
1830-1930	German	9635 9765U
1900-2000	Bosnian	5990
1900-2000	Tatar	6060
1930-2030	English	9630 9895U
2000-2200	Turkish	5980 6120 7110 7190U 9460 9560
2030-2130	French	6050 6185U 9590
2130-2230	English	9525
2200-2300	Turkish	5980 6120 7110 7190U 9445 9460 9560
2300-0000	Turkish	7300 9445 9460 11920
2300-2400	English	5980 6120 6135 9655

(19-Oct/Sedef Somaltin-TRT/Klink-GER/BC-DX/Bueschel-GER)

TURKMENISTAN 4930 *Turkmenistan/Mayak*. TMK went off at 1900 and immediately Mayak chime and time pips. I'm wondering if its not from the same site? (17-Oct/Vaghjee-MAU/BC-DX/Bueschel-GER)

Re: Ashgabat TKM 4930. Yes, its the same transmitter site, and the program continues from local Turkmen R2 broadcaster to Radio Mayak relay. BUT this is clearly stated in past and present WRTH entries on TKM. 4930 is used for *Turkmen Radio* 2nd program, on remaining hrs for Radio Mayak relay.

I heard your .ra File carefully, after the—supposed to be—TKM National Anthem, there are few seconds left, then into Radio Mayak ID, time check and nx in Russian lang.

Today Oct 18th between 1850 and 1901 I heard a little different procedure on 4930 kHz:

Turkmen R2 program continued in local lang til 1855, then at about 18.56 the seemingly TKM National Anthem started til 18.59:37 UTC, and after NO break, just in a 1/10 second duration, switched suddenly to the chimes from Kremlin in Moscow, to start with five short/one long? time pips between 18.59:55 til 19.00:00. Then ID, time check, into the Russian nx. There was no break of transmittercarrier. (18-Oct/Bueschel-GER/BC-DX)

I just received the confirmation from Mikhail Timofeyev that the transmitter location is Ashgabat-TKM and the transmitter power is of 50 kW, he also added that there are no any [Mayak] transmissions on SW via St. P. or Kaliningrad transmitting center. Only on 198, 150 kW and 549, 1200 kW here in Petersburg and on 1143, 150 kW in the Kaliningrad area and regarding freq 3355, he think its a military utility transmitter in Belarus. (21-Oct/Vaghjee-MAU/BC-DX/Bueschel-GER)

UKRAINE Radio Ukraine International only via 4x100 kW transmitters near Kiev:

0000-0100	5905 6020 9560
0100-0200	5905 6020
0200-0400	6020 9620
0400-0500	6020 9620 11840
0500-0600	9620 11840
0600-1600	6020 6130 9620 11840
1600-1700	6020 11840
1700-2000	5905 6020 9560
2000-2100	5905 9560
2100-2400	5905 6020 9560

(VOR Russian Klub DX/OBSERVER-BUL/BC-DX/Bueschel-GER)

UNITED KINGDOM Radio Taipei International has a new French bc via Merlin 1900-2000 on 3980. (11-Oct/Aubier-FRA/BC-DX/Bueschel-GER)

Wales Radio International is now being a weekly program on SW. The program is called Celtic Notes, and is on the air via Merlin Network One as follows:

0200-0230	9755 Sa
1230-1300	6010 Sa
2030-2100	17650 Fr

(7-Oct/www.rnw.nl/Ludwig-GER/BC-DX/Bueschel-GER)

6010 **Imagination** 1900-2000 Oct 1st, signed on with "Welcome Back My Friends to the Show that Never Ends" theme that Radio Caroline used to use and straight into format of three tracks by 60's/70's bands such as Yes, Santana, Doobie Brothers and brief annts. Excellent reception here. Originally the website said that the bcs were to be from ASC but on Media Network the night before stn operator said they would be using the Skelton site. (7-Oct/Barracough-UK/BC-DX/Bueschel-GER) Sked Fridays only.

New schedule of Merlin Network One SW:

1300-1700	9750 12035 15235 Sa
1600-1700	6175 Mo-Fr
2100-2300	6140 7325 9720 Fr
2300-0100	6015 7325 9720 Fr

Some changes of **RTE Dublin R1** English via Mer-

lin transmitters:

0130-0200	6155 via RMP
1830-1900	NF 21630 (x17885) via ASC
(1-Oct/OBSERVER-BUL/BC-DX/Bueschel-GER)	

Red Cross Radio relay via Merlin facilities:

1115-1130	11680C 15115W 17870R Mo-Fr
1430-1445	11680B 13755C 15115R Mo-Fr

KBS Seoul relay via Merlin-UK:

0700-0800	Korean 9535S
1900-2000	Russian 7105R
2000-2100	German 3980S
2100-2200	French 3980S
2200-2230	English 3980S

HCJB relay via Merlin-UK:

1700-1830	Russian 11760R
2100-2230	Arabic 9880S

RTE relay via Merlin facilities:

0130-0200	6155R
1000-1030	11740Si
1830-1900	13640Sa 21630A

WYFR relay via Merlin facilities:

1800-1900	Arabic 13720S
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SLBC Colombo via Skelton-UK:

1900-2000	6010S Sa
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NHK relays via MERLIN:

0000-0100	English	6050S 6155S 9665A
0100-0200	English	11860Si
0200-0300	Japanese	11860Si
0330-0400	Swahili	6135A
0500-0700	English	7230W
0600-0700	English	5975S 11740Si
0700-0730	Arabic	15220A
0700-0800	Japanese	11740Si 11920Si
0800-1000	Japanese	11710W 17650A
0800-1000	NHK	11740Si 11920Si
1030-1100	Burmese	11740Si
1100-1130	German	9660W 11710W
1130-1200	Russian	11710W
1130-1200	Thai	11740Si
1200-1230	NHK	11740Si
1200-1230	Swahili	17790A
1230-1300	Chinese	11740Si
1230-1300	French	15400A 17790A
1300-1500	Japanese	17695R
1500-1600	Japanese	17885A
1700-1800	English	21630A
2000-2100	Japanese	6035Si
2100-2200	English	6035Si
2200-2300	Japanese	6050S 6115S 15220A

A=Ascension B=Biblis C=Cyprus R=Rampisham
S=Skelton Sa=Sackville Si=Singapore W=Woofferton
(15-Oct/Volk-GER/BC-DX/Bueschel-GER)

UNITED STATES WHRI/WHRA/KWHR

WHRI—WORLD HARVEST RADIO

(Angel 1)

0000-1000 English/ 7315
Spanish
1000-1300 English/ 9495
Spanish
1300-1800 English/ 15105
Spanish
1800-0000 English/ 9495
Spanish

(Angel 2)

0000-1000 English 5745
1000-1600 English 6040
1600-2100 English 13760
2100-0000 English 5745

KWHR—WORLD HARVEST RADIO

(Angel 3)

0000-0400 English 17510
0400-1000 English 17780
1000-2000 English 9930
2000-0000 English 17510

(Angel 4)

0700-1500 English 11565

WHRA—WORLD HARVEST RADIO

(Angel 5)

0000-0500 English 7580
0500-1000 English 7435
1600-2300 English 17650
2300-0000 English 7580

(BBCM)

Radio Free Asia, some new frequencies/changes:

0000-0100 Lao 13830K
0000-0100 Lao 9535 11570M 15695
0030-0130 Burmese 11540 13820K
0100-0200 Tibetan 17730M
1100-1200 Lao 15660K
1200-1300 Khmer 15560K
1200-1300 Tibetan 7470M 13830
1300-1400 Tibetan 7470M 11590A 17855
1400-1500 Vietnamese 11535K
1500-1600 Mandarin 7540 9905 11765 11945
13690Ti 15510 15680
1500-1600 Burmese 11530T 11590A 13820K
1500-1600 Tibetan 7470M 11510A 13835T
1530-1630 Korean 5855M 11565
1600-1800 Mandarin 7540T
1800-2100 Mandarin 7530 7540T

2100-2200 Mandarin 7540T
2200-2300 Korean 11590
2200-2300 Cantonese 7460M 9940
2230-2330 Khmer 11510 11570K
2300-0000 Tibetan 7470M 9920
2300-2400 Mandarin 7540T
2330-0030 Vietnamese 9975 11560K 11580M

A=via Armenia K=via Kazakhstan M=via Mongolia
T=via Tajikistan Ti=via Tinian (6-Oct/Aoki-JPN/
EDXP/Padula-AUS + PANIVIEW-BUL/BC-DX/Bue-
schel-GER)

VENEZUELA Radio Nacional de Venezuela

0000-0100 Spanish 9540
0300-0400 Spanish 9540
1100-1200 Spanish 9540
1400-1500 Spanish 9540
1800-1900 Spanish 9540
2100-2200 Spanish 9540

(BBCM)

VIETNAM Previously reported UNID Vietn on 13776.18 wandering to 13777.22 is **Radio Hanoi** Home Sce 1st program // 9730.00. Used as Jammer against RFA Vietn sce via [tentat] KHBN Palau 13775 at 1400-1500. More RFA freqs at this time 9455 9930 11580 and 11765. (16-Oct/Bueschel-GER/BC-DX)

YUGOSLAVIA Some changes of **Radio Yugoslavia:**

0000-0027 English add NF 11850 //9580 Mon-Sat
0030-0057 Serbian add NF 11850 //9580 daily
0430-0457 English add NF 11850 //9580 daily
1430-1457 Arabic 11800 only, 15175 deleted
1630-1657 German NF 11870 (x7215) //9620
2230-2257 new b/c in Chinese NF 9580
2330-0027 Serbian add NF 11850 //9580 Su
2330-2357 Serbian add NF 11850 //9580 Mo-Sa

(1-Oct/OBSERVER-BUL/BC-DX/Bueschel-GER)

ZIMBABWE Zimbabwe Broadcasting Corporation

0300-0530 Radio 2 3306
0300-0530 Radio 4 3396
0530-1630 Radio 2 6045
0530-1630 Radio 4 5975
1630-2200 Radio 2 3306
1630-2200 Radio 4 4828

Radio 2 languages are Ndebele and Shona Radio 4 languages are English, Ndebele and Shona (BBCM)



FOR SALE: Sangean 909 ATS receiver. Very good condition, complete with manual, case, AC adapter, external antenna. \$140 or best offer. Contact Jim Wilson, 62 Waterford Dr., Worcester, MA. 01602.

Pirate Radio Report

Chris Lobdell
P.O. Box 146
Stoneham, MA 02180-0146
Internet: clobdell@mediaone.net

Hello and welcome to the November edition of the **PIRATE RADIO REPORT!** Now that the DX season is in full swing, pirate activity should increase. Reception during daylight hours should propagate up to 400–600 miles depending on conditions and the power of the transmitter.

In this issue, we have your loggings and the conclusion of Dick Pistek's history of **NAPRS/The North American Pirate Relay Service**.

Throughout 1994 and into the first part of 1995, the **NAPRS** was broadcasting every weekend, doing relays of both domestic and Europirates. Andrew Yoder's *Pirate Radio Directory* cited **NAPRS** as one of the most active shortwave pirates in 1994. In late January of 1995, a pirate station in the Midwest, *Radio Airplane* was busted and the operators of two others were visited. These events caused **NAPRS** to cease operations for a few months until things cooled.

During the rest of 1995, The **NAPRS** continued an active broadcast schedule. In 1996, our station was plagued by transmitter problems. The frequency of 7385 which was heavily used during 1995 became occupied by *Radio For Peace International* and was replaced by the now currently used 6955 kHz whose use was pioneered by Nemesis of *Radio Doomsday*. Our older transmitters, the Johnson Vikings were failing and The Hallicrafters HT-37 would not tune down to 6955. We were able to get a hold of a nice used Henry Radio Tempo I which brought us through to 1997 when the **NAPRS** shut down for good, after 5 years of broadcasting. Along with *WREC/Radio Free East Coast*, The **NAPRS** will go down in pirate radio history as one of the most active pirate stations in North America.

[Thanks Dick, for that interesting history!]

Loggings...

I'd like to thank Bill Finn in PA, Gary Neal in Texas, Bill Wilkins in MO, and George Zeller in OH for the following logs.

BETTY BOOP RADIO was logged on October 23rd at 0345 UTC on the usual frequency. This was their Halloween program which included the song "Hell's Bells". [Neal-TX]

JRR [JOLLY ROGER RADIO], was logged on October 22nd at 2322 UTC playing music by The Monkees and The Rolling Stones until they were wiped out by another pirate playing music by The Doors. [Finn-PA]

MIDI RADIO, a new one, was logged on October 24th at 2335 UTC. Programming consisted computer-synthesized tunes, several IDs. They gave an email address as: midiradio@yahoo.com for reports.

WHYP was noted on October 3rd at 2348 UTC on the usual 6955.1 kHz in the USB mode. Programming was soft rock with frequent IDs with the announcer saying "yeah, yeah, yeah" over and over. [Wilkins-MO]

WLIS [WE LOVE INTERVAL SIGNALS], not to be confused with the other **WLIS [We Love Intense Sex!]**. They were heard several times. On October 26th at 0040 UTC, October 27th at 0013 UTC and October 28th at 0111 all on the usual frequency of 6955 kHz USB. They played a few IS's and requested listeners email their own interval signal requests to **WLIS@beer.com**. [Finn-PA, Zeller-OH]

Looking forward to your logs, especially those heard over the Halloween weekend! Let's hope the FCC is collecting candy, not pirates this year!

Until next month, Happy Pirate DX! 

QSL Report

Sam Barto
47 Prospect Place
Bristol, CT 06010



ANDAMAN & NICOBAR ISLANDS: All India Radio 4760 f/d "Sun Temple" cd. in 23 mo. v/s A.K. Bhatnagar. It seems as if he is finally clearing out his mail box. (Maroti).

ASIATIC RUSSIA: Radio Canada International 11640 via Chita f/d "1985 International Youth Year" cd. in 11 ds. w/ stickers. v/s Bill Westenhaver. (Humenyk-ONT).

ASCENSION ISLAND: Radio Telefis Eireann 21630 via English Bay f/d "Irish Landscapes" cd. in 14 ds. (Humenyk-ONT).

AUSTRALIA: Radio Australia 12080 via Bran-don f/d "Studio/Transmission Building" cd. in 7 wks. v/s John Wright. (Loudell)

AUSTRIA: Radio Canada International 11835 via Moosbrunn f/d "1985 International Youth Year" cd. in 28 ds. w/ schedule, pennant and stickers. (Ponder-TX).

BANGLADESH: Bangladesh Betar 9550 "National Assembly Building" cd. w/ letter and schedule in 4½ mo. for \$1.00. v/s Dilruba Begum, Director. (Myers-VA).

BELGIUM: Radio Vlaanderen International 15565 f/d "Painting" cd. in 25 ds. w/ station sticker and schedule for 1 IRC. (Ponder-TX).

BRASIL: Radio Anhanquera 4915.2 rcvd. 2 separate p/d ltrs. in 1 yr. and 4½ mo. respectively for a PT rpt., \$1.00 and ms. v/s

Eng. Domingos Vicente Tinoco, Technical Manager. (Myers-VA). Radio Educacao Rural 4755 p/d ltr. w/ sticker in 6 wks. for a PT rpt. and ms. v/s Ailton Guerra, Gerente. (Myers-VA). Radio

Trans Mundial Rad-

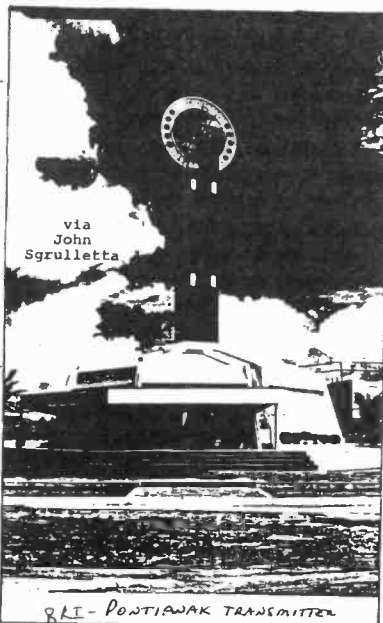
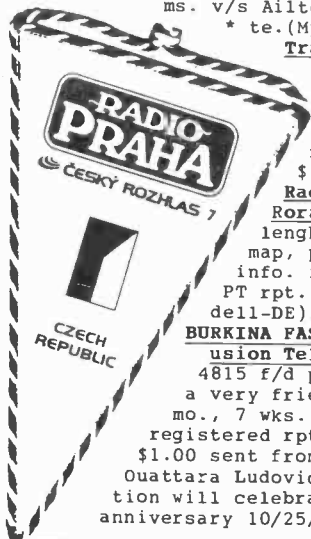
io 11705 f/d "Globe" cd. w/ report form, newsltr in 3 mo. for a PT rpt. & \$1.00. (Myers-VA).

Radio Difusora do

Roraima 4875 p/d lengthy form ltr. w/ map, poem and station info. in 9 mo. for a PT rpt. and \$1.00. (Loudell-DE).

BURKINA FASO: Radiodiffusion Television Burkina

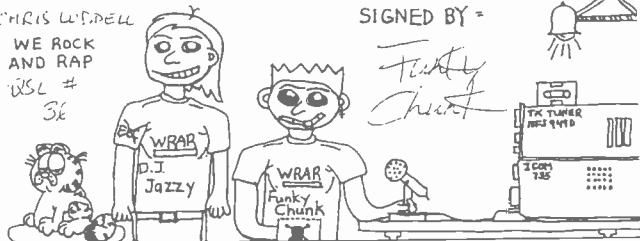
4815 f/d prepared cd. w/ a very friendly ltr. in 31 mo., 7 wks. after a f/up registered rpt. in FR and \$1.00 sent from Hungary. v/s Ouattara Ludovic said the station will celebrate their 40th anniversary 10/25/99. Thanks to



WRAR

DATE = 3/26/93
FREQUENCY = 7415.8 AM
TIME = 2225 - 2346 UTC
SIGNED BY =

CHRIS W. PELL
WE ROCK
AND RAP
WSL #
36



Martin for the v/s info. (Maroti-NY).
CANADA: Radio Korea International
11715 via **Sackville** f/d "Hwang-hongmum Gate" cd w/ schedule in 1 mo. (Loudell-DE).
Radio Canada International
15470 via **Sackville** f/d "XV Olympic Games" cd. w/ sticker, pennant and a

schedule in 16 ds. v/s Bill Westenhaber. (Ponder-TX).
CHAD: Radiodiffusion Nationale Tchadienne 4904.5 f/d prepared cd. in 22 * mo. This was 6 wks. after I sent a registered f/up rpt. and \$1.00 from Hungary. Addr: Directeur Technique, B.P. 892. (Maroti-NY)...You may be correct in believing that many US letters to Africa get stolen

VERIFICATION SIGNERS: Radio Clube Paranaense 6040 v/s Vicente Mickosz, Superintendente. Addr: Rua Rockfeller 1311, Prado Velho, 80230-130 Curitiba, Brasil. **Radio Voz Christiana** 11745 Addr: Ryder Street, West Bromwich B70 OEJ, England. **YLE Radio Finland** 17660 v/s R. Makela. Addr: Shortwave Centre, Makholmantie 79, FIN-28660, Pori. **Radio Africa** 9580 v/s Raphael Kosbady. Addr: BP 1, Libreville, Gabon. **Radio Costena Ebenezer 12-20** 4930.6 v/s German Ponce. **IRIB Radio Italia** 13605 Addr: P.O. Box 19395, Teheran 6767, Iran. **Anteater Radio** 7120 via **IRRS** v/s Peter Worth. Addr: P.O. Box 1, Belfast, NY 14711. **RMPG Radio Mistero** 3960 and 7120 via **IRRS NEXUS** Addr: P.O. Box 220342, DE-42373 Wuppertal, Germany. **Swing Wave Radio** 7120 via **IRRS NEXUS** Addr: same as above. **Radio 510 International** 3985 Addr: Box 510, CH-4010 Basel, Switzerland. **BBC Eastern Relay Station** (Oman) 17785 v/s David Plater, amateur radio operator A45XJ/G4MZY. He is the Senior Transmitter Engineer. Addr: P.O. Box 6898, 112 Ruwi Post Office, Muscat, Oman...via PLAY DX....Sam.

Desconocido sino al mundo para salvar a los pescadores. 1 Canto 1:15

MUCHAS GRACIAS POR HABER SINTONIZADO NUESTRAS EMISORAS Y HABER NOS ESCUCHADO

Mike Hardester

RADIO NUEVA VIDA
FRECUENCIA 9.567 KHZ
CALLE 7 No. 9-25
Tibú N. S. - Colombia

MIKE HARDESTER
NORTH CAROLINA
U S A

and opened for cash. The Hungarian envelope may not of been that attractive to them....Sam.

Петропавловск-Камчатский
Детский сад-новостройка
Республика Камчатка
А. Индигратов автор конструкции

Государственная телерадиовещательная компания «Камчатка»
г. Петропавловск-Камчатский
Советская 62

Tom Robertson
612 Birchwood Drive
New Albany, MS 38652
USA

Подтверждаем получение нашей радиостанции на частоте 4485 кГц 26 сентября 1992 года 08.45 - 09.16 GMT
Ильяша ульяшов.
Кавказское радио.

f/d "Soldiers Band Playing Trombones" cd. in 1 mo. for US ms. (Loudell). 21455 f/d "Special 21455" cd. in 1 mo. for US ms. (Loudell).

EGYPT: Radio Cairo 9475 f/d cd. w/ schedule and postcard in 202 ds. (Wright-NC).

EUROPEAN RUSSIA: Voice of Vietnam 7250 via Armavir f/d "Logo" cd. w/ schedule and station pennant in 9 wks. (Loudell-DE).

GERMANY: RTBF International 9490 via Julich f/d "Building and Satellite" cd. w/ schedule in 1 mo. (Loudell).

INDIA: All India Radio 4790 via Itanagar f/d "Siva Temple" cd. in 10 mo. after 4 f/up rpts. in 2½ yrs! This is my 15th Indian QSLed State. (Sgrulletta-NY).

KALIMANTAN: Radio Republik Indonesia - Pontianak 3976 f/d cd. featuring station photo w/ QSL statement on the reverse side in 3½ mo. after 3 f/up rpts. v/s St. Ruddy Banding, Kepala Stasiun Kasi Siaran. Per tip from Lazarus and Maroti I used "Kotak Pos No. 1005" in place of "Kotak Pos No. 6" in PWBR book. (Sgrulletta-NY).

LEBANON: Voice of Hope 11530 via Marjayoun f/d Certificate in 37 ds. via surface mail. (Glotzbach-NM).

MEXICO: XERMX Radio Mexico International 9705 f/d cd. w/ ltr. and program schedule in 127 ds. Sticker rcvd. (Wright-NC). **XEPPM Radio Educacion** ltr. w/ station history, bookmark, flag and infomation bulletin in 192 ds. (Glotzbach-NM).

台北國際之聲

Radio Taipei International

MONACO: Trans World Radio 9870 f/d "TWR Europe Programme Distribution via Satellite" cd. w/ schedule in 1 mo. for \$1.00. (Loudell).

MONGOLIA: Voice of Mongolia 12015 f/d "Yunden" cd. in 50 ds. Also rcvd. Mongolian stamps and a tourist brochure. (Palmerheim-WA).

POLAND: Polish Radio Warsaw 6095 personal ltr. in 56 ds for a reception report and a postcard of American Indians. (Glotzbach-NM).

ROMANIA: Radio Romania International 11725 f/d "Painting of Forest Locked Hut" cd. w/ schedule and sticker in 9 wks. (Loudell-DE).

SAO TOME: Voice of America 6035 f/d cd. in 46 ds. (Glotzbach-NM).

SOUTH AFRICA: BBC 7205 via SENTECH Meyerton f/d "Sentech Satellite Earth Station" cd. w/ schedule in 27 ds. for 1 IRC. v/s Kathy Otto. (Ponder-TX).

SPAIN: China Radio International 9690 f/d "Yaluzangbujiang River in Tibet" cd. w/ schedule and station stickers in 18 ds. (Loudell). **Radio Exterior de Espana** 15385 f/d "Microphone" cd. w/ schedule in 112 ds. (Wright-NC).

SRI LANKA: Voice of America * 7215 and 9535 via Iranawila f/d "Libert Bell" cd. and "US Capitol" cd. in 40 ds. (Palmerheim-WA).

SWEDEN: Radio Sweden International 15240 f/d "Sundsvall" cd. in 10 ds. (Loudell-DE).

31 mts. 9705 kHz



XERMX.OC

49 mts. 5984 kHz



Radio "LA CRUZ DEL SUR"

Unión Bautista Boliviana

Parroquia Jurídica R.S. N° 56590



La Paz, Marzo 23 de 1999

Señor
JEFF A. HOLLANDER
ELF 8RDV - CALIFORNIA
ESTADOS UNIDOS

MINISTERIOS
BAUTISTAS
DEL CANADA
CBM

MINISTERIOS
INTERNACIONALES
DE LAS IGLESIAS
BAUTISTAS
AMERICANAS
MIA BC

UNION
BAUTISTA
SUNAM
SBC

Mejor recibido su carta del 31 de diciembre del año pasado y nos sentimos muy contentos de que puedan escuchar la estación en la Radio, y por ende que las señales estén bien. Nuestra estación cumple sus 50 años de vida proclamando la palabra del Señor Jesucristo. Queremos que usted sea partícipe de nuestro aniversario para lo cual nosotros nos comprometemos a enviarle un pequeño recordatorio de esas celebraciones. Nos gustaría que pueda enviarnos más reportes de nuestra señal, ya que es muy importante para nosotros. Radio La Cruz del Sur nuestra estación evangeliza constantemente a la Unión Bautista Boliviana fue fundada en 1949. su objetivo es anunciar que Cristo es el Camino, la Verdad y la Vida.

La radio esta dando cobertura a los distintos idiomas: orequenante en nuestro país, los idiomas QUECHUA y CASTELLANO, con programas de instrucción, formación e información para salir del subdesarrollo que sufren; para poder así vivir dignamente, etc. Cada cual con la importancia que se merecen. Ya que son la gran mayoría de oyentes de la radio. Acerca de la industria por nuestro país, Bolivia es un estado multifétil por la existencia de varias etnias a las cuales queremos llevar mensajes nuestra estación. Tenemos la división de nuestro país en tres zonas: ALTIPLANO VALLES Y LLANOS. Cada uno con sus respectivas características propias, va sea en comida, vestimenta, lengua y forma de vivir.

Sin otro particular me despido de usted, reiterándole al más distinguido cordialmente.

Atentamente

PLT. ROBERTO BALBUENA GUISO
DIRECTOR

C.C.
860/Am



Solomon Islands Broadcasting Corporation

PO Box 654
Honolulu
Solomon Islands

Our ref:
Your ref:

1401/99

Jeff A. Molander
6806 Sierra Way
Elk Grove, CA
U.S.A.

Dear Jeff

Thank you very much for your reception report received 1 April; for not responding to your previous reception report. However you have been listening to the Solomon Islands Broadcasting Corporation, Solomon Islands. (Liles De Salomon)

You 1, we confirm your reception of SIBC to be true and correct. Please find enclosed a copy of the 1998 Programmes (with some information about SIBC) which are still in use for 1999

Very pleasing to note of your interest in listening to broadcast stations faraway of which SIBC is one.
We are hoping to receive more reports from you in the near future

Yours,

Sita Hule (M)

Dr. Tornado. Use the Blue Ridge Summit address. (Sgrulletta-NY). **KIPM** 6949.5 f/d large "Illuminati" photo card in 25 ds. for ms (returned!)



NAVAL MEDIA CENTER
2701 S. Capitol St., SW
Washington, DC 20373-5819
14 March, 1999



Dear Jeff Molander,

This letter serves as confirmation of your 7 March, 1999 reception of Armed Forces Radio and Television. The signal originates from Naval Computer and Telecommunications Area Master Station, Key West, Florida at 12489.5 kHz and Naval Computer and Telecommunications Station, Puerto Rico at 6458.5 kHz.

Naval Computer and Telecommunications Area Master Station, Key West, Florida broadcasts with a 48 foot inverted cone antenna from Boca Chica, Florida with 8 kilowatts of power. Naval Computer and Telecommunications Station, Puerto Rico broadcasts with a ground-based, omnidirectional wire antenna with a 30 foot diameter. The signal is broadcast at 10 kilowatts from Isabela, Puerto Rico.

AFRTS shortwave radio transmissions have historically existed to provide AFRTS radio service to U.S. Navy vessels and outlying military posts receiving limited American radio or television through other means. The signals will be in existence for a limited time until a new technology, which is currently being tested, allows for reception of AFRTS via satellite.

We are pleased that you have received the AFRTS shortwave signal and thank you for your interest and confirmation of the signal's quality.

Wayne E. Eternick

Broadcast Operations Specialist

mention that I am also Hungarian. I think my name should be spelled Barta or Bartha. My relatives must of gotten off the wrong side of the boat..Sam.

Thats it for another month.

USA: WBCO 7415 f/d "Globe and Tower" cd. w/ personal note in 18 ds. for SASE. v/s Elayne Star.
* (Ponder-TX). **Radio Isquina de Tango Buenos Aires** 9955 via **WRMI** f/d "Carlos Gardel" cd. in 1 mo. for \$1.00. (Loudell-DE). **KTBK** 1700 f/d personal ltr. w/ coverage map in 1 mo. for SASE (used) v/s Hue Beavers, Technical Staff (Sgrulletta-NY). **WMIB** 1660 f/d prepared cd. in 8 ds. for SASE (used). (Sgrulletta-NY). **Radio Telefis Eireann** 12160 via **WWCR** f/d "Landscapes" cd. in 14 ds. (Humenyk-ONT).

USA (Pirates): WPOE 6955 f/d sheet in 165 ds. for 3 ms. This was monitored during the SWL Winterfest. (Neal-TX). **Radio Metallica World Wide** 6955 n/d blue sticker sized cd. w/ tank you note on the back in 5 mo. for 3 ms. v/s v/s Alan Maxwell. (Palmerheim). **WHYP** 6955 f/d ltr. in 5 wks. for an E-mail rpt. to whypl5302yahoo.com. Postmark was from Erie, PA. (Sgrulletta-NY). **Scream of the Butterfly** 6955 via **CREW** f/d E-mail ltr. with skull and Bones graphic in 2 ds. v/s Crazy Elmo. (Kusalik-ALB). **Radio Inca** 6955 f/d "Certificado de Sintonia" cd. w/ ltr. in 50 ds for ms. v/s Jose Chirinos. (Kusalik-ALB).

VENEZUELA: YVMC Radio Mara 3275 f/d * brown and white "Logo" cd. in 14 mo. This was after 7 f/up rpts. for a 1986 reception. v/s Hector Toyo Urdaneta, Director. (Palmerheim-WA).

ZANZIBAR: Voice of Tanzania 11734 f/d prepared cd. in 30 mo., in 7 wks. after a registered rpt. and \$1.00. v/s Khalid H. Rajab. Once again, I had success with a rpt. sent from Hungary. The Africans must love ltrs. sent from the US (Maroti-NY)...Your Editor must

CFRB·AM·IOIO
News Talk Radio



CFRX 6070
SHORTWAVE

TORONTO, CANADA

Net Notes

Tom Sundstrom
PO Box 2275
Vincentown, NJ 08088-2275
Fax: 609-859-3226
Internet: trs@trsc.com
http://www.trsc.com

The ANARC SWL Net will probably not return to 7240 kHz, but Dave Kirby announces a new and improved version of the interactive listeners' net is coming to the Internet. The downside is that you must have a computer, but the upside is that you can be anywhere in the world to listen.

For Windows, you'll need a MP3 player known as WinAmp (www.winamp.com) to listen and Internet Relay Chat software to "chat" with Dave online. We recommend mIRC (www.mirc.co.uk).

For details on how to join in the Sunday morning fun that starts after CKUT's International Radio Report at 10:30a Eastern (www.ckut.ca/english/ear.html; click on the Real-Audio link), dial up Kirby's Web site at www.n1dk.com.

How not to win friends and influence customers... the World Radio TV Handbook site (www.wrth.com) promised last December remains under construction a year later... and WGTG's Web site (www.wgtg.org) has not been updated since last December.

And don't forget that Larry

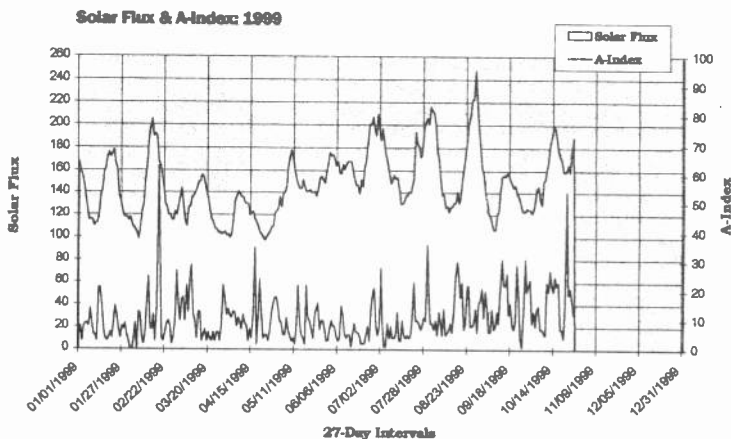
Magne's passport.com was purchased by Microsoft and Passport to World Band Radio is now at www.passband.com.

WWCR's Web site (www.wwcr.com) now sports new photos and a specialty programs page.

We have more information on the NASA HF-5E receiver mentioned in the last two months. At deadline, Hans Doeven of Deltron Communications International in the Netherlands tells us that they hope to have the receiver ready for production at the end of December. End user price in Europe will be about US\$450 ex-VAT.

We're continuing to maintain the Winter SWL Festival page at www.trsc.com/winterfest.html. Details on the 2000 gathering of the clan will be posted as the committee provides details. Get prepared by looking at the pictures of the 1999 'fest; links are at the page top.

Pardon us while we have a Don Quixote minute. The new year does not start the new millennium. Read my tilt at the subject on my Web site at www.trsc.com; see our October 14 musing.



Tropical Band Loggings

Sheryl Paszkiewicz
314 Riverview Drive, Apt 16
Manitowoc, WI 54220
spasz@dataplusnet.com

- 2310 AUSTRALIA CAAMA R 10/8 1211 EG OM (Line-KS)
2325 AUSTRALIA CAAMA R 10/8 1211 EG OM (Line-KS)
2485 AUSTRALIA CAAMA R 10/8 1211 EG OM (Line-KS)
3205 NEW GUINEA R *Sandaun* 10/4 1155 local mx (Line-KS) 10/20 1110 talk, ID, drums (Maro-NY)
3215 SULA WESI RRI *Manado* 10/2 1219 IN pops (Line-KS)
3220 NEW GUINEA R *Moroben* not hrd since late Aug (Line-KS)
3245 NEW GUINEA R *Gulf* 10/4 1156 local mx, lang anmts (Line-KS)
3260 NEW GUINEA R *Madang* 10/20 1113 PD talk (Maro-NY)
3265 SULA WESI RRI *Gorontalo* 10/8 1159 SCI, RRI nx (Line-KS)
3275 PAPUA R S *Highlands* not hrd since early Sept (Line-KS)
3290 NAMIBIA NBC 9/25 0220 EG R&B mx //3270 (Alex-PA)
3306 ZIMBABWE ZBC 10/3 *0302 NA, lang talk, chorus, Afr pop (Alex)
3315 ADM ISL R *Manus* 10/4 1157 lang anmts (Line-KS) 10/20 1118 nx in EG (Maro-NY)
3320 S AFRICA R *Sonder Grense* 9/12 0205 C&W, pop, song from Cats (Kohl-PA)
3324.8 GUATEMALA R *Maya* 10/2 1055 SP gospel mx, ID (Newm-IN)
3325 KALIMANTAN RRI *Palangkaraya* 10/6 1218 RRI nx (Line-KS)
3335 NEW GUINEA R E *Sepik* 10/4 1158 lang anmts (Line-KS)
3345 MOLUCCAS RRI *Ternate* 10/6 1224 NA after nx (Line-KS)
3345 NEW GUINEA R *Northern* 10/9 1108* ment PNG, ID, nx (Maro-NY)
3355 NEW GUINEA R *Simbu* 10/1 1152 lang tlk (Line-KS)
3365 NEW GUINEA R *Milne Bay* not hrd since early Sept (Line-KS)
3385 NEW BRITAIN RENB 10/8 1200 EG nx, lang pgm (Line-KS) 10/20 1059 chorus, drums & birds, ID, C&W (Maro-NY)
3395 NEW GUINEA R E *Highlands* 10/1 1153 local mx (Line-KS)
3905 IRIAN JAYA RRI *Merauke* 10/6 1224 NA after nx (Line-KS) 10/9 1055 pop mx, no SCI, mx like Didjeridu, TP, ID (Maro-NY)
3935 NEW ZEALAND ZLXA 9/19 0635 EG sports results (With-HI)
3955 ENGLAND BBC 0500 EG news abt Africa
3976 KALIMANTAN RRI *Pontianak* 10/3 1224 IN pops (Line-KS)
3987 IRIAN JAYA RRI *Manokwari* 9/22 1159 SCI, nx (Line-KS)
4000.2 SULA WESI RRI *Kendari* 10/8 1159 SCI, nx (Line-KS)
4460 CHINA CPBS 9/21 1720 YL, class mxNA (With-HI)
4549.4 BOLIVIA Rdf *Tropico* 9/17 0010 baladas & soft pop, s/off anmts Orch mx (Nove-NC)
4606 IRIAN JAYA RRI *Serui* 10/8 1159 SCI, nx (Line-KS)
4725 MYANMAR Vo *Myanmar* 10/6 1224 yl in pres Bamar (Line-KS)
4753.3 SULA WESI RRI *U-P* 10/8 1159 SCI, nx (Line-KS)
4755 BRAZIL R *Educ Rural* 9/13 0005 mx (Fair-VEN)
4760 KASHMIR AIR *Leh* 10/8 1222 SC mx, lang talk, EG nx (Line-KS)
4770 NIGERIA R *Nigeria* 9/18 2300* pop & R&B, nx, ID, NA (Kohl-PA) Tent 0510 lang talk, Afr mx (Lino-PA)

- 4775 INDIA AIR *Imphal* 10/8 1227 lang tlk election, congress (Line)
- 4779.8 GUATEMALA R *Coatan* 9/21 1045 SP/lang rancheras, IDs (Newm-IN)
- 4789 IRIAN JAYA RRI *Fak-Fak* 10/8 1159 SCI, nx (Line-KS)
- 4790 PERU R *Atlantida* 10/2 0955 huaynos, anmts (Newm-IN)
- 4800 INDIA AIR *Hyderabad* 9/25 1233 EG nx (Line-KS)
- 4818.9v MAURITANIA ORTM 9/18 0101* AR anmts, nx, mx, Koran (Kohl-PA)
- 4820 BOTSWANA R *Botswana* 9/29 *0245 IS, NA, anmts (D'An-PA)
- 4828 ZIMBABWE ZBC 10/3 *0300 lang talk, NA, ID not //3306 (Alex-PA)
- 4845 MAURITANIA ORTM 10/8 0100* endless talk, AR mx, ment Maur. NA (Raym-NH) 9/20 1650 Koran, ID, regional mx (With-HI)
- 4845 MOLUCCAS RRI *Ambon* 9/21 1100 IS (Line-KS)
- 4850 INDIA AIR *Kohima* 10/8 1224 SC mx, EG nx (Line-KS)
- 4860 INDIA AIR *Delhi* 10/8 1230 EG nx (Line-KS)
- 4870 ECUADOR LV *del Upano* 10/7 0322* mx pgm, ID (Eram-ARG)
- 4875 BRAZIL R *Roraima* 9/13 0015 ballads, ads, rel tlk (Fair-VEN)
- 4875 IRIAN JAYA RRI *Sorong* 10/3 1157* IN pops, phone call (Line-KS)
- 4880 INDIA AIR *Lucknow* 10/8 1234 lang nx (Line-KS)
- 4885 BRAZIL R *Clube* 0515 samba mx, fast talk (Lino-PA)
- 4890 PAPUA NBC 10/8 1208 local mx, EG tlk (Line-KS)
- 4890.2 PERU R *Chota* 10/3 0135 anmts, Ids, folk mx (Alex-PA)
- 4895 SARAWAK RM *Kuching* 10/8 1217 pop vocals (Line-KS)
- 4915 BRAZIL R *Anhanguera* 9/22 0115 ID, nx (Fair-VEN)
- 4919 ECUADOR R *Quito* 9/21 0301 ads for art fest, appliance store (Newm-IN) 0450 SP pop mx (Lino-PA)
- 4920 INDIA AIR *Chennai* 10/8 1220 SC mx, lang tlk (Line-KS)
- 4925 SUMATRA RRI *Jambi* 10/5 1159 SCI, nx, ment Australia (Line-KS)
- 4926.3 BOLIVIA R *San Miguel* 9/25 0920 SP cmtry, ID, ads (Eram-ARG)
- 4930 HONDURAS R *Internacional* 0500 nx, sports (Lino-PA)
- 4939.5 VENEZUELA R *Amazonas* 9/21 0310 salsa, ballads, TCs (Newm-IN)
- 4940t COTE D'IVOIRE R *Abidjan* 0515 FR/lang nx & song called Abidjan (Lino-PA) Folks keep an ear out for this -sp
- 4950 ANGOLA R *Nacional* 9/3 0235 talk, mx //3374.9 (Alex-PA)
- 4960 SAO TOME VOA 9/21 0330* Daybreak Africa (Newm-IN)
- 4960 VIETNAM VoV 10/6 1223 lang talk (Line-KS)
- 4960.1 DOM REP R *Villa* 9/21 0330 lively mx, Ids, jingle, TC (D'An-PA) 9/20 2330 ballads, IDs (Newm-IN).
- 4991 SURINAM R *Apintie* 9/29 0325 soft pops, pres, not Peru (D'An-PA)
- 5010 INDIA AIR *Thiru*. 0035 EG nx, anmt, Indian pop mx (Wein-CO)
- 5015 TURKMENISTAN R *Asgabat* 10/17 0110 stringed inst., talk (Nove)
- 5015.4 PERU R *Hispana* ceased xmsn (TIN-JP)
- 5016.6 PERU R *Horizonte* 9/16 2355 yl dj Andean vcsl, LA pop, ranchera sounding mx, TC, ID (Nove-NC)
- 5020 SOL ISL SIBC 10/3 1149 lang rel mx, anmts (Line-KS) 9/20 0705 EG nx, ice cream ad, Pacific nx, wx, ads (With-HI)
- 5025 CUBA R *Rebelde* 0530 SP pop mx (Lino-PA)
- 5039.8 CHINA *Fujian PBS* 10/6 1115* kids choir, TP, ID, talk abt ag. (Maro-NY)
- 5040 SUMATRA RRI *Pekanbaru pres* 9/26 2258 SCI, ID, nx (Maro-NY)
- 5055 COSTA RICA *Faro del Caribe* 0530 Ids, good sig (Lino-PA)
- 5100 LIBERIA R *Liberia* 9/18 2305 nx, ID, cmtry (Kohl-PA)
- 5523.1 PERU R *Sudamerica* 9/21 2345 ads, Andean mx, TC, ID (Fair-VEN)

5637.3 PERU R Peru 10/3 0150 anmts, lds, folk mx (Alex-PA)
5825 USA WENW 0515 EG rel pgm (Lino-PA)

Did you catch the blatant mistakes last month? I indicated R Buenas Nuevas on 4800 as being from Venezuela. It is of course in Guatemala. Also a typo on Radio Kekchi, should have been 4845 not 4945 kHz. Jack Linonis and I want to point out the spelling of his last name is Linonis, not Linois.

Loggings from 7 states and 2 foreign countries, no Canadians. I encourage more of you to send in your loggings. You don't have to send pages and it doesn't have to be the world's rarest dx. I thought I was going to have to again change my email address but now it looks like things will stay the same.

I have to admit I've been doing more program listening than DXing. Check out Channel Africa 1800-1830 on 17870, pretty nice signal here. Also think R Vlaanderen made a good move to put their pgm on 15565 at 0400 via the Bonaire relay.

I haven't been doing well with the page count lately, did you notice? I guess Bill will have to stick some ads below. (*Actually, extra hardware info -RB*) Enough of my yammering. 


Hardware Bits

by Alan Johnson

DRESSLER ACTIVE ANTENNAS—This line of high-quality active antennas from Germany is once again available from a U.S. dealer. Universal Radio recently announced that they will carry Dressler antennas for both shortwave and VHF/UHF monitoring. The shortwave antennas include both the ARA40 and the ARA60 as well as the high-performance ARA-HDX100. See the online catalog page at: <http://www.universal-radio.com/catalog/sw_ant/4061.html>, or contact Universal Radio, 6830 Americana Parkway, Reynoldsburg, OH 43068; (800) 431-3939.

GRUNDIG SATELLIT 800 MILLENNIUM—Grundig North America has announced the upcoming release of this new portable radio. Based on the front-panel design and size, it appears to be a successor to the Satellit 650. It has three IF filter bandwidths and is expected to sell for around \$500. The projected release date is December, 1999. See a picture at Universal Radio's online catalog: <<http://www.universal-radio.com/catalog/portable/0800.html>> or use the address or phone number given above.

ICOM IC-R75 FREE DSP OFFER—Icom is offering a free UT-106 DSP audio processor unit with the purchase of a new IC-R75 receiver until December 31, 1999. The DSP unit is normally priced at \$139.95. Including the DSP unit for free makes the R75 an excellent value at its under \$800 street price. See *Equipment Reviews* elsewhere in this issue for a full review of the R75.

NEW RECEIVER FROM JAPAN RADIO—A Japanese hobbyist provided information to Media Network on the JRC NRD-371, which was displayed at the Japanese Ham Radio Fair. It appears to be a professional grade receiver with DSP and a spectrum analyzer display. A picture of the radio and a close-up of the LCD display can be viewed at Radio Nederlands Media Network's website: <http://www.rnw.nl/realradio/html/news_you_can_use.html>. 

International Band Loggings

Wallace C. Treibel
357 N.E. 149th Street
Seattle, WA 98155
nrwhikers@gte.net

- 59526 **BOLIVIA R Pio Doce** in SP 2310, tlks, ads, lcl nx, ID 2330 w/jingle, QRM (Fair VENEZUELA 9/21)
- 6010 **MEXICO R Mil Mexico City** in SP 0935, Mex pop songs, ID's, 250 watt station, f (Rigas IL 9/30)
- 6015nf **SOUTH AFRICA AWR** relay in EG 0325, relig mx, ID "AWR, the V of Hope" (Witham HI 9/13)
- 6040 **BRAZIL R Clube Paranaense** Curitiba in PT 0947, ads, ID, 7.5 kw power, f (Rigas IL 9/30)
- 6110 **CANADA R Japan** relay Sackville in EG 0515, ID, nx, pgm titled "44 minutes" g (McGuire MD 10/5)
- 6140nf **CUBA R Rebelde** in SP 1116, Cuban vcls, //5025, 9600 (Rigas IL 9/19) reported also on 9/27 at 0330 by Newman in Indiana but on 6120?? with variety show "Ventana Rebelde"
- 6160 **CANADA CKZU** Vancouver, BC in EG 0930, CBC and lcl nx, only 50 watts (Linois PA) ED: Which shows that one listener's DX is another listener's local (in Seattle CKZU is S-9+ in the daytime).
- 6165 **CHAD R Nat Tchadienne** in FR 2129-2229*, pgm re Canada, mx, tlks, ID, NA (Raymond NH 9/10)
- 6265 **ZAMBIA ZNBC Radio Two** in EG *0248-0325, vocals & harmonica mx, Call of the Fish Eagle IS, ID choral NA, drums, ancmts, local mx, f-g w/intermittent UTE (D'Angelo PA 9/20, Newman IN 9/27)
- 6280 **LEBANON V of Hope** in lang? 2320-0135+, relig pgm, f, stronger on //11530 (Alexander PA 9/10-11)
- 64797 **PERU R Altura** in SP 0145, ancmts, ID as "R Altutra de Huarmaca", OA folk mx, nx (Alexander 10/3, Newman 9/27) in SP 0301-0323*, huaynos, TC, ID, Andean mx (Kohlbrenner PA, Eramo ARG 10/7)
- 65358v **PERU R Huancabamba** in SP 0125-0225, ancmts, ID's, OA folk mx, f (Alexander PA 10/3)
- 6674 **PERU R Super Nueva Sensacion** in SP 0140-0305*, OA vcls & strings/flute mx, ID, TC, echo ancmts, f-g signals reported (D'Angelo PA 9/20, Alexander PA 10/3, Newman IN 9/27)
- 70034 **PERU LV de las Huarinjas** Huancabamba in SP 0252, musical pgm, ID, p (Eramo ARG 10/7)
- 7210 **BELARUS R Minsk** in EG 2045, interview re education, mx, ID's (Raymond NH 10/5)
- 7215 **SOUTH AFRICA TWR** relay in SH *0328, mx box IS, ID in EG at s/on, f (D'Angelo PA 9/29)
- 7300 **SLOVAKIA R Slovackia Int** in EG 0100, xmsn to N Am, nx, tlk re Macedonia/Kosovo (Linois PA)
- 7450 **GREECE V of Greece** Avlis in EG 0340, GK traditional mx, instrumental & voice (Newbury NE 9/20)
- 7505 **NORTHKOREA R Pyongyang** in RS 1720, nationalistic mx, distorted tlk, //9325 (Witham HI 9/14)
- 93707nf **USA WTJC** Newport, NC in EG 2253, relig pgming, inspirational mx, USA radio nx, ID, QTH, motto "Working Till Jesus Comes" phone #, 24 hrs daily pgms (D'Angelo PA, Rigas IL, Alexander PA 10/2)
- 9510 **ROMANIA RRI** Bucharest in RM 0140, mainly regional nx, fqys, sked, ID's (McGuire MD 9/10)
- 9515 **GABON R Japan** relay in AR 0400, s/on w/ID as NHK-1, YL & OM ancrcs, f (Witham HI 9/2)
- 9530 **RUSSIA R Rossi** in RS 0600, ID, long tlk, ment Chechnya, Yeltsin, //9600 (Findlater CA 10/10)
- 9530 **UZBEKISTAN R Tashkent** in Uzbek 0240, mx, tlk w/child, jamming, //9375, 9715 (Witham 9/29)
- 9535 **CANADA Deut Welle** relay Sackville in EG 0315, Germany to help in E Timor? (Newbury NE 9/30)
- 9540 **SPAIN RE España** in SP 2300, IS, ID, fqys, sked, political nx, g (McGuire MD 9/28)
- 9560 **HUNGARY R Budapest** in EG 0120, "Hungary Today", ID, ment European Union, f (McGuire 9/17)
- 9580 **GABON Africa No. 1** in FR 0545, pop Afro mx, lots of ID's in FR, wx rpt for W Africa (Linois PA)
- 9585 **UNITED KINGDOM BBC** Rampisham in RS 0230, IS, ID, regional nx, g (McGuire MD 10/4)
- 9620nf **INDIA AIR Aligarh** in Sindhi (per ILG) 1243, nice Indian mx played, g (Rigas IL 9/11)
- 9640 **GERMANY Deut Welle** Wertachtel in EG 0100, ID, nx, sports, "Weekend Review" (McGuire 10/3)
- 9665 **ASCENSION IS R Japan** relay in EG 0100*, ID, fqy, sked, s/off ancmts, g (McGuire MD 9/28)
- 9670 **ANTIGUA Deut Welle** relay in EG 0500, IS, ID, world & political nx, g (McGuire MD 10/5)
- 9690nf **USA Elliniki Radiophonia Teleorassi** (Greece) relay from Delano, CA in GK 1400*, all GK dialogue, interspersed w/pleasant GK mx, ID "Athena" and abrupt s/off after ID (Treibel WA 9/23)

- 9695nf **FINLAND R Finland** in RS 1625-1630*, mx, ID's, p (Witham HI 9/11)
- 9705 **MEXICO R Mexico Int** in EG 0301, DX pgm with ham radio & swl topics, ID's (Raymond NH 9/12) in SP 1250, nice Mexican tunes, g (Rigas IL 9/11)
- 9730 **FRENCH GUIANA China R Int** relay in EG 0400, IS, ID, rpt on E Timor, hurricanes (McGuire 9/16)
- 9735 **PARAGUAY R Nacional** in SP 0100, rapid-fire OM anncr, lots of ID's, political tk? (Linoia PA)
- 9795nf **UNITED KINGDOM Wales R Int** via Merlin Network One Rampisham in EG *0159-0230*, o/c followed by instrml mx & Merlin ID, sked & fqy for WRI, host Jenny O'Brien conducting interviews, promo for Rugby World Cup, mx, contest info, exc (D'Angelo PA 10/2)
- 9815 **GERMANY D Welle Wertachtel** in EG 2325, rpt on scientific research by Swiss, ID (McGuire 9/21)
- 9830 **RUSSIA V of Vietnam** relay in EG 0345, interview w/UN official re Vietnam, ID, g (McGuire 10/5) in SP 0327, ID in EG, nx re dispute between China & Taiwan, f (Findlater CA 10/10)
- 9840 **VIETNAM V of Vietnam** Hanoi in EG 1246, ID, tk re economy in Vietnam, g (Rigas IL 9/11)
- 9900 **EGYPT R Cairo** in EG 2345, mailbag pgm, cmntry, ID, AR mx, very strong signal and clear audio for a change on 9/11 but back to distorted audio on 9/18 (Alexander PA)
- 9915 **UNITED KINGDOM BBC** Skelton in EG 0015, rpt on the fighting in E Timor, ID, g (McGuire 10/5)
- 9930 **HAWAII KWHR** Naalehu in EG/Khmer 1140, ID's in EG, req rpts, mail address, into relay of Radio Free Asia pgm in Khmer at 1200, f-g (Raymond NH 9/18)
- 11570 **PAKISTAN R Pakistan** in Urdu 1756, lcl mx, ID, 3 pips 1800, nx, more mx, //15335 (D'Angelo 10/9)
- 11600 **CZECH REPUBLIC R Prague** in FR/EG 2230, several ID's, IS, political nx, g (McGuire MD 10/4)
- 11650 **AUSTRALIA RA** in EG 1430, ID, jazz pgm, nx on the hr, E Timor problems, g (Newbury NE 9/7)
- 11655nf **TURKEY V of Turkey** Ankara in EG 0348*, nx analysis, TK history (Newman IN, Newbury NE)
- 11655nf? **GERMANY Overcomer Ministry** relay Julich in EG *2200, Brother Stair sermon on sin (he's against it) sign off at 2300, weak sig but in the clear, //9875, 9795 (Findlater CA 10/7)
- 11670 **BELARUS R Belarus Int** in EG 0200, nx, cmntry, local mx, sked, f, QRM, //7210 (Alexander PA 9/11)
- 11695nf **NEW ZEALAND RNZI** in EG 1715, "World of Sports", sports skeds, ID, mailbag (Witham HI 9/15)
- 11700 **BULGARIA RB** Sofia in EG 2332, feature on Sofia's Day, BG folk tunes (Fraser MA, Newbury NE)
- 11715 **INDIA AIR Panaji** in EG 2154, nx 2200, anti-Pakistani tk, election violence, ID's, f-g (D'Angelo 9/18)
- 11725 **ROMANIA RRI** Bucharest in EG 0215, tk re European economy, Rom'a joining NATO? (Linoia PA)
- 11760 **CHINA China R Int** in FR 1910, ID, mx of Vivaldi (Witham HI) ED: Now on 7110 per Oct LN)
- 11765 **ASCENSION ISBBC** relay in EG 0305, Afro nx, "The World Today", rpt on Russia (McGuire 10/11)
- 11787 **IRAQ R Iraq Int** in AR 0212, tk, ID, Mideast mx, OC 0242-0310, Koran, f, QRM (Alexander 9/26)
- 11795nf **GERMANY Good News World Radio** relay Julich in EG *1700, ID, promptly buried under China R Int s/on after ID, this mxsn rptd to be on the air on Saturdays only (Witham HI 9/11)
- 11815 **GERMANY R Liberty** relay Lampertheim in RS 0605, mx, tk, ID "Svabota", f (Witham HI 8/30)
- 11850 **BOSNIA R Yugoslavia** relay in EG 0000, IS, ID, national nx, QRM from China R Int (McGuire 10/5) in EG 0500*, description of wilderness area in eastern Siberia, ID, IS, f, //9580 (Witham HI 8/28)
- 11865 **NETHERLAND ANTILLES R Nederland** relay Bonaire in DT 0130, nx, sports, report on difficulties in East Timor, exc, //15315 (Witham HI 9/15)
- 11875 **THAILAND R Liberty** relay Udo Thani in Turkmen 1630, mixing with WEWN relig pgm underneath on same fqy, //15130 (Lampertheim relay, Germany), pgm mostly tk w/occasional short mx breaks, frequent mention of Raisa Gorbachev including very brief EG cut-in, exc (Treibel WA 9/21)
- 11875nf **CUBA RHC** Havana in SP 0400, IS, ID, fqy, sked, national nx, //15230 (McGuire MD 9/17)
- 11940 **CAMBODIA Nat Voice of Cambodia** in FR 1102, IS, ID, nx items, m x bridges, f (Maroti NY 10/18)
- 119548 **ANGOLA R Nacional** in PT 2324, tk by YL, pop mx, //4950 (Kohlbrener PA 9/18, Linoia PA)
- 11975 **MALI China R Int** relay in FR/CH 2130-2357*, ID, CH vocals, long tk, f, //1500 (Findlater CA 10/9)
- 13660 **CYPRUS BBC** relay in AR 0500-0715*, ID, nx re Mideast matters, ment Sec Albright (Findlater 10/5)
- 13675 **UNITED ARAB EMIRATES R Dubai** in EG 0300-0345*, continuous chants 0300-0330, into dialogue on dispute between India and Pakistan on missiles, //12005 (Findlater CA 10/10, Newbury NE 9/27)
- 13695 **TURKEY V of Turkey** Ankara in EG 1843, lakes & islands of Turkey, exc (Fraser MA 9/14)
- 13700 **NETHERLANDS R Nederlands** Flevo in DT 2130, IS, bell chimes, ID, regional nx (McGuire 10/4) in EG 2020, Euroquest - untouched mummy found, exc (Fraser MA 9/13)

- 13735nf **NO MARIANAS VOA** relay Tinian Is in VT 2300, ID, English lesson, weak but clear (Findlater 10/9)
- 13740nf **VIETNAM V of Vietnam** Hanoi in FR/EG 1835, lcl mx, ID, into EG 1900, nx, //9470 (Witham 9/19)
- 13765nf **VATICAN STATE Vatican R** in PT *1800, IS, relig mx, African service, ID, f (McGuire MD 10/4)
- 13790nf **SWEDEN R Sweden** in SW 1820, interview, piano mx, ID, f, //17505 (Witham HI) ED: ex-13770?
- 13820 **GERMANY Croatian Radio** relay Julich in CR/EG 0700, s/on in CR then into nx in EG, sports data including donkey racing, recap and into CR language at 0718, g (Witham HI 9/22)
- 15135 **RWANDA Deut Welle** relay Kigali in EG 2100, IS, ID, rpt on bus accident in S Africa (McGuire 9/27)
- 15140 **OMAN R Sultanate of Oman** in EG 1420, health show, variety of mx, nx, ID's, f (Raymond NH 10/5)
- 15185 **SWITZERLAND SRI** Sottens in EG 2230, nx, cmntry re reparations to holocaust victims (Linois PA)
- 15200 **INDIA AIR** in EG 1810, tk abt Pakistan's weapons capability, ID, HD mx, //11620 (Witham HI 9/19)
- 15270 **ROMANIA RRI** Bucharest in EG 1715, ID, rpt on diseases due to poor eating habits (Witham HI 9/28)
- 15390 **RWANDA Deut Welle** relay Kigali in Hausa/EG 1850, African mx, ment Nigeria, ID 1900 and into EG prgming, rpt on GM elections, ment of Russia (Witham HI 9/5, McGuire MD 10/10)
- 15495nf **UNITED KINGDOM R Liberty** relay from Lampisham 1600-1700* in lang? (either Farsi or some other language aimed at a minority group in Tajikistan). ID as "Radio Azadi" (AH-ZAH-DEE) at 1600. Good signal due to unusual solid opening for 15 mhz band in the Pacific NW (Treibel 10/18)
- 15565nf **NETHERLAND ANTILLES R Vlaanderen** Belgium relay in EG 0400, IS, ID, fqy, skeds, "Radio World" feature, g (McGuire MD 10/4)
- 15570 **VATICAN STATE Vatican Radio** in PT 1815-1830*, tlks, IS 1829, //17550, f (Witham HI 9/15)
- 15710 **CHINA China R Int Taiwan Svc** in MN0315, mx, tlks, ments of Taiwan, overmod'd (Witham 9/13)
- 17525nf **SLOVAKIA Adventist World R** relay in HD 1530-1600*, mostly Mideast mx and tlks, signed off in EG as "The Voice of Hope", weak sig but clear on a day favoring high frequencies (Treibel WA 10/9)
- 17540nf **VATICAN STATE Vatican Radio** in HD 1520, repl for 15500, familiar carillon bells IS at 1530, Pope John Paul sermon excerpt, Mideast-type mx, Malaysian? at 1530, EG at 1550, ID, fqys (Treibel 10/20)
- 17600nf **PORTUGAL RDPI** in PT 0035, nx re East Timor, live rpts, ID, jazz mx (Fair VENEZUELA 9/20)
- 21630nf **ASCENSION ISLAND Ireland RTE** relay in EG 1830, nx abt Ireland, ID, wx rpt, f (Witham HI 8/31)
- 21700nf **SWITZERLAND SRI** Sottens in IT/AR 1650, ID on hr, into AR pgming 1700, //15220 (Julich relay). Remarkably strong signal on 21720 but poor on 15220 (Treibel WA 10/20)

Clandestine, Tentative, Presumed, or Unknown

- 5950 **PERU(p) R Arequipa(p)** in SP 1002, mx, NA, relig tk, vcls, some QRM from Colombia on 5955, most times this station blotted out by WYFR but they were down due to Hurricane Floyd (Maroti NY 9/15)
- 9565 **BRAZIL(p) R Universo(p)** in PT 0018-0032, sounded like relig sermon, p (Kohlbrenner PA 9/19)
- 97745 **BULGARIA(p) R Varna(p)** in BG? 2345-0010, lcl pop mx, brief ancmts, pips, nx (Kohlbrenner 9/12)
- 11510 **ARMENIA R Free Asia** relay Kamo in Khmer 1245-1300*, tk in lang, f (Rigas IL 9/11)
- 11560 **SOUTH AFRICA WRN the V of Democracy** in EG 1920, political cmntry re Nigeria's leaders, mx, beamed to W Africa, tk re crime and poverty, f (Witham HI 9/11)
- 11740 **NO MARIANAS R Free Asia** relay Tinian Is in CH 1850, ID in EG, tlks in CH, //11955 (Witham 9/11)
- 13720 **NO MARIANAS R Free Asia** relay via KHBI Saipan in VT 2350, tlks in lang, //15560, p (Witham 9/5)
- 13725nf **UNITED KINGDOM Ireland Radio relay(p)** in EG 1830, "Irish News and Views", Irish soccer scores, abrupt s/on w/o ID and abrupt s/off 1900 in mid-sentence, leasing BBC facilities? (Findlater CA 10/7)
- 11800 **IRAN(t) V of Palestinian Islamic Revolution** via Iran? in AR 0415, voice-over Bolero mx, male chorus, s/off at 0430, g (Witham HI 9/19)
- 214601 **UNIDENTIFIED** Unidentified ID in AR 0620, Mideast pop vcls, muffled voice by YL but mx OK (Qatar heard on this freq back in '89/'90 (Witham HI 9/24)

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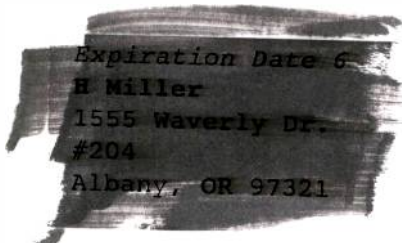
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